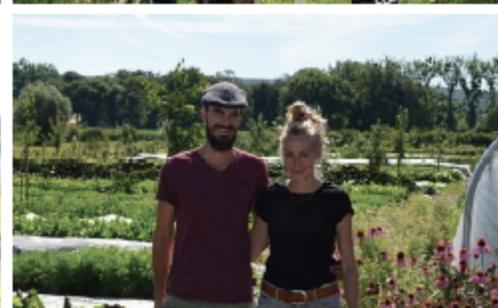
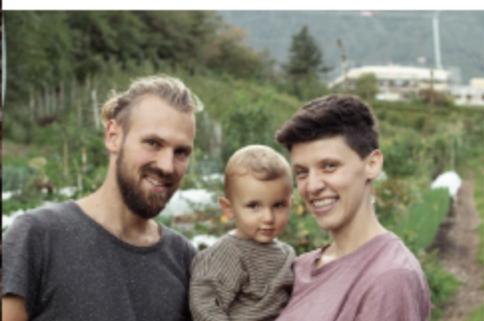




HUMAN-SCALE REGENERATIVE FARMING STORIES FROM THE PIONEERS

RICHARD PERKINS



HUMAN - SCALE

REGENERATIVE FARMING

STORIES FROM THE PIONEERS

RICHARD PERKINS



Photo: Ridgedale Farm, Richard Perkins





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At least part of a tree was harmed in the making of
this book. Hopefully you will plant many more.

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Photo: Ridgedale Farm, Richard Perkins

It is with great joy that I pen these words from my new farm Klätta, on the West Coast of Sweden. Right now it is unusually mild weather as we enter what is perhaps the mildest winter in recent history. 2020 has been an unusual year for all of us I would guess, and yet despite not being able to travel around Europe this year as planned due to the Covid pandemic, something that I have often reflected on this year is how remarkable it is how unchanged our daily life has been at Ridgedale. It speaks to the resilience of this lifestyle and livelihood, which I'm sure many of you farmers have experienced in the same way. We have made good choices for how to live, how we raise our families, and feed our communities. It also strikes me that the world is constantly waking up to that fact.

Whilst I was a little sad not to be able to travel across Europe to film at the farms of all the amazing people that I have had the pleasure to speak to this year, a lot of great benefit has come out of the interviews which I hope will come across in this book. It has been a humbling and insightful experience for me, one which I cherish deeply and think about often. Over the last couple of years, I have decided to use my platform and the audience that I have built up, to shine a light on and elevate other farmers for the benefit of the whole. One reason the Farm Like a Hero tour came about was my realisation that we have all the solutions we need right here in Europe. Our diverse climates, ecosystems, cultures, and economies have led to all manner of creative responses regarding making small farms work. Whilst, of course, we can draw inspiration and knowledge from elsewhere on the planet, some of the very best examples of regenerative agriculture that I have come across have been from some of the unsung heroes in Europe, as it were, right here at home. People who perhaps do not have such 'loud voices', or large social media followings to share their work with, or perhaps just have less interest in being publicly vocal as they quietly go about their daily work. As I have always said, there's never been a better time to get into this type of farming. The demand for integrity local food is growing exponentially, and we need an influx of young, entrepreneurial farmers to reinvigorate our ecosystems and soils and build healthy local businesses that supply communities with epic quality food whilst returning the dignity and viability to rural stewardship.

I have been so inspired by and honoured to talk to so many incredible people in this field throughout my career, and this experience has been especially meaningful to me. It is amazing to be in a position to influence and watch so many people carefully craft holistic businesses on the triple bottom line of restoring ecosystems and soil, providing local consumers with better food than they can find in any store, and earning a good salary for their hard work and commitment. I have always believed that true food security comes from consumers having direct communication and relationships with their producers, and in the future I want my children to grow up and see thousands more small farms operating locally around thriving communities. The incredible people featured in this book are just a few out of thousands of people doing incredible work around Europe and the rest of the world. Whilst many here have visited our farm and participated in our education programs, some are just people I admire and who I follow on social media.

In the more recent years it has been incredibly humbling to see just how many farms we have helped influence in a positive way through our education and outreach work. Whilst putting together this book I feel such great gratitude to be able to have walked the path that I have chosen. I see that everywhere in nature all creatures of patterned, by default, to be of benefit to the whole; yet not without looking after their own needs first. This natural pattern of ecology has become so evident to me in my daily life and in my business and is the motivation for the tireless efforts I have focused on in the field of regenerative agriculture.

I hope this book serves to inspire thought, reflection and deep conversations, such as it has for me. I'm so proud of all the incredible people featured here, who have clarified their context and committed themselves to be of benefit to their families and communities. I hope this book serves to help even more passionate and inspired farmers start out on the pathway of regeneration, and I hope I will have the pleasure to meet you also.

Richard Perkins
Klätta, Västra Götaland, Sweden
Dec 2020



MARKO ANYFANDAKIS

TERRA, Luxembourg

A personal account of my insights concerning TERRA

My name is Marko and I'm one of the founders of TERRA, an agricultural cooperative in the heart of Luxembourg. In this text, I wish to share with you some of my insights gained over the past 7 years of my engagement with TERRA. These insights presume that you have a basic understanding of what TERRA is, so if you would like some further info on TERRA, please see our website, a video from Richard's visit in 2017 and the case study we presented in Richard's book.

After 7 years of intense involvement and dedication in envisioning, establishing and nourishing TERRA, I find some time to reflect upon and document some of my insights, thoughts and conclusions regarding the whole process. These thoughts are personal and do not necessarily reflect the reality of the rest of the team or TERRA as a whole. However, I find it useful, both for my process and for other current or future farmers and market-gardeners, to structure these thoughts in an attempt to make sense of them and provide insights that could potentially be of use to others.

Although I love my job and I feel TERRA is in many ways our baby, I must admit that during the past two

seasons I have been confronted with challenges concerning motivation and at moments even felt disconnected and distanced from the whole enterprise. I can see that these challenges are necessary steps in a constructive process of redefinition and reevaluation which in turn serve to revitalise and rejuvenate my commitment and engagement.

The first few years are naturally characterised by intense drive, determination, excitement and motivation, all necessary ingredients to get something of this magnitude up and running. Both the mental and physical strength needed to endure the intensity of the birthing and teething phase of an enterprise are naturally provided by the excitement and novelty of the experience. However, after a certain number of years, in our case about 5 seasons, the lack of novelty coupled with the high demands of the job and the stress and responsibility of weekly baskets starts taking its toll. It is sometimes hard, especially on a cold and rainy day of patiently harvesting corn salad for hours on end, to find the meaning and thus motivation for what you are doing. The hours are long, the work is never-ending, the pay is low and it doesn't take much to start questioning the whole idea in the first place. Add a couple of external challenging

factors such as consecutive months of drought and a global pandemic and it doesn't take much more to call it quits. So what are the ingredients necessary to deal with these thoughts of doubt and ensure enduring and long-lasting motivation and engagement?

Before I list my insights and thoughts on this, I find it necessary to mention that the prerequisite for engaging with this process is to actually and deeply care for the organism, in this case, TERRA. This care needs to go beyond your ambitions and aspirations within the structure and should extend to the well-being of the organism as a whole, regardless of your presence. It is only in this frame of mind that it becomes worth considering any of the following insights.

I cannot sacrifice or offer more for TERRA than I would like to

The moment a task becomes an obligation is the moment I lose motivation. I need to have the time, space and energy to dedicate my attention to other things that are dear to me in life. I need to be able to disconnect fully from the farm and know that I can trust my fellow workers to keep things running in a smooth and pleasurable manner without missing my presence or feeling the burden of my absence.

Only when I have had the opportunity to engage with the things and people I love can I come back fully motivated and present to be of service and most use at TERRA.

This can only be achieved by having enough people around you that can step in and take responsibilities when you are not there. This requires that there is at least an understanding of the different skillsets and responsibilities each and every person has. At least enough to ensure that things can keep running even if one of us happens to be off for a month or two. In turn, this builds confidence and ultimately resilience in the enterprise.

My job needs to offer me an edge

It cannot become repetitive slave labour day in, day out. The elements of learning, experimentation, discovery and growth need to be designed into the process, otherwise...

At first, the edge is always there, and every day is a new experience. But once things fall into place and patterns emerge it is easy to get stuck in your ways and thus lose the source of wonder and amazement provided initially



TERRA is located on the outskirts of Luxembourg City.



TERRA was established in an old orchard.



Ducks help keep the snail population down.

by discovery and learning. Don't get me wrong; working with nature provides abundant opportunities for discoveries and amazement for he/she who allows for it. But let's face it; when you are barely managing to get the necessary workload done in a particular time frame, it is not hard to overlook the opportunities for wonder and learning in a somewhat blinded effort to just get things done. This, coupled with the never-ending nature of our work, means that it becomes very easy to completely forget about factoring in learning and discovery in the equation....

The human side of nature

One element that has certainly helped massively is the human aspect. There is nothing more rewarding than experiencing other people's 'aha' moments when they discover something that can be life-changing for them at times thanks to what you have created. Having this feedback loop from people that have in one way or another benefitted from the whole experience is immensely rewarding and for me personally a good enough reason in itself to keep going! Whether it is the smile of a satisfied member when they receive their favourite vegetable or the glow in the eye of an apprentice the moment something clicks in his or her brain, this positive human impact is a real need and source of motivation for me. If it wasn't for this human harvest of exchange and sharing, I am not sure that the vegetable harvest alone would make the cut.

Quality of life at work is as important as the work itself

Pressured by the sheer amount of baskets needed to be provided every week and the limits of time and labour available to manage that, it is not at all uncommon to sacrifice the quality of life at work in an attempt to ensure that the work is done. Indeed the result, namely the basket itself, is mostly amazing, both in terms of vegetable size and quality as well as quantity and diversity. However, after 7 seasons of repeating a somewhat similar yearly pattern and having experienced both the best of days as well as days where the going gets tough, it has become increasingly clear to me that to maintain momentum, motivation and steady positive and 'light' energy levels it is extremely important to ensure the quality of life during work. This is affected by a ton of factors but there are a few that, at least in my eyes, stick out like a sore thumb!

I. Clarity in procedures; establishing how things are done.

Working in an environment full of intricacies and a wide range of processes that change dramatically throughout the season, it has become increasingly clear that there is great benefit in standardising practices, establishing protocols and formulating clear instructions covering even the finest details of each task.

For the first years, it was OK to do things however it felt best to do them in each circumstance. However, after years of experience, it has become evident that there is great benefit in standardising certain procedures to streamline the workflow and eliminate wasted energy spent on reinventing the wheel every time. Defining clear procedures for each task from bed prep to how things are counted, washed, packed, etc. means you can just get on with the task, get better and better at it each time you execute it and thus liberate brain space for other potentially more useful or at least more entertaining endeavours! Simple things like how and where boxes are stacked or where and how things are stored seem like small details but ultimately end up making a world of a difference in terms of quality of life at work. Being able to confidently know I will find exactly what I am looking for in its determined place seems like a small feat but has yet to be fully accomplished even after 7 years of fine-tuning!

Having protocols and standardised procedures is the first step to increasing quality of life at work. This doesn't mean, however, that a detailed manifesto of the nuts and bolts of an enterprise will guarantee success. The most important factor, especially in a setting like TERRA where we are dealing with a multitude of people daily, is clear communication pathways. Ensuring that the information distilled and consolidated after years of experience reaches and is put into practice by anyone assisting the process requires very clear and precise mechanisms of 'cross-pollination'. It is incredible to me that even after such conscious attempts to standardise and communicate the practicalities of certain procedures, we find ourselves, 7 years down the line, forgetting, mistaking or conveniently evading some of these practices, while even members of the core team, supposedly highly familiar with these processes, still have conflicting habits! There is nothing necessarily wrong with this, and of course, these practices are always open to improvements and adaptations, it just surprises me how hard it is to implement and correctly communicate this to everyone involved! As a result, energy and attention invested in clarifying and simplifying this process



Inspecting crops beneath the orchard trees.



A privileged workplace.



Harvesting with the Quick Cut Greens Harvester.

is undoubtedly brainpower well-spent.

2. Attention to detail and tending to the needs of all the systems in place.

It is normal in times of increased workloads or excess stress to prioritise what is perceived as essential tasks, overlooking things that may seem more trivial. This is an inevitability. However, experience has shown me very clearly that when we are dealing with living systems all functions are inherently important; maybe not equally important, but certainly important in the overall well-being of the system at play. Oftentimes, especially in the height of spring, we feel inclined to prioritise planting and sowing over weeding. Of course, we need to get the plants in the ground if we want to harvest them eventually, but overlooking the weeding process means that over time we end up spending even more time doing something that would have taken a tenth of the time when done at the correct time. Same goes for tending the aquatic environments, the trees, shrubs, flowers and other living systems that, because of their lack of direct and obvious relevance to the basket itself, tend to get overlooked and lowered down on the admittedly extensive priority list. By choosing to prioritise certain needs at the expense of other needs, we very easily end up trapped in a vicious circle of always running at the verge of failure. It is only at times where we have succeeded intending to all the determined needs of the living systems that we gain a net benefit in the quality of life at work. As far as I am concerned, nothing beats the feeling of leisurely and completing a task at hand, within the right time-frame and with the awareness that everything has been taken care of, at least to the best of our ability. The years where we take the time to tend to the flower beds, find the time to give attention to the most remote corners of Terra and even invest energy in doing something as trivial as colourfully painting the front gate seem to be the years in which the team is most content, at ease, happy and fulfilled.

This is a very delicate and complex balance of many factors, but as the years go by, the subtleties and intricacies of these processes are becoming more and more tangible. Far from having reached perfection, I strive to get closer every day to understand what are the mind-sets, intentions and thoughts that could eventually contribute to the manifestation of this much sought-after quality of life....

3. Celebration and appreciation: positive feedback loops.

Very much connected to all of the above points, I cannot stress enough the importance of celebration and appreciation in determining the quality of life at work as well as ensuring the renewal of motivation and commitment of everyone involved.

Because of the global pandemic, TERRA had to shut its doors to all volunteers and apprentices as well as cancel all workshops, open-days and other annual events and festivities. The one good thing that came out of this was the blunt realisation of how important these moments of celebration and appreciation are. It is thanks to their absence this year that we realised their vital importance in inspiring, motivating and renewing the sense of interest and engagement of the team. Thankfully there were enough people on the fields every day to ensure a fair amount of much-needed human interaction in these times of social-distancing and restriction; however, the fact that none of the educational or festive activities took place left a big space in the story of TERRA as we knew it. Adapting to the new circumstances, we established end-of-the-week mini-celebrations on Friday afternoons after the harvest where we made time to relax and enjoy the fruits of our hard labour before heading off for the weekend. Personally, it doesn't take much more than a moment of laughter, light-hearted conversation and a cold beer on a hot day to increase my sense of joy. However, the impact of the absence of such a moment is, over time, detrimental to my psyche and the social tissue of TERRA.

Some adjustments and changes for the coming years

In our attempt to further improve the well-being of TERRA and everyone/everything involved, we have decided to make some changes for the next season.

It all boils down to creating enough time to tend to the diversity of needs in a timely and intelligent fashion.

Since time doesn't grow on trees, one way of making more of it is to reduce the workload we have by limiting the number of baskets to 200, down from 250 this past season. We would like to maintain our current salaries, so obviously, the only way we can lower the number of baskets and keep the same salary is by increasing the price of the basket. However, rather than simply increasing the yearly subscription by x amount, whether members like it or not, we decided to experiment with a sliding-scale pricing system where members can choose one of four different options for the price of the basket. This seems to us to be the most sensible solution since, knowing our members, if we communicate transpar-



A basket of bounty.



A school visit.



A cooking workshop.

ently what salary we, the workers, get concerning which basket price they choose to pay, we are quite confident that we can reach our aim of maintaining the same salary while reducing the workload by 50 baskets.

After careful consideration and study of our practices and determining areas of potential time-saving improvements, we have also decided to ditch one of the pick-up spots and narrow the options down to two. This in itself cuts the workload by at least 6 hours a week.

Personally, another step to ensuring sustained motivation and enthusiasm in the coming years is to consciously make time for learning opportunities which can both improve the quality of our work as well as satisfy my inherent need for growth and development. In this light I have decided, with the approval of the rest of the team, to allocate time weekly to work on something that, despite having been articulated since day one of TERRA's conception, has so far been overlooked and set aside in light of more urgent needs. Namely, my deep interest in understanding and ultimately supporting life in the soil as a means to increase its vitality and health, remedy for potential pests and diseases, diminish weed pressure and ultimately increase the nutritional value of whatever product comes out of our soil. In this attempt, I have invested in a microscope and have initiated a process of discovering the wonderful world of microorganisms and elaborated semi-'scientific' approaches to analyse, introduce and enhance the microbiology of our soils while monitoring the impact of such processes on the quality of our result: the vegetable and fruit baskets. Allocating time for this endeavour means I can engage with it free of guilt or any feeling of time-wasting and eventually reap the benefits of the learning experience as well as hopefully have a positive impact on the overall balance and health of the natural system we so heavily rely on, our soil!

It is in this spirit of 'sense and respond' that TERRA seems to be slowly but steadily moving closer to the vision set out right at the beginning: A world in which agricultural landscapes have the resilience of a natural forest and the capacity to provide an abundance of tasty fruit and vegetables for all.

I hope that my genuine and honest sharing of my insights can be of benefit to others and I gratefully welcome any thoughts, reflections or criticisms on this process.



MARKO ANYFANDAKIS

TERRA, Luxembourg

MAIN ENTERPRISES:

Market garden

Workshops

Events

MAIN SALES CHANNELS:

CSA

Direct sales

Restaurants

AREA IN PRODUCTION: 1.5HA

STARTUP YEAR: 2014

STARTUP INVESTMENT: €40,000

REVENUE: €200,000

NET PROFIT: €20,000 (2019)

website / instagram / facebook



CATHAL MOONEY

Heather Hill Farm, Ireland

The Journey: Setting the Seed

The north-west coast of Ireland, where the first rocks of Europe meet the mighty Atlantic Ocean, is a place where farming was always tough. Utilising the rolling hills that rise from the shores of the coastline, generations gone-by practised the art of small scale sheep farming; it was the way of life. In the last decade, wool was prized for its use in the textile industry and tweed weaving was a tradition in our area. Growing up into this hill farming, I had an infinite love for nature and animal husbandry. With the turn of the millennium, I entered into my teenage years and began to contemplate what path in life I was going to take. It was very clear to me that farming was not a viable option as there were no examples of people around me making a comfortable living working full-time on the land.

I, like so many other young people from rural communities in Ireland, decided to move to the city to obtain a third level education. I studied to become a teacher, specialising in woodwork, construction studies and technical drawing. I managed to coincide my graduation with one of the worst economic crashes Ireland had ever seen, so my employment options were limited. It

seemed like a good time to see some of the world. I emigrated to Australia in 2011 and spent 2 years working in the event industry. We built the temporary infrastructure for all the major sporting events. An opportunity came up for me to return home to Donegal when a local bakery business was trying to develop a gluten-free bread market. I spent the next 4 years developing bread products which became the catalyst for setting me on my current course. I found myself in my mid 20's not knowing where my food came from or what had gone into it. I decided I had to take control of this and take responsibility for my food. I started researching how I could produce as much of my food as possible responsibly. This introduced me to Regenerative Agriculture. I spent 3-4 years before starting the farm researching and training. I consumed any material I could get my hands on; Joel Salatin, Curtis Stone, Greg Judy and Allan Savory have influenced me greatly, but I have to attribute a lot of the success of the farm to Richard. I attended a 10-day training Richard gave in Ireland in 2018, and I used the energy and knowledge from this to spring the farm into existence. I am a lifelong member of Richard's online training, which is an invaluable stockpile of information.

2019: The Test Period

2019 was my first year or my test year as I call it, starting with 200 layers, 50 turkeys and 200 broilers. There were no examples of this kind of farming philosophy within 100 miles, so I had to test the market to ensure there was a demand. My concerns were soon dissipated as I sold my produce with very little marketing effort. I worked to establish some financial capital, which enabled me to spend the first season focusing on getting the enterprises set up while supporting my cost of living for the year, so there was no financial pressure to make money fast. This enabled me to maintain low-stress levels. This first year I focused on the layers and broilers. I had built very low-cost infrastructure the previous winter and I was able to spend a lot of time dialling in the enterprises and focusing on time in motion (evaluating the minimum time to complete each task) to become as efficient as possible, which will pay deviance in the years to come.

My father continues to practice small-scale sheep farming and he let me use 1 hectare of his land to start my farm on. Towards the end of the summer of my first season, an opportunity came up to move the farm. My sisters with their young families purchased a property that had farmland, which they needed someone to maintain. The 3.25-hectare site was more central to my sales area and all my immediate family would be living right beside the farm. Sometimes I guess things happen for a reason; it was the perfect blank canvas to bring Heather Hill Farm to the next level.

2020: The Real-Time

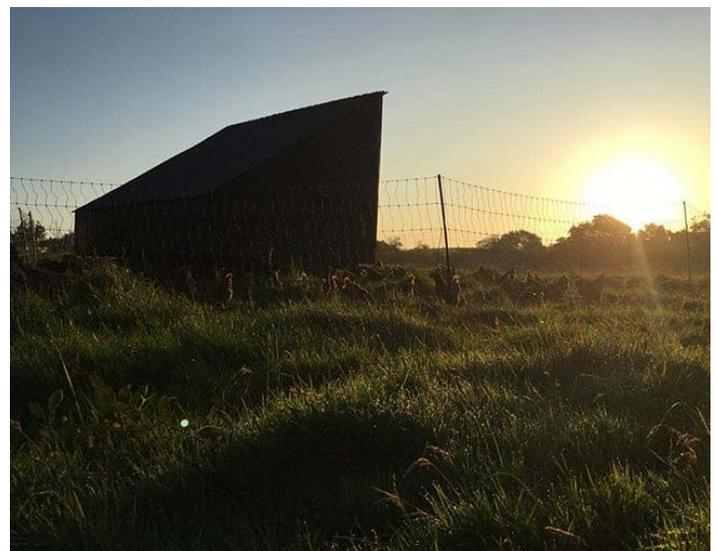
2020 saw the second year of Heather Hill Farm, which I consider my first proper year at full scale. Moving to the new site meant it was time to invest money into proper infrastructure. I moved there in October 2019 and by May 2020 I had installed 1000m of fruit tree lanes implementing a Keyline pattern formation, 200m of windbreaks consisting of 5 rows of multi-species trees, two polytunnels, shipping containers to function as a grain store, an egg packing centre and a tool shop. I also had to build a road into the farm, which was expensive. I was able to hire an excavator and do all the work, but the cost of materials was €4,000. I took some inspiration from my time in Australia where we specialised in working with temporary portable infrastructure and I learnt to spend as little money as possible on fixed assets. The road and the trees are the only fixed assets I have invested in, everything else could be moved to-



Brand awareness and marketing are critical.



Being easily recognisable at pick-up points speeds up the transactions.



Egg-mobile on pasture before the morning move.

morrow if needed. In total, I have invested €40,000 into the farm. €10,000 is reserved for cash flow and the remaining €30,000 I got 2 fully automatic self-propelled egg mobiles capable of handling 800 layers combined (potential turnover €75,000) 1 gobblygo which can take 100 turkeys (potential turnover from 1 batch per year €7,500; 2 batches per year €15,000), brooder and field pens for 1000 broilers per year (potential turnover €20,000), infrastructure to handle 25 sheep (potential turnover €5000), and I have been building up my honeybee colonies, although this is at best a side enterprise border line hobby; my goal is to keep 25 hives that should generate €7,000-10,000 turnover per year. So to summarise, for my €30,000 investment as well as 1 year working without pay I have an infrastructure with the potential to turn over €125,000. I feel that is a year well spent!

The above numbers are maximum outputs on the current infrastructure. For the 2020 season, I have kept my outputs around 75% to be able to manage the growth. As I only had 25% outputs the previous year, I felt the challenge to triple my sales were big enough. As a general guide for all my enterprises on the farm, the cost of production is 40% leaving the gross profit at 60%. I run a very lean operation with very little frills, and this enables me to keep indirect costs within 10%. I do like to earmark 10% to go towards paying back the initial investment over the next 3 years, and after that, it can be used to reinvest in further enterprise and projects at the farm. That leaves 40% net profit which is my salary at the end of the year. Based on the above, it is an intense workload for one person. I have spent a lot of hours on time in motion and a lot of the investment money was spent on things that would reduce my time in motion. If in the future I decide I want to grow the farm or that I don't want to maintain the high workload, then it would be easy to increase the layer and broiler outputs. I may need to lease 1 more hectare from a neighbouring farm, but that should enable 2 people to take a respectable salary from the farm; 1 working 12 months, the other working 6 months.

Investments

I think it will be beneficial to spend some time discussing some of the things I invested in to aid my day-to-day workload. After spending the winter working by torchlight, getting electricity to the farm was a massive luxury; but having no electricity forced me to turn my mobile solar fence charger into my main light source for

working all winter with the use of some clever 12V led lights. Water is the lifeblood of any farm and having water moving efficiently around the farm is a must. I spent €1500 on five trollies equipped with 100m of 10mm LPG/gas pipe and quick connect couplers. They can be connected onto over 20 connections points along a ¾ heavy gauge pipe that travels along the perimeter of the farm. Now I have water on every square foot of the farm for next to no effort.

From my time spent changing my solar fence charger to a lighting system for my workshop, I had the idea to automate my egg mobiles so that the door and nest boxes could open and close automatically. I was able to do this as well as automate the tilting of the nest boxes and lights for €400. I have 2 egg mobiles that I move on alternate days. While I'm moving one egg mobile, the second one opens itself, letting the birds out to grass and opening the nest boxes. When I'm finished moving the first egg mobile, I come along and check and feed the second batch of birds who are happily out on pasture. One of the other innovative features I have added to my egg mobiles is a 12V winch, which has a 40m cable and 6-tonne towing capacity. Using well-established hedgerow trees around the perimeter of the farm, the egg mobiles can pull themselves along as well as turn from one tree lane to the next. This adds about 10min to my day, but it has meant I didn't have to invest €10,000 on a UTV or compact tractor, which would depreciate, for moving the egg mobiles.

A crucial point in starting any new business is where you spend money and where you save money. I believe investing my money only in things that will return income to the farm has led to success so far. Before I make any purchase I ask myself three questions:

1. How much income is this spend going to generate, or time saved which can be translated into a monetary value?
2. Can I use any of my current resource base in a different way to solve the problem or to complete the task?
3. Is there any more cost-effective solution available?

If it passes through these questions and meets my holistic context for ecological and social goals, then it's going to be a good investment.



Good egg handling equipment is key.



Marketing farm to fork.



Forest-raised pigs.

The Marketing

We are based in a very rural part of Ireland and I am still able to generate more demand than I can supply. Social media (specifically Facebook) has been instrumental in establishing a customer network. I make short videos of how the farm works and show people the story of the farm, and being so honest and transparent invites people to support the farm. Happy customers are the best form of advertising; each happy customer will attract 2 more. It's not difficult to sell quality produce when there is a massive shortfall in the marketplace for local quality produce. This approach doesn't cost any money as I don't pay for any advertising but there is some time required in recording orders. I use a simple excel spreadsheet; however, this is an area where I could find a more efficient automated system. My deliveries are done in car parks for 30min and happen twice a week. People simply message or comment on Facebook what they want with which location and time. It's loosely based on the REKO model but it's just me at the moment selling products produced on the farm.

The Future

I started on this journey to produce quality food for the community while enhancing the environment and making a living doing it. This is still at the centre and I imagine it will be for the lifetime of the farm. I have felt there is a massive gap in the education of farmers and food producers. Drawing on my third level education as a teacher I feel a desire to incorporate education into the farm moving forward. Heather Hill Farm is a small-scale diverse regenerative farm and I hope that it will inspire other Irish farmers to move towards regenerative farming as well as educate people on how food systems should work.

I feel it is very important to remain a diverse farm, although this is challenging as a one farmer operation. Looking 3-5 years down the line, I feel it will be wise to grow the farm to employ another person. This would make it easier to run several intensive enterprises well; it is very easy for one person to take on too much and the whole suffers as a consequence. There is a huge demand in our area for quality vegetables. Finding a grower and incorporating a market garden into the farm is something I would consider investing in. I already have some of the infrastructure to complement this enterprise so it could be a good fit in the future. As the farm is so reliant on pastured poultry for its income, this is a potential



A Heather Hill Farm breakfast.



Flowers on our fruit trees (Pear).



Sheep using an oak tree for shelter.



Rewards from our hardworking honey bees.



Tomatoes and cucumbers just transplanted.



Observing the flock on morning chores.

problem in the event of bird flu or a similar event. I have been testing and collecting data on free-range forest pork and although here in Ireland, it's not as profitable as pastured poultry it's still a nice enterprise. I'm keeping an eye out for some land near the farm to lease that would suit this enterprise. The last enterprise I'm considering adding is agritourism. As we are on the beautiful west coast of Ireland, tourism is a large contributor to the economy; there is a lot of infrastructures set up regionally around this and it will require very little investment from the farm's point of view. The main driving factor behind continuing to grow the farm is to generate some capital to buy land that I can eventually live on and move the farm onto.

My advice to anyone setting off on a similar journey is to first ensure this is the type of life you and the people around you want. There are several ways to do this; you could work on another farm that is similar to what you envisage yours will be, you could take my approach and save some money and commit a year to it before going all in. If you want to be successful, I recommend finding the best people doing what you want to do and try and learn as much as possible from them.

Working on the land and in a symbiotic relationship with nature brings unquantifiable job satisfaction for me. For anyone thinking about starting their regenerative farm, I say; At some point, you have to cast off... and start rowing like hell... Just go for it.



CATHAL MOONEY

Heather Hill Farm, Ireland

MAIN ENTERPRISES:

Pastured layers

Pastured broilers

Pastured turkeys

MAIN SALES CHANNELS:

REKO-style delivery

AREA IN PRODUCTION: 3.25HA

STARTUP YEAR: 2019

STARTUP INVESTMENT: €40,000

REVENUE: Year 1 €30,000

Year 2 €75,000

NET PROFIT: Year 1 €12,000

Year 2 €37,000

(this makes up wages)

website / instagram / facebook





GERT BLANCHAERT

Molenkouter, Belgium

Molenkouter is a market garden in Vinderhout, East-Flanders in Belgium. Located only 6 kilometres from the centre of Ghent, a university town with 250,000 inhabitants, we run a CSA-program with weekly vegetable boxes since 2018.

Before starting Molenkouter I worked several years on a small vegetable garden project with my brother, on the spot where my grandfather's market garden used to be, organising children's camps and workshops around outdoor cooking. At the same time, I had a professional career as a manager of a social working place specialised in garden, park and nature maintenance.

Buying our current farm was a big step, but I had been practising, although on a very small scale; in 2017 I had run my first CSA for four customers. This test was invaluable; I learned about crop planning, harvesting and customer relations, without depending on it as an income. You can learn a lot from an internship on an established farm, but running this test in a home garden was the perfect supplement to start planning and organising my market garden.

The farm we were looking at contained a 2000m² glass greenhouse, built in the early eighties for growing ornamental flowers but out of production for more than

twenty years. Our house, bungalow-style, was built in a corner of the greenhouse. I guess the farmer was looking for a low-cost solution to live in temporarily after building an expensive greenhouse, but two years became fifteen years. Like so many ornamental flower growers in the region, he went bankrupt in the nineties because their heated greenhouses became unsustainable and production moved to low-wage countries. A lot of their greenhouses are now in use as parking lots for caravans and sailing boats. They're not suitable anymore for high-tech heated indoor production but perfect for a diverse market garden CSA-style. A lot of opportunities... The irony of it all is that these farms, lying in a belt around the city, used to be market gardens, providing the city of Ghent with food until the sixties. My grandfather was one of these market gardeners. You needed to grow fresh vegetables close to the market because transport wasn't easy and storage conditions not ideal. When that changed, the farmers of Ghent started to grow ornamental flowers in their greenhouses and only corn and potatoes in their fields. The result was that by the year 2000 there wasn't a single farm in Ghent that you could buy fresh produce from directly. Later, though, CSA farms popped up in a circle around the

city and visiting them triggered me to close the circle again.

We bought the place in 2017. It took us a year to clean up and renovate the greenhouse and start working the land. We made good use of the recyclable materials on the farm and built a terrace, a tool shed and a market stall. Although most of the work was done by myself, we hired contractors for greenhouse repair, irrigation and digging of the 100 m³ pond, which cost us a total of €21,000. A lot of money, but now the greenhouse will stay strong for another 30 years, and I have a fully automated irrigation system with electronic valves both in the greenhouse and outside. All irrigation water is pumped from the pond, which catches the rainwater from the greenhouse (a good rainy day easily delivers 20,000 litres), but can also be filled with well water, which is necessary for the most of the summer.

I also invested in a second-hand walk-behind tractor with a tiller, flail mower and trailer and a new rotary harrow, totalling €5,100. After long hesitation, I bought a ride-on mower with collection box (€2,400) to mow the access lanes on the farm. It was something I could only imagine myself sitting on after retirement, but it's a great machine for collecting grass clippings to use as mulch. You have to be careful not to let the grass go to seed, but if it does we just mulch the hedgerows with it.

A Jang seeder, Terrateck wheel hoe and other hand tools, harvest material, netting and plastic cost me another €3,000. The nursery, with rolling tables and a heated propagation table, is very DIY and low-cost (under €1,000) and so is the wash-and-pack area: three tables, some scales and a bench for crates with a shower hose and water drainage under it. I also invested in a walk-in cooler. I found a second-hand model (just the panels and door; 9 m³) and installed a window-style air conditioner with Coolbot for €1,250 in total. I'd like to mention that a decently equipped tool shed, although not directly related to production, is often a must on a farm and easily costs more than €1,000.

With all that installed (over three years), we could start growing some vegetables and building a customer base. Being from the neighbourhood (and having uncles and grandparents who had been market gardeners in the same village) made it somewhat easier to reach new customers, but since we wanted to sell all our products directly from the farm we had to find them in a range of maximum five kilometres. A densely populated suburban area close to the centre of a town with a progressive government and a large part of highly educated inhabitants makes it very possible to reach that goal. Social



A perma-bed in the greenhouse with grapes, peach and bumblebee hive.



Melon - pepper - eggplant - cucumber.



Nursery with sliding tables, DIY heated propagation bench and cooler in the back.

media helped a lot, but because we're operating so locally, flyers and posters in stores and associations in the neighbourhood also gave us good reach.

We now have almost 60 subscribers to our weekly vegetable boxes. 45 of them chose a small share (6 portions of veg, €600), 13 chose a big share (10 portions of veg, €1000). We've noticed that most people opt for the smaller share; maybe they eat outdoors and at work a lot, or they want to keep the flexibility to shop in the grocery store as well. I'm considering reducing the content of the big share next year. Our harvesting season runs from April 1st to Christmas, which gives us 40 weeks of shares and revenue of €40,000. Sales to two restaurants and two local grocery stores count for another €5,000, equals €45,000 of total revenue. The goal is reaching €60,000 revenue in the following years.

If we consider running costs, they consist mostly of paid labour, compost and wood chips, and seeds and transplants. This farm is a one-man operation, but from March to October I get help from paid seasonal workers for 20 to 40 hours per week. Compost costs me about €20/m³, wood chips €13/m³. We use more than 40m³ of compost per year. We try to source free local supplies of autumn leaves or grass clippings for mulching, too. Most transplants are raised by ourselves, but we do buy some from a commercial certified organic nursery that has a drop-off point half an hour drive from our place every other week. They deliver our first starts and leek transplants mid-February. With utility costs, book-keeping, PR and maintenance of all kinds, total running cost is around €18,000 per year, which gives us 60% net income (€27,000 - without deduction of social security and taxes).

A typical working week on the farm has two harvest days because customers can come and pick up their produce on Monday and Thursday evenings. On these days I get help from at least two workers to harvest, wash and pack all the produce before it goes in the cooler. The cooling (to 5°C) is mainly to keep the vegetables fresh during the period they're in the market stall before they go in the customer's fridges. It's important to have a clear schedule and task division visible for everyone listing what has to be harvested from where. A lot of efficiencies can be gained that way. We don't do a lot of washing: people don't expect this from vegetables straight from the farm and growing in compost with wood chip pathways gives far less dirt on the product anyway. People can grab the vegetables out of crates with signs saying how much they can take. This system is a lot less work than making individual boxes per customer, and people

get the feeling of shopping in a market.

We encourage the customers to do a walk around the farm while shopping, and we are now installing a pick-your-own herb and berry border along the driveway, all to tighten the connection with the people and give them the feeling that it's a bit their farm. We're also planning some kind of harvest festival in the field with a pot luck from that same perspective.

The fact that the farm itself is the only pick-up point is a huge time-saver for us. Even the grocery stores and restaurants come and get their orders from the farm. So no vehicle necessary, no time lost in traffic... This proximity to my customers has a downside too, though; farmland in this area is very expensive (up to €100,000 per hectare). You can get it much cheaper in more rural regions, but then you have to do the transport.

In that light, we do realise that specialising in some crops is probably not the way to go for us. If we grow more of a certain vegetable it will always come with more logistics, and the strength of our farm is to keep these very low. Diversification is key, that's why we added a small flock of laying hens to our operation. There's no place for them, but their chicken house on wheels (plans courtesy of Justin Rhodes, with the addition of an automated door) and moveable pen brings them along the lanes and hedgerows of the farm. Occasionally they can scratch a patch of green manure and the compost heap. It's only 35 hens, but the eggs are a nice addition to the vegetable boxes in the form of an egg subscription (€2.25 for a weekly box of six). If we had extra space, it would be the first thing we'd expand. This is, again, an example of starting small to learn the basics. I would not recommend starting with 500 hens if you've never had chickens before...

Currently, we don't have any harvest from January to the beginning of April, although it might be possible to do so with our (non-heated) greenhouse, but then I would either need more space for storage crops or start to buy in produce from other farmers. This resting period was necessary because we still had so much to install and the winter months are the only period that a market gardener has some spare time for that, but it's also the only possible season to take some very needed rest. We might leave it that way.

This year's big instalment was a conversion to no-dig beds. A couple of different reasons convinced me to make that move. The good quality compost I could get hold of was weed-free, but by tilling it in, even really shallowly, it was mixed with soil and thousands of emerging weed seeds. The fact that the Ridgedale-



Spontaneous mushroom growth.



Pond for collecting rainwater.



Building new no-dig beds.

approach can make full use of the initial quality of my compost was a big plus. It cost hundreds of wheelbarrow loads to install, but the shift of workload from the already busy summer (weeding) to the quiet time of winter and early spring is most welcome. Next to the benefits for soil life, the garden looks really beautiful now, which was a considerable marketing instrument for me this year: it's hard to convince people who aren't familiar with your products to pay €1,000 in advance, but if you can let them do a tour around the no-dig beds they can only conclude that if a garden looks that neat, the gardener at least knows what he's doing.

We already worked with 80cm beds (not 75cm: no big difference, but 80 cm is the standard width of the implements on our tractor) and 40cm walkways, but now topped them with a thick layer of compost on the beds and wood chips in the paths. A total of 75m³ of compost and 35m³ of wood chips gave us 35 beds in the greenhouse and 25 outside, with all beds measuring 23 meters in length.

This gives me 966m² of bed and walkway in the growing area of the greenhouse (1,500m²). The rest of the surface is access lanes, some storage space and, along the northeast side of the greenhouse, a 50m long 'permabed' with fruit trees, herbs and flowers. The last ones attract beneficial insects, in an attempt to increase biodiversity inside. I've noticed a big difference in accessibility by all forms of wildlife between a hoop house with sides that can open and a big glass greenhouse, but introducing perennial plants and hiding places that stay during the whole year helps a lot. We're also planning to install a small pond in the greenhouse for that reason. In the case of the fruit trees, we opted for more Mediterranean species like figs, grapes, peaches and kiwi and herbs like lemon verbena, hoping for a nice addition to our vegetable boxes in coming years. Because the ratio greenhouse/open field is bigger than on most farms, we're always on the lookout for low-maintenance heat-loving crops to fill the greenhouse beds in summer. We're having good results with sweet potatoes and morning glory (*Ipomoea aquatica*). There are loads of other options, but I have to keep the not-always-so-adventurous taste buds of my customers in mind.

On the field outside there's a block of 700m² no-dig beds and another block of the same surface that is currently in use for green manure, Jerusalem artichokes and pumpkins, three crops that don't lend themselves very well to no-dig beds. I had that block in production for other vegetables, too, last year, but that made the whole farm too big to manage well, so I decided to focus on

one block (and the greenhouse) to cultivate very intensively and to use the other block in a low-maintenance fashion. Over time, we'd like to convert that last block to growing perennial vegetables like asparagus, rhubarb and perennial broccoli. These two-bed blocks are surrounded by access lanes and hedgerows that provide shelter from the wind and increase biodiversity.

Part of these hedgerows are on the neighbours' land; they happen to have started a permaculture-style food forest next to the farm at the same time as we moved in. Their garden contains an orchard, a big herb garden (one of them is a herbalist and sells the herbs as tea) and a nursery for perennial edible plants and is called De Verwildering. Though we remain two individual operations, our collaboration grew organically and we now exchange resources, machines and tools and knowledge. The produce of the two companies complements one another perfectly, which brings opportunities for developing common sales channels. Another collaboration is regarding water management: part of the rainwater of the greenhouse roof is captured in the neighbours' 'willow tank', a simple construction of wooden planks that hold a pond liner with ratchet straps and, more importantly, living willow stalks and can contain 30m3 water. The goal is to let the willow support the whole structure over time. They use it as their main source of irrigation.

The following years are all about gaining efficiency in growing more on the same surface. This means perfecting our crop plan, but we're also scratching the surface of what's possible with interplanting: sowing radishes between cabbages, carrots between onions and leeks, lettuce at the feet of climbing peas... The work of La Ferme du Bec Hellouin in Normandy on that subject is inspiring. We're also experimenting with growing King Stropharia mushrooms on the wood chip walkways in the greenhouse. If all goes well, we should have our first harvest this autumn.

In the long term, I see further collaboration between small-scale farmers in our village. In a range of 500 metres, we also have a u-pick soft fruit garden. If we could supplement that with a small chicken farm or a micro-dairy operation and maybe someone who can process all this produce in a certified kitchen, we could have a mutual selling point and provide the village with every kind of food they need. I'm more a believer of a collaboration between several local farmers, each with their operation, than one farm where all these enterprises come together. Becoming an experienced market gardener is one thing, but getting all the skills of these other operations is probably too much for one lifetime.



View of field blocks.



Two-wheel tractor with trailer carrying mulch.



Mobile chicken house.

Power to the local conglomerates of small-scale sustainable farms!



GERT BLANCHAERT

Molenkouter, Belgium

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

CSA

Grocery stores

Restaurants

AREA IN PRODUCTION: 0.4HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: €33,750

REVENUE: €40,000

NET PROFIT: 60% ex.taxes

website / instagram / facebook



JEAN-MARC PARRIES

Krautgaart, Luxembourg

Within 5 years we've built a profitable market garden CSA, set up a small scale pastured laying hen system, built community and created job opportunities for local people, and we are now educating the next generation of food growers. We supply 140 families with vegetables and eggs and we provide vegetables, edible flowers, herbs and microgreens to a local chef. We manage to make a decent revenue through our transparent subscription system and we have achieved a desirable work-life quality. Within 5 years we were able to build a profitable market garden which many people around us believed to be impossible or too hard and poorly paid. Growing food for your local community is as essential and beautiful as a forest providing oxygen for its inhabitants. Growing food and regenerating the land is deeply meaningful and fulfilling. We hope to inspire you with our story.

Krautgaart 2020 in a nutshell

Name: Krautgaart, Epstein, Parries & Cie s.e.n.c - Short: Krautgaart

CSA: 140 members and one local top chef (Thomas

Murer)

Vegetable distribution period: Mid-April to end of November (+/- 34 baskets)

Main enterprise: No-dig market garden

Side enterprise: 110 pastured layers

Land: 1.2ha rented land (from three different owners)

Total cultivated area, without pathways: 2,200m²

Total cultivated area: 3,105m²

Total cultivated area, outside: 2,400m²

Total cultivated area, polytunnels: 705m²

Nursery: 85m²

Polytunnels: 2x 210m²

Caterpillar tunnel: 1x 200m²

Revenue per m2 in 2020: 45€

Revenue per m2, without pathways: 63€

On the payroll (2020): 5 people; 3 full-time partners, 1 apprentice and 1 wwoofers

Story and vision

In 2015 we started Krautgaard (Luxembourgish for ‘wild garden’) as a project whilst we were graduating from university. The goal was simply to grow our vegetables and learn about gardening through practice. We enjoyed the outdoor work and got excited about the idea of growing food for ourselves and the local community. Inspired by Jean-Martin Fortier and Eliot Coleman, we decided to give commercial market gardening a serious try. Although we soon switched to a no-dig system, these two guys were our early heroes and we still recommend reading their books. We committed ourselves to one test year intending to find out if market gardening suited us if there was a local demand for high-quality products and if we could start a market garden business with no farming background on a small budget.

At this point, our vision was to supply a group of local people with epic vegetables by doing fulfilling and meaningful work. Until 2016 we had neither farming nor business experience. We knew that many challenges would come up along the way, but we weren’t going to let them stop us.

Founding Krautgaard and starting on a budget

Krautgaard s.e.n.c (“société en nom collectif” is a business form and means “general partnership”) was co-founded in 2016 by Jean-Marc Parries (MSc. Environmental Sciences) and Max Epstein (MSc. Botany). Claude Petit (MSc. Agronomy) joined the team later that year and became a partner in 2019. We are three independent people working together under the roof of Krautgaard.

We started on a budget. While the main reason was limited financial resources, we also wanted to reduce financial damage in case of failure. “The New Organic Grower” by Eliot Coleman and “Le jardinier-maraicher” by Jean-Martin Fortier helped us focus our resources on the essentials. We used the following questions as a lead:

What essential resources would we need for successfully



Low-cost container infrastructure. Tool shack, walk-in cooler and storage.



Birds view of our main garden in May 2020.



Edible flowers and herbs for our chef Thomas.

growing and selling vegetables in the first season?

*What budget results from these minimum requirements?
Does it match our financial resources?*

Could the revenue of the first growing season potentially cover the start-up investments?

What resources do we have access to for free?

First season investments and expenses

200m2 polytunnel €4,000

Used van €4,000

Different gardening tools €500

Seeder €500

Seeds €400

Potting ground €400

Nets and fleece €1,000

Boxes €400

Fencing €500

Books and courses €1,000

Expenses 2016 (fuel, insurances...) €1,500

Total expenses in 2016: €14,200

We made use of different resources that didn't come at a financial cost. We borrowed a two-wheel rotary tiller from a local homesteader. This was probably the biggest saving we could make in the beginning and helped us go low-budget. At this point, we didn't know that we would switch to no-dig six months later.

To acquire the necessary skills in plant propagation, we teamed up with a local heirloom seed grower, Steve Schwartz. Not only were we able to use some of his infrastructures in the first season, but the knowledge we gained also helped us a lot in the following years. Right from the beginning, we decided to grow our vegetables from seed. Especially in the beginning, when you aren't yet set up for it, it can be more costly and time-con-

suming than buying baby plants. Even so, we still like to recommend it to other people starting. It connects you in a deeper way to the craft of growing vegetables right from the beginning and helps you deepen your understanding of plant biology.

Some essential infrastructure was provided by family and friends; a barn at the centre of the village provides storage space for tools and a nostalgic space to distribute our produce and a converted garage is used once a week for our second smaller vegetable distribution. Also, living at home with our parents during the start-up phase enabled us to reinvest the profit into better tools, infrastructure upgrades and building the CSA. We only started taking real salaries in the third season!

Everybody's initial resources are different, but rarely there are none. Consider ideas like temporarily living at your parents' place or living in a tipi on-site. Saving rent is huge. If your budget is limited and you start looking around with an open mind, you will be surprised by the resources you have access to around you.

Due to the low startup costs, we were able to cover all expenses of the first growing season. We sold our produce locally through a market stand in the centre of the village and managed to make >€17,000. One year in business and profitable. This was pure joy! Crops were decent considering it was our first season, and demand was huge. Every week more people came to our little market stand. The test year was tough but also a success. We had good feedback and were motivated by challenging and fulfilling work. It was then that we decided to launch ourselves in professional market gardening.

2017-2020 Krautgaard CSA

In 2017 we considered two selling strategies. Establishing a local market stand at our barn as we did in 2016 or distributing the product through a subscription-based vegetable box model. After an inspiring CSA workshop at Ortoloco in Switzerland, we decided to go for the community-supported model. We had planned more investments and the CSA approach gave us the financial resources we needed through some early subscriptions. After four seasons of CSA and a lot of fine-tuning, our vegetable distribution is now highly efficient and customer feedback is great.

Highly efficient vegetable distribution:

The distribution takes place once a week on Fridays from 4:30 pm to 7:30 pm. Within three hours all our



Max, our production manager.



Krautgaart nursery, a side enterprise in development.



Delivering baby plants from our nursery.

produce goes out.

Our customers do the packaging themselves. We don't do bundles or any kind of pre-packing.

We do only minimal washing. Vegetables don't have to look like they just came out of the dishwasher.

We can efficiently bulk-harvest and prepare the distribution in advance.

No leftovers. We calculate a buffer so that there are enough vegetables for everybody even with weighing inaccuracies. The calculated leftovers go to a local chef who pays a fixed yearly fee for them. And finally what the restaurant can't use goes to the chickens. They are excited about every bit of vegetable they get and show their gratitude through tasty eggs.

Note on temporary adaptations due to the COVID-19 pandemic: To be in tune with social distancing and other policies put in place, we switched to a system with pre-packed boxes and drive-by pick-up. We set up a simple and efficient pre-packing logistic and were able to deliver the vegetables in the same time frame. We still prefer the more interactive approach where people pack the boxes themselves, though; The whole experience is better, both for the customer and for us. It gives the customer more flexibility, kids love it and we have time to chat with our members and answer questions.

Subscription pricing (2020, check our website for updates)

We offer one basket size; people who want more vegetables can subscribe to two baskets or more. The minimum subscription fee is €800, and subscribers can choose to pay more if they want. On the subscription form, people can see how the salaries of Krautgaart workers change with the average basket price they choose to pay. We introduced this transparent and flexible price offer in 2019. Simply by giving people the possibility to pay more, the average paid price went up from €800 in 2018 to €960 in 2020.

CSA and other sale strategies

After four years of running a CSA, we can't think of a better strategy to bring the product to the customer. While going to the farmers market is a quick and easy-

to-set-up selling strategy, we think the effort of building a CSA is always worth considering. If done right, it pays high dividends over time. The subscription-based harvest-share model addresses several common issues at once. On-farm food waste can be reduced to nearly nothing, which also means that you can sell more produce! The risks of crop failures due to non-manageable environmental impacts are shared. If done right, the principles of the CSA result in higher financial resilience, which leads to less mental stress and empowers you to find true pleasure in the daily work. Increased financial resources also enable a better working environment through better tools and infrastructure.

Vegetable distributions are an opportunity to communicate with your customers regularly and educate them on the importance of regenerative food production, local resilience, ecology and other related topics. You don't have to compete with local and global market prices, which means you can set the real price for your product and work!

The CSA enables us to deliver €4500 worth of vegetables within 3 hours every single week. To replicate this consistency of revenue and "no-leftovers" on the farmers market is nearly impossible. At the same time, farmers markets are important social events where producers and consumers can come together. While we are relying on an old barn to distribute our vegetables, this could also be a public place provided by the commune to local producers. The farmer's markets could turn into places where CSAs distribute their products while allowing some buy-on-demand besides the subscriptions.

It's very satisfying to provide a local group of people with healthy food over many years. Your initial customers become people you know and some become friends. It's building community. It's healing the land and reconnecting people with nature. It takes some effort to build a CSA, but once it's set up and running, the work that goes into it reduces dramatically.

Raising customer satisfaction

We strive to continuously improve our service and reduce yearly customer fluctuation to a minimum. We make yearly surveys and try to adapt to customer requests as good as possible, but it's important to recognise that you cannot satisfy every customer. Therefore we focus on a group of customers with similar requests so that we can provide an excellent service to this group. With this strategy, the percentage of customers joining into the next season has gone up every year to now 85%.

To improve our service, we team up with local producers. This allows us to complement our baskets with high-volume crops that are challenging to grow in our current market garden set-up. As an example, we cooperate with local producers for potatoes, so that we can supply those all season long. For every season, we set a position in our budgeting for the expenses we have for external production. It's calculated into the basket price and we are transparent about it! We inform our customers about the provenance of the vegetables.

Two years ago we started integrating laying hens in our system. Two small self-made mobile coops with 55 hens in each are on pasture surrounding our gardens. The idea is to provide high-quality eggs to our CSA members and make full use of the pasture around the garden. The enterprise doesn't generate much profit, but it enables us to improve our service in general. Our customers highly appreciate the quality of the eggs, and they can only buy them if they have subscribed to the vegetable box. The hens also help us reduce slug migration from the pastures into the garden.

No-Dig, a game changer!

At the beginning of the first season, we used the rotary tiller for bed preparation. It felt destructive and was tiring. We started looking for no-till alternatives that could be applied on a market garden scale. Through Youtube, we found Charles Dowding and were fascinated by his no-dig approach. A two-day course at his teaching garden "Homeacres" and some more research convinced us to give no-dig a try. Already in the first season, we started switching to no-dig. Since 2017 all our crops are grown on no-dig beds. We now observe that over time crops are improving considerably as the soil regenerates. If done correctly, no-dig is a huge time saver. And especially in market gardening, having more time is a game-changer! Many market gardens fail or aren't profitable because the production takes all the attention and there is no time and energy left for establishing an efficient selling strategy, improving infrastructure and workflows and caring about essential details which can make all the difference.

Finding Land

We started on ½ acre, knowing that we would need more land if we'd continue after the test year. It was challenging because local farmers and landlords couldn't imagine that the market garden project we were up to could

work and be profitable. Through spreading the message and being persistent we found a piece of land that fitted the needs of the farm for the coming years.

We now advise people to start with what they have their hands on. Even if it's only a tiny piece of land that doesn't belong to you. There is enough land available, you have to spread the word and let people know what you want to do. When people see what you were already able to do on a tiny piece of land, they're better able to envision your project on a bigger scale. Many landlords are willing to provide their land for ecological farming projects, often in exchange for farm produce.

What will Krautgart look like in 3-5 years?

It's hard to make predictions, as circumstances change over time and opportunities you don't know yet might come up. But it's also an important exercise to keep the ship cruising in the right direction without being fooled by random streams.

In five years our core enterprise will be the same; delivering vegetables to the local community through our subscription-based model. The average paid basket price will be considerably higher and allow us an income that we and our customers can be proud of. (Thought: Doesn't it feel great as a CSA member to be able to say that "our" farmer can make a decent living of the price we pay for his work?) We will continue our journey of service improvement to raise customer satisfaction on one hand and at the same time increase the revenue for the work we do through communication and information. We will have a maximum of 150 members. Before increasing the number of subscriptions, we will focus on offering a broader palette of products to our existing customers. Seasonal berries and fruits are on the top of the list. In the long run, we might also provide more perennial crops (herbs, mushrooms, sweet potatoes) grown in a forest garden set-up. The berries and fruits will be extra to the vegetable basket and also available for self-harvest.

In parallel, we are developing our on-site nursery to be able to deliver baby plants to home growers. Since we are growing everything from seed, we have the skill-set and the set-up to grow more for sale. Demand for high quality selected varieties is high. This will also allow us to connect more with the local community, which is in itself beautiful and can also be seen as a passive marketing strategy.



Chickens add beauty and value to a market garden.



Our members love the eggs of our pastured hens.



Antoine, our 2020 wwoofers,



Living tiny in the garden of Eden.



Good tools keep up with farm usage expectations.



Krautgart 2020 core team.

Work-life quality

When we started, our vision was to grow epic vegetables for the local community. We now also focus on creating a business framework that enables a unique work-life quality. We are convinced that this is essential for building a lasting business. Part of this vision is increasing the financial return for the work we, and ultimately other growers, do. Why should the job of a school teacher be worth three to four times more than the job of a market gardener? The gardener, who is growing food for the local community and providing topic-related education. The gardener, who made it his duty to provide healthy food to the people and regenerate the land. Many people are becoming teachers because it's a well-paid job, which is a bummer. How many of those people might go into market gardening or other crafts if they were better paid? Through transparency and customer education we aim to increase the financial return of the craft of growing food, and hopefully raise the standard in Luxembourg.

Krautgart market garden start-up guide

A list of advice to people starting up, based on what we've learned:

Do yourself a favour and start with some kind of a test year before you go all in. Either at an existing farm or, if you are confident enough, on your own. Call it a test year or a project and invest only in the essentials.

Team up! It's good to have a business partner with a complementary skillset so that you can split tasks.

Start small and don't go into debt.

When getting started, use every resource you have to decrease your spendings. It takes away financial pressure and helps you focus on building your business and doing the actual work.

You can save a lot of money if you buy second-hand tools, or borrow expensive tools in the beginning. We bought tools on eBay and local second-hand markets. One of our neighbours was even willing to borrow us his rotary tiller, which we only used for half a season because we switched to no-dig. This saved us a lot of money!

Especially when starting your first business, you are confronted with a lot of challenges you haven't faced before. Facing these challenges helps you learn fast and effectively. As you go, very specific problems or challenges emerge and you can address those by visiting farms or taking courses at other farms who have found successful ways to deal with this exact or similar challenges.

Learn by doing. We found that the most effective way to learn the skills we needed was to fully immerse ourselves. Learning by doing was our slogan! Today it's easier than ever to access the information you need for little money or even for free. We read a lot of books before we started, visited local farms and cooperated with a local heirloom seed grower to learn more about plant propagation.

Be proud of your job and set real prices for your products.

Spend time in nature, observe and educate yourself on natural processes and patterns.



JEAN-MARC PARRIES

Krautgaart, Luxembourg

MAIN ENTERPRISES:

Market garden

Pastured Layers

MAIN SALES CHANNELS:

CSA

Restaurants

AREA IN PRODUCTION: 0.22HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: €14,200

REVENUE: €150,000

NET PROFIT: €0 (after paying out
€115,000 in salaries)

website / instagram / facebook



SANDER LEROY

de Groenteboerin/Hoeve Biesland, The Netherlands

De Groenteboerin, Hoeve Biesland

The market garden “de Groenteboerin” was set up 9 years ago by the daughter of the farmer of Hoeve Biesland. It produced vegetables that were only sold in a mobile store next to the garden itself. It immediately attracted people who either came to shop or offered to volunteer to be part of the vegetable garden, because the garden is set up at the beginning of the road to the farm where many people pass by. After a few years of gardening on this scale, there was room to expand. The number of consumers grew and the interest from other food communities grew as well. A local vegetable box initiative came by to collaborate with our market garden, and so we started supplying them with our vegetables. For the past 2 years, “de Groenteboerin” has been a foundation with a plot area of 1.1 hectares. Half of it is various vegetables, herbs and flowers that are grown in an Organic Dynamic manner; the other half is still pasture for the dairy cows from the farm until we use it ourselves again. The foundation “de Groenteboerin” now leases this plot from the Boerderij Hoeve Biesland.

I started on the farm as an intern during my Biological Dynamic Agriculture and Livestock training at the

Warmonderhof in Dronten (the garden was a bit smaller then) and have been employed by “de Groenteboerin Foundation” since 2018. The route I have followed is quite an interesting one. After I finished my training as a Cook/Hospitality Manager during my high school period, I jumped over to the Nautical School. There I studied to become a Maritime Officer for a couple of years and sailed across Europe on different cargo vessels. It was a great time but I knew it probably wasn’t what I was going to do for the rest of my life, so my search continued. After 4 years of studying social work, I became the manager of a music venue. Crowd-control, late nights in an atmosphere from disco to dance to heavy metal; I have seen all kinds of music. This was great, this was life, and so I became an entrepreneur at other music venues and lots of different festivals. I did this full-time for 10 years before I started considering my life and what was important to me. I wanted to learn more about food, nature, growth and life because this was always already my point of interest. I found the aforementioned ag school in Dronten in The Flevopolder, and that is where it all began; in 2015 I started my training to become a farmer.

I now run the market garden with the help of volunteers, interns and care clients. We grow vegetables,

fruits, herbs and edible flowers for the farm shop, with the rest supplementing two vegetable packages and local restaurants. After my internship at the market garden, I occasionally worked for them when someone was ill or on vacation. Then, in 2019, I was asked to run the garden as garden manager and mentor. Right away I saw the opportunity to shake things up in the way vegetables were grown. In my opinion, the way it was done in the years before me was less efficient and had a more negative effect on the soil. There were very big cultivation beds that everyone crawled over and across during planting and harvesting and weeding. I noticed that this had a very negative effect on the soil structure. There was no clear cultivation plan or guidelines on where or how big the paths should be. Everyone was just walking everywhere through the beds.

The vegetable garden had already existed for several years, so there was a steady customer base. When COVID-19 broke out at the beginning of 2020, we noticed a big increase in the number of consumers buying our products. We don't know yet if we can keep this group of new customers with us long-term, but we are happy with our new friends at the farm. However, the cultivation plan was not calculated on these waves of new customers and so we didn't know if we would be able to serve everyone our delicious food. During summertime, the numbers went down a little because people went on holiday. This is a normal flow of going and coming back but this was quite a different year. We were lucky because at the end of the summer more people came back to us and so the numbers increased. With some ups and downs, we've managed to meet almost every customer's needs. Sometimes we needed to buy some extra from a farmer friend, but in the end, everyone went home happy.

All the figures for this year are not complete yet, but I am guessing that we will end up with a gross turnover of €27,500 from the vegetable garden and just under 10,000 from healthcare this year. The biggest revenue is from the addition of the vegetable boxes from "Kistje vol smaak" (KVS, 'box full of flavour') and Lekker Nassuh (LN).

KVS is a food box with not only vegetables but also fruits and dairy products and can be supplemented with meat and bread from the farm as well. About 3 years ago, the farm bought this concept called KVS including a customer base from another company. At that time there were around 160 customers and it has since grown to more than 300 customers, particularly this last year. LN is a food community in The Hague where, in addi-



The entrance to the market garden.



Every year we use willow branches from around the farm to build our bean poles.



We use our small greenhouse to pre-sow our planting material in the early spring, and later on we grow some tomatoes in it as well.

tion to a vegetable box, you can also buy packaging-free food. At their location, you can both pick up your vegetable box and also buy a lot of other different products from local producers, from cheese and pasta to soap and other sustainable cosmetics products. LN also grew considerably this year from 375 customers to around 600 at the end of spring, so this year it was quite a puzzle to make everyone happy with our products from the garden. The rest of our produce is sold in our shop on the farm, where we also sell our dairy products, baked bread and meat from our cows and sheep. This is not where we make a big profit, though; that comes from the veg boxes.

After every season, we meet with our partners of the vegetable boxes to evaluate. We discuss what went well or what they would like to have next year. We decide what KVS and LN customers receive from the feedback on the last year's boxes. This often results in a rough outline of wishes for the following cultivation plan. I always experience this as a very important time of the year to learn more about our customers and also try to grow more specifically according to their wishes. This results in a diverse cultivation plan for yet another new season.

It was another tough year, mainly, I think, because it is difficult to deal with our revenue model. It is a social earnings model, by which I mean that the buyers largely determine what we grow. This means we also grow products that have a lower yield because they grow more slowly. Leeks and celeriac are relatively inexpensive and take a long time to grow from a baby plant to a fully-fledged product. This is in principle much less profitable and results in our income per m² being much lower than what it could be. The vegetables that are sold to KVS, restaurants and the shop first go to the farm, wherefore the farm also wants to make a bit of profit from it; then the farm resells them. Here the middleman is created from which the farm earns. This naturally results in a lower turnover for the vegetable garden. This choice was made by the farm; with the revenue of the market garden in mind, this is not a healthy financial way to run this business. Ultimately, the vegetable garden and the farm are one company; they have only been disassembled on paper and the money earned to end up in one heap. I would look at the individual business models of the farm to see if they can be financially healthy independently, but that's not the case here.

Additionally, the income from the vegetable garden is also subject to work and skills. I have noticed that work with volunteers and care clients makes it more difficult to achieve a high yield. The actual feasibility is complete-

ly different from the expectation of the foundation and farm. You cannot expect the same from a volunteer as from a paid employee, or a healthcare client as from an intern. Healthcare clients come to help us as a daytime activity that lets them do something meaningful instead of sitting at home all day. This group is also very diverse, ranging from people with burnout or depression to ex-addicts, refugees and other people who are just outside the regular system. Working with this group of people requires a completely different approach. They are here with the hopes to return to society when they finish their recovery. For them, it's not about production. This rubs with the desire of the foundation and farm in achieving certain production levels. Besides, there is a group of volunteers who come to help in the vegetable garden. This is also a diverse group of people who require a different approach than paid employees. It's beautiful and fun to work with this diverse group of people, but it isn't aligned with a revenue model based on production. It would be good to find ways to generate more income from this level of people care, I think. Most of my time I spend guiding, demonstrating, adjusting and explaining things to everyone. Especially with the care clients, whom I sometimes have to explain the same things over and over again. However, I have also learnt a lot from working with these people, who have a certain enthusiasm when working in the vegetable garden although they lack the skills, and the diversity also creates beautiful social connections.

When you are hired as a farmer like I am, you are dealing with the thoughts and ideas of the farm you work for. The chance that you do not have the same ideas is therefore great, and I have learnt a lot here about dealing with this. Communication between the farmer and me has not always been equally clear, which chafed now and then, and I have now learnt to spend more time on making clear agreements. We're not only making plans together every year, but we also have to meet regularly to discuss what's going on. For example, I once wrote a plan to start a laying hens enterprise. Still, in writing, it has been decided not to do this by the Foundation or the Boerderij. They thought it didn't fit in because it would yield too little, and so I will just have to keep it for myself for later. I have had several ideas like that, but because I am hired, I cannot always do what I want. To work the land on behalf of someone else of course also offers opportunities and is not only subject to someone else's rules. If you feel that starting for yourself is too big a step, then this is a very safe and pleasant way to gain experience this.



Only fast-growing crops can be sown directly into this soil. The weed pressure is relatively high due to the biodynamic cultivation methods.



After sowing a bed we inspect whether enough seed has been dropped by the hand seeder.



We keep observing what is happening; weed pressure, growth of plant material, soil moisture.

This is not how I ended up here at the farm, by the way. During my studies in biodynamic agriculture and animal husbandry, I still worked in the event sector for music festivals, music stages and other cultural events. At one point, I decided to stop with a large client to create more time for myself and try to find something else, something more meaningful. At that time I didn't know exactly what I wanted to do with what I had learned during my farmer training. What I did know was that it was time for change and progress. A couple of weeks later, the farm where I had done my internship called to ask if I could replace the market gardener, who had fallen ill, and that's how my adventure here at Hoeve Biesland started. Farming for someone else can be nice if you don't want to take the risk of entrepreneurship, if you cannot find a place to start up yourself or if you are not sure yet if this is what you want to do. I was able to start with a vegetable garden without any risk and partly have the freedom here to bend it to my will.

With the knowledge and skills that I have, I have been able to set up something nice within the framework of biodynamic vegetable cultivation that they are using on this farm. This way of cultivation is subject to several rules that other farming methods are not. There are as many ways as there are farmers, that's for sure. One big group is the conventional farmers who produce one or more products at high volume and low cost. These farmers use fertilisers, crop protection and heavy machinery. A second group is the farmers who are organically certified (less than 4% acreage, 2019) and the main difference is that these farmers do not use artificial fertilisers or synthetic crop protection. They are allowed to use biological crop protection that can be just as harmful as its synthetic brother. I leave greenhouse horticulture out of this story for the sake of clarity, because you also see differences in cultivation in greenhouse horticulture. A third group are the organic dynamic agriculture farmers (less than 0.5% acreage, 2019), who compared to the two aforementioned types of farmers not only look at their own company but also at the bigger picture. These farmers look beyond their boundaries; they consider the effect of their farming method on not only their crops but the natural system as a whole. They don't even use biological crop protectors but instead farm with nature. There are major interfaces with this type of farming and permaculture. Cows keep their horns because this is an essential part of the animal that must be preserved. The soil may not be covered with plastic for growing vegetables and reducing weeds.

After my time as an intern, on-call worker and market gardener here on the farm, I find that it is time for another chance, and I have decided to start my own business with my partner Maaïke. We plan to set up a regenerative farm in the Netherlands. We're slowly starting to look for suitable land and writing a plan. We hope to have a place in 2021 and start with a vegetable garden and laying hens as a basis for the first phase. Once this foundation has been laid, we hope to continue to expand with broilers if we have sufficient land, or perhaps make things more modular and use a mobile version to run them on the land of other farms. The sky's the limit. I know it is advisable to look carefully at the distance between where you live, the vegetable garden and the broilers. If we then have the opportunity to expand even further, we want lambs and beef cows to set up a grazing system within the cycle of life, land and the company. We are currently mainly engaged in conversations with nature organisations, farmers and governments to see what the possibilities are. I find this to be a very interesting process and we have only just started. Our working title is "De Buitenbrigade" (Translated: the outdoor brigade) and can also be followed under this name via Instagram.

In the Netherlands, this way of agriculture is still very pioneering and so hopefully also offers many opportunities. In any case, I see a very bright regenerative future lie ahead. It was never my childhood dream to become a farmer or market gardener, and I am the only one in my family who is into agriculture. I soon realised that it cannot be compared to a job. It's a way of life, which is precisely why it appeals to me. It's not only the growing of produce but also the sharing of knowledge with that I find very attractive about this lifestyle. Platforms like Richard's make me happier and more enthusiastic about further exploring and immersing myself in regenerative agriculture. I can only say that if you have a dream, try to make it come true; go for it. There is no such thing as failure; at worst you will find out that it was not what you were looking for, and you can continue searching.

I think that starting this new adventure and creating something new will be one of my greatest quests and discoveries, and I'm excited to be doing it with my partner.



Early autumn morning harvest.



Time to put this oak leaf lettuce in the ground.



Visiting other market gardens for inspiration.



In the summer it is daily fare to harvest courgettes. It makes it even more fun if your loved one also helps.



We bring the harvested and rinsed crops to the farm, where we put them in the refrigerator or deliver them to the farm shop.



It's now the time to set up my own regenerative farm, the Buitenbrigade, together with my partner.



SANDER LEROY

de Groenteboerin/
Hoeve Biesland,
The Netherlands

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

Food/veg box collaborators

Farm shop

AREA IN PRODUCTION: 1.1HA

STARTUP YEAR: 2011

STARTUP INVESTMENT: N/A

REVENUE: €40,000

NET PROFIT: €0 after salary

website / instagram / facebook



MICHEL KEGELS

Groenhartig, The Netherlands

Groenhartig got started while I was volunteering for a food forest project. The question came up if I would be willing to run a herb garden, which got me thinking about what I would need to set up a business in this field. It was around the same time I started reading and watching a lot of videos by some of the Youtube market gardeners.

I loved the idea of perennial agriculture, but I didn't see any entry point for myself where I could generate an income from the production alone. I knew I wanted to have my primary focus on production, as I think that is where innovation is sorely needed. I then wrote a plan to start growing salad greens and quick-growing vegetables part-time as a means to start my business, learn and expand my customer base.

I chose to focus mainly on restaurants due to the innovative nature of a subsection of restaurants that I wanted to work with. A few quality restaurants had managed to get the so-called forgotten vegetables like parsnips and salsify, which had suffered from a bad reputation, back in the spotlight in the 90s, and this, in turn, resulted in them being widely available in many supermarkets. I figured that if I want to be involved in a transition to a more sustainable and perennial form of agriculture, this would be a good market to focus on. Besides this, there

were already a few CSA's getting started around me, and this model didn't yet suit me as it requires a much bigger range of vegetables to make it appealing for customers.

With my Hotel Management education in hand, I made a basic business plan for $\frac{1}{4}$ acre / 1000m² growing mostly salads and quick crops and eventually landed in Amsterdam on a wider urban agriculture project that was looking for someone to rent some land. After the first year, I moved to a second plot with about 1800m² where I am still situated today. As of this year, I am also working on a second plot nearby with another 2000m² to grow more of the longer season fall crops and perennials.

Right now the market garden is producing a lot of different salad crops, edible flowers, herbs, vegetables, fruiting crops and some niche crops for restaurants. Due to COVID-19 we also started selling one-off bags on a website, which turned into a small CSA that we plan to expand next year. We also became a little hub for a few other farmers that supplement our product list with organic potatoes, fruit and storage vegetables.

Startup investment and revenue

In the first year, I started out growing part-time for

about three restaurants in the area. Luckily I had very low living expenses, which helped me get started in this way. Over the years the farm slowly expanded both in crop diversity and customers. The second-year I bought my first polytunnel and early this year a second one. In the third year, the first part-time employee got added to the team. At this point, we have around 1000m² mostly high rotation outside bed space, about 400m² of poly-tunnels and about 300 meters of perennial vegetable, herbs and trees.

The biggest investments in the first year were a second-hand two-wheeled tractor, a trailer for storage and a very basic office. The walk-in fridge, greenhouses and bigger infrastructure projects such as automated irrigation and the washing station came in the second and third year. I probably put around 20k to 25k into the semi-permanent infrastructure and tools to get where I am today. This doesn't include the more direct costs of things like compost, seeds and plugs (which I initially bought from a professional propagation plant, but have gradually started doing myself).

In 2019 we grossed around €50,000, and the prognosis pre-corona for 2020 was closer to €60,000, which we most likely won't reach. Without labour, the net margin was around 50% in 2019.

As you can imagine, we have been hit pretty hard by the corona crisis in 2020. Pretty much 95% of our revenue dried up during April and May, and we are now at the end of the year only doing around 20% of what we did last year around this time of year, which doesn't factor in the planned growth. We have somewhat balanced that with our vegetable box sales and subscriptions, but there was a lot of extra labour and costs involved in setting that up and keeping it going.

The biggest hurdle to moving the business to a more CSA-type operation is the fact that it is a very different game in terms of what to grow and the timing of crops. People don't want to eat the same vegetables every week, which means the weekly selection needs to change. They want diversity. Restaurants also like diversity, but generally need a more stable availability within the growing season. This leads me to change the crop plan during springtime and eventually to buy in more external products from other farms.

Sales and customer base

When I took over the plot, I was introduced to two restaurants that became my first customers. I then approached some more restaurants that got added to my list of customers, but most of the later additions have been through word-of-mouth.



The garden in the 4th year in production.



Rooftop view 2019.



The garden in the 2nd year; new plot preparations.

From the beginning, the restaurant sales were a combination of having some fixed orders of certain crops and more seasonal one-off crops. We try not to limit our customer base to the idealistic chefs that want to work with whatever is in season, but also serve the ones that have less focus on seasonality but are looking for a direct relationship with a grower that maybe grows more niche crops or can start growing that for them. We have also worked with some bigger restaurants that had fixed weekly orders of certain salads.

Early 2020 we were working on a website and decided to include a web-shop to start offering one-off vegetable bags with some homemade sauces made by our neighbour Andres (who has since started his own business turning a local surplus into tasty products). This went well in the beginning but dropped off after the initial hype went down. We have since started a membership.

Vision and challenges

On the whole, my vision hasn't changed much. My philosophy has always been along the lines of regenerative eco-agriculture with an emphasis on biodiversity and including as many functional eco-system elements as possible along the way. I am a pragmatic idealist with solid lines I don't cross. These lines are the use of pesticides, artificial fertilisers and general detrimental use of resources like cheap potting mixes. I believe that in a healthy system they are not only not needed, but in many ways very counterproductive and detrimental to living systems in general. We also don't use any one-off plastics for packaging or farming.

Of course, there is a huge practical component to farming in general and vegetable production. It would be very difficult to do what we do without the use of plastic. We don't use any single-use non-biodegradable plastic, but wouldn't have been able to set up our farm without the help of long-use planting tarps for weed suppression. We do look to phase these out at some point soon. The part that I didn't foresee as much, but which is a functional addition, is the links we've made with other farmers. Groenhartig is not just a growing operation anymore, but also has a customer base that is often looking for other sustainably grown products that we don't grow. From the start, we've offered products grown by the other small (mostly CSA) farms surrounding us, but this was always limited to small surpluses. As of this year, we've made some connections with small farmers in the wider vicinity and started buying in fruit and storage crops. In this way, we give these farmers access



Insect netting and long-lasting row covers.



Fall salad production.



Eggplants and tomatoes.



Stale seed-bedding.



Groenhartig fall veg box.



Intensive intercropping.



Watering the (edible) hedgerow.



COVID diversification.



Sunchokes.

to our sales channels and the chefs access to small scale local organic products without the hassle. It is, however, challenging to manage this at our current scale, so we limit it somewhat to keep it manageable.

It also brings up the question of certification and trust. Some of the farms are themselves not certified organic as they are side-projects by people having fixed employment elsewhere, and we have a hard limit on what types of growers we work with.

A major challenge in this area is to find land. I was lucky to find some in Amsterdam. A lot of the agricultural space in the city is being paved over for data centres and business areas. Another big challenge is to transition the operation from being run by one person having a lot of the ideas and to-do lists in his head, to having employees with their tasks and responsibilities.

The future

Currently, Groenhartig is expanding to a second plot. This will increase the diversity of crops we grow and will result in a bigger customer pool. I also want to work with more perennials. There is a decent demand for perennial crops with certain types of restaurants, and I am looking to further integrate them in the market garden as edible hedges and windbreaks.

The plan is to increase the number of CSA subscriptions next season and continue to supply the current restaurant customers with our products.

I am also involved with the agroforestry project on the Floriade 2022 horticulture expo that is run by my agroforestry designer friend Xavier San Giorgi. This project is aimed at getting wider attention on this type of agriculture but also serves as a learning hub on these type of agricultural systems.

Startup advice

Go online and do your research. There are plenty of ways to get into farming. Find the one that suits your life situation and go for it when the moment to do so is there. Due to my life circumstances, I mostly did it by starting part-time with a small piece of land with the knowledge I had from books and the internet, and slowly grew the operation. But that certainly isn't the most common way to do it. If I had to do it all over again, I would have loved to do a more in-depth course with someone knowledgeable and experienced; it would have been worth the expense.





MICHEL KEGELS

Groenhartig, The Netherlands

MAIN ENTERPRISES:

Market garden

Produce Aggregator

MAIN SALES CHANNELS:

CSA

Restaurants

Webshop

AREA IN PRODUCTION: 0.18HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: €5,000

REVENUE: €50,000

NET PROFIT: €10,000

website / instagram / facebook



SANDRO WENS

De Paardebloemhoeve, Belgium

An overview

De Paardebloemhoeve is a mixed farm of approximately 40 hectares. Our products count:

Organic grass-fed dairy (herd of ca. 70 animals)

Organic pastured eggs (2 egg-mobiles of 200 hens each)

Apiary (ca. 100 hives); mainly honey, limited propolis and other bee-products

Organic pick-your-own CSA vegetable and fruit garden (160 members)

Pastured broilers (first year 1 Salatin-style pen, second batch in the brooder)

Vision

Our vision is to create a farm that doesn't depend on the commodity market and to offer a wide range of healthy, nutrient-dense products straight from our farm to our consumers (short-chain). Our goal is to educate our community to understand the concept, the benefits and the why behind the way we work at the farm and the impact it has on food quality and human wellbeing. We also promote the social aspect of family harvesting, so that youngsters and toddlers become familiar with

where farmland products come from and get more in-sync with nature. We started our farming journey and adventure on the farm of my father-in-law, who still owns the farm and runs the organic dairy on it. Our goal for the coming years is to take over the farm. To do this, we are building up our current enterprises and making it a more diverse and regenerative place in alignment with our vision.

Initial focus

In the beginning, we focused on our pastured eggs which we started offering in October 2019, building up recurring business through local activity. To promote our activities we used local and social media, supported by customer references. During the winter, we decided to start a pick-your-own CSA vegetable and fruit garden where families can sign up and pay in advance for a whole year's worth of production to harvest themselves.

By having this enterprise, we've created a good base of loyal recurring customers who will buy other products from our farm, such as eggs, milk, honey and chickens, or secondary products like pasta from our eggs.

At the moment we see that our CSA members are our primary source of advertisement. They support our vi-

sion and are proud to be members of the farm, and they spread the word about what we are all about and what we stand for.

Start-up investment

Egg-mobiles: When we started with our layer operation, we chose to go for a commercially available egg-mobile from Huehnermobil Stallbau Weiland. The reason for this was its excellent automated stable with a built-in fence energizer, automatic doors, light, and feed and water capacity for weeks at a time. The bottom tier has a closed floor and the upper floor has a manure belt below a plastic floor netting. This separates the two tiers from each other. On the upper floor is the roosting area, the nests and the grain (approximately 1 ton) and water (approximately 500 litres) access. Collection of the eggs takes place from the outside of the mobile; the bottom part of the Huehnermobil's roof is hinged up and can be opened independently at the location of the nests to provide easy access for egg collection. The nests are filled with husks of spelt grain, allowing the eggs to sink into the media and thus keeping them clean and less prone to damage. To move the egg mobile you need a tractor since when filled up it weighs around 5000kg. The model we use has a "fixed" wheel design, so it doesn't need hydraulic power to push the wheels out. These two wheels are situated at the back end of the mobile, giving that end a ground clearance of around 5cm. The front of the mobile gets hitched and lifted with the tractor to drive it around. If we need more ground clearance, to navigate a big ditch, for example, we can move the wheels to another axel which gives us more clearance without much effort. Our birds get an outside run made up of three 50-meter nets covering 2,500m² of the ground surface to scrape. We move them once a week during the year. The mobile is also constructed of isolation panels to avoid overheating in summer and keeping warmth in winter without the need for extra heating. During winter, the energy and warmth of the chicken population keep the mobile's internal temperature above zero, which is warm enough for us not to have any issue with frozen water supplies. This egg-mobile model is built for housing around 200 hens under organic standards. The price of this investment is around €37,000, which might sound like a lot, but for that money, you get a plug-and-play egg-mobile returning around €900 of profit each month, excluding loans and other running costs. We sell our eggs for €0.5/egg. If we have excess small eggs from new hens or if sales are



Sandro and Paulien.



Drone shot of the farm.



Paulien harvesting broadbeans.



CSA members in the garden.



CSA kids in the tomato polytunnel.



BBQ with some CSA members.

low, we collaborate with a pasta factory that produces fresh dried tagliatelle, spirali, spaghetti or other kinds of pasta from our eggs. This has allowed us to work with almost zero waste.

CSA market garden: To start our pick-your-own market garden, we've invested around €30,000 in tools and infrastructure over 2 years.

- €10,000 on a BCS with attachments
- €3,000 on two second-hand caterpillar-like tunnels (5x45m and 6x45m)
- €12,000 on a big new polytunnel (9x40m)
- €5,000 on misc. tools (hoses, hoes, seeder, wheel hoe, gridder, tilther..) and compost

Running cost for seeds and transplants are roughly €6,000 a year since we hardly grow any transplants ourselves but order them from a specialised grower. The transplants come in soil blocks, which is also easier and faster to transplant since there is no fiddling with pushing out small plants out of trays. It is an efficiency gain at limited cost and helps us avoid the risk of not having good planting material when needed.

We aim to be as 'no-dig' as possible and only power-harrow lightly if there are many beds to prep.

Our gross income from the CSA is 160 members x €365 = €58,400 (incl. 6% VAT).

After labour, transplants, gas and other depreciation expense, this makes a net of roughly €30,000 without harvesting a single vegetable ourselves on a 1-hectare plot, including crops like potatoes and pumpkins which take up a big piece of the garden during the season. Our garden runs year-round, but the main work effort is in the high season from March to October.

Broilers: Since this enterprise is new to us, we decided to test-drive the concept and only make one Salatin-style broiler pen initially to get a feel for whether this could be something for us and whether there would be enough interest from our local customers. Turns out there is, and we've only had positive feedback after our first batch of pastured broilers. We are planning to scale up the enterprise this winter, but will probably go for a polytunnel-style pen on a sledge instead of the Salatin pens. This will be more efficient since our paddocks are wide enough to facilitate them and we already have at



Filling up the egg-mobile water tank in the sunset.



Chickens on pasture in the spring.



Sandro collecting the eggs.

our disposal the tools to move bigger structures, letting us grow more birds at a time. The running costs of this enterprise are:

Day-old chicks: €0.5/chick

Feed: €62/100kg-Slaughter + packing: €3.70/bird

Accommodation/transportation etc.: €2/bird

We sell our birds for approximately €12.5/kg or use a set price of €25 a bird, which nets us around €8-9 a bird with the slaughter weight aim being 2kg.

Apiary: I started this enterprise 7 years ago before I met my girlfriend and moved to the farm and had the chance to become a full-time farmer. Back then my dream was to have one of the biggest professional apiaries in the region; luckily this idea faded away over the years... Don't get me wrong; it's a beautiful profession and it makes you see patterns in nature that you otherwise wouldn't notice. The downside is that you spend an awful lot of time bending over hives and driving around the country hunting down honey flows or pollinating crops. Living in Belgium, which is a very crowded place, makes the operation inefficient. However, to give you an idea of this enterprise, here are some facts and numbers.

In the beginning, I invested €15,000 in hives, a trailer, a honey extractor and other small tools. The main income of this enterprise comes through queen breeding, pollination services and honey sales. Queen bees sell for €35 a piece over here if you use good breeding stock. We sell most of our honey in jars of 350g, which go for €7-8.5. In normal years you can harvest about 40kg a hive on average. Pollination rates depend on the crops: strawberries, for example, are €5/day a hive if they're grown in hothouses; outside its €3/day. Cherries, apple or pear is about €70/hive for 3-4 weeks, depending on the duration of the blossom period. With our practice, it gives a moderate return for the amount of labour spend.

Dairy cows: This part of the farm is still my father-in-law's, so I don't know all of the details and numbers of this enterprise, but here is what I do know. The organic milk gets collected every couple of days and ends up in yoghurt, ice-cream or normal milk jugs in the supermarket. The cows graze on pasture during the season and stay in the stable from December until March-April, depending on how wet the paddocks are. This year we started experimenting with rotational grazing in the hope of following the herd with the chickens in the future. For now, this hasn't been easy, especially because



Sandro checking his bees.



Sandro and Sam (an intern) watching chicks grow.



Pasta made from our eggs.

a dairy cow needs a better constant feeding regime to keep milk production stable in comparison with beef cattle, and having the third dry year in a row doesn't help either. In the breeding of the cows, we mainly focus on getting A2A2 genetics into the herd, because the milk of these cows is more easily digestible for humans compared to the A1A1 or A1A2 milk proteins. As far as we know, the A2A2 genetics got bred out through selection without getting noticed. The cows eat mainly fresh grass or grass-silage with only a little supplemental feed when grass availability gets low. No corn is grown on the farm for the cows, unlike most farms in the neighbourhood.

Revenue

Our revenue is about €15,000, and roughly 25% is net at this moment, but we like to reinvest what we can back into the farm during these first years. This number is without dairy revenue.

Running the business

The first year was rough, having no tools or extra labour for the market garden, and building up our customer base was challenging in the beginning. Luckily this grew over the season and started to boom when corona hit the fan. At this time we have also managed to buy more tools and infrastructure, which makes the job much easier. We have also started getting noticed by other people interested in starting a farm, and some of them are now doing internships at our place which after some initial training makes things easier and even more fun to do. We have mainly built up our customer base through word-of-mouth, posting on Facebook, Instagram and other media, and signs next to the road of the farm. Our egg-mobiles also act as big advertisement banners.

Future vision

For now, I can't say that my vision has changed, since we've only been at it for around 2 years and so far everything is pretty much going as expected, except for the apiary that needs a closer look to be more profitable. The only thing I can come up with is that we realised that most people are even more detached from their food and surroundings than we already thought. For example, we once had a class from a local school visiting the farm and these kids didn't even know what

radishes were. After a few minutes they were eating the radish leaves and all straight out of the soil; they must have had a real deficit for real food, I guess. This made us realise that we made a good decision starting up our diverse farm so that we can at least create a chance for kids and adults to learn what real food tastes like and how it is grown. It's scary to see that this knowledge can be lost in just a few generations; even people that are a lot older than me are missing quite a bit of basic knowledge about the subject.

Challenges

When we first got the egg-mobiles, it was hard to sell all our eggs without an existing customer base. Luckily we were able to sell most of our excess production to a colleague who had more demand than production at the time, and any eggs left over after that were converted into dry pasta, which we also sell on the farm. In the garden, we are still in some spots challenged with a Bermuda-like grass that is hard to get rid off. We try to tire it out as much as possible and get out the roots/rhizomes in between crops. After the season we tarp it for several weeks at a time and remove the tarp and pull the rhizomes out some more in between. When we have enough compost we will also smother it with a nice layer after digging most of it out. Slowly but surely we are winning this battle.

We also wanted to set up the garden in a 'no-dig' way with a nice thick layer of compost on all the beds after an initial tilling of the pasture. We only managed to do half of the garden this way, because it is hard to get enough compost onto the farm due to strict fertilisation law/rules that limit our nitrogen and phosphorus input even though run-off should be minimal in a no-dig situation. In the future, we hope to build a thicker layer of organic matter through cover cropping and crimping in between the main growing seasons and also interplant some species of cover crops in between the main crops. This year we've already experimented with sowing one thick row of a mix of field beans and buckwheat in between cauliflower and broccoli and had good results.

Plans for the future

We would love to continue to grow our CSA member count to 300 and to do this we will have to intensify our market garden more in the future. Also, instead of a complete pick-your-own, we might add the classic CSA box option if enough people are interested. In that case,

we would make the box more complete with eggs, milk, pasta or other products we can add from our farm. A box of only veg or fruit doesn't appeal much to me, since there are already many farms doing this in the area. In the paddocks, we plan to install silvopasture lanes of fruit and nut trees, and on the edges of the paddock, we are already planting trees or shrubs that cattle can browse on for self-medication and an extra mineral/nutrition boost. We are also participating in a study group looking into trees for cattle to browse on. The fruit and nuts would primarily go into a pick-your-own system with the excess getting juiced and bottled. This can happen on-farm since there is a juicing truck that comes on-site if the amount is big enough (3 tons). Nuts might get pressed for oil or milled into flour, but we haven't figured this one out yet. In between the trees or on both sides, depending on the orientation of the tree row, we would also plant berries, similarly to what we did in our market garden. This would enable us to have customers access the fruit silvopasture enterprise on multiple occasions during one season and would also mean we would have the option to make more than one harvest event out of it. The extra benefit of the silvopasture would be some shade and windbreak on the now sun-blasted pasture. I hope this will also end up keeping the pasture to a more growth-promoting temperature during the warmer periods of the year. We also aim to up our broiler production, since we can use the extra pasture-building impact in our paddocks. Running costs would also get lower if we have a higher number of birds per batch instead of just a few 100 birds in a season. If egg sales keep growing as they do now, we might get a third egg-mobile or change a current mobile to one with a higher capacity. We also are looking for ways to run a profitable dairy herd on the farm in the future and move a bit away from the standard commodity milk market model. It would be nice to produce a small range of dairy products on the farm. Besides the many things already happening, I would love the farm to become a really interesting place for young people to learn about this way of farming to get started on their own once they get their plot of land. I believe it's about time that more farmers who are connected to their surroundings start teaching the younger generations, rather than schools pushed by industry. To finish off, I'd love to have a full-time employee on the farm year-round, so that we can all enjoy a well-earned holiday now and then.

Start-up advice

Wait! If you're in your early twenties, then instead of settling down and getting a 'real' life, go out into the world, travel around, see how they do things on the other side, broaden your mind while you are at it. Take this chance when you are still young and don't have to bother much about mistakes if you were to make them. I believe that if I hadn't done this myself, I would probably still be working in a factory today. Get a high data plan for your internet and binge-watch Youtube videos about the farming topics you are interested in. Visit as many farms as you possibly can in your area or where you go on holiday. If you are looking for tools, try to look for the best and most efficient for the job within your budget. Keep in mind that you want a good price for your product, too; the same thing goes for a good, well-made tool in my opinion. In the end, it should save you time and money.





SANDRO WENS

De Paardebloemhoeve, Belgium

MAIN ENTERPRISES:

Pastured dairy / Layers / Broilers

Honey

Market garden/ Cut flowers

MAIN SALES CHANNELS:

CSA

Farm shop

Retail shops

AREA IN PRODUCTION: 40HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: €90,000

REVENUE: €150,000

(ex. dairy revenue)

NET PROFIT: +/-30%

website / instagram / facebook



BRAM BOMBEEK

Wildebeek, Belgium

Developing the vision

Although I had a very happy childhood growing up on my family's farm in Flanders, I would never have imagined one-day farming here myself. My grandparents were dairy farmers; they are both in their eighties and still live on the farm. They started out milking on pasture, but when the small farms in our village disappeared they built bigger stables and milked more cows. My parents switched to breeding Belgian Blue double-muscled cattle. My father is a veterinarian and he specialised in embryo transfers from high pedigree donor cows to more maternal, non-pedigree recipient cows. In my youth, I had other interests than cows. I thought about a career in journalism and studied history and law, but eventually ended up as an advisor to the biggest political party in Belgium.

After finishing my law thesis I wanted to learn a real skill, so I took a butchery class. Like all thirty-somethings I had started to ask myself the existential questions; I have a nice job, but am I going to do this for the rest of my life? I'm always busy, but where am I going? Isn't it time to build something for me?

I read a craft butchery book with a foreword by a certain Joel Salatin. After three sentences I knew that this

was a man I wanted to follow. For the first time in my life, I could see a future and a livelihood in farming. I believe we solve problems through entrepreneurship, community spirit and stewardship. Here all of a sudden was a blueprint to apply these things to the family business and to produce ethical meat of superior quality... I had a mission to rebuild our worn-out, fade-away farm.

As intuitively as I understood the economics of the Salatin model, as little did I know about the ecology. I knew virtually nothing about grass, nothing about soil health and very little about the role of the herbivore in nature. Luckily we live in the age of abundant information, and when I discovered Richard's Youtube channel I knew I wanted to study at Ridgedale at the first opportunity that presented itself.

Focusing on beef and broilers

When I attended a Farm-Scale Permaculture Design Course in August 2019, it turned out to be a pretty life-changing event. It was ten days of intense teaching with a sweeping range of subjects and an eclectic bunch of passionate people. In the evenings we talked about our projects. I felt like a real novice but understood the privileged position I was in. My parents had always refused

to take on debt to grow the farm, so I had access to land without the 'lock-in'-problem so many young farmers face. I was confident that I would be able to market and sell our product, I was just missing the experience and skills of a farmer...

Back in Belgium, I couldn't focus on politics the way I used to. My mental energy had shifted, so I took the leap and left my job in November 2019. I had known that I wanted to start by direct-selling our beef and running a complementary broiler enterprise since first reading Salatin; being at Ridgedale had given me the push I needed.

Our Belgian Blue cattle have a double muscle gene; they are bodybuilders. The hanging weight of our cows has been between 480kg and 580kg, which is - and my parents waste no opportunity to remind me - about double the weight you would get from typical grass-finishing breeds like Angus or Hereford. A skilled butcher can turn one Belgian Blue carcass - with yields of 70% and more - into €7,500 worth of cuts.

Yet these revenues certainly don't end up with the farmer. In 2019 my parents sold 15 two-week-old steers for €750 apiece. These steers end up as veal meat or as supermarket beef. They also sold 25 'reform' cows for about €1,800 on average or a total of €45,000. These are cows that have had 2 or 3 calvings and are at an age of 4 or 5 years. For Belgian Blue cattle, these are the cows that have superior meat quality and end up at the butcher shops. They have developed flavour with age and fat. I knew that direct-marketing these reform cows could certainly prove more profitable.

Few farmers make any profit with their high-yielding Belgian Blue cattle. Accounting records for the last ten years had the average breeder on a negative income. Yearlings and cows with calf require supplemental feed in the form of corn and concentrate. That means that our pastures are mostly continuously grazed because the cows are divided into groups based on their feed needs. We have a group of about 30 dry cows purely on the grass in a planned grazing experiment on our biggest pasture. They know that they are getting a fresh patch of grass and move easily.

While I have no interest in being a Belgian Blue farmer, I am convinced that the meat is a quality product and it would be silly not to use the resources at hand. The two biggest expenses at our farm are buying feed and hiring contract labour. Switching to a more grass-based system could seriously bring down or eliminate these costs. I tested the water to maybe buy some Angus cows but finally decided against it. I'd rather focus my energy



Cows and chicks; building my very own Polyface.



A two-man team does the slaughter skilfully and respectfully. Not cheap, but exactly the sort of decentralised meat production we need. Don't post these on Facebook or Instagram!



Red gold. The entrecôtes on the left will go into the meat boxes. The T-bones on the right we sell separately. They can bring in €500!

on building my complimentary broiler enterprise. Everybody loves chicken and nobody is doing this kind of production; an ethical and aesthetic way to harness the brutal efficiency of the modern meat chicken. It was a no-brainer as an entry into regenerative farming.

Starting up on a shoe-string budget

My parents felt that I had already taken enough financial risk by leaving my job, so I knew I would have to do the rest on a shoe-string budget. The direct marketing of our beef had virtually no investment cost.

The set-up of the broiler operation took some more investment but was fairly inexpensive as well. For the brooder, we use two 12m² stables. The pens have a few hundred Euros of wood in them, and for the closed side, I used old canvas. It's a cheap build, but not a very durable one. So I decided to adapt a garden-scale chicken coop from a local supplier which cost about €340, VAT included. We'll run our third batch of birds in 4 Koby 6x3 coops which can house 450 chickens. The galvanised metal frames cost €1,080, the chicken wire cost €260 and canvas will cost about €40.

Costs and revenue in the first three months

Between the end of March and the end of June, we've sold five cows. About 360 kilos go in meat boxes of 6kg (€13/kg) or 12kg (€12/kg), which makes about €4,500 in revenue. Orders happen online and end up in a nice Google Sheet. The boxes are about a third steak, a third roast- and stewing meat and a third mincemeat. We will always have extra steaks and stewing meat. We sell them separately, as well as the prime cuts like T-bones and tenderloin. These can easily add another €1,000 in revenue, depending on the weight of the cow.

The costs are €1,800 on average for the cow and €500 feed for finishing. Our butcher is the only one in Flanders that still runs his slaughterhouse, it's a 50-minute drive from the farm. Slaughter and processing cost about €1,200. That means that about a third of the revenue is net, divided equally with the value of the cow if we would sell it and the cost of finishing and processing.

The numbers for our first batch of broilers: chicks cost €0,50 and we picked up 360 for the first batch. We buy starter and finisher feed in bags from our local mill. Buying bags is more expensive, but because we don't use organic it evens out at €0.43/kg. The conventional mixes use local grains, while the organic mixes use grains imported from Ukraine. I prioritise local over

organic. Feed cost for the first batch was about €1,500. The small-scale poultry slaughterhouse we use charges €3.5 for a whole chicken and €5.5 for a cut-up chicken. This is slightly higher than anticipated, but still not bad. Slaughter price comes in at €1,650. The total cost is €3,400 or slightly over €10 a bird.

We lost 6 birds in the brooder and another 21 outside to Broiler Ascites Syndrome, so we ended up with 333 saleable birds. Revenues from two pick-up days were about €4,000. We charge €10/kg for a whole bird and €12/kg for a cut-up bird. I had done a sort of pre-order crowd-funding selling KIPCOINS, a digital currency that serves as a €15 deposit. About 80% of the chickens were sold to KIPCOIN-holders, so were received a €4,000 deposit for the first batch. That adds up to a net profit of €4,600 or about €14 a bird. At a net profit of 57,5%, the birds are almost twice as profitable as the cows.

We have pre-sold about 700 birds to date which adds another €6,000 in revenue from the broilers. Between the end of March and the end of June, total sales were just over €40,000, which is surpassing expectations, to say the least.

Jumping in at the deep end

While I would have loved to have done an internship at Ridgedale and to have more hands-on experience running the broiler enterprise, that wasn't an option because of a busy job. I knew I had to start at scale to prove economic viability to my parents, and I'm glad I jumped in at the deep end. My parents were extremely sceptical of my plans at first, and we had quite a few arguments. Like all farmers, they have to see it to believe it.

They were thinking of winding down the farm, but direct selling has given an emotional boost. Having people come to the farm to pick up meat and hearing how tasty it was, is just a whole other story than pure production-side agriculture. Building the pens and catching the birds became family projects. While so many people were suffering in isolation, my grandparents could see new life being breathed into the farm they built with their hard work.

With a mortality rate of 7,5%, there were some management issues. The birds arrived on cold days and I probably smothered them a bit, not giving them enough ventilation. I was nervous that it would affect the quality of the healthy birds, but everything turned out fine and people were impressed with the flavour and texture. Mortality has already dropped to something closer to



Project We

€15,00

682 kippen zijn al besteld. N

Help mijn boerderij opstarte speciaal voor u zal kweken. I beetje een crowdfunding. A goed vertrokken.

De prijs is 10 euro/kilo voor versneden kip. Op de afhaa bedrag van het voorschot er wegen.

Lees hieronder hoe het in zi

1



A product page built like a crowd-funding page.



This is real local food security; one of our customers picking up his beef in a wheelbarrow. You can see our set-up for sales as well.



The first moves are the hardest.

three per cent for the second and the third batch.

Farming is hard work. I have lost ten kilos and I fall asleep like a baby every night. In hot weather, your birds will go thirsty quick. To my folks I'm still 'having a try at it' and they need to see that I can keep it up. At the moment I'm not managing the back end of the business which is still my mother's domain.

95% on-farm sales

We do all our sales on the farm in the open air. We park a refrigerated trailer that we rent for €70 in our stable and put two tables in front. People are encouraged to pay digitally. A lot of customers want to place orders with me when I'm feeding the chickens, but I tell them in a friendly way to do it online. My mother does however have an alternative circuit where older folks can order with her.

The order page for our meat boxes is a Google Form embedded on a webpage. The form closes automatically when we reach the target weight of 360kg, and we ask people to choose a slot when they want to come to pick up their meat. We weigh the box in front of the customer and charge a by-the-kilo price.

I loved the Ridgedaler (Ridgedale's farm currency) idea to pre-sell chickens and adapted it to my context in a way that was quite COVID-proof. KIPCOIN (KIP is chicken in Dutch) is a digital currency that gives the holder the right to one chicken. The KIPCOIN-page is just a WooCommerce-product page with some inventory-plugins to make it look like a crowd-funding page. It says 'Help me get started in farming by ordering your delicious chicken in advance!'. The page has a reward system like a Kickstarter campaign - like a mention on our Founder's Wall or a tote bag - and it gets people involved.

One week before we send the chickens for processing, we email another Google Form to ask the KIPCOIN-holders how many chickens they want to order this round and how they want them cut. It ends up in a spreadsheet and I can then give my order to our processor.

While many people think of marketing as selling someone something he or she doesn't need, great marketing is giving people a sense of why their choices are important. Joel Salatin is an exceptional marketer in this sense, and for many farmers, it will be the missing piece of the puzzle. In all honesty, I haven't brought much to the farm other than my marketing skills.

It doesn't have to be expensive. My marketing budget

until now has been €150 for two simple advertising panels on the pasture next to my chickens. It is much more important to have a good sense of timing and creativity: try to reach people when they are receptive to your message. Advertise your T-bones when it's barbecue-weather, advertise your eggs in the morning...

Changing your mind on things

I change my mind a lot and haven't written a business plan. While I would have liked to start with a beautifully diverse farm right from the get-go, I focus on selling cows and raising and selling chicken for now. That doesn't mean I'm not thinking of the next step.

Egg mobiles are such an elegant model and perfectly complimentary with a beef herd, and while I already know how I would market and brand them, I'm beginning to think they are not a good next enterprise to develop. Regulations in Belgium require catching the manure, which means buying infrastructure and losing ecosystem services. If bird flu hits Belgium, I would be in trouble. I'm starting to think now that it's more logical to focus on meat production and add pastured pork and turkeys next season instead.

These are the more profitable enterprises on an hourly basis, but they just fit my context better. I have developed a good working relationship with two slaughterhouses and a customer base for meat, so it's very easy to add a new product. I also really like the seasonal character of meat enterprises. When I'm done in September, I can use the rest of the winter to work as a butcher somewhere and gain experience.

Communication and context on the road to succession

Marketing and communication are different things. Fine-tuning communication between generations is certainly one of the biggest challenges. It's all about planning your week and communicating responsibilities and expectations.

However successful the sales have been, I know that I am still in a trial period and that I have to prove myself until the end of the season. But when that is done, we need to talk about holistic context. I know my parents have certain expectations about the final stages of their careers - more time, less work, grandchildren to play with - but putting those things on paper and building a roadmap towards them is an awkward process for most farmers.



My helper for morning chores.



Curious chickens in their adapted Kobu coop. You can see your birds at all times, catching is a lot easier and they can be deconstructed for overwintering.



From start to finish in 2 months.

There are a lot of things in regenerative agriculture - like planting trees in a perfectly good pasture, farmers without tractors - that people in conventional agriculture aren't comfortable with. The feedback about our beef has made them dig in their heels about not changing breeds... On the other hand, they do have to admit that the tenets of regenerative agriculture - directly selling quality products, low investment and start-up cost - have proven a particularly robust model in times like these. A lot of discussions are about culture and emotion, not about economics. Letting change flow from context can hopefully be a tremendously powerful tool.

Because of our land base and proximity to customers, our farm would be a perfect fit for a micro-dairy. That's my goal in a few years. Milking our heritage dual-purpose Flemish Red cow out on pasture would not only be a fitting tribute to my grandparents but also the pinnacle of regenerative agriculture. The noble cow turning grass into milk and meat, what could be more perfect?

I don't necessarily need to do this myself. The farm is big enough to generate income for two or more families. I'll be a certified butcher next year and I see myself focusing more on meat. Pastured pork patés, beef shank chilis, rotisserie chicken... The possibilities are endless. Traditional Flemish dishes such as rabbit stew with prunes are a generation away from being forgotten. Cooking these with truly pastured meat could reintroduce them in the culture.

Joel Salatin has this lovely expression to create a 'destination farm' and there are so many opportunities. I have a friend who travelled the US to learn whole-hog barbecue. Hogfest on the farm, what an awesome staff party that would be? Another friend is a Filipino chef: she even wants to use the chicken intestines in her dishes. A slaughter-your-own-chicken workshop, why not? According to Belgian zoning law, you can't open a restaurant in agricultural land, but you can park a food truck for four months on your farm without needing permission. Pop-up food from the farm. The potential for community and creativity is endless. It's the opposite of the drudgery and loneliness that drives young people away from conventional farming.

If you weren't convinced already, you will be after reading this book: Regenerative Agriculture is a global movement and it has never been easier to get started. If you are a young farmer with a family farm: stay away from banks and debts, and find a complementary enterprise you can use to start generating cash flow immediately. If you don't have access to land: find a farmer you can help to direct market and get your foot in the door that



Marketing is about knowing when to get people's attention. I offered 8 T-bone steaks before the first BBQ-weather weekend. They were sold in 15 min.



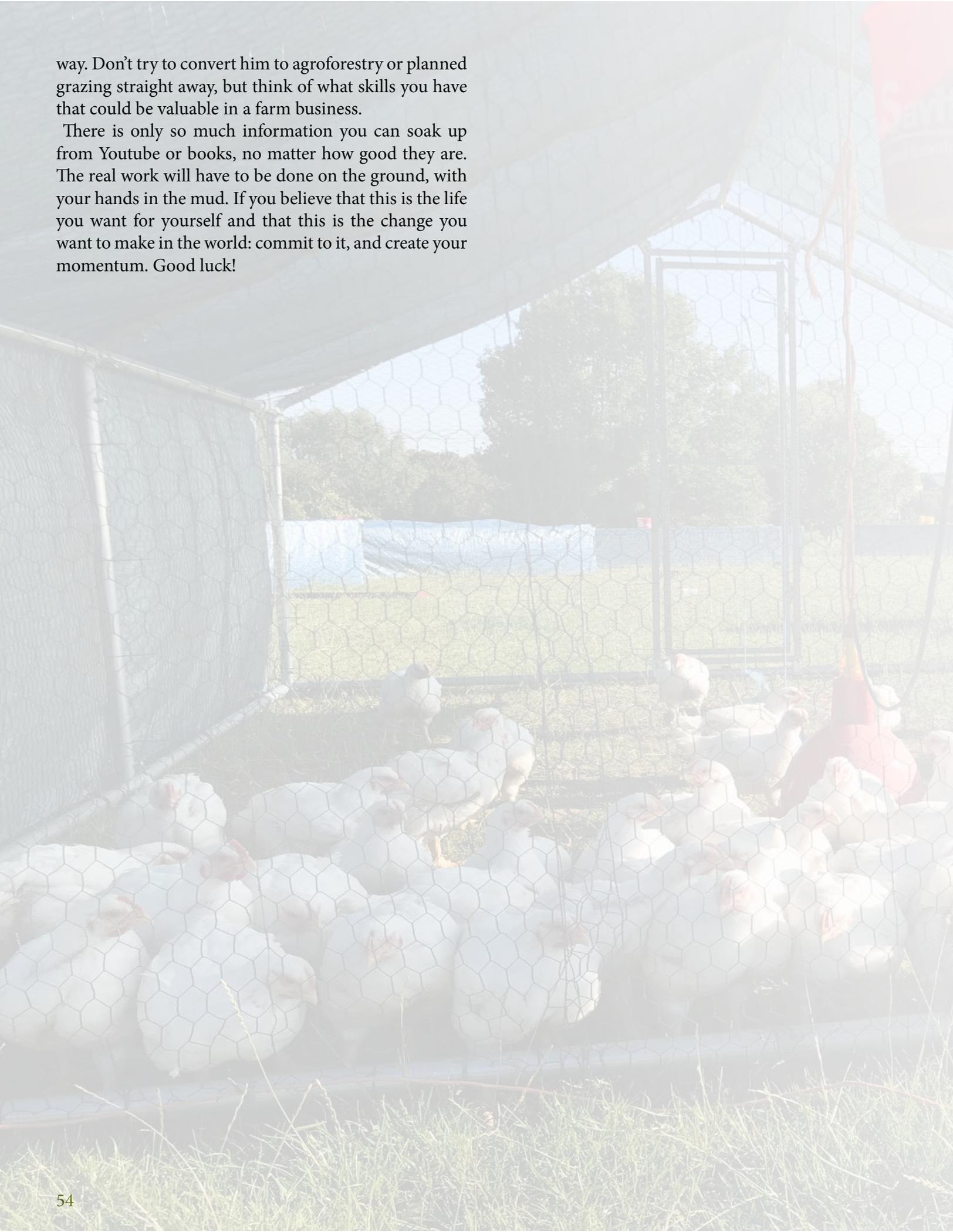
Half of my marketing budget. Order on our website, pick up around the corner.



Journalists like a good 'man bites dog' story. Translations: 'Yes, this is a crazy plan.' 'People think I'm crazy.'

way. Don't try to convert him to agroforestry or planned grazing straight away, but think of what skills you have that could be valuable in a farm business.

There is only so much information you can soak up from Youtube or books, no matter how good they are. The real work will have to be done on the ground, with your hands in the mud. If you believe that this is the life you want for yourself and that this is the change you want to make in the world: commit to it, and create your momentum. Good luck!





BRAM BOMBEEK

Wildebeek, Belgium

MAIN ENTERPRISES:

Pastured Broilers

Beef

MAIN SALES CHANNELS:

Direct sales

Online order / Farm pick-up

AREA IN PRODUCTION: 30HA

STARTUP YEAR: 2020

STARTUP INVESTMENT: €7,000

REVENUE: €105,000

NET PROFIT: €40,000

website / instagram / facebook



MAGNUS ERIKSSON

Strömnäsgården, Sweden

Our farm is located in Sweden at 66°N. It's 5ha (12.5 acres) of pasture, 16ha (40 acres) of forest and 5 additional hectares of rented pasture.

Our primary enterprise is pastured broilers, and we have a grass-fed beef side enterprise. Coming enterprises include pastured layers and a no-dig market garden, and further down the line also pastured turkey, forest raised pigs, and fruit trees and berry bushes.

Richard has asked me to share our story, so I will try my best to do just that. This is a story of how a family of four - me (Magnus Eriksson), my wife Åsa Lindmo and our two children Felicia and Samuel - with no prior experience or education, only a strong dream, ended up buying a piece of land in the very north of Sweden and started a farm. We started our farming experience with grass-fed beef and lamb. We've since sold the sheep and lambs to focus more on poultry.

The seed to this farm was planted years ago through my interest in diet and human nutrition. This interest grew over the decades and evolved into an interest in how good, nutritious foods are produced, preferably without degrading and destroying the resource we're all dependent on. Enter Regenerative Agriculture.

I started exposing myself to the works of people like Joel Salatin, Allan Savory, Will Harris, Gabe Brown,

Darren Doherty, Allen Williams and Richard Perkins at Ridgedale Farm, among many others. I read tons of articles and books on the topic of regenerative agriculture and watched hours and hours of Youtube material. This eventually led me to the point where I felt I had to try practising these regenerative principles myself. And so the idea of having our farm germinated and started to grow. Can I do this? And can it be done in the very north of Sweden? I just had to find that out.

Let's look at some details here. The property we now call Strömnäsgården is located about 40km from a small town called Boden. Boden has a population of about 28,000 people. Our closest city of some size is Luleå (about 78,000 people), just over a one hour drive away. We purchased the property for about €150,000. For that price, we got about 5 ha of pasture, 16 ha of forest, the house we live in and a handful of other buildings like a barn for example. All the buildings were in really good shape since the previous owners had done a good job with upkeep and repair.

When we started the farm, we didn't have a goal of becoming full-time farmers. We just wanted a few animals to cover our own needs and perhaps just a few extra to sell. So we began by spending significant capital building infrastructure like fencing, housing etc. for cattle

and sheep.

As anyone can see, we started out making several costly mistakes and looking back I would have done many things very differently. We started with the most expensive animals that take the longest to get a return on investment on. Big mistake. Also, the infrastructure to raise these animals is no joke. It costs a small fortune. Anyway, that's what we did, but I wouldn't recommend it. If we instead had started with enterprises that cost less to get up and running and that give a quicker cash flow, things would look a lot different.

Our initial investment to start all this, not including the price of the property itself, was approximately €50,000. This was supported by our salaries from our jobs. My idea was that over time we would get at least some of it back by selling a few extra cattle and sheep here and there. But the cost of having them needed to be supported by the enterprise itself.

Anyway, we started to graze cattle and sheep and as time went on we fell in love with the lifestyle. There were times when both of us wondered what the heck we'd gotten ourselves into, but over time we grew to love it. We didn't implement any Holistic Planned Grazing at this point, but we at least tried to follow some basic principles, like not staying more than three days in one spot and making sure the grasses had recovered before we came back.

So it didn't take long for us to realise that being full-time on the farm was what we wanted. Åsa, who didn't want to have anything to do with farming when we purchased the property and moved here, soon changed her mind, and in the spring of 2018, she told me she wanted to be full-time at the farm. It came as a bit of a surprise to me and I guess I got a bit emotional when that happened. To be able to share this dream with the woman I love more than life itself was an amazing feeling. I didn't have that goal of being on the farm full-time myself either when we set out, but I got seduced by the lifestyle just like Åsa did. So we suddenly had to come up with something that could support this economically. Since our farm is really small in relative terms, we knew more cattle and sheep wasn't the answer. So how could we get two full-time salaries out of a really small farm? We had to get creative.

I had heard of pastured poultry years before from being exposed to Joel Salatin at Polyface Farm, and I knew that Ridgedale was doing it, so when I saw that they offered a weekend course in managing birds on pasture, both broilers and layers, I jumped at the opportunity to go there and learn. I quickly signed up for the course.



Åsa Lindmo and Magnus Eriksson.



The kids, Sam and Felicia.



Sune, the Swedish Mountain Cow steer.

I went there with the primary goal of seeing in real life how all this works and figure out if this was something we could do. It didn't take me long to be convinced that this might very well be our ticket into farming full time. That summer we raised about 80-90 birds just to see if we could do it. We slaughtered them ourselves in our backyard, hand-plucked them and "sold" some to friends and family. After this, we were convinced. We were going to do this.

As that summer ended, the work started with planning and once again investing a substantial amount to get this pastured broiler-thing going. All in all, with the building of a hatchery and the purchase of a rather large incubator, a brooder space in our barn to accommodate our newly hatched chicks, a slaughter facility with all the equipment that comes with that, and the pens for when the chicks get outside, I think we invested another €40,000. It would have been much cheaper if I had the practical skills to build it myself, but I don't, so most of that went to professional carpentry, electricity and plumbing.

So in the spring of 2019, we started building the infrastructure needed to produce pastured broilers. One thing we needed was a hatchery since the only Swedish hatcheries are located so far south that they couldn't deliver day-old chicks this far north. They could send us eggs, though. Just the incubator alone was €6,000. This was a very stressful time for us! Whatever could go wrong, did. We built everything in the last minute; e.g. the season started with the incubator being four weeks late. This led to a massive order being cancelled. Not an ideal start at all. Also, two weeks before our first slaughter session was planned, the lorry container we were to convert into a slaughter facility was still stuck on the lorry. We just couldn't get it to come loose. I had made plans with both the electrician and the plumber; as soon as the container was put in place, I'd just give them a call and they'd come to install everything. Yet the slaughter facility was finished just days before our first slaughter session. The plumber even postponed a vacation with his wife to finish all the plumbing in time. And in the middle of all this, we still had to take care of all the chicks, our other animals, our kids and ourselves. But we got through it. I can tell you that this first season was a very special journey for us. It challenged us in so many ways. We only had one goal for that first season and that was to still be married at the end. To each other. And we made it!

The second season was much less stressful. We now had everything in place from the get-go and a season of ex-



The incubator (1,600 egg capacity).



Newly hatched chicks still in the incubator.



Brooder area.



Chicks just getting out on pasture.



Birds on pasture moved daily.



Åsa at the plucking station.

perience to draw upon. We knew what expectations to have and how to plan the workflow. All this has helped a lot in reducing stress. It's still a very busy part of the year to manage the poultry, all our other animals and raising our kids. Having off-farm jobs doesn't help to keep the stress levels down either, but it's manageable. I have to say that our chaotic first season has built our confidence and made us more resilient. We feel that whatever curve-ball life throws at us, we can handle it together. If we survived our first season, we will survive anything.

I don't have all the numbers ready to know our exact revenue, but I can already say that this broiler-deal is a profitable one. We are currently making new investments to start with pastured layers next season, but broilers are a good deal. We produced approximately 2,100 chicks this year. Looking at the numbers, I bet we can support a bit over one full-time salary when we get up to 4,000 chicks, which is our production maximum in the buildings we have.

Let's talk about sales for a while. We have managed to establish good relationships with some of the best restaurants in our area. They love our chickens, and we had high hopes of selling quite a bit of our planned production to them this second season. With the COVID-19 pandemic, this changed dramatically; we have sold practically nothing at all to restaurants. However, we have seen an increase in interest from private customers. I guess a crisis like this is a wakeup call to people about how fragile the food system is and that it can be a wise investment in the future to support local farms. We ran a pre-order 'early bird'-campaign in March that was successful. By doing this we raised funds to sponsor the cost of feed during the season, which is the biggest expense by far, and we got an idea of how many chickens we should produce. We are going to continue doing that.

We primarily use social media for marketing and have a webpage with a shopping cart that we direct customers to. Customer relations are paramount for success. All we have is our reputation as good, happy people that provide a first-class product and service. But - and this is important - we don't break our backs to keep people satisfied. Some customers just aren't right for us. How we organise delivery is an example of this. We try to use REKO drop-offs as much as we can to get the products to the customers, and if the customer can't get there, they have to come to pick it up at the farm. Some people try to negotiate about this, but we just don't have the time or the energy to make deliveries to individual customers. Not gonna happen!

So, what does the future look like for us at Strömnäs-gården? We're just two seasons in, but before we started we promised ourselves to give this at least five years. There's no point in building all the infrastructure and going through all the hassle to just stop after a couple of seasons. Things need time to settle before you can evaluate. As we learn more, we can also see where we can improve. So we are continually trying to improve and make the day-to-day smoother and more streamlined. After the first season, we automated the watering in the brooder area, which I calculated has saved us about 60+ hours throughout the season. Now we're in the process of extending our barn to accommodate feed storage. We currently borrow a silo at the neighbours' farm, but since we're now expanding with layers we need somewhere to store feed here at the farm. We are also looking to improve the way we get water to the birds on pasture and are building a wagon with an IBC-tote on it with a pump so that we can fill the buckets on the chicken tractors more easily.

Our plan for next season is to start a layer enterprise. That's one of the big things happening here. We'll start with about 300-350 birds because of the size constraints in our barn. As the broiler season ends, the plan is to clean out the brooder area and prepare it for the layers when it's time for them to come in over winter. Another big thing for next season is to start a no-dig market garden, but we're not going to be managing it and doing the day-to-day work. A girl from Boden, the small town closest to us, contacted us because she was interested in growing veggies and didn't have access to land. It turned out that the way she wanted to do this was exactly this no-dig market garden-thing. Perfect! We can get veggies grown on the farm in a good non-destructive way and we don't need to do it ourselves. Great!

We also plan to try out pasture-raised turkey in a year or two and planting some fruit trees and berry bushes in a part of our pasture. Preferably in such a way that we can graze in between the tree lines and even harvest feed for winter if we need to. If all this turns well, I still have an idea in my mind of raising pigs in our forest. Our 16 ha forest is way too small to be useful for forestry, so using it for forest raised pigs instead and perhaps eventually having our cattle graze in there makes more sense. And as we start new enterprises we get more and more 'waste' that can be given to the pigs. Not that it will be enough for them to live on, not even close, but at least they can convert this waste to high-quality meat. That idea is compelling. So as things develop on the farm, we seem to move closer and closer to being able to offer a



Good looking birds just hanging out, chillin'.



Packed and ready to sell.



A tasty pastured chicken meal.

complete human diet with high-quality meats, veggies, fruits, berries and honey from one place. I like that idea a lot.

We still both have our off-farm jobs to make ends meet. The plan is to build up this pastured poultry business, both layers and broilers and perhaps some turkey, get out of debt and then quit our jobs and be full-time on the farm. Hopefully, this can be accomplished in the next two to three years. During that time I hope we can settle into a routine and solidify the enterprises we have.

What would I do differently if I were to start over? I would start with enterprises that cost less to get up and running and create cash flow much more rapidly, like pastured poultry. I would probably start with layers first and as that enterprise gets up and running, start building a slaughter facility if I need one. As that first batch of layers approaches one year of age, I would process them in the newly built slaughter facility. The second season I'd add broilers. This way you can get cash flow within a short amount of time and slowly but surely build what you need from the profits of what you're already doing. Keep your off-farm job if you can. That income will help to get things going. Start small and don't rush. Take your time to build infrastructure one step at a time. Build your market before you start, if possible. It's no use to produce high-quality food if no one buys it. However, if you spend some time and put some effort into selling and put your mind to it, I don't think you'll have too hard a time getting your products sold. There is an increasing demand for high-quality food produced in a regenerative way and I suspect that trend is going to keep increasing. Educate yourself by taking courses like the Pastured Poultry classes they offer at Ridgedale Farm or something similar. Try to anticipate challenges and be one step ahead. Humble yourself and ask for help and input from those that have successfully done what you are setting out to do. Their experience can be worth a bunch!

I had a lot of doubt going into this since I lacked prior education and experience and have hardly any practical skills. So I'll end with a quote that I feel captures the essence of how I feel about this.

'When the dream is big enough, facts don't count.'

If you want it, go for it - and good luck to all of you!



MAGNUS ERIKSSON

Strömnäsgården, Sweden

MAIN ENTERPRISES:

Pastured Broilers

MAIN SALES CHANNELS:

REKO rings

Restaurants

AREA IN PRODUCTION: 10HA

(out of 26HA)

STARTUP YEAR: 2015/2019

STARTUP INVESTMENT: €40,000

REVENUE: €36,000 (2019)

NET PROFIT: €18,000 (2019)

website / instagram / facebook



VIVIAN GLOVER

Gemüsegarten Hoxhohl, Germany

Already whilst studying Organic Farming, I was certain that I would one day want to be self-employed and have my own farm to produce whole-foods for my local community. Before long it became clear to me that whatever I was going to do, it would be what is now called “beyond organic”, a regenerative approach to farming. For me, those principles seemed to be the only logical answer to the problems of our time.

I don't come from a farming background but have been thoroughly trained in farming both through university and internships. I set out with the goal to earn a living from organic farming because I like working and spending time outside and enjoy the challenges that working with nature bring.

My main motivation for doing what I'm doing and earning my living from organic farming is now no longer only what I mentioned above. It is now also because I love high-quality food and find that when not growing or raising it myself, I have to endure too many compromises (e.g. how animals are kept, slaughtered and butchered or how non-regenerative crops are grown).

Finding land for farming is the most difficult thing for aspiring farmers here in the region. Nobody wants to lease out or even sell land so either one has to take over a whole farm or find a different approach. Luckily, in

2015/2016 my partner Alexander and I were asked to take over a farm where the children didn't want to continue farming. For this farm, we were planning to combine larger-scale farming with intensive vegetable production. Unfortunately, the take-over didn't work out, so we started to look around for alternatives.

I had already started planning for a vegetable-CSA on the farm we were supposed to take over and so I just continued with my plan. I wanted to provide vegetables year-round for people in the area, but finding land was going to be the most difficult part. For me, it soon became clear that I would have to live off very little land, which meant that my setup would need to be very intensive, e.g. market gardening. In the end, I was fortunate enough to find a 0.7 ha field for sale two villages away in the autumn of 2016 and was able to buy it with my savings and a loan that my parents granted me. This is where I set up my market garden in 2017. The cattle followed the same year, but so far is more like a hobby (due to the feral herd we took over, the bad state the pasture was in, and mostly the lack of time to set things right).

The Gemüsegarten Hoxhohl has been a year-round CSA right from the start. In the first year, I grew about 40 different crops for 35 CSA-members. Since then the CSA hasn't stopped growing. This year I provide

90 members with over 60 different crops every week, growing on 0.4 ha with two polytunnels (18 x 6 m each).

The garden is cropped biointensively. Hence the name 'Gemüsegarten Hoxhohl', which means 'vegetable garden from Hoxhohl' (the village we live in). My aim was and still is to turn the field that I started gardening in into a super-productive and fertile vegetable garden similar to the ones I tended to in the years before becoming a market gardener, only bigger. After coming across John Jeavons during my agricultural studies, I had adopted a biointensive approach minus the double digging with intensives spacings, season extension, intercropping and permanent beds. I planned to apply this on a larger area. Only after my initial planning did I come across Jean-Martin Fortier and realised that this approach had already been scaled up. I watched his presentation on YouTube and bought his book. It helped me a great deal, but luckily I quickly realised that a lot of things depend on your specific context. E.g. the two-wheel-tractor (BCS): Fortunately, I was able to rent one before buying and quickly discovered that it didn't work on the hillside that my field is on. The BCS wasn't strong enough to move the power harrow uphill. So I decided to invest in a compact tractor (Kubota B7100) that could straddle the beds instead.

In spring 2017 I had the field, which had been a conventional cornfield in the growing season of 2016, shallowly ploughed and tilled with a cultivator. I then marked the beds going up and down the hill for better drainage but didn't raise them because I couldn't see a reason for doing so. We then planted and sowed and soon realised that the area we had taken into cultivation was far too big. We had difficulties staying on top of the weeds and more than once had to pull out whole beds of nearly mature weeds by hand to prevent them from going to seed. But we somehow managed to harvest an abundance of vegetables without using any fertiliser – the amount of available nitrogen from years of fertilising conventionally was so high it even lasted through the second season.

At the end of summer, we had a torrential downpour of rain which led to a lot of erosion. This was when I realised that I had to increase the amount of organic matter in the soil. I had got to know Charles Dowding by chance in early 2017 when I attended a talk of his whilst spending time in England at my grandmother's. I conferred with him quite a lot about compost beds on hill-sides because I was afraid that a rainstorm would just wash all the compost downhill. He said he'd only had that happen once in his life and that he then just sim-



Spring 2020.



Summer 2020.



Vegetables for 60 shares on 2,000m².

ply put everything back into wheelbarrows and carted it uphill again. Because not digging and tilling seemed so logical to me, I decided to go for it and had a trailer full of municipal green waste compost delivered to build some trail beds. That batch of compost was of horrible quality with huge amounts of rubbish in it (glass, plastic, batteries...), despite being certified organic. In spring 2018 we had the next torrential rainstorm with severe erosion on our field, but the compost beds didn't move at all! They just soaked up all the water.

Encouraged by this experience, I had more compost delivered from a different composting facility this time and a much finer sifting, hoping for less rubbish. This was the case, but with this household-waste-based compost, the composting process had been much too hot, meaning the end product wasn't only nearly black but also very dusty and hydrophobic. On our south-west facing slope with intense solar irradiation, the beds we built with it got extremely hot on the surface with the sun shining on them and we couldn't get them wet because all the water just ran off. A lot of young transplants we'd planted into these beds died in this process so in the end we took away most of the compost and shallowly tilled in the rest of it. This helped to eventually get it wet. So after that, we only added small amounts of compost (between 13 and 26 litres per square metre of bed surface, depending on the crop we grew) and always tilled it in with the power harrow down to a depth of about 2.5cm.

After attending one of Richard's 4-day regenerative agriculture intensives in the spring of 2019 and spending a lot of time reading up on the soil food web, I decided to give the no-dig-approach another try. So in spring 2020 I bought a broadfork, had some more municipal green waste compost delivered (great quality this time, it soaks up water brilliantly) and started to develop my no-dig style. This is how we do it at present: Initially, we broad forked all the beds once, potentially spread some horse bean grist for heavy feeders, and added a 2.5cm layer of green waste compost into which we planted. Onto the beds we used for direct sowing we spread about 20litres of household waste compost per square metre of the bed surface and tilled them one last time. When flipping beds we now clear the previous crop by pulling out any leftovers or cutting them off just under the surface level. If there are some occasional weeds, we pull them by hand or flame them off. We then either add some more green waste compost for planting into (the amount depending on the weed pressure and how much the previous adding has been consumed by the



A colourful coexistence instead of monocultures.



First Paperpot plantings.



Intercropping in a polytunnel.



Gardener and Agricultural engineer Vivian Glover.



Intercropping in tunnel 2 in spring 2020.



The tunnels in summer 2020.

soil life) and horse bean grist (for the heavy feeders) or we spread a maximum of 1.5cm of finely sieved household waste compost and direct-sow into it, water thoroughly and keep it moist either by watering regularly or by covering it up with a tarp (white side up) until the seeds start to germinate.

To start my enterprise, I invested less than €20,000 (excluding the field) in the first year:

A hut for storing the tools and machines €1,800

An electric fence surrounding the field €200

Drip irrigation and pump €1,900

A compact tractor, rotary harrow and flail mower €10,200

Tools €1,200

Hoops for fleece-tunnels €650

Insect-netting €1,400

Fleece €600

Crates for transport and storage €200

Pick-up point facilities €250

Because I didn't have much capital, I asked my (future) shareholders to each grant me a private, non-interest-bearing loan of €200 or more. It wasn't compulsory, but nearly all of them helped me out and even others who just liked the idea of what I was doing joined in. That way I was able to mobilise €12,500 of capital, which I managed to pay back within the first three years without endangering my liquidity.

Up until today, I have invested approximately €50,000, split into Trellising for field crops €850, Landscape fabric €65, Irrigation (including well) €13,000, Office equipment €300, Pick-up point facilities €660, Hoops for fleece-tunnels €650, Two polytunnels (18 x 6m each) €6,000, A hut for storing the tools and machines €2,200, Tools (including paperpot-transplanter) €3,500, Insect-netting €1,400, Vegetable storage €650, Machines, implements and car trailer €12,500, Other infrastructure €150, Crates for transport and storage €650, Fleece €1,000, Fence €400.

The Gemüsegarten Hoxhohl turned over €76,000 in 2019, of which 40 % is net. Currently, the CSA-members contribute €900 a year on average for one year-round share. We started with an average of €870 and had our first raise this spring. Most members raised their contribution more than that, meaning we've got a bit of financial freedom to try out a couple of things that otherwise wouldn't have been possible. The contribution is paid either yearly up-front in April or monthly. If shareholders don't want to continue in the following season (starting in April each year), they have to quit

before the end of December., as that gives me enough time to find new shareholders.

Having spent seven years in direct marketing and selling in a big farm-shop meant I already had a lot of experience in marketing and customer relation. So the first thing I did, even before any growing-related planning, was to find my first customers and spread my idea to find as many supporters as possible. I had stalls at roadshows, little articles in local newspapers and a supporter of mine set up a website. This proved to be the right thing to do because even before I had seeded my first crop I had sold out all my shares and more. Ever since I have had a waiting list.

For the first six months, I was still working part-time on another biodynamic farm where I managed a big farm-shop with many employees. I had planned to continue like that for the first two years, but due to the high demand, I was able to quit much earlier. In the first two years as a professional market gardener, I had a steep learning curve but managed to keep within my financial and production goals. Then in 2018, we had our first child. Becoming parents and at the same time starting two enterprises has been very tough at times, and has also meant that the strain on our relationship has been even stronger than what farming and being self-employed usually entails.

Over time some of my principles have changed: After spending several years managing sometimes more than 40 employees in the farm shop, I never really wanted to have any myself, but becoming a mother made it necessary to employ people to help me run the market garden. It paid off that I was used to delegating tasks and managing employees from my former job.

A similar change has occurred concerning open-pollinated varieties. In the beginning, I was adamant about only using open-pollinated varieties. Over time, I have not only come to use but prefer and rely on certain hybrid varieties. They just sometimes make it easier to achieve other goals such as keeping time in between crops as short as possible. Nevertheless, I'm always on the lookout for OP-alternatives and make a point of supporting breeders of OP-varieties.

Yet another example is the use of tarps. I never liked the idea of relying on plastic in my garden, but tarps (woven and non-woven fabric) is helping me eliminate my tractor, meaning I need much less petroleum.

When starting the market garden, it was off-grid. We had to cart every drop of water to the field. We first did this with a tractor and trailer and three IBC-containers, but soon switched to car and trailer because it was



A September share.



Off-grid water.



Vivian with her son Laurin.

quicker and easier. It took 50 minutes to fetch 3,000l of water, which was about 25 to 30% of what we would have needed daily in the dry summers of 2018 and 2019. So in spring 2019, we decided to have a well drilled, but it took over a year before this was finally done because the first two well-drillers never turned up. Having this well has changed everything. We are now able to irrigate as much as necessary and also use wobblers for overhead irrigation instead of doing it by hand to save water. Germination and growing have got a lot better and personal stress-levels have decreased.

The market garden is situated on a 5 to 7% slope which means that we had erosion problems during strong rainfalls. The continued application of compost has improved this a lot. To deal with the runoff of the polytunnels, we've covered the paths below them with woodchips (ramial chipped wood). Because of the slope, we also need to use pressure-compensated drip pipes which are much more expensive than simple drip tape.

Since we don't have any electricity on-site, we still don't have a cooler for the vegetables and have to harvest on the same day that the product gets picked up. After harvest, we cover it with wet old bedsheets which work very effectively for evaporative cooling.

I'm planning to further increase the intensity of how I use the area in the garden. I will intercrop even more and replace cover crops with cash crops. I have started to make my compost and want to eventually be able to make about 50% of what I need myself. This year I'm going to plant 20 fruit trees in between vegetable beds, and I plan to plant a natural windbreak on the west side of the garden as well as single trees in several places.

I would recommend aspiring market gardeners and farmers to gain as much practical experience as possible before starting up. Don't just copy a Jean-Martin Fortier, Curtis Stone, Ben Hartman, Charles Dowding or Richard Perkins, but carefully look at their context and try and find out what is appropriate. Then I would advise them to plan everything and set goals for themselves (sales, marketing, turnover, profit, liquidity, crops, animals, seeds, feed, work hours...) before even sowing the first seed or buying the first chicken. Then they should only do half as much as they planned, but twice as well. In the end, they'll probably have the same turnover, but a higher profit margin, less work and more peaceful sleep. So; don't overdo it, start small, stay small and get better every year!



VIVIAN GLOVER

Gemüsegarten Hoxhohl, Germany

MAIN ENTERPRISES:

Market Garden

MAIN SALES CHANNELS:

CSA

AREA IN PRODUCTION: 8.3HA

STARTUP YEAR: 2017

STARTUP INVESTMENT: €20,000

REVENUE: €76,000

NET PROFIT: 40%

website / instagram / facebook



MORENO DE MEIJERE

Aromath Farm, France

Our initial dream

Aromath Farm is a small-scale (0.13ha) no-dig organic market garden in a small town in the countryside in eastern France. The farm is run by my partner, Charlène Buhr, and me, Moreno de Meijere.

Ever since we were introduced to permaculture, regenerative agriculture and alternative ways of farming during our overseas travels in New Zealand, Australia, Canada and other countries, we fell in love with the work we were doing on farms and the lifestyle that is offered.

After spending years together working on many different farms in different parts of this planet, we felt the need to put into practice what we had learned from other farmers.

Neither one of us had a background in agriculture, so the step to go into farming was quite a big one. Furthermore, having been heavily influenced by permaculture, we had a big vision for what our future farm was going to look like.

We were going to have perennial systems, annual vegetable production, animal systems, aquaculture, worm composting, a plant nursery and a hundred other farming enterprises. You get the point. We wanted to put

into practice everything we had learnt over the years.

That turned out to be a big, but luckily not a fatal mistake. With no sound business experience and no clear path ahead of us all we were doing was dreaming.

That's when we had put ourselves at a crossroads. We were either going to get serious, decide on one clear farming enterprise and then go from there, or stop what we were doing (as it was not financially viable – a rather expensive hobby some might say) and get ourselves a 9-5 job.

After analysing, planning and looking at the overall choices we had with the money we had left, we decided to go 100% into market gardening.

Becoming market gardeners

The reason for that was simple. Since we did not own any land (which was going to be too big of an investment for us), we needed to be able to rent land that was large enough to sustain us financially. Market gardening as a farming enterprise therefore made the most sense for us.

After we had made that decision, we started everything from the ground up, and that meant doing thorough market research in the area where we wanted to install

ourselves.

From farmers markets in the area to restaurants, and from individuals to wholesale, we made appointment after appointment and met with a large number of people to find out, first of all, if there was a demand, and if so, what exactly they were interested in.

Once we were confident with the demand and we had collected the required information, we were able to move forward with confidence. And this meant it was time to start looking for a piece of land with existing buildings that allowed us to live on-site and get the farm started immediately.

We noted down a couple of criteria the land needed to check off with probably the most important point being that it had to be within an hour drive from a population base of at least 50,000 people (the city where we did most of our upfront market research).

This gave us a clear idea of where we had to look for potential rentable properties to get our farm up and running. After having visited many different potential sites, we decided on a 0.13 ha small plot in a relatively rural area to set up base and get the farm started.

The site we eventually chose, which is now the home base of the farm, contains an old family-style orchard of several established mature trees, including a walnut tree, cherry trees, pears, apples, plums and hazelnut.

From the examples we'd seen from other farmers, we knew that we would be able to grow healthy vegetables under the canopy of the trees. It also allowed us to not start with an entirely bare piece of land and let our farm be more in line with our ideology.

Another big benefit of this site was the fact that it already contained a house and several other buildings which we were able to convert into infrastructure for the farm, including storage spaces, and a post-harvest station. This allowed us to hit the ground running.

Between the moment we signed the rental contract and the moment we sold our first crops were only a couple of months. Not too bad considering we also had a newborn baby. Having said that, we did work 14-hour days for weeks to get everything installed and up and running, but the hours spent were more than worth it.

We knew that once we had installed everything, including a nursery for the seedlings, the irrigation system, the post-harvest station, a high tunnel and the main infrastructure, we would only have to concentrate on establishing the production systems of the farm and put 100% of our attention into growing the crops for our customers.



Our land at arrival.



Creating the no-dig beds.



Our land now.

Start-up investments and revenue

Because we didn't have to invest money into buying a property, our initial investment costs were relatively accessible. In total, we spent €17,361 broken down into the following categories:

Walk-in fridge: €1,291

A high tunnel, nursery, and all the equipment associated with it: €3,634

Post-harvest station: €417

Harvesting equipment: €1,142

General tools: €991

Irrigation system: €2,174

Seeders: €1,407

Crop protection: €1,057

Compost, seeds, and potting mix: €4,627

Earthworks, fences, windbreaks and other: €621

We're currently hovering around €60,000 annual revenue with the market garden. Our running costs are about 25% of that, €15,000. This is excluding our salaries! Which means that basically the profits of the business, the remaining 75%, are our salaries.

Getting things done

Because I'm not native to this country and my French is not up to the standards to handle all the administration that comes with establishing a farming enterprise (and reaching out to the initial core group of customers), we decided to split the work between us. I would spend the majority of my time doing the production side of things whilst my partner would balance her time between administration, supporting me with the outdoor work whenever needed, and caring for our baby.

After a couple of years, we've now been able to streamline most of the administrative work, and have clear and simple systems in place for the entire workflow of the outdoor production. We're both playing at our strengths and allow each other enough space and freedom to do



No-dig beds without mulched pathways.



No-dig beds with mulched pathways.



Plot 1 and the high tunnel.



Our low-cost nursery.



Seeding with the 6-row seeder.



Seeding with the Jang seeder.

what we're both interested in. This way we can both have a more balanced life and be in an overall better shape. Sometimes this means that Charlene is doing more of the outdoor work and I take care of our daughter. Other times it's the other way around.

Selling

In the beginning, we knew that we would focus mainly on selling to chefs and wholesale whilst establishing a solid customer base of people coming directly to the farm. This allowed us to initially focus a lot of our attention on growing high-profit crops and sell them in bulk to fewer customers.

We knew that the size of our land was not going to allow us to do a CSA membership, simply because we don't have the space required to grow a larger diversity of crops to make interesting CSA shares and still be economically viable.

Having said that, we knew that if we could hit the ground running with chefs and wholesale, we would have the time to get the word out in our direct surroundings and allow people to come directly to the farm for their produce.

Ever since we started, this pool of people continues to grow to this day and we're now getting close to splitting our revenue 50/50 between wholesale and on-farm sales.

Initially, because of the approach we took, we needed to focus mainly on growing high-value crops with few days to maturity that don't stay in the ground for too long. Mostly crops like leafy greens (arugula, mustard, mesclun, lettuce heads etc.) and also bunching roots (beets, turnips, carrots, radishes etc.).

We're now diversifying the overall crop production to make it more interesting for our on-farm customers and offer crops that we simply can't sell profitably (or with very low profits) to our wholesale customers.

Because we did thorough market research before starting the market garden, we had met with a large number of potential customers. At the time of doing the research, we were completely transparent and open with them, telling them that we would love to supply them with fresh vegetables. At the same time, we also told them that we couldn't promise anything and would only grow certain crops if they would be economically viable for us.

This transparency allowed our customers to understand our situation and know exactly what they would be dealing with.

As soon as we started growing the crops, we reached out to the customers that were most interested in our products to let them know that our crops were soon going to be available. They loved the updates that we gave regularly and ever since the crops were ready, we've always been able to sell pretty much 100% of our production. Clear communication from the start has been a big asset!

Revised vision

With the valuable experience that we've gained through farming a small piece of land and having only one main enterprise, we've gained the confidence and skills required to align our farming practices more with our ideology and increase the diversity of products on the farm.

We feel the need to provide our customers with a wider offer and diversity of production whilst continuing to educate and inspire others to eat local and support their local economies.

Farming vegetables is a great starting point as it allows you to get started on a very small scale, build up a solid base of customers, and learn the ins and outs of running a business. It also proves to be a relatively low barrier to entry in the farming world with not much of an initial investment needed.

We've now put ourselves into a position where we're working towards a more permanent situation for our family and are going to be able to pursue our dreams of creating a much more diverse farming business.

Challenges

The biggest challenge we confronted early on, as I mentioned earlier, was that we spread ourselves too thin. We wanted to create a paradise right way and focused too much on the quality of life that it could offer, not on making the farm function financially.

Although we had worked quite extensively on other farms before starting our own, we never worked on a farm that started from scratch. And starting a farm on your own versus working for a farmer on their farm is the difference between night and day.

You'll learn key aspects of farming and gain valuable experience working for others, but you've got to keep in mind that there's only so much you can do in a day. That's something we had overlooked.

That's what led us to decide to scale down and focus on one farming enterprise only, in our case the market



Processing salad greens.



Freshly harvested produce.



Our crops at a local organic store.

garden, and then turn it into a profitable business before venturing into other opportunities.

Our plans for the future

With the experience that we've gained, we now want to buy a larger piece of land, preferably a depleted one, and regenerate it entirely. Our goal is to create a profitable, diverse farm where people could potentially come to learn, work, enjoy and relax. We want to create a place that can function as an educational demonstration site, as well as provide a large part of the food that's consumed in our local community.

Although starting our farm on rented land was the best decision we made, we're currently starting to feel a little 'claustrophobic' on it as we want to continue to learn and experiment with other farming enterprises.

For now, we continue to run the market garden in our current location but have also started looking for opportunities and places where we can start building a more diverse farm from the ground up.

Words of advice

My number one tip for anyone who wants to start farming is to start small, with one farming enterprise.

Don't expect to start earning a full income directly in your first year, but focus the majority of your time on establishing yourself, installing the infrastructure, and developing a core customer base.

From there, with the experience that you gain, double down on what's working well for you and increase and improve your production systems.

Identify exactly WHO you're going to serve, and WHAT you're going to grow for them. Make sure to come up with a financial target that is going to allow you to farm full time and then break this down into a production system based on the actual demand that you've identified through research.

And lastly: enjoy the journey. Farming brings a lot of complexities and requires a lot of hard work in the beginning stages. The more effort and work you put into it at the beginning, the easier your journey gets after each season. Envision what you want your farm to be and take one step forward each day to realise your dreams.



MORENO DE MEIJERE

Aromath Farm, France

MAIN ENTERPRISES:

Market Garden

MAIN SALES CHANNELS:

Wholesale

Farm Shop

AREA IN PRODUCTION: 0.13HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: €17,361

REVENUE: €60,000

NET PROFIT: 75%

(this makes up wages)

website



SARA KNAPP AND ORFEAS FISCHER

Weierhöfer Gartengemüse, Germany

We (Sara and Orfeas) run a market garden operation of about half an acre and are in our third year of production. From April to October we supply 220 families with mixed seasonal vegetables, generating €100,000 in sales a year. The vision arose in 2017 while reading the book ‘The Market Gardener’ by Jean-Martin Fortier. At the time, both of us were studying Ecological Agriculture in Witzenhausen, Germany. After a two-week visit to Fortier’s ‘La Ferme Des Quatres Temps’ in Quebec, we rented land and started our project. Now, in 2020, we are growing on a total of one hundred permanent beds, each of them 16meters long. 25 of these beds are under caterpillar tunnels.

The main focus and vision of our business is growing a diversity of vegetables with low-till biointensive methods, building up healthy soil and developing a sustainable customer relationship for the future. And of course, making a damn good living from it!

Orfeas’ background: His greek father lives on Skyros in Greece and was one of the first farmers on this little island who, back in 1980, grew ecological vegetables while most of the other farmers were using pesticides and chemical fertilisers.

Sara’s background: She grew up in the countryside and after finishing high school studied Ecological Agri-

culture in Witzenhausen. Being interested in growing vegetables professionally, she wanted to start a business with low startup costs.

Getting started

Initially, we focused on fast and easy growing crops to learn the craft of growing vegetables. We limited the variety to 15 in the first year of production, so that we could have two to four successions per bed per season, and focused on fast-growing high-value crops. Another important point for us was using a lot of compost to build healthy living soil where plants thrive and grow. We let people know what we stand for: We grow high quality, fresh, ecological, local and seasonal vegetables.

We took the time to build up infrastructure, got help with developing our brand and a website (which has been a great help ever since), installed irrigation and tried to limit walking distances in the garden (we walk about 20km per workday!).

Initial investments

To start up our market garden we have invested about €4,000 in our first year for important tools like the Jang

Seeder JP-1, the double wheel hoe with attachments, a cheap air-conditioner, trays and lights for the nursery, a second-hand tunnel, irrigation equipment, hoes, insect nettings, row covers and silage tarps. We also bought 'The Market Gardener's Masterclass' online course from Jean-Martin Fortier which still helps us a lot, especially concerning the crop planning which is a key element in the market garden, and it's good to have a guide to follow (we bought his course early on when it was cheaper than it is now).

The Jang Seeder was a must-have because we are direct-seeding our carrots, radishes and baby kale. It's very robust and easy to handle and we haven't regretted the purchase.

Our growing system is similar to Jean-Martin Fortier's, which is why we invested in silage tarps for bed preparation. We don't use a BCS tractor, because it's expensive and we don't need it. In the second year, we bought the tilther and it works just fine for this size of a growing area.

Revenue

In the first season (2018) Orfeas made €22,000 in revenue, out of which 30% was net. The second-year (2019) Sara joined and we made €67,000 in revenue, out of which 53% was net. In 2020 we are making €100,000 in revenue, out of which 75% is net. We're each working 40 hours a week.

So don't stop after the first or second growing year/season! The first two years are not easy and you have to bring motivation, dedication and excitement. Constantly growing with the garden gives you experience over time and tasks will become easier. Always start with what you want to earn and make it specific.

Workflow and sales

Our small-scale market garden business is going very well; our customers are excited and very pleased. We have gained a lot of experience which has allowed us to be more relaxed throughout the season. The workflow is smooth and we have cut out hours of wasted time. The infrastructure is built up and the harvesting part takes one-third of our working time. We also see changes in the soil food web and a steady improvement of soil over time. A side effect of low-till is that weed pressure is diminished very fast every year. We buy finished compost with no seeds and this means less work for us and more time for other activities.



A bird's-eye view of the farm.



Beds, tunnels and toolshed.



The market garden.

We both love the smallness of our garden and the fact that our customers come by the garden every Thursday from 4-7 pm to pick up their veggies. We live in a rural area where 90% of our customers live in a distance of 10km. People in the neighbourhood are becoming more aware of and interested in where and how their food is grown. The good thing in our CSA model is that the price for each vegetable isn't mentioned: Our customers simply commit to buying a veggie box with 5-7 different veggies for €12 a week, 30 weeks a year.

At the beginning of each winter, we plan what we want our next revenue to be the following year. Then we calculate our expenses to determine our sales. For us, it's important to break this number into weekly sales, so that we can estimate if we can handle the workload. We focus on the CSA which generates 70% of the revenue. In addition to that, we sell mesclun salads to two farm shops located 5 minutes away from us (generating 20% of the revenue) and veggie boxes through „Marktschwärmer“ (generating 10% of the revenue).

To build up our customer base we designed a flyer and asked the local newspaper to write an article about us, and our customers are now bringing new customers through recommendation. Another important part has been using social media like Facebook and Instagram for advertising and informing about our work in the garden.

Vision

Our vision remains the same: Growing awesome food for our local community and making a good living from it. In 2021 we want to expand it to include teaching young people how to make a good living from their own market garden business and bringing more awareness to local, ecologically grown food and regenerative agriculture. We also collaborate with research organisations to collect scientific data about different growing methods.

Challenges

Luckily, we haven't had any big challenges. We hired a tax office to do our taxes to avoid any potential problems in that area. Once, the deer came and ate the swiss chard and beets, so we had to build a fence around the garden. And this year we had a strong hailstorm, but the plants recovered after two weeks.

In the beginning, people told us that we should finish our studies first and then start a business. They also said



Salads.



Oregano.



Radishes.



Young transplants.



Tomatoes.



The cucumber tunnel.

that it's too difficult to live only from agriculture. Well, now they are our customers! The biggest challenge is to have and maintain a positive and growth-orientated mindset throughout the season - we work on that every day!

The future

In 2021 we will be teaching two-week intensive market garden workshops on our farm and we will launch the first online market gardening course in German. We will also move our market garden to a new location that we were finally able to buy - it's very exciting to have our own land!

On the new site, our goal is for the farm to be completely self-sufficient in terms of solar energy and water from a well. We will also include perennials, bushes, trees and space where we can teach yoga and folk dance classes.

Another project will be self-sufficiency: We are planning to grow all the food we need; Sweet potatoes, walnut trees, eggs from our chickens and much more.

Startup advice

Our advice for people who want to start a market garden is to visit different market gardens that are working efficiently and learn from every farmer you meet. A good thing to do is to start small and make the best possible use of the space. Starting small and using a lot of compost is a good way to go. For us, it was a game-changer to start buying all our plants from a professional nursery, which we've done for the last two years. It's a bit more expensive, but we have more free time during the growing season, the quality is better and our yields in the field are higher.

We've experienced customers that don't see and appreciate your work and the quality of your products; don't let them destroy your good mood, just let them go! If someone says something negative about your product, focus on the other 99 people who like it, because it's hard to satisfy all of your customers. They have different tastes and needs and wishes - if you satisfy 80% of them that's fine!

Be brave enough to start, then things will come and help you on your way.

Start small, start simple, start now!

Best wishes on your journey.



Washing salad.



The toolshed.



Crop planning.





SARA KNAPP AND ORFEAS FISCHER

Weierhöfer Gartengemüse, Germany

MAIN ENTERPRISES:

Market Garden

MAIN SALES CHANNELS:

Wholesale

CSA

AREA IN PRODUCTION: 0.18HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: €4,000

REVENUE: €100,000

NET PROFIT: 75%

(this makes up wages)

website / instagram / facebook



ADAM SAYNER

GroCycle Mushroom Farm, England

Our vision

GroCycle Mushroom Farm is run by myself (Adam Sayner) and Eric Jong. Our original vision was to demonstrate and spread the concept of growing mushrooms on coffee ground waste. This vision was driven by a wish to simplify the process of mushroom cultivation, to make use of coffee waste, and to get more people growing mushrooms. Previous to setting up GroCycle, I had run a small scale mushroom farm growing mushrooms using traditional techniques, which generally involves steam sterilising an enriched sawdust substrate in large pressure cookers or an autoclave. This process kills off all competing organisms before you introduce the mushroom spawn. The problem with this sterilisation process is that it requires expensive equipment and a lot of energy. It also involves creating and working in sterile laboratory space, and it takes a lot of time.

So when we started to successfully grow mushrooms on coffee ground waste (which is already pasteurised by the coffee brewing process) it cut out a lot of the work and made the whole process much simpler. It also made it much cheaper and easier for others to get started and made great use of all the coffee waste that was otherwise being thrown into the landfill.

Our initial focus

Our initial focus was to test and then showcase how to grow mushrooms on coffee waste by setting up an Urban Mushroom Farm in the middle of the city of Exeter, UK.

We located and obtained a lease for an empty office building in the city centre with no rent or business rates. The landlord was paying business rates on the space, so they were happy to lease it to us for free as it removed their business rates cost. We then were able to claim agricultural exemption so that we didn't need to pay business rates.

In this space, we retrofitted a handful of rooms to function as a mushroom farm, and we focused our efforts on refining our growing techniques, output, efficiency and profitability by incorporating value-added products like mushroom kits and teaching workshops.

We ran this farm for 3 years and in that time received several innovation awards, a lot of free PR and positive press, and also began to receive many enquiries from people who wanted to set up similar projects in different countries all around the world.

Startup investments, revenue and running costs

Our startup investments were approximately €22,0000, which was spent on the following key items:

- Mushroom growing rooms
- Equipment for environmental control
- Shelving and hanging rails
- Walk-in fridge
- General farm infrastructure (plumbing, electrics, workbenches, trolleys)
- Initial materials for production & working capital for 1st year of operations

Our approximate revenue is €275,000, with a 10-20% net profit after all wages and all other running and production costs are paid (we are a non-profit business so we seek to reinvest surplus back into the business rather than generate a large profit).

Our main running costs are:

- Staff wages (we have 5 employees + a team of freelancers for online work)
- Business overheads (rent, electricity, office, accounting etc.)
- Materials (straw, spawn, kit boxes, cleaning products, postal materials etc.)
- Postage costs (for kits and substrate supply)
- Marketing costs (Facebook ads, website costs)

Where we are today

Things are going well. We have many different parts to the business which have all evolved over the last 10 years. On the farm, we have honed our skills and experience in developing a low-tech style of mushroom farming which does away with the need for a lot of expensive equipment traditionally used in mushroom growing.

We have broadened our scope from growing on coffee grounds to a wider range of substrate materials like straw and sawdust pellets which can also be used for low-tech, non-sterile mushroom production.

In 2017 we moved from the urban mushroom farm in Exeter to a more rural farm setting in Dartington, near Totnes. The farm is made up of workshop space, an office, an open-sided barn and 3 shipping containers. From this base, we have been focused on more efficient production methods and experimenting with different substrate and growing techniques. Alongside



Eric Jong. © GroCycle.



GroCycle Urban Farm, Exeter, UK. © GroCycle.



GroCycle Mushroom Kit. © GroCycle.

this, a lot of effort has gone into developing stable cash flow throughout the year and increasing our range of income-generating activities.

We have developed a partnership with a regional hotel chain that we supply every week with 'ready to fruit' substrate columns. We produce and incubate the columns and then send them to the hotels to fruit in their small grow rooms. The mushrooms are then served as part of their kitchen garden/hyper-local menus.

We have also developed a high level of experience in online marketing which has enabled us to sell around 10,000 mushroom growing kits every year direct to our customers via our e-commerce store, bringing in a large part of our yearly farm revenue.

In addition to this, we have focused a lot of time and energy on creating online training resources to meet the increased interest that we have received from people all over the world into the low-tech mushroom growing methods that we use. In 2015 we filmed our first online course as a method to teach people how to grow mushrooms on coffee grounds. In 2017 we developed a more in-depth course called Low Tech Mushroom Farming, which covers the whole process of setting up and running a mushroom farm. That course community is now made up of more than 1000 members, based in 60+ countries around the world.

Finding customers and making sales

For our fresh mushrooms, this has just been a case of approaching potential customers in the local area and supplying them with free samples, then following up to establish a regular weekly delivery. We focus on supplying restaurants and a handful of quality retail outlets.

There are no other Oyster mushroom growers in our area and most restaurants and retail outlets can only source low quality imported mushrooms that are already a few days old by the time they receive them. In comparison, our product is extremely fresh and high quality, so for the right customers, it's a clear choice.

For our mushroom growing kits, we set up our e-commerce store and focused on learning digital marketing and advertising methods to directly reach potential customers all around the UK. We focus a lot of effort in this around Christmas time in particular when there is a very high demand for people looking for interesting gifts; approximately 70% of our annual kits sales are in November and December.

We incentivise returning customers and create positive word-of-mouth by encouraging people to share photos



Mushrooms bursting out of the bag. © GroCycle.



Pink Oyster on coffee grounds and straw. © GroCycle.



Golden Oyster outside under shade. © GroCycle.



Production of Oyster mushroom columns. © GroCycle.



Mycelium colonising substrate. © GroCycle.



Stages of colonisation and fruiting. © GroCycle.

of their kits on our Facebook page and by offering a discount for returning customers to purchase further kits. Our substrate supply to The Pig Hotels (a regional hotel chain) has grown organically. After working with just one of their hotels and seeing success, they decided they wanted a mushroom grow-room in more of their hotels. We now supply 5 hotels with enough substrate to grow 10kg mushrooms each week.

Changes in focus

When we first began, all our focus was on producing mushrooms. As time has gone by, we have realised that growing food is the easier part; marketing and selling your product is the real challenge. After a few years, we decided that we needed to devote more time to these activities, alongside developing value-added products like grow kits and courses. We also widened our vision from just growing mushrooms on coffee ground waste to growing them on other materials like straw, sawdust and various pelleted feedstocks.

This has broadened our thinking, which was originally focused on urban agriculture, to growing mushrooms pretty much anywhere and adapting the substrate to whatever materials are easily and cheaply available.

We also realised that our experiences and learnings can reach much further afield via online courses, YouTube and articles on our website. To this end, we have changed our vision towards education as a core value of our company and the activities, trials and experiments that we do on the farm feed into this.

Challenges along the way

There have been so many challenges over the years. Some are practical - for example how to fix a problem in production or with equipment, or how to send thousands of parcels through the mail. Addressing these is often just a case of spending the time needed to work something out, go through a process of trial and error, or speak to someone who knows more than we do.

The biggest challenges are more to do with how everything stacks up as a business. For example: How do we maintain healthy cash flow across the year when we rely on a big seasonal peak of kit sales? These kinds of challenges required us to spend more time planning, forecasting, looking in-depth at numbers, and being prepared to step up and develop new areas of the business to fill in and generate additional revenue.

Often this has meant learning and developing knowledge in areas we never set out to spend time on - marketing, advertising, website design, customer service, logistics etc. It has also meant being willing to increase our costs by hiring staff and other freelancers to free up our time and enable us to work on developing the business.

Related to this financial challenge was the changes that came from having a family. Both Eric and I had young children in the first few years of running the business and this brought big commitments on our time and also increased living costs that we needed to meet from our work. We rose to these challenges by realising that if we didn't, then we would risk going out of business. In the end, you have to have a long term commitment to overcome the challenges and a willingness to change and adapt as you learn what does and doesn't work.

Plans for the future

Here now at the end of 2020, we are currently formulating plans for the next phase of the business. Ideas we are considering include:

- Buy a farm or industrial unit to base the business from
- Develop a mushroom-based meal or snack product
- Create new lessons for our Low Tech Mushroom Farming Course (LTMF)
- Grow the number of members in our LTMF course community
- Increase website and YouTube traffic/subscribers
- Develop a project supporting mushroom cultivation in developing countries

Startup advice

One initial thing that I think everyone who is thinking of starting a food growing business should consider, is whether you want to grow food as your full-time income, part-time income or as a hobby. This will greatly influence how you approach everything.

Once you are clear on this, then spend time learning from others who are a few steps ahead of you. Take courses, work as an apprentice and learn from others' experience as much as you can before starting. This will reduce the learning curve for you significantly and will reduce the amount of money you waste in the process. Then make as good a plan as you can about what you want to do, but don't get too caught up on this as you'll likely end up adjusting a lot anyway once you get started



Large cluster of Oyster being harvested. © GroCycle.



Tray of Italian Oyster ready for sale. © GroCycle.



Mushrooms drying in dehydrator. © GroCycle.

and see real-life challenges and opportunities.

Beyond that, I would advise you to get stuck in and be committed to what you are doing. Be prepared to ride out difficulties as they emerge - in most instances they are an opportunity to learn something and grow as a person and business owner. Be open to experimentation and changes in direction when things aren't working or if you see opportunities.

Most important of all, though, is just to take action!

It's easy to watch YouTube videos and just dream about something for years without taking any action. Take steps towards what you want to do. It might begin in a small way; just initial trials, or taking a course or doing an apprenticeship.... but this gives you a chance for learning, connects you with people and builds momentum.

And remember: there is no such thing as failure, only learning experiences.



ADAM SAYNER

GroCycle Mushroom Farm, England

MAIN ENTERPRISES:

Fresh Oyster Mushrooms / Mushroom Substrate Supply / Mushroom Growing Kits / In-person Workshops / Online Education Courses

MAIN SALES CHANNELS:

Restaurants / Retailer / Webshop

AREA IN PRODUCTION: 0.11HA

STARTUP YEAR: 2010

STARTUP INVESTMENT: €22,000

REVENUE: €275,000

NET PROFIT: 10-20%

website / instagram / facebook





© Vincent Nageotte

GAELE BONNIEUX AND CLAIRE WILLS DIQUET

GonneGirls, France

Our vision

As 2 families, we wanted to create a small diverse farm on a piece of family-held land in Normandy - simple! Knowing that a background in finance and advertising doesn't necessarily set you up to be an awesome set of farmers, we planned out a good few years of training before leaving our jobs and launching into the unknown. After buying every book available on the subject, we set off for Ridgedale. Gaelle before Claire, due to an unplanned horse accident. Ridgedale changed our idea of a little vegetable farm and became a grass-fuelled chicken farm as well.

Our initial focus

Our initial focus was training, training, training... and bureaucracy. It took us 3 years to move to the farm, from end 2016 to July 2019. We spent the first-year reading and training at Ridgedale for a Permaculture Design Course, La Ferme du Bec Hellouin in France to learn about organic market gardening and with the Savory Institute in the USA and Zimbabwe to become certified trainers in holistic management and holistic grazing.

Once the project and farm design became clearer, we

spent a year figuring out French bureaucracy and working on administrative matters. We had to split the farm into different lots, finalise the purchase of buildings and lands, quit our jobs, find schools for the kids, and organise our new life... In December 2018, we became owners of the farm. We thought we could now get started, but... no! Owning a farm in France doesn't mean you can do whatever you want on the land. To have the right to work on that land, we had to start taking an agricultural diploma at the beginning of 2019. We spent the year studying, moved to the farm in the summer and started building infrastructure. Finally, in December 2019 we were settled, with a diploma, both families living on the farm, 2 tunnels, 1500m² of market garden full of manure and an egg-mobile, ready to go!

Startup investments

To finance the purchase of the tunnels, tractor, tools and equipment, egg mobile and running expenses for the start of the farm (seeds, compost, chickens, chicken feed), we received €70,000:

A €50,000 loan from ECOSIA at 7% interest with a 5-year maturity. The interest rate is 0% after 5 years and the loan can be repaid up to 10 years later if needed.

A €12,000 subsidy from the region for young farmers starting a farm in Normandy.

A €6,152 donation through a fundraising campaign managed by La Cagnotte des Champs on behalf of GonneGirls and 19 other women-led farming projects in France.

A €2,550 donation from Seeds&Seeds, a French-based foundation focused on preserving biodiversity and planting trees.

Looking back at 2020

What went well:

We managed to build a strong customer base, with an average of 120 people coming to the farm every week, compared to 60 planned initially.

The brand is now well established and the name well known in the region and Paris.

We have diversified sales channels including direct sales, local grocery stores and restaurants.

In only 6 months, we managed to build 3 tunnels of 250m² each, we prepared 1500m² of market gardening area and managed to significantly improve the quality of our soil and organic matter.

We successfully ran our first season with 250 pastured chickens using an egg-mobile.

We are very proud of our first tomato season; we had no disease, high productivity, limited waste and great taste.

What went badly:

Market garden: Our crop planning could be improved to have more diversity at every point in time, instead of having a lot of the same vegetables available at the shop. Now that we know our customers and their habits better, we will adjust our vegetable basket to take into consideration their taste and the fact that many people in Normandy have their own garden!

Eggs: We could also reduce the percentage of broken eggs by adjusting our nest boxes. We will also definitely



Branding the buildings. © Vincent Nageotte.



Breathing new life into an old farm. © Vincent Nageotte.



Selling from the farm gate. © Vincent Nageotte.

buy a more recent chassis for our egg-mobile number 2.

Teams: Thanks to COVID we had many people offering to help at the farm. Although this help was extremely helpful for building infrastructure, we were not prepared in terms of planning and organisation of responsibilities, tasks, processes and operating procedures. We are better prepared for next year!

Sales and marketing

GonneGirls was a concept before there was a farm. Half French, half English, based in Gonneville-en-Auge and managed by women. One of our most talented friends designed the brand based on a very clear strategy.

The brand gave us credibility before we had landed. People like something to hold onto, something concrete when you ask them to believe in something. This is why we started the Facebook page and Instagram account to share our adventure, step by step. We managed to gather a small community, both local and international.

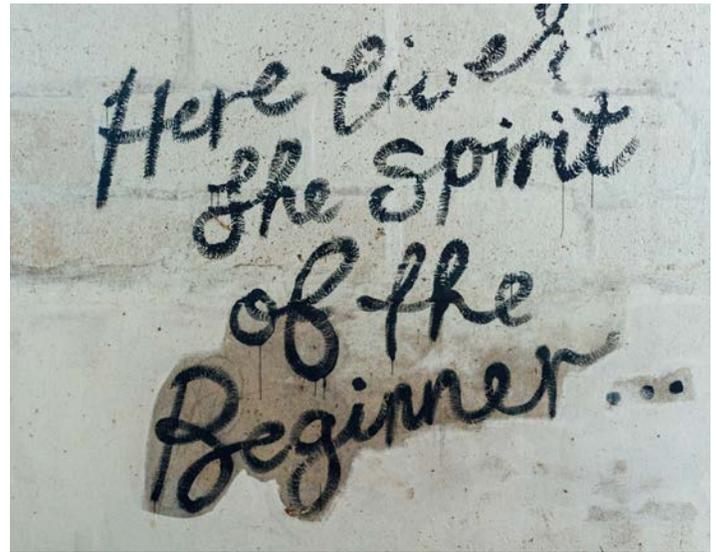
We painted GONNEGIRLS on the public-facing facades during our first year, with elements from our brand, so that people would notice the farm from the road. This, in combination with tagging the chicken caravan 'Ça Roule, Ma Poule', ensured we couldn't be missed.

This activity was enough to attract our first customers, and quickly word-of-mouth started doing the job for us. We had more people than products. Two weeks after opening our shop, we were selling all the morning-laid eggs in only 1 hour. We share news and pictures of the farm through our newsletter that includes around 400 customers. We also recently had a French national radio station talking about GonneGirls, as well as several magazines and newspapers.

We have a lot of tourists in the region, which helps to attract people to the farm during the holidays.

Some changes we have made

We didn't plan to buy products from other farmers and sell them at the shop. However, our farm sales began right at the beginning of lockdown in France and we only had a few salads, turnips and small eggs from our young layers. To attract people to the farm, we decided to establish partnerships with local organic growers to offer bread, cheese, honey and juices to our clients. It definitely helped and as clients now have their habits, we've continued after lockdown and even increased the range of products. Our next step is to add meat, butter



A humble note for self-reflection. © Vincent Nageotte.



Preparing beds for transplanting. © Vincent Nageotte.



A new flock settles in. © Vincent Nageotte.



Pastured layers at GonneGirls. © Vincent Nageotte.



The first honey harvest. © Vincent Nageotte.



A moment to plan. © Vincent Nageotte.

and milk from neighbouring farmers.

We initially thought we would double the size of the market garden in year 2. We realised that there is more demand and less competition for organic eggs and that it takes a lot less effort and input than the market garden. We, therefore, decided to add another tunnel in our market garden but keep the same area under cultivation and focus on increasing our productivity to reach the same results. The learning curve has been steep, but we are convinced we are going to rock the garden in 2021.

Challenges

Our biggest challenge during this first year was to build infrastructure on the farm while we were starting our production and running the business, in the middle of the COVID pandemic and lockdown, with increased demand from customers and limited time available (as we had kids at home). Hectic! This situation generated some delay in our seeding in spring, resulting in production gaps later during the year. We addressed this challenge by taking interns on board, postponing projects that were not necessary and buying products from other farms to complement our veg basket.

Plans for the future

In the coming years we hope to have more time for rest and to ourselves, as well as beautiful farm buildings with a place to stay for our interns, a place to host training sessions, trees bearing lots of fruit, and a huge pond! On the business side, we plan to remain focused on vegetables and eggs and expand our sales to larger cities like Caen and Paris. We would like to increase the value of the farm products by building our processing facility and organising events such as dinners, brunches, farm and cook days, etc. We will also start renting out our guest house next year, which will generate a significant portion of our farm revenues in 3 years. To develop all those activities, we will need help! We plan to hire our first employee next year and plan to have 2 to 3 in 5 years.

Words of advice

Spend as much time as possible on other farms before you start. If you can, a full season! And take your time to prepare.



Leisure, business and land management combined. © Vincent Nageotte.



Taking time out to re-energise. © Vincent Nageotte.



Renovated rooms for farm rental.





GAELE BONNIEUX AND CLAIRE WILLS DIQUET

GonneGirls, France

MAIN ENTERPRISES:

Market garden / Pastured layers /
Horse boarding / Guesthouse

MAIN SALES CHANNELS:

Farm shop / Restaurants / Wholesale

AREA IN PRODUCTION: 14HA

STARTUP YEAR: 2020

STARTUP INVESTMENT: €70,000

REVENUE: €53,000

NET PROFIT: €30,000

website / instagram / facebook



ANDREW WOOF

Weston Farm, England

Weston Farm is made up of 173ha of arable rotation, 23ha of permanent pasture and 4ha of buildings, roads, woods etc. I farm in a way that, hopefully, puts more goodness into the soil than it takes out. So it is a true regenerative farm, leaving the soil in a better condition. This is achieved by attempting to have a living root in the soil at all times, feeding all the subterranean organisms and keeping them undisturbed, avoiding tillage and nurturing these organisms.

Plus, I am farming in a way that, hopefully, shows farming has the solutions to global warming by sequestering carbon dioxide, and that farming can be performed without artificial fertilisers. For when nitrogen fertiliser is applied, less than 20–30% is taken up by the plants. The remainder is either oxidised to nitrous oxide, which is another greenhouse gas or leached away, polluting the watercourses. I also aim to show that herbivores are part of the solution and not a contributing element to global warming.

I am the second generation of a three-generation tenancy from the Dean of Christ Church, Oxford. My father left me with a dairy herd, tractors and various implements which have since been replaced due to different farming techniques and approaches.

Before my new organic no-till way of farming, I would grow my crops in a standard organic way by having a fertility-building element followed by a series of cash crops. Put simply: Clover ley > Clover ley > Winter Wheat > Winter Oats. This required too much soil disturbance in the form of ploughing, resulting in a loss of nutrients while disturbing and killing the soil's living organisms.

I looked for solutions and heard about Masanobu Fukuoka's 'One Straw Revolution' in Japan, an early organic no-till farmer. One of his techniques was to alternate between rice and barley. He encased the seeds in soil balls which he would broadcast onto the surface and then cover with straw, so no soil movement was required.

I also heard about J.I. Rodale in the USA, who developed a device called a roller-crimper, which would push and crimp the stems of a cover crop down once it had got to anthesis/flowering, leaving a weed-suppressing, nutrient-providing mass of stems, aided by the soil organisms' recycling activities. A cover crop is a crop that draws up any available nutrients into the plant, thus preventing them from leaching away. So the crimp damages the xylem and phloem within the stems to

such an extent that nutrients can no longer flow. This process cannot be performed prior to anthesis, as the plant would try and regrow to complete its lifecycle.

A cash crop would then be sown directly through the mass of stems with a disc drill, this being able to slice through the mass of stems and into the soil to create a slot, causing as little movement as possible, and then placing the seed into the slot and pressing it down with a covering wheel, so there are no bare patches that would allow light through to the soil. As a result, no non-desirable plants can flourish.

The Rodale roller-crimper is good if the terminal crimp occurred where it was intended to be. But in the real world, the ground is not always flat and the anvil/soil may not be in the right place at the time required, such as in a hollow. This can result in the blades not damaging the stems to the right degree and allow the cover crop to regrow.

I began to look further into the concept. I talked to a lecturer, Julia Cooper, at Newcastle University, England who told me about Ted Kornecki of Auburn University, Alabama, USA. His original design, which gave three chances to apply the terminal crimp, was rear-mounted and suitable for reasonably flat ground. The crimping bars are on spring-loaded rolls to follow the different crop thickness, allowing more chances to apply the successful crimp. He very kindly gave me my requested re-design of his device, which again gave three chances to apply the terminal crimp but was front-mounted onto the tractor to accommodate a drill behind. Other design features to note on this roller-crimper are the chain attached to the top of the pivoting A-frame which allows the implement to pitch up and down to follow the rise and fall of the land, while the lower link arms are attached in vertical slots allowing one side to be higher than other, to follow the undulations to an even greater degree.

A local engineering business, 'Becketts Agricultural Engineering, Inglesham, made the Multi roller-crimper for GBP 6,000. The modified Krause No-till disc drill cost me GBP 12,800 from 'Weaving, Evesham, and the purchase of the initial cover crop seed of Black Oats at GBP 43/ha on 45ha meant there was quite an investment in a new technique. However, the tillage operations were no longer required, saving costs.

I chose to grow Spring Beans, *Vicia Faba*, as the cash crop. They were looking tremendous. Even a conventional neighbouring farmer commented on how promising they looked. However, the flowers were not pol-



Roller crimper (1).



Roller crimper (2).



Roller crimper (3).

minated and the yield was extremely disappointing. I am not sure if it was the lateness of the season, resulting in low pollinator numbers, or not sourcing the correct plant varieties or a combination of everything.

Cover crops are now growing better, if an eight-way mix is used, harnessing/accumulating various elements and removing any harmful traits, as plants like mustard can act as a bio-fumigant, reducing or removing potential problems, and buckwheat can reduce weeds like docks. There are discoveries or old reinterpretations of naturally occurring activities; exciting times ahead.

The soil takes time to change from a heavily bacterial-dominated one as a result of tillage to the soil having a more fungal-proportioned one, which the no-till method of growing advocates and needs.

Seed selection is also critical, as the current predominant system is focused on an agrochemical approach. So the seeds currently being developed suit that system. Also, finding cover crop plants with a short life cycle, which will get to anthesis early and mature simultaneously to successfully crimp, is challenging. Plus, selecting a cash crop that will also mature quickly enough to harvest within the remainder of the season is tricky, producing enough yield at a value that will give a return to cover the variable and fixed costs, plus a bit more for reinvestment and yourself.

There is a way to select a cash crop variety that suits one's particular way of growing. This is to grow a Population Mix. This was developed by the late Professor Martin Wolfe of Wakelyn's Farm, which is situated on the Norfolk/Suffolk border in England. He also advocated alley cropping, but more on that later. So the Population Mix is to grow a wide variety of a specific crop mixed together. Initially, wheat was chosen and specifically older, stronger, more resilient varieties. The dominant varieties with the right growing characteristics that grow best for that particular growing method or environment will come to the fore. So a natural selection will take place. If these seeds are then resown the following year, a further selection will take place. So gradually the selection will lead to the ideal variety for your farm and growing technique. The maximum yield will not be achieved, but the average one will steadily increase at lower growing costs, so a win-win outcome would arise. The older varieties tend to be taller and get up to the light first, avoiding being shaded out, or tilled out, to smother the ground, to again dominate the space.

I have also grown a winter barley/winter pea combination, where the pea plants would climb up the barley stems to position the flowers in a more prominent

place to achieve better pollination and its leaves to be in a more advantageous place to photosynthesise, plus keep the pods off the ground to prevent contamination and ripen more evenly. The barley would be assisted to grow more successfully by the pea plant supplying nitrogen to the barley plant, this being translocated via the mycorrhizal hyphae. These are filaments connecting the two root systems, allowing for the nutrient exchange to occur in a symbiotic relationship.

I naively chose a 70% barley–30% pea mix, as a cost-saving exercise, as I grew 45ha at a seed rate of 178kg/ha costing GBP 133/ha. But the peas got over-run by the barley, so the pollination was very poor. I then communicated with Benedikt Haug of FIBL Switzerland, who suggested I instead grow the peas at 80% of the normal recommended rate and the barley at 40%. He also favoured that I stick with two-row barley, as these varieties are less dominant than the six-row ones in soils with reasonable mineral content. After seeing his results, it looks promising.

Unfortunately, my successes have been limited, so I'm having to return to the tried and tested tillage system to build up some capital to try once more. Admittedly a regressive step, but we live in the real world; one has to make a living.

The sales are done through Organic Arable, which is a farmer-owned organisation and, as the name suggests, only trades in organic produce. They also have a clear costing structure, so everything is open to scrutiny. Additionally, they perform research and other activities. The money to undertake these activities are clearly shown and deducted on our sales Invoices. A relationship has also been developed with Whites Oats of Northern Ireland. Their research is also undertaken on the member's farms to ascertain the best varieties and at which seed rate to grow under organic systems. Because the buyer is also involved, we get feedback from them and a greater understanding of what they are looking for. These trials are very attractive to the host farm, as the results are extremely relevant to that farm, plus a fair, yet attractive, pricing agreement is developed, as long as the specific criteria are met. Unfortunately, this research is still carried out using tillage methods, so not relevant to us all.

I would like to try to grow a winter cover crop into which I would sow a summer cover crop so that an exceptionally fertile soil would be presented to the following winter-sown cash crop which again has been established using the roller-crimper/disc drill combination.

The future on the arable land will hopefully be to crack



The Hereford suckler herd.



The type of grass that needs to be in front of the cattle.



Our solar-powered fencing unit is from Hotline Electric Fencing Limited.

the no-till growing system, so that nutrient-dense food will become the norm while making the world's environment, on a micro and macro scale, more stable.

The dairy herd once here at Weston Farm has been replaced by a Hereford suckler herd, which is mob-grazed down alleys of permanent pasture, so that when an area is grazed it all becomes heavily impacted in a short period of time. This tight 'mobbing' is in order to have the animals within the herd think they need to eat everything (otherwise their neighbour may eat it), and not be selective grazers. This also concentrates the muck deposits in tight areas to create even more fertile pastures, ones with high diversity in species to offer a wide range of nutrients with different maturing time frames, so that the diet is truly balanced. The spring growth, which is normally very palatable, can cause the forage to go through a ruminant so quickly that the full nutritional benefits cannot be gained. A solution is to have a sward with the new green and the old brown forages together that can complement each other, slowing the digestion flow down to smooth out the energy peaks. This can be achieved by not grazing the paddocks down tight before winter, leaving the old stems to be amongst the new lush growth. So when an animal takes a bite, both green and brown forages are consumed. The spring paddock moves have to be rapid, so as not to stunt the fresh growth through over-grazing.

As mentioned before, Martin Wolfe had other innovative practices with agroforestry. I am hopefully going to incorporate trees and hedging plants into the fence lines to create a Silvopasture layout, creating little micro-climates within the alleys. Some of these trees and hedging plants should be leguminous to further supply the pasture with more nitrogen, as these plants are connected with the mycorrhizal hyphae, and I will also be choosing tree and hedging species that are palatable and good to browse to further supplement nutrients not supplied from the pasture. These plants will have a different rooting structure and draw up different elements, the animals can also self-medicate themselves with their required supplementary minerals and elements through their own selection. Also, there are other benefits that the animals have found, like Aspirin compounds that come from willow bark.

The current field divides will be double up, with the second fence line positioned 3 meters away from the first. This is just enough room to allow the trees that are planted in between the two lines to be out of reach from being grazed when in the early years, so as not to stunt the main stem. However, the hedging plant would be in

reach for selective grazing, also causing these to fill out more. Also, to provide a greater barrier from the wind and better habitat for all the wildlife to flourish, the perimeter fence would not have to be 3 meters away, as the animals can only have the chance to graze the bushes and trees from one side.

A point to mention is that as pigs and chickens are omnivores, they require a mixed diet which can include grains, while cattle and sheep are herbivores and should eat a forage diet only as this produces - in my opinion, and that of others, too - a better quality product. So the land required for herbivores can be concentrated onto the grassland, which there are considerable amounts of, while the omnivores can share the grassland and utilise the remainder for the alternative food items.

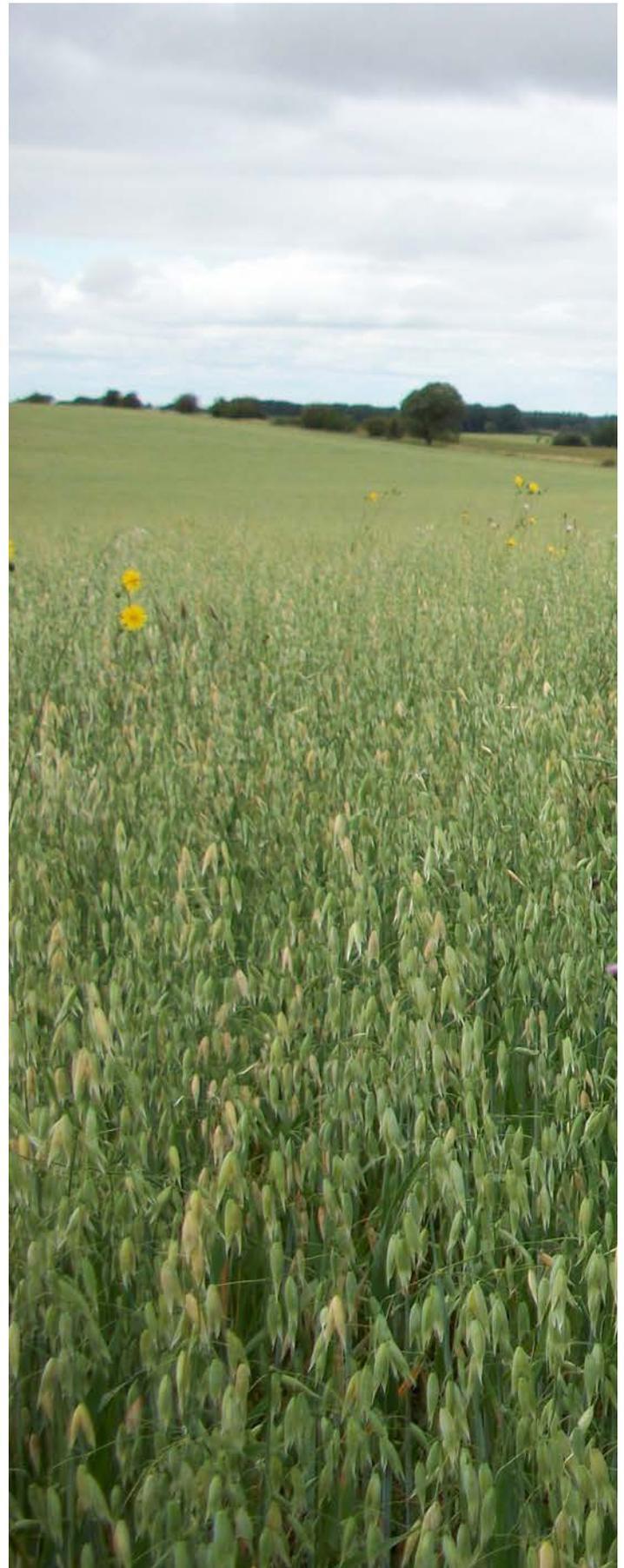
For various reasons my cattle are only now in conversion to become organic and I will hopefully become a member of the PFLA (Pasture for Life Association), resulting in the product seeking a higher premium.

This grazing system means the cattle are regularly moved onto fresh pasture, resulting in a rest period from 30 to 50 days for forage recovery. This way they are not creating a worm burden, resulting in the animals not having to be applied with any products to counter a potentially developing problem. Ideally, I would also have a poultry flock following the herd three days later to scratch and spread the dung around and consume the emerging maggots, providing the birds with a fuller diet and leaving the herd free from the troubling flies.

However, being a one-man operation, this is still an aspiration. Unfortunately, I, very occasionally, have to apply an insecticide to control the troubling flies. But soon, I am also going to encourage birds like swallows to assist in controlling fly numbers by supplying bird boxes along these alleys, encouraging them with a home to nest in. As it is said, 'If you build it, they will come.'

A note on climate change

As stated before, cattle can be part of the solution in combatting climate change, as the correct grazing systems will sequester carbon into the ground through the 'Carbon Pump', this being the growing green plants sequestering the carbon into the plant as building materials within the development of stems, leaves and roots, plus the root exudates, containing carbon too, are released to feed the subterranean organisms. The plants are allowed to nearly complete its life cycle to collect a wide variety of nutrients. Then the mob will be allowed into the paddock to graze a third of the plant for them-



The two crops this year were barley and oats. You can also see some fertility-building leys in the distance.

selves, a third to be trampled upon to be broken down by the subterranean animals and fungi for themselves, too, while the remaining third would have enough leaf area to quickly grow back.

The methane gas question has been overstated, as a problem being caused by ruminants, as methane within the atmosphere is broken down after nine years. So the animals omitting their methane nine years ago have no effect now, for the herbivore number, both naturally and farmed, has not altered much over time. The methane from this species has kept fairly constant and is not an increasing problem as many people would like us to believe. However, the trapped methane within the melting permafrost caps is being released, which has no connection with ruminant animals now but stems from the ruminants that were living when the ice was formed. The world's atmospheric temperature has been rising due to the other gasses.

The burning of the hydrocarbons may have caused the problem to be exacerbated. But as previously mentioned, the carbon can be sequestered with growing plants. It is the nitrous oxide that should be held accountable. If the political desire was there, the solutions would be found, but politicians are too interested in the short term and their immediate legacy.

The water cycle also has an important role. Wherever it rains, the topography and the soil's constituents and ground cover can affect how long it stays where, or near to where, it has landed. Soils with high organic matter can hold considerably more water within itself, therefore increases in it is again advantageous.

Our future

The future will hopefully be one where organic no-till farming will be even more successful. People and some omnivore animals need grains and pulses, animals need to express their full natural and holistic existence, and we need to look after the planet and the type of food we eat. The challenges we need to overcome are the imminent climate emergency and crop failures if adaptations are not followed. So let us work together and show the solutions are within our grasp if we follow the natural ways. Mother Nature has been getting it right for such a long time without our interference. Work with her.

Let us show everyone that good, nutritious food and a healthy environment are within our grasp!



ANDREW WOOF

Weston Farm, England

MAIN ENTERPRISES:

Cereals and pulses / Cattle

MAIN SALES CHANNELS:

Wholesale

AREA IN PRODUCTION: 196HA

STARTUP YEAR: N/A

STARTUP INVESTMENT: N/A

REVENUE: N/A

NET PROFIT: N/A



MATTHEW LIVINGSTON

Enso Farm, England

Our vision

We intend to co-create a tranquil, beautiful environment alongside Nature that can functionally inspire a regenerative culture by enhancing and proliferating Life. This in contrast to the continuing intensification and technologisation of agriculture, the urbanisation of humanity and the encroachment upon or destruction of our wild places.

We aim to cultivate in accordance with the Tao, which simply means to do that which needs doing and not do that which does not; it is why we are inspired by and have named the farm Ensō, which 'exemplifies the various dimensions of the Japanese wabi-sabi perspective and aesthetic:

Fukinsei (asymmetry, irregularity), kanso (simplicity), koko (basic; weathered), shizen (without pretence; natural), yugen (subtly profound grace), datsuzoku (freedom), and seijaku (tranquillity).²

Practically, our work involves producing nutrient-dense food as well as orchard-, hedgerow-, woodland-, pond- and meadow establishment and management, all in ways that are aligned with regenerative princi-

ples. We aim to blend natural and traditional wisdom with scientific understanding to optimise for carbon sequestration, biodiversity, beauty, harmony and happiness. Also, a part of our vision is living together as a family on the farm, eating truly wholesome food, being closer to nature and accepting the responsibility entailed in this lifestyle. Thus the homestead is intrinsically linked to the land and its management.

Our initial focus

We initially focused on the site infrastructure and the establishment of the no-dig market garden (consisting of 900m² outdoor bed space plus another 100m² in the polytunnel) as well as planting a fruit orchard, nut trees, windbreaks and other perennials. The fruit trees are 24 varieties of apple and pear to start, and we've planted 2 varieties of almond and 5 of hazelnut.

Investments and revenue

We invested ca. €27,500 in the startup phase, not including the cost of the family house, land, compact tractor with loader and (currently non-operational) borehole.

We're earning ca. €2,300 per month in box scheme sales, with markets just starting back up. I don't have a precise net figure to share, but the financial year-to-date cost of goods sold is currently equal to revenue, including bought-in produce as well as non-amortised items to be used over multiple periods such as compost and other soil amendments. Including operating costs puts us net negative for the current quarter.

Where we're at

It was a difficult start, with the first season negatively impacted from a growing perspective due predominantly to the application of poor-quality green-waste compost, some of which led to all of the signs and symptoms of aminopyralid weed-killer poisoning, which has become a major issue here in the UK. Compost being the literal foundation of a no-dig garden/enterprise, I learnt my lesson of how crucial it is to investigate and understand its quality; unfortunately, the certification schemes here are not stringent enough to protect growers from damage, contamination or pollution. This experience forced me to deepen my understanding of soil health for which I'm grateful, as it's led to new avenues of study and exploration including Korean Natural Farming, remineralisation, nutrient-density, and the works of growers including Bryan O'Hara, Steve Solomon, and Eliot Coleman to name a few.

Over that first year, we focused on building out our infrastructure including fencing, irrigation and the polytunnel, as well as managed the first thinning of our mixed-native deciduous woodland, which produced a cornucopia of beautiful woodchip for us that we've used for all of our pathways, tree mulching and base layers of our compost piles. 2020 has thus been our first proper growing season, and we've harvested and sold €8,800 more worth of products than we had during the same period of time last year off thirty 15m beds plus the polytunnel; a big improvement for us but still a lot of work to be done.

It's also been a highly unusual weather year with one of the wettest winters in a century, record-breaking sunshine and drought in spring, and now a cool and wet start to summer. But the no-till, diversified biological approach seems to be paying off already as the health of our soils and crops are improving, we've had no erosion problems, we haven't had to irrigate heavily, and we're seeing the associated flushes of fungi in the garden.



The initial compost application.



Applying compost to the no-dig beds.



Using the bed roller before direct-seeding.

Sales and marketing

We started with an opportunity to join a nearby farmers market, which started my education in sales; pricing, payments and customer relations. When COVID started, we transitioned into a small and personalised custom box scheme, initially buying in organic wholesale to ensure some diversity whilst building up our production.

The competition is stiff, as several established local organic farms have massively pushed their boxes, in addition to the major nationwide organic box schemes, not to mention supermarket deliveries, so we are focusing on differentiating ourselves as no-till (and what that means) with a focus on customer service, personalisation and growing crops of interest such as agretti, mashua, Aztec broccoli, etc.

Later we hope to prove, perhaps with a spectrometer, the significantly higher nutrient-density of our crops compared to conventional produce, but hopefully, the improved flavour is enough of a game-changer for the average customer. We are still trying to figure out how to balance and make viable operating at such small-scale selling directly to consumers versus scaling up to include more restaurant and/or farm shop sales in our model.

Learnings

I've become more aware of my physical limits working alone, and I'm currently deciding between finding slightly less-intensive ways of doing that abide by regenerative principles yet satisfy yield and scaling requirements or taking on additional help in the form of apprentices, a farming partner or otherwise. One of my inspirations is Masanobu Fukuoka and his methods, and I endeavour to find ways to practice into my old age as he did.

One practical example from this season was direct seeding half the winter squash crop instead of doing all transplants, which was significantly more easeful and still achieved near 100% germination using clay seed balls soaked in KNF SES solution; some of those plants are the healthiest in the field and I used fewer inputs and spent less energy overall, with the caveat of slightly later harvests.



Inspecting the salad mix.



Checking out the ripening tomatoes.



Ensō summer produce.



In the fruit orchard.



Planting an ornamental cherry tree.



Thinning the woodland.

Challenges

Our initial application of green-waste compost turned out to be very poor quality and compromised the first growing season. It has taken over 15 months to show signs of breaking down, and we've pulled out hundreds of pocketfuls of rubbish. After numerous crop failures that first spring, we tried multiple strategies to remedy the problem, including; topdressing those beds with better compost; spraying with vermicompost, KNF and weed teas; amending with rock dust, minerals and pelletised chicken manure; mulching; cover cropping; and we finally tarped the beds over winter.

The following spring many of the first crops, including beets, peas and salad mix, were still struggling, so we removed the old material into the pathways and re-applied mushroom compost at a cost of another €925 for 20 out of the 40 beds; a classic case of the sunk-cost fallacy and I should have done this much sooner! Finding quality compost continues to be a challenge, and I'm now making as much of my own as possible, reducing the amounts used once weeds have been smothered as well as using more mulch (primarily grass clippings/scythings) and under-sown ground-covers for long-season crops.

Plans

We plan to continue building towards an evermore diverse, beautiful, resilient and productive system that can provide nutrient-dense food using fewer inputs whilst drawing down carbon:

2020

Compost bays built (Spring)

Solar system install (Summer)

Rainwater harvesting and irrigation upgrades (Autumn)

Small pond restoration (Autumn)

Berry and multi-functional perennial plantings in and around the market garden and into the fruit orchard (Winter)

Mushroom cultivation - continue investing in developing a small side enterprise (Winter)

Farm beautification work - an arbour, willow/hazel screens (Winter)

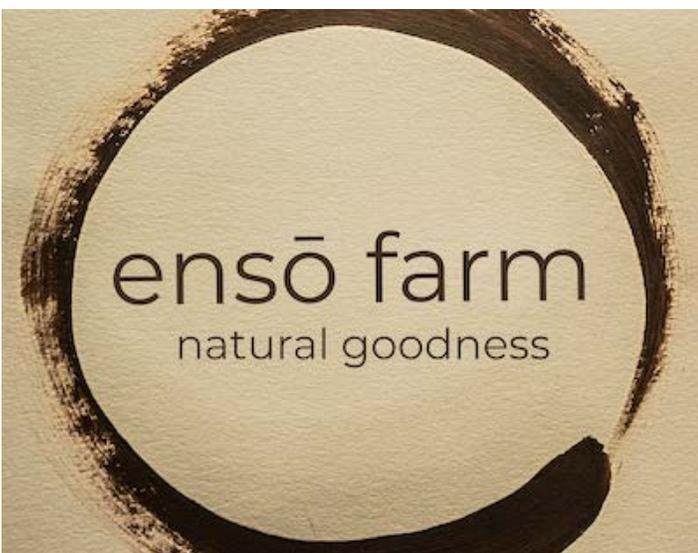
Addition of new habitats for birds and insects to complement existing hedgerows (Winter)



An inoculated reishi log.



Installing solar panels on the compost bays.



Our logo.

2021

Farm barn build (proper wash/pack, cold storage, tool storage)
First bee hives
First farm tours
Start of wildflower meadow creation
Orchard doubling

2022

Full market garden space in production
Workshops, education, on-farm traineeships
Orchard and nut trees first crops

2023+

Animal integration? Ducks, geese, rabbits to start?
Garden expansion? Polytunnel #2? No-till hemp and grain fields?

Advice

Before starting your own farming business, gain experience and confidence or have plenty of starting capital/financial backup; preferably all of the above! Budget carefully. Build your vision and holistic context. Carefully consider the pros and cons of farming alone - there are limits to how much can be taken on and that will differ for everybody. I would say it is worth spending a season on someone else's farm, despite not having done that myself. I have trained informally with two Permaculture design certificates, a masters in sustainability and a year apprenticing in Costa Rica, but I've still had to learn the majority of the nitty-gritty operations through books, Youtube and self-teaching, which can slow things down and generate unforced errors. Having said that, diving in at the deep end has forced me to learn quickly and broadly into all aspects of running a business, including the less fun but critical parts.



MATTHEW LIVINGSTON

Enso Farm, England

MAIN ENTERPRISES:

Market garden

Tree crops

MAIN SALES CHANNELS:

Box Scheme

AREA IN PRODUCTION: 0.1HA
(out of 7.5HA)

STARTUP YEAR: 2019

STARTUP INVESTMENT: €27,000

REVENUE: N/A

NET PROFIT: N/A

instagram / facebook



JOEL RODKER

Norwich Farm Share, England

Norwich FarmShare (NFS) is a CSA growing chemical-free vegetables on 2,564m² of land on the SE edge of Norwich, Norfolk, UK. I am Joel, the most recent grower to join, and the current farm manager.

NFS was inspired by the 'food theme group' of Transition Norwich (TN) launched in July 2008, which wanted to create a CSA for Norwich as there was much enthusiasm for growing food locally, inspired partly by the work of Tully Wakeman which showed how it should be possible to feed Norwich on land within a 15-mile radius of the city. For many people, it was a dream to have access to land and grow food, and that spirit is still strong in the community.

East Anglia Food Link (EAFL) – a small NGO consultancy – secured a grant of €165,000 Big Lottery funding to set up a CSA (and some other projects).

The first Board of Directors met in 2010 to agree on the legal basis of the organisation, establish a good land site, recruit the first employed grower and the first tranche of members/subscribers.

The precise legal status and structure of NFS took some time to work out, and we eventually chose to register as an Industrial and Provident Society Cooperative (later changed to a community benefit cooperative), with a

limited number of shareholder members.

The plan was to recruit and have in place a part-time grower, and later a 'grower's assistant', in January 2011, with a view to the first harvest in summer 2011. The target for membership by the end of the first year was 80 members, but this was soon readjusted to 60.

The funding enabled the purchase of a second-hand tractor (€5,500, equipment for tractor €18,700), a second-hand van (€3,300), and some farm tools and equipment (irrigation and 2 polytunnels, €13,200), including a shipping container. It also paid for farm consultancy for the growers (€82,500 over two years). This was deemed crucial in the set-up phase and a local experienced organic farmer was recruited in this role. This person helped with a lot of maintenance jobs and teaching the growers how to use the tractor, do crop planning etc. In these first years, the main equipment used was a tractor with cultivator, rotavator, potato ridger and harvester, and mower. The cultivated area was 5 acres and plots were 50m long, 18m wide, with 15 beds per plot. Beds were 1.2m including 30cm paths. The poor soil, inefficient set-up and trying to farm too much land were big constraints at this time. There was a huge weed burden and the water pump and tractor broke often. There

were big problems with mice and rabbits, the growers did not have enough paid hours to farm, a lot of time was spent managing volunteers and the growers did not have a lot of experience.

Despite all these difficulties, NFS in this sense was seen as a model which, if replicated, could create food security for a city like Norwich.

Between 2011 and 2016 several adaptations were made to the operations. Originally it was intended to distribute the veg shares in clusters around particular geographic localities where members lived. This was thought to be impractical by the then-growers, and a 'food hub' where members weighed out and collected their shares was the favoured option. A cycle delivery service was also introduced.

There was another change in the legal status of NFS so that any paid-up members were deemed shareholders and could vote in meetings. In hindsight, it's interesting to reflect on the amount of time that has gone into exploring all these different legal frameworks for the project, which I believe have had very little impact on the actual growing of food and in many cases have sapped the energy of the growers and volunteers. This reflects a tension between wanting to be very rooted in community democracy and the need to produce food in a business-minded way.

Membership churn was a fairly constant concern over the whole period and the aim of 120 members was always, until recently, an elusive figure. Over those first years, the membership fluctuated from as little as 60 to 100 as a maximum.

Around 2014 two more grants of €11,000 were secured for NFS from the National Lottery. At that time we ran various events to get more press coverage and conducted a feasibility study for a new site and a few other projects. The funding helped steady the operations for a while, increased members through increased activities/promotion and gave the scheme a lot more visibility.

Alongside this, there was a consistent deficit in farm labour, and encouraging members to do stints on the farm was a recurring task. NFS very nearly liquidated several times during its first incarnation on the Postwick site but managed to keep going with huge community support and hard work on the part of the growers.

Growing on the early site was tough. The field had been farmed with chemicals for many years and in the first year of growing in 2011, there was no rain for 10 weeks. Due to a lack of irrigation on the site, a few thousand euros was spent buying in tanks of water. By the end of



Local sign-maker Alex Clayton (front) hand-painted this farm sign. Behind the sign are volunteers with farm manager Joel Rodker and grower Jack Astbury.



An aerial of the market garden.



Aerial of the 81 field beds (in 3 blocks of 9),

this first phase of NFS, there had been 120 members for a couple of years.

In late 2015, due to a change in the ownership of the land, the land was passed over to a Trust who gave NFS Notice to Quit. For two years NFS did not have any land and much time was spent looking for a suitable site and writing grant applications to pay the growers and set up a new market garden. Member numbers dropped off considerably and the financial situation deteriorated. There was a very successful crowd-funding campaign in 2015/16 which helped in the process of finding new land and setting up on the new site. By January 2018 the decision was taken to shift focus to a new site which had been found at Whitlingham Nurseries in Trowse, also on the south-east edge of Norwich. Around this time the members decided to change the organisation to a Community Benefit Society.

In Spring 2018 the growers at the time, Rosa and Jack began setting up the new site. The 2.5-acre field had been unused for some years and was very weedy with some very well established stands of nettles (other prominent weeds included small bugloss, creeping cinquefoil, buttercup and different grasses). The site used to be a plant nursery and has a 90metre borehole with extensive underground pipework around the field with standpipes at various locations that just needed reconnecting, giving us a free supply of groundwater although of variable pressure. A rabbit fence had to be installed as there were (and still are) significant numbers of rabbits in the area. Two large polytunnels brought from the previous site (19x7m and 11x7m) were erected and a smaller tunnel, which is being used as a propagation tunnel, was donated. There was a small portacabin with drinking water and electricity, which is now used to store tools and seeds and make tea. Electricity does not extend further than the cabin and all irrigation is done with the borehole water. Current and future veg rinsing will use the mains water. The field inside the fence is about 2.5acres, so there is room for expansion. This new site has marked a significant change in growing techniques and membership numbers of Norwich FarmShare.

Rosa left in the autumn/winter of 2018 and a new grower, Tara, joined for a few months. Jack and Tara proceeded to establish beds and grow in the tunnels and layout the beds on the field. Financial problems going into Winter 2018 meant that Tara left the organisation and Jack continued working only one day a week.

In March 2019 I joined as a grower after having spent one year attempting to set up a market garden on a farm near Peterborough which didn't work out. Jack had

already laid out 6 blocks of 9 beds, each 25m long by 80cm wide. Winter crops were grown in the two tunnels over the winter of 2018 to 2019, and in the spring of 2019, we started marking out the field beds with string and cultivating them, mainly with a BCS 740 walking tractor which I had brought with me (cost €3,300). 2019 was the first season of growing crops on the field at this new site. The field-scale tractor is still owned by NFS and in the first year on the new site was used to do a lot of the weed clearance on the field, using the cultivator. It has been used less and less and is now mainly used to top the grass in half of the field that is not being cultivated. It is idle for most of the year but did come in useful when we opened a new area of land (625m²) for squash. After the initial ploughing, the BCS was used several times to flatten the ridges and dry out the extensive nettle roots.

In the 2019 season we grew in the two tunnels (124m² and 70m²), 54 field beds (1,080m² without paths) and 9 beds for salad (126m²). We received a free delivery of several tonnes of 'peat diggings' from the Norfolk Broads Authority who manage nature reserves nearby and were digging out a pond. In 2020 we have bought in some cow muck and horse manure that we will compost until it is mature. In the summer of 2019, we decided to aim for a no or minimal till system and tried to avoid using the BCS rotavator as much as possible. But due to not having enough compost to mulch beds thoroughly and experiencing heavy perennial weed pressure we did have to rotavate several beds to clear them quickly for re-planting. The BCS is now mainly used for flail mowing old crops or the grass verges. Nettles and buttercups continue to invade and made bed preparation and harvesting in 2019 time-consuming and unpleasant. We also have a problem with wireworm and are under the impression that rotavation is one of the best ways to get rid of them.

In the autumn of 2019, we created another 27 beds (540m² not including paths) in 3 new blocks alongside the first 6 blocks. In Spring 2020 we cultivated a new area of the field (625m²) which has been covered with woven membrane and planted with winter squash. This will likely be converted to more beds in the following years and hopefully, the weed pressure will be lower.

We raise most of our seedlings and buy some in to cover shortages or save ourselves time. We mostly sow in seed trays, but I have a Jang single-row seeder which I use for sowing carrots, radish and parsnips. We are growing about 30 different vegetable crops. Perennial weeds are our biggest challenge and hopefully weeding



Propagation in the tunnel.



Using a Jang seeder for direct-sowing carrots.



Grower Jack Astbury harvesting in our 80cm beds.

will become less time-consuming as time goes on. We harvest once a week on Wednesday, store the veg overnight in an insulated van and pack the members' bags in a rented space in a local sports centre with volunteers on Thursday morning. Veg bags are distributed for delivery by a paid driver and paid cycle couriers (Zedify UK). Before COVID many members used to come to the 'food hub' to weigh out and collect their veg. Due to Jack withdrawing the use of his van from the farm we are planning to hire a private driver to do deliveries for us.

As of mid-July 2020, we have 130 veg bag subscribers. With prices from €7.42/week to €17.03/week per bag, this equates to a monthly income of €5,709 or €68,507 a year. Much of 2019 was spent trying to recruit new members and the membership rose from about 60 in March to 90 by the end of the year. This enables Jack and me to be paid for 2 days a week each. We also asked members who were able to pay for a year up-front, which is not something we normally do. In 2020 we received about €6,678 in advanced payments. After the COVID outbreak membership rose to 140 and now seems to have stabilised at around 130 members.

We also sell on fruit and eggs and make a profit on those. In 2019 we introduced a wider cycle delivery service, which was expanded in March 2020 in response to COVID. We make no profit on the delivery. In 2019 NFS began selling to local restaurants for the first time in its history. Due to our legal status, we can only sell to members, so restaurants had to pay €1.10 per order to be registered as members. We developed some very positive relationships with 2 or 3 chefs and the income was very welcome. However, the logistics of harvesting small amounts for chefs and organising extra delivery jobs meant this market stream wasn't satisfactory. Due to COVID leading to the closure of most restaurants we have focused on the CSA, and we haven't missed the extra planning and driving that restaurant sales required.

Our wages expenditure is for 4 days a week (8 hours a day) for 2 growers, 10 hours a week for an admin and 5.5 hours a week extra for farm management, veg ordering and other admin. In June 2020 the wages expenses were €3,090/month. The other major expense is buying in organic veg from wholesalers, especially during the winter. In February 2020 the cost of buying in veg was €2,067.97. We usually do 2 or 3 fundraising and social events throughout the year such as farm open days and a ceilidh. Occasionally we receive donations from supportive members of the community. With all our other overheads (utilities, farm supplies, accountancy, in-

insurance) we are generally losing money in the winter months. Reducing our purchase of veg over the winter is one way to increase our margin. Another way would be to reduce the number of months we are operating if we can't grow enough and don't want to buy-in.

We have traditionally always had a volunteer workday once a week. Due to the COVID pandemic, we had a huge number of new requests to come and help in the market garden. We issued some new guidelines for safe working practices with a form that people must sign. We created a google sheet rota that people must add their name to before they come to the farm so we can manage numbers – maximum of 12 on-site at any one time. The increased number of volunteers (50-70 hours a week) has meant a lot of extra people management time but has also enabled us to keep on top of jobs that we might have struggled with otherwise; the nettle pressure is still high but they haven't got out of control like in 2019 and we have mulched all paths with card and woodchip and kept up with planting and succession. While Jack and myself are only on the farm Tuesday to Thursday, there are usually volunteers on the farm on Monday and Friday. We ask neighbours to water our seed trays at the weekend. We are operating on a shoestring budget and have not been able to invest in automatic watering systems – yet!

The turnover for 2018-19 was €63,053 with a net of €6,562. The turnover and profit for 2019-20 should be higher given our increased membership and a greater amount of produce grown on our land. On the area of cultivated land in 2019 (1,400m²) this profit would equate to €4.69/metre²/year.

Since starting production at the new site we have been growing much more intensively. We have prioritised keeping on top of weed pressure and building up soil fertility. Having a better supply of water has been a game-changer and this year we have made further improvements to the irrigation system to save time. Improving our customer service and communication has played a big part in member retention and recruitment but a lot of this has been done in unpaid time. I make a lot of use of social media which means our presence on those platforms is much greater and we take a lot of enquiries through Facebook and Instagram. Keeping our membership substantially above 100 has been a long time goal of NFS and while COVID has helped, the recent improvements in our systems and making sure we are providing better quality veg has also played a big part. Our margins are still not as good as they could be and to fairly reimburse our growers and be able to



Harvest crates ready for preparing boxes.



Weekly box preparation done by customers until 2020.



About 50 of our veg shares each week are delivered by Zedify, a cycle courier company.

invest in the farm we need to raise our prices. There has always been some resistance to this because of a desire to keep our products as accessible as possible to people on a low income. This tension between the needs of the community and the needs of the farm enterprise seems a difficult one to negotiate but ultimately if the farm fails or the farmers get burnt out because of a lack of funds that does not serve the community either.

I am curious about the huge sum of money that NFS used at the beginning for consultancy compared to the present situation where I have learnt most of what I know from Ytube, books and apprenticeships. Jack runs his own growing business in London and has worked on other farms, so he brings a huge wealth of knowledge. I recommend anyone starting to get as much experience as possible on other farms or with a small piece of land - start slowly, be patient. I would not start another market garden without a reliable supply of water. Being proficient with spreadsheets and other digital auditing tools is very helpful. Relying heavily on volunteers has pros and cons. It is possible to get a lot more work done and volunteers get a great sense of achievement, but managing volunteers and rectifying mistakes can be time-consuming. I believe that even in continuing to welcome volunteers we should be trying to make the farm earn enough money to pay for all hours done on the farm, otherwise it's not a viable career for new entrants.

Looking forward, owning our land would make our long term future more secure and I'm confident we have enough community support to raise the money. If we stay on the current field I would like to see some extension of the cultivated area to enable us to increase membership by growing more veg but also to allow us to rotate cover crops for soil fertility – at the moment we have no spare beds. My priorities are: to keep improving our beds by adding organic matter and removing weeds; tweaking our irrigation system to make it as efficient as possible; improving our seed raising system with more space, automatic irrigation and heated mats for earlier sowing; installing a walk-in cooler and making our packing system more efficient; investing in more tools and infrastructure that will make our lives easier; investing in software that will make it easier to manage our increasing membership. I would like us to offer more formalised training and clarify our financial and farm planning records so that we have a much better idea of how to make the farm more successful.



JOEL RODKER

Norwich Farm Share, England

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

CSA

AREA IN PRODUCTION: 0.22HA

STARTUP YEAR: 2010 (2018)

STARTUP INVESTMENT: €22,000

REVENUE: €63,000

NET PROFIT: €8,800

[website](#) / [instagram](#) / [facebook](#)



RICHARD PARK

Low Sizergh Farm, England

An overview of Low Sizergh Farm

Low Sizergh Farm is part of the National Trust's Sizergh estate, rented by my parents John & Marjorie Park in 1980. I have been responsible for the farm's management since 1988. My sister Alison is a managing director in the farm shop enterprise. The two businesses are operated financially separately, with my parents being involved with both.

I, Richard, am married to Judith (a teacher and campsite proprietor) and we have three grown-up children; Hannah (a journalist for a UK farming publication), Emily (a nurse) and Matthews (works with me on the farm). The farm employs 2 people full-time and 3 people part-time. Our main enterprise is dairy, and we also have laying hens and small sheep flock.

The shop and café opened in 1991 (tea room in 1992), and now employs 38 full- & part-time people. Sizergh Caravan and Camping opened in 2020. It has 6 touring caravans, 10 tent pitches and 1 Luxury Pod.

The farm also hosts Growing Well, a social enterprise growing and selling organic vegetables, creating placements for people recovering from mental health problems and offering training courses in organic horticulture. We're situated 45 metres/144 ft above sea level,

and located 6.4 km/4 miles south of Kendal in the river Kent valley on the southern boundary of the Lake District National Park. Our soil is free-draining clay loam over limestone bedrock and our average rainfall is 1,400mm/55". Our total area is 168ha, out of which 153 are farmable.

National Trust has worked in partnership with many conservation projects. Here they have helped with: the re-planting of orchards with local varieties of apple, damson, plum; the creation of a pond; fencing off less useful grassland for wildlife habitats; the development of a farm trail.

The grassland has been managed organically since September 2019 (perennial ryegrass Timothy with white clover, plantain and Chicory for grazing with Red clover for silage). We have 12ha of arable land with spring-sown barley and peas for arable silage.

Our herd consists of 170 Holstein x Swedish Red x Montbeliarde cows and 120 young stock (45 heifers of 1-2 years, 45 heifers of 6-12 months, 20 beef calves of 12 months). They're milked twice a day, bringing in 7,000L (4.30BF, 3.40PRT). All beef calves are sold locally and 25 beef heifers are reared and sold at 12 months. Dairy heifers are reared at Low Sizergh in their first year. Heifers in their second year are being contract reared by a

local farm. We have 130 lambing sheep, and normally also up to 650 layers but not this year as the moveable cabin does not meet Organic standards.

Becoming a farmer

I can never remember a time when I didn't want to be a farmer, and I grew up on another farm 25 miles away. I moved to this farm when I was 15 and helped out whenever I could. After leaving school I worked full time for a year on the farm and then went to Agricultural College. This was in the south and east of England, the course was in general agriculture, and my experience up until then had been with dairy cows and a limited amount of pigs. The climate was much drier and the course included practical experience on the College farms with dairy, beef, sheep and arable crops as well as field-scale vegetables, cereals and other field-scale horticulture crops.

This was a good introduction to other areas of farming as well as mixing with people who were from farming and non-farming backgrounds. The course also included a year working on a farm, and I chose a farm on the Welsh Border in Herefordshire farming beef sheep and cereals while growing all the feed requirements for animals on the farm. There were also cider apple orchards and the family grew much of their food requirements with a large vegetable garden, poultry for eggs and meat, and pigs; these were all processed on the farm.

After my final year at college, I returned home and joined my parents working on the farm. I had intended to go travelling, probably to New Zealand, but the introduction of milk quotas in 1984 by the EU to limit the production of milk altered my parents' plan for the farm business and they had to make an employee redundant. I had been away for 3 years and felt I should return home to help out. I had a final year dissertation at college, and when discussing with my father on the topic to choose, he suggested another enterprise to make up for the drop in income from the reduced milk output. I chose pick-your-own strawberries, which was common in the south of England but unknown in the north.

The first years

The farm's main enterprise was limited in the amount it could produce, so the emphasis was on following best practice at the time and lowering the cost of production. Good technical advice was available free of charge through government agencies and commercial companies. This promoted the use of inputs such as fertilisers



Dairy cows paddock grazing.



Heading back for milking.



Winter housing and feeding.

to grow more feed for the cows on the farm and sprays to control weeds in grassland which were seen to limit production potential.

This was following a policy which had been developed after World War II to increase food production in the UK. Historically much of this had been imported from around the world to feed the increased population employed in industrial production in towns and cities. Low-cost food allowed wages to be kept at a lower level and the manufactured goods could then be sold for a more competitive price. During WW2 imports were limited and food rationing was introduced, and the poor economic state of the UK economy post-WW2 led to a focus on domestic production. Increased use of fertilisers and sprays as well as plant and animal breeding developed in the 18th century; refinement in the 1960s led to a dramatic increase in production.

When the UK joined the European common market in 1973 this had also been the policy in Europe, but there it was linked with a desire to improve the incomes of farmers and grants were available to increase the financial viability of farm business. This usually meant an increase in size and capital grants for improvements on buildings and land including drainage, fertiliser, lime and removal of hedges to increase field size. This was done with the best intentions and the unintended consequences of environmental damage were either not appreciated or seen as acceptable collateral damage.

The pick-your-own strawberry enterprise was started, and the farms' location next to the main A road supplied a good customer base along with the local community. The success of this enterprise led to my parents researching the possibility of a farm shop to sell other products. This would also provide another income for the business and allowed me to have a larger management role in running the farm. Several years later it also allowed my sister to become involved in the business after returning from her career.

Starting a new business on an existing farm requires a level of financial investment as well as personal time to research and implement the new enterprise. It's easy to lose focus on the main business, hence lowering performance and negating any benefit the new enterprise brings. I have had a desire to sell more products directly, but this has been a costly learning exercise. Setting up a milk processing dairy without clearly identifying the market resulted in it having to close, but the process led to outsourcing the processing element and a successful relationship with a local cheese and ice cream maker, who has the equipment and knowledge and allows us to



Ploughing for crop establishment.



Spreading slurry with the low emission spreader.



Peas and barley for winter feed.



Herbal ley for summer grazing.



Shearing the sheep.



Pastured layers following the cows.

focus on the marketing and production.

Initial investments

Investment-wise an established farm can become a money pit if care isn't taken in striking a balance so that investments give a good return either financially or by saving time or by improving working pleasure.

My main areas over the last 5 years have been in infrastructure for the cow grazing paddocks. The milk cows need to return to the farm to be milked, and tracks have been built out of recycled stone and topped with dust so the 32 paddocks can be accessed. This has gained an extra 4 to 6 weeks on the grazing season depending on the weather at each end of the year, reducing costs of production through cows spending more time harvesting their feed and spreading their manure themselves. A water system and troughs have also been installed, one in each paddock, with electric fencing and existing hedges and walls making the subdivisions.

The choice when making investments is whether to go low-cost or to spend more and avoid having to re-invest later on. This depends on whether this is for an established enterprise or experimentation, whether the capital is available and whether one has time to home-build. I have gone for better quality with machines and equipment but will set up a more temporary arrangement for things like trying out a new grazing system for the young stock.

Investing in changing the system from conventional to organic, in improved pasture quality and in attending training and educating myself have been of great benefit.

Sales and marketing

For income from the main dairy farm, I aim for a 20% return on capital invested to allow for an income and reinvestment. Industry averages are around 8%. Producing over 1 million litres, a shift in either the price paid from my milk purchaser or spikes in particularly bought-in feed can have a significant effect on this. For other smaller enterprises like raw-milk vending and eggs, where I have more control over the selling price, I aim for 30-40%.

Around 5% of milk sales are direct, but a greater % revenue. The raw-milk vending has built up slowly over time and is a combination of local sales and tourists. 95% of my milk is sold through a UK farmer organic Coop. It's professionally managed and has a good spec-

trum of buyers as well as contract processing and selling its own dairy products.

Development over time

In 2015 and 2016 I didn't make any money from selling milk. Although prices recovered, I could see that selling milk into the commodity market would inevitably mean this would happen again. The typical solutions are to become larger, increase output, be very low-cost or sell into a market that offers a more stable price.

I had the opportunity to supply organic milk but had ceased organic production 10 years before for financial and technical reasons. The organic market offered a more stable milk price and with good technical performance farming-wise also a higher income, but from my prior experience, getting the farming right is difficult.

I attended a meeting on Holistic Management and subsequently undertook training on our farm. This completely altered how I approached farming problems and how I viewed the land and the interactions of soils animals and people. I have been implementing the changes in grassland management, applying the principles of Holistic Management to my farm and being aware of the impact my farming has on our soil, water, plant and animal health.

I have become better at financial management and now have a much better understanding of where the money is going and what impact investments and changes will have and are having on financial performance.

Challenges

For our farming business, I need to balance the level of production with the costs of producing to arrive at the margin required. I have been putting efforts into areas that give the best return for me. This includes improving pasture with the addition of clover and herbs, improving grazing management by going to slightly longer rotations (82 to 30 days), rotating young stock grazing, and improving the quality of silage made for the winter.

Our cows calve in the autumn and 70% of the milk is produced during the period when the cows are housed. Organic feed is 100% more expensive than conventional feed with the milk price being only 40% higher, so to achieve a better margin I need to feed less bought-in feed.

I built a mobile hen cabin to have pastured layers. This was run for 18 months, but I couldn't get organic certification for the system. I found this frustrating and was



Orchards for fruit and wildlife.



Winter in the farmyard.



Caravans and camping.

annoyed that a system which works so well wasn't meeting a set of standards. Upon reflection, the organic label allows me to access a stable higher-value market for my main product milk, and I will have to find a method of producing eggs that meets the standards and my goal of integrating the hens and the cows on pasture.

Plans for the future

The last 3 years have been focused on changing over the farm to organic production and developing the camping and caravan site. While it's sensible to allow these changes to bed in, I think there will be some further opportunities to invest in and develop the business, since with the UK exiting the EU there will be a focus on domestic agricultural policy.

I'm confident that grants will be available around environmental protection and business development. If these fit in with plans that are already being considered and don't compromise with restrictions, it seems sensible to consider them. I've found that these rarely come at the optimum time for your situation, so it's good to have a development plan in place and to have already done much of the research beforehand to avoid inappropriate expenditure or the business taking a route that doesn't fit with your expectations.

I'm looking at housing all our animals at home during the winter rather than contract-rearing a group away, improving manure storage to allow more timely applications, and restarting the layers enterprise with a possible purchase of mobile units that comply with organic standards.

The next 5 years will see my son Matthew taking on more management of the dairy herd and for him to implement his ideas. His youth and my experience should be a powerful combination if utilised correctly.

Advice for aspiring farmers

I've always had a bit of a thing about attention to detail. It's those that add up, but also you need to keep your head up, stand back and view the big picture.

Unless it's a hobby, then a good understanding of the finances is important. I have found that the lack of it can cause a lot of stress as well as focus on the wrong areas.



RICHARD PARK

Low Sizergh Farm, England

MAIN ENTERPRISES:

Dairy

MAIN SALES CHANNELS:

Wholesale via coop

On-farm vending machine

AREA IN PRODUCTION: 153HA

STARTUP YEAR: 1980

STARTUP INVESTMENT: N/A

REVENUE: €532,240

NET PROFIT: €66,500

website / instagram / facebook



MATT SWARBRICK

Henbant Permaculture, Wales

The farm

Henbant Permaculture is 30ha and located in North West Wales, UK. Our current primary enterprises are a market garden, tourism, pasture-raised beef and pastured eggs. Side-enterprises include pasture-raised sheep, forest-raised pigs and biochar. Future additional primary enterprises will be micro-dairy (100% grass-fed with calf at foot), top fruit/nut agroforestry (with a focus on juice/value-added products) and holding space for people to come together (to learn and train and to share visions and experiences to build a more beautiful world).

Our vision

We set out to know and be part of an ecosystem, to build a nest and produce great food for our family, and to share that life with those for whom it is harder to access. The idea was to be a permaculture-inspired smallholding that sells and is funded by its excess. That sounded like a good life. I had spent much of my previous years making natural history films and the combination of spending time in amazing natu-

ral environments and travel meant I felt the need to settle down and become part of an ecosystem of my own. We, at the time, consisted of myself and my partner Jenny; we were both in our early thirties.

We were very conscious that if well-meaning people buy small farms but never actually produce food then even more of the world's food just comes from industrialised agriculture. We wanted to use permaculture as an approach to smallholding, but with a strong eye to efficiency, productivity and profitability. We don't carry passengers, everything on the farm has to serve at least one purpose and ideally three.

We also came in with the view that farming is the most important job in the world. We wanted to prove that it is possible to buy a small farm on a mortgage whilst paying for it by producing real food. That at the same time it's possible to build natural capital, in soil and biodiversity, and social capital, by sharing the farm both locally and wider with tourists and volunteers; and that we could do all this whilst enjoying ourselves. If we could do this, we felt the future would be better for all involved.

Our initial context:

To have time to enjoy each other, not get stressed and stay healthy.

To have an abundant and productive farm with healthy soil.

To have a stable, sufficient income.

To live purposeful lives we can be proud of and to make the world a better place.

To have a diversity of visitors to the farm and for the farm to be valued by them in their lives.

Our initial focus

We bought Henbant in Autumn 2012 with Jenny expecting our first child in the spring (we now have three). The house had not been lived in for forty years and the land had very little left by way of fencing and walls. The house had no roof, electricity or water. So we bought a caravan and set about renovating the house and basic infrastructure.

We did not have deep pockets, so we needed a reliable income quickly. We initially focused on tourism. We set up with just camping and glamping via bell tents, then over time, we have built first yurts and later a low-impact roundhouse and wooden yurts. Things that can be used year-round and that we don't have to worry about on a windy night. To keep spending low and to make rapid progress, we have a never-failing 'that will do' attitude and this serves as a reminder to aim for good enough, not perfection.

We wanted to provide for our diet first, then that of our guests and the local community. We thought it a good idea to try a bit of everything that we may want to do, see what we liked and have time to understand the farm's weather, layout and qualities. Also to then have smaller mistakes that we could learn from, rather than catastrophic ones. It's always better to poison 10 sheep than 100. In the first year, we bought three Shetland cows, 50 laying hens and the start of a sheep flock (much of which was donated by neighbours). We also developed a good-sized kitchen garden and a small orchard.

It was important to try with sheep and beef as a way of understanding how the local agriculture currently works and it helped a great deal with fitting into our community.



Henbant farm centre from the air.



Jenny and I with Esme, our youngest child.



Jenny and I with Nel and Meryn, our two eldest children, and some of the sheep.

Our startup investments

We intentionally took on a larger piece of land than was needed. This was mainly because I get bored easily and thought I could change jobs every few years. I could be a sheep farmer for a few years, then a forester, then set up the lakes and ponds with aquaculture etc. We thought that we may at some point want to share the farm with more families, our parents or for our children to have space to also live their lives here (or kick us out to live in the woods). The farm cost €375,000 and we have a mortgage of around €145,000. This bought 30ha of land and a small derelict house and outbuildings. One-third of the land is improved pasture, one-third rough grazing and one-third woodland and lakes. Its diversity made it more affordable and yet, for us, more attractive. We are two miles from the sea and at about 100m in altitude.

We managed to get everything up and running very cheaply, but as enterprises have become more real, we are investing further in them to add efficiency and some level of safety, quality or volume. I would say we could have saved by going straight for the better systems but it would have been too much as an initial cost and it's difficult to know what you need from the start.

After we bought the farm, we had €33,000 in our pocket to make the farm work, to renovate our house and to last until we could make an income. We have never had that again, but nor has that pot ever run dry. We haven't repaid a significant portion of our initial debt, but we have continually reinvested in the farm and we are moving it towards a more perennial, layered and resilient farming system.

Though I can estimate our setup costs, these don't include all the more complex 'farm-wide' costs such as trackways, car parking, water and electrics etc. nor the cost of the quad bike/tractor, livestock and seed. These are all not insignificant.

We have used grants to help with building up infrastructure, but we have been very selective with these and only used them where it was something we would have done anyway. This has helped enormously with perimeter fencing and some hedge planting and fencing on existing field boundaries (€44,000), building an egg packery (€2,200, known to the EU Grant scheme as a chemical store), setting up an independent spring water system (€2,200), efficient water heating for the dairy, which by chance can also heat our house and camper showers (€3,300) and animal handling facilities, cattle crush and sheep race (€4,400).

Glamping unit (homemade yurt with decking, stove, simple kitchen, fit-out): €4,400-€7,700 per unit; we have four of these and have installed one per year over the first four years.

Market garden (~1,200m²): Compost €1,435, irrigation €660, pack shed €1,100, fruit trees and perennials €880, 2x polytunnels €5,500, crop protection nets €660, windbreaks and rabbit proofing €550, plastic bed covers €440, tools €660, start trays and propagation space €880. Total set up: ~€12,800.

Pastured eggs (enough for 300 chickens): egg mobile €990, energiser and nets €440, nest boxes €330, feed store (adapted shipping container) to allow buying in bulk feeds €2,200, egg packery €1,100, 300x 16week old hens €1,985). Total set up: ~€7,050

Micro-dairy (enough for six cows): Milking parlour/dairy building €2,200, bottle storage space €550, milk pump €880, bottling room fit-out, posh dishwasher, and milk chiller (actually just a freezer) €2,750. There is an additional cost for some winter housing and concrete yard etc, €6,600. Total set up cost: ~€13,000.

Our other current enterprises have very little individual capital expenditure not already mentioned and our agroforestry set-up is only halfway through and hard to cost. An estimated cost so far of what we have spent breaking up 10ha into 30 day-sized grazing units with top fruit, soft fruit and some browse/shelter rows (with semi-permanent electric fencing) would be about €7,500.

State of affairs

We love what we are doing very much. We are paying the mortgage, producing food, providing a valuable space for people, building biodiversity and soil and bringing the community together. I do feel like our income is still very much dependent on the tourism side of the business and this, especially highlighted by COVID, lacks resilience. It is also not the model I want to be able to show to other farmers. Recently we have become a demonstration farm for Welsh Government and whilst this is brilliant, I do feel like we need to up our food production game if we are going to inspire the hearts and minds of more traditional farmers. This is however changing rapidly and I think next year this won't be an issue.



The market garden.



Our new tunnel.



Jenny packing CSA boxes.

The market garden is now running properly and we are selling most things under a CSA model with thirty members collecting pre-made boxes from the farm, which allows us to sell them other items from our small farm shop and many do buy meat, eggs or bought-in organic staples. It is very much a Ridgedale-inspired system with fruit tree and flower rows every ten beds. Whilst this is very hard work, it is one of the most rewarding things we are doing. Next year we will try to get somebody else to run it as their own enterprise and I think we could easily do forty shares.

The eggs are working, and although we did have initial plans to expand up to 900 birds in three egg-mobiles, I feel one and 300 hens is the right scale for our land and market.

We have finally got good with sheep and also built up a solid market for them including wool for crafts and tanned sheepskins. We have done well at making the most of every animal. For us, however, there are real problems with them and the agroforestry lanes, as they break fences and eat trees. We have reduced the flock from 70 ewes to about 35 and may stop sheep all together this winter.

We find beef very easy to sell and it could be significantly more profitable than it currently is. As we reduce the sheep numbers, we will increase the cattle. As we are developing the enterprises, I can see an evolution taking place; the beef herd will migrate into a dairy herd that we will fatten and finish a few animals off the back of. We did get running with the micro-dairy, but we were doing too many things at once so we paused to establish other enterprises first. We will move our focus more towards the agroforestry; if we could implement that across the rest of the farm the potential is huge.

We are meeting all of our holistic contexts apart from having time for ourselves. We are working hard, and though we are providing a great space etc, for our children, both Jenny and I do often reflect that we don't give ourselves or our children enough time. I find there is a real conflict between the ambition of building an inspirational farm and staying within my holistic context. I would love to find a way of taking time out for exercise and getting lost on adventures with the children.

Sales and marketing

We have gone for a smaller group of customers to whom we can sell a wider range of things. This fits with the feeding-our-community model we wanted and in many ways is easier. This has built slowly over time and is still

very much evolving; in some cases, it has taken a year or two to get the customer base. We do still advertise on Facebook and to an email list when we sell meat boxes. We tend to try and sell one batch of meat a month and then just have some in the freezer for the farm shop in between.

We often have a surplus of eggs over what our local customer base wants. Here we are fortunate to have another local veg box scheme who can sell our excesses and a few local cafes that want eggs. We do have difficulty getting the price we need for the eggs with retail sales.

The tourism works well for us, as the summer peak of visitors also matches our summer excesses when supply outstrips demand and also when our CSA members may be on holiday etc.

Challenges and learnings

I always thought we'd grow some veg, some cows and a few children and have a nice time. I never foresaw the amazing challenge that is offered by trying to create a layered farm and edible ecosystem. So far we are only making use of 10ha of the farm well. Some amazing agroforestry, pond and aquaculture systems can be developed in our woodlands and between our lakes. I never saw the true potential of agroforestry and fruit and nut crops before we started.

I feel like Henbant is a bigger project than we ever imagined and comes with an obligation to produce food and to share the space and experience. Whilst these are all the things I value and love, sometimes I feel it would be easier to do less with the farm.

Our biggest challenge has been the amount of time and energy that the farm can use. If we did everything that wanted to be done, even 'needed' to be done, each week we would be putting in 100's of hours per week. This is a challenge in that you have to prioritise a lot; sometimes you have to decide to ignore something, sometimes this may be your own children. Animal welfare is the only place where there is very little compromise.

For example, we could meet our basic financial needs with tourism and just produce food for ourselves with a little excess or one or two enterprises, perhaps beef and fruit juice. This would meet more of our holistic goals in terms of family time and looking after our health, but I am addicted to building a complex ecosystem of layered enterprises. I see the value of regenerative agriculture more than ever and I love being part of this growing and essential movement.

We have an almost constant population of people set-

ting out on similar paths to ours who come here as volunteers. This has become a really valuable thing on both sides of the relationship. It is very hard for people to step aside from their day to day lives, to stop paying rent and earning an income and to learn if farming is for them. I do sometimes feel like for our sanity it would be easier to employ people, but it feels good to hold that space and I love the energy, community and entertainment that comes with it. Farms are meant to have people on them and we wouldn't have achieved half of what we have without outside energy. This winter we planted 1000's of trees on weekends with volunteers, and this was a joy apart from the fact that it is very hard to get people to take straight lines seriously.

For the past few years we have had an intern who has specialised in each aspect of the farm; somebody looks after the chickens and the dairy, somebody looks after the growing, and sometimes we have had people who want to look after our guests. Whilst this helps a great deal, all the responsibility still bubbles quite quickly up to me. I think I now want to share the responsibility. I would rather have a smaller income and share out the load of the farm. One of our next steps is to look for people who would want the responsibility of running their farm enterprise or to create some paid roles.

Plans for the future

The next five years on the farm will be exciting and transformative. Our main aim is to return to our holistic context. Where an enterprise is making a real profit, we will use that profit to offer it as a functional business to somebody else on some kind of farm-share model or else employ somebody to do it with us. I spent a long time thinking I was lazy if I got somebody else to do things for us; now I see that we are creating job opportunities and space for others to share in a regenerative livelihood.

I would love the farm to run more formalised internships and training. We are building a training space, café and permaculture/regenerative agriculture library.

I feel the farm will be much richer in trees and biodiversity in five years. We have planted many that are now really starting to become trees, but the weight of our trees are going in this year and next. It is great to see this increasing complexity and watching what was a quite two-dimensional system turn into an edible system of paths and glades.

Advice for aspiring farmers

Get on with it, yes, do plan, yes, do think things through; but do also keep making practical steps forward.

Pick your fights. Yes, be principled, yes, hold the Earth Care, Fair Share and People Care in your mind and your actions; but get on with things and don't beat yourself up if you sometimes don't meet up to your principles.

Get the things that make the easiest money running first, then your trees, then your infrastructure, then the businesses you believe in the most.

Get a few people along to help you. Don't pretend you can train them (unless you can), be honest with your knowledge; but if you are setting out on this path, there will for the next fifty years at least be many more people a few steps behind you or that can't get started. Let them come and share in your learning, mistakes and joys.

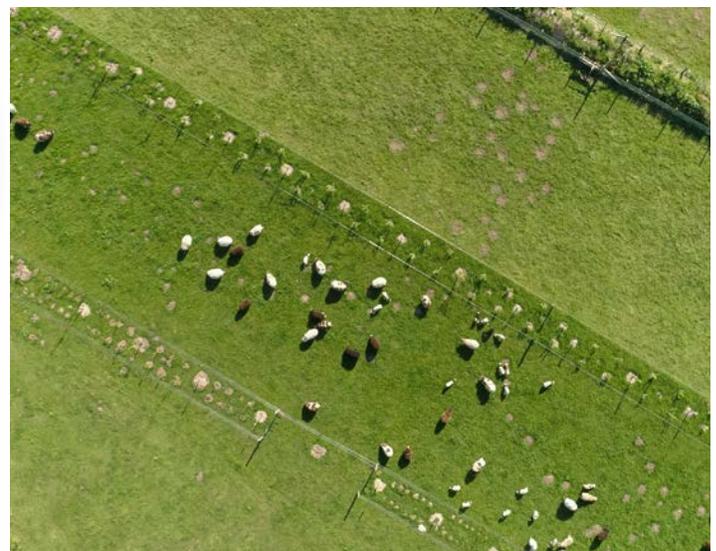
Spend the time looking at the farms and farmers that inspire you; visit them to see what they do, how they do it and if they enjoy it.



Some of the cows and the egg-mobile with the layers.



The layers.



The sheep between agroforestry rows.





An agroforestry row.



The low-impact roundhouse for guests.



Community is at the heart of Henbant.





MATT SWARBRICK

Henbant Permaculture, Wales

MAIN ENTERPRISES:

Market garden / Tourism / Pasture-raised beef / Fruit agroforestry / Pastured layers

MAIN SALES CHANNELS:

CSA / Farm shop / Wholesale

AREA IN PRODUCTION: 20HA
(out of 30HA)

STARTUP YEAR: 2012

STARTUP INVESTMENT: €565,000
(over 8 years, incl. farm)

REVENUE: €140,000

NET PROFIT: €95,000

website / instagram / facebook





MICHAEL WALSH

Broadfield Farm, Ireland

We have been farming in southeast Ireland for 4 generations and farming suckler beef for approximately 20 years. I began my regenerative journey around 2015 while I was working on a research farm for a university. Researching the field, I found that market gardening was a big focus point that seemed quite simple to get into. I previously worked on a fruit farm for a couple of months and realised the labour that was involved in horticulture, so I approached cautiously. My focus was to set up a pastured poultry enterprise with on-farm slaughter facility. I had the vision from 2015 for the on-farm slaughter facility and decided to purchase equipment while I was working to dilute the initial start-up cost. I found plucking machines, cold rooms, stunners quite cheaply, as I could shop around.

Approximately 2016, while I was still working, I started Broadfield Farm and began selling some extra vegetables I was growing. I also had a small laying flock of 40 birds, so I was selling eggs as well. (I still have those customers today).

Having experience within the different enterprises on a small scale, I decided to scale the layer flock when I went full-time at Broadfield Farm in March 2019 and gradually build up the pastured chickens. I went with 200 layers in year 1 and approximately 600 chickens.

A note on the slaughter facility is that we dry-pluck all the poultry. This does limit the birds we can throughput, but we feel it adds to the finish of the birds, extends shelf life and is a great selling point for turkeys.

In Year 2 we have 450 layers and will finish 1,000 broilers. Our broilers are run from May until November as we have very wet cold winters here (annual rainfall is 1,200mm). We house our layers in a polytunnel with access to pasture during the winter also.

My focus starting was to try to remain debt-free. That was why I purchased so much equipment while I was working a job. My egg mobile is a cattle trailer that I put a roof on and put roost and nest boxes into. I used as much material that we had lying around as I could. To accommodate the extra hens, I used the loading ramp for the cattle as a floor and made extra room on the back of the trailer.

I built Salatin-style pens for the broilers, but I decided to change them and put permanent wheels on them as I found that I wasn't running enough poultry to make it worth my while moving the birds daily. So, I now have 150 birds under 2 Salatin-pens on wheels inside a 50m poultry net. I move every 3 days, as I found it increases the impact on the ground to a larger area and reduces workload. I also changed my broiler breed to Hubbard

from Ross 308. These birds are very well suited to my system. They finish from 73 to 94 days (we slaughter over 4 weeks) and are such lively birds. They will roost where they can; catching them for slaughter day is quite difficult as some will fly out of a 2-foot-high pen.

The slaughter facility I built is based inside an existing shed. When I purchased my cold rooms back in 2016, I had to have future thought when putting them up as to how my slaughter was going to be laid out. I had to knock an existing wall and knock some holes in walls to create doors. I had to pour a floor and put in drainage. I was able to do all this work myself. I then sourced as much cheap material to finish the facility as I could. It took a long time to figure out what would work for ceilings and walls, but I eventually found simple materials. For example, I used some old timber I had built my first Salatin-style pens with. I used these in the ceiling as they were quite heavy timber. Being innovative is critical in this industry as there is no end to what you could spend.

My costs for setting up each of the enterprises were quite low. My egg mobile, which was formerly a cattle trailer, was purchased approximately 9 years ago for €1,500. When I converted it, it was worth probably half that, so €750. I invested €300 in year one and another €300 in year two. We purchase hens for €5/bird (high-line brown layers).

My slaughter facility has cost me approximately €10,000 over 5 years. Building Salatin pens cost €150/pen and I have 4 of them. 50m of netting is €170 and I use 2 of them for our broilers. We use a battery fencer which cost €200, of which I have 2 for the broilers. We used old batteries we had lying around. I purchase the birds as day olds for €0.85/bird. My brooder was built using a small shed we have; I used a lot of scrap timber to make the structure. I use a gas brooder which cost €180.

For the layers, I turn over €32,000/year currently with 450 hens (200 of these layers are currently over 1 year old so are laying at 65%; I will replace these in September 2020 with 300 birds). I will net approximately €18,000 in 2020.

Broilers are again quite a small enterprise currently. Turn over from 1,000 birds in 2020 selling birds at €9/kg with an average bird weight of 2.3 kg is €20,000. I will net approximately €11,000.

We run a small turkey operation. I will run 100 turkeys for Christmas market. These will be sold for €10/kg. They are all bronze birds. They will turnover €6,000 and will net €3,500.



Egg-mobile from converted cattle trailer.



Inside the egg-mobile.



Hens enjoying fresh pasture.

Working in my second full-time year now, I find the easiest sell is eggs. People love them and they are quite simple to sell once you establish customers. I have worked with livestock most of my life, but managing a poultry flock is very time-dependent and requires you to work long hours. You must be prepared to put in long hours to establish your business. I find the most difficult part is the selling. I can sometimes find myself getting sucked into doing all the hands-on physical work but then forget to put time into my social media where I do most of my selling. So, finding a mix between the two is important.

The enterprises I have started on the farm are very complimentary of one another. We do not lose anything but gain from the poultry on the farm, which works well with our beef enterprise. The slaughter facility adds great value to the farm also going forward.

My main sales have been through Facebook. I built the Facebook page in 2016 and have been building it ever since. It can be quite difficult to get the strategy right as you cannot be constantly selling, you need to be adding value to your service, like giving receipts or advice. You need to give back to receive more attention on social media. This can be difficult and trying not to be repetitive is important. Keeping the audience interested is a time-consuming job. I created a Facebook group to try and make an interesting outlet for people who are interested in a different way of looking at food and living. This has also helped with sales. I used Facebook ads quite a bit, but recently I have stopped as I find my return from them is lessening. I have now moved to try creating WhatsApp groups for all my customers for each location. This may make it easier for people who may not use Facebook as frequently as I may need. I sell through drop-off points. I target large towns and cities in a 100km radius of the farm. I do two drops each week on a Wednesday and Thursday evening. For example this week I will be in Kilkenny city from 5:15 to 5:30 pm, then continue to Waterford City, which is 30 mins away from Kilkenny, where I have 3 drop-offs between 6:30 and 7:25 and New Ross town is then on my way home at 8:00 pm. I leave the farm at 3:45 and I am home by 8:30 pm. This particular drop is my furthest and for the rest, I usually leave the farm around 5 or 6 pm. I have 2 cities with approximately 50,000 people in this drop-off, so I have the potential to develop here. My customers are consistent returns, and I find that from doing it for over a year I am now almost becoming friends with so many of them. This is the beauty of relationship marketing. Putting time into your customers



Day-old chicks in the brooder.



Broilers on pasture.



Packaged pasture-raised chicken.



Turkeys enjoying the outdoors.



Bronze and white turkeys.



On-farm slaughter facility.

will eventually pay off. It was a slow start as I only sell trays of 30 eggs and convincing people of this was difficult. But once they started there was no going back. The egg quality is huge, which helps. I have one customer who can buy up to 18 trays in one drop-off from me. This customer has friends who she gets eggs for. I appreciate customers like this as it makes my selling much easier now. And showing appreciation to them from time to time is important also, like extra eggs or chicken to keep the relationship good.

I find that as I have experience with livestock and I have done plenty of poultry slaughter for myself before I started fully, I do not find the animal husbandry difficult. But building a customer base and building websites, paperwork, social media etc. is quite difficult. I find that sometimes the plan on paper does not always correspond to what happens on the ground. I find there must be wiggle-room financially in plans when making them. I had plans to have x amount of chickens pre-sold by a certain date in the pre-season. This did not work for me this year and I found myself tight on cash. I found I did not leave enough scope in my plan for this situation. Luckily, I got through it.

Weather can be a huge factor in how your season goes. For pastured poultry, especially broilers, wet weather is not good. I've found myself early in my first season rescuing birds late in the evening because a field got waterlogged from heavy rain. Not ideal, and it shows the importance of being observant and present.

I ran into quite a few bureaucratic problems in my first year. I had full inspections from the Department of Agriculture just after starting. This in turn led to further interactions, but I believe that if I had gone through all the correct channels before starting, I may not have started at all.

On one of my drop-offs, I was ambushed by an organic marketing standards officer. I had said in some of my social media posts that we feed organic feed and mentioned organic-fed poultry. I was forced to remove all my social media posts that gave any reference to organic, even a picture of the organic feed we use. These were not major problems but just I found angered me at the time. I have since looked back and realised they were a great learning curve and I worry less about the official administrators, inspectors and bureaucrats now and put my focus into what I am doing.

I aim to move my slaughter to wet-plucking next year and set up a separate clean room where I can process meat. I will then begin cutting up chicken and sell whole or part. I will also be moving our beef to try to



Heifers on pasture.



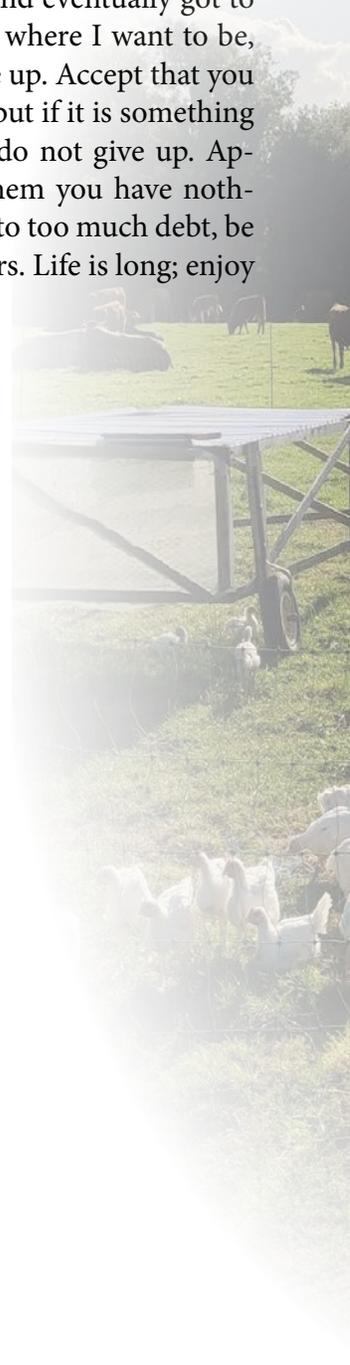
Dry-plucked chickens ready for package.



Views for the hens.

sell pasture-raised heifer meat. Again, I will plan to butcher that on-site and sell it fresh and frozen. Expansion of our egg-laying flock is in the cards. I would like to be around 1,000 hens in the next 3 years, provided our economy is still ok and enough people can afford to eat good food, which I think some always people are. All the above expansion we will be able to do for small money. I reckon we can build our new cleanroom for about €3,000. And expanding our layers requires a new or bigger egg mobile, which I believe we can do for around €2,000.

When I started, I began with a vision of what I wanted to be doing. I built this over time and eventually got to where I am. I am a long way from where I want to be, but I am building it. So, do not give up. Accept that you may be going to have tough years, but if it is something you want to do, stick with it and do not give up. Appreciate your customer, without them you have nothing. And if you can avoid getting into too much debt, be willing to live humbly for a few years. Life is long; enjoy the process.





MICHAEL WALSH

Broadfield Farm, Ireland

MAIN ENTERPRISES:

Pastured layers / Pastured broilers
Pastured turkeys / Suckler beef

MAIN SALES CHANNELS:

Direct sales via drop-off points

AREA IN PRODUCTION: 27HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: N/A

REVENUE: €58,000

NET PROFIT: €32,500

website / instagram / facebook



JENNY AND ANDY MACDONALD

Woodside Arran, Scotland

Woodside Arran CIC is a small social enterprise farm on the Isle of Arran, off the south-west coast of Scotland, around fifty miles west of Glasgow. The farm is 39ha of mixed grazing and conifer plantation, on a southerly aspect. As a social enterprise the farm has a board of directors, however, is managed exclusively by husband-and-wife-team Jenny and Andy Macdonald. The farm was initially rented annually, so all infrastructure had to be moveable, however, we now have a secure short-term agricultural tenancy of another four years, giving us additional stability. For the first three years, we were on a private water supply which often ran dry, and we were unable to improve due to the insecure tenancy; however, eighteen months ago we connected to mains water. We started trading in 2017 and the business is now focused exclusively on free-range laying hens and organic fruit and vegetables.

We currently have two hundred hybrid laying birds who rotate on pasture, year-round, in a Ridgedale-style mobile house. Due to being on the coast, roughly three hundred and fifty metres above sea level, we have late frost dates (late November – March), so despite high rainfall snow is uncommon and we can keep the birds out year-round with moves ranging from daily to weekly, depending on the season. Our market gardens have two-bed lengths of

10 and 30m, both of 75cm widths. The beds are active year-round with the majority of our product sales coming from June until December; however, with tunnels, we can offer year-round salad production without heat. Other enterprises such as meat chickens, bees, free-range pigs and specialist poultry are all kept at a homesteading level. Alongside animal and horticultural activities, we operate a Norwood HD36 Mobile sawmill, milling local timber on-site and catering to other small woodland management contracts.

The vision for Woodside Arran is to establish a model of sustainable, resilient and self-sufficient community-led regenerative agriculture that protects biodiversity and generates local livelihoods on the Isle of Arran.

Back in 2016, our initial focus was on testing the market and establishing a community-supported agriculture (CSA) vegetable box scheme. Over the first eighteen months, we offered three different sizes of boxes, sold year-round, supplemented by other organic growers' produce, and over time we built to around 35-60 boxes per week. Alongside this we developed a rare breed free-range pork enterprise, selling animals in half pig, quarter pig and taster-sized boxes. Within the first season, it quickly became clear that to engage our community we would have to offer other retail options, as a weekly box

scheme did not allow the flexibility people needed. At this point, we purchased a Mercedes sprinter van which had been converted into a mobile shop, as there are no farmers markets on the island and we hoped to create a demand for one. The shop travelled around the island selling our produce, other organic produce and a variety of other island producers' wares. So by the second year, we were focused on CSA, the mobile shop, free-range eggs, Christmas turkeys and geese and a large heard of Oxford Sandy black pigs. Not long after, we added an online shop to our website to allow customers to order specific individual items. Throughout this period we were also heavily involved in local education; providing school talks, attending education festivals, having open farm days and doing a lot of community engagement work.

Over the following eighteen months it became clear that by doing so much we were missing out on what was important. We were constantly stretched for time and stress levels were high. We have had other seasonal part-time members of staff and yearly interns, however, the farm is fundamentally just run by Jenny and Andy and while trying to maintain that level of work and raise our two young kids, it became clear that we were heading in the direction of burnout. After the 2018 season, we realised we had to reassess our holistic context and reevaluate the timescale of our ambitions considering all we had learnt by this point. While the pork enterprise was very popular, the margins are extremely tight. Heavy rainfall during winter leading to constant mud and high bedding costs plus additional island haulage costs on animal feed and expensive slaughter fees made it clear that the work involved in creating the pork was not cost-effective. We sold our breeding animals and focused on the enterprises with the highest return. It was also clear that while community engagement and education work is extremely important, with time being our limiting factor we had to pull focus towards the on-farm enterprises, accepting that while marketing and education are ongoing processes, we have to prioritise production for just now. We also assessed the sales within the mobile shop and had to accept the feedback that many of our community found it difficult to arrange their lifestyle around shopping at specific times, being so used to the long opening hours of the supermarket. With a choice between spending our limited time managing the shop for longer hours or spending that time increasing our production, it was obvious where our focus needed to be. We, therefore, chose to cite the shop permanently at the farm and return to a more traditional form of CSA, producing only two sizes of boxes for twenty-one weeks of the year, with only our



Isle of Pladda and our new COVID gardens.



Base of operations and our first no-dig beds.



Directors Andy and Jenny by the pond.

own produce. This allowed us to increase production by 100% that season and reduce expensive wastage rather than trying to cater to everyone's needs. At this time, we also re-evaluated our overall sales patterns; typically 20% of our sales were wholesale and 80% public sales. With our island being a limited market of 4,500 residents and the time involved in public sales being much higher than that involved in commercial retail, it seemed appropriate to try and increase our wholesale accounts, as while they offer a lower sales price the time to manage these accounts and deliver is considerably less.

At around the same time that we were planning to increase our wholesale accounts, we also managed to connect with our local authority North Ayrshire Council (NAC). This led to us being able to negotiate a unique procurement contract to provide fruit, vegetables and eggs to the seven local primary schools, the high school and the care home. This opportunity came about with the support of the Soil Association's Food for Life programme who collaborated with ourselves and NAC in establishing the contract. This unique contract we felt was making more of an impact on our community than the education work, ensuring that local produce was getting to the most vulnerable of our community rather than just the middle classes. The contract also presents a significant financial input which can be delivered with limited administration and is a relationship we are keen to grow as the local authority understands the importance of a circular economy within the region. While difficult to establish and time-consuming in the beginning, we hope that from 2021 we will be able to showcase this relationship nationally and act as an example of how small-scale local growers and local authorities can work together throughout Scotland, ensuring more local food within government-run establishments.

The initial investment into the business came from a small amount of personal funds and grant support. As a social enterprise, we are eligible for certain funding in the UK. This takes a lot of time, however, and throughout the first three years, the equivalent of one full-time position was spent fundraising, again limiting production time significantly. Through the initial €39,000, we were able to purchase the necessary tools to start production and sales. Over the first three seasons, we had an overall turnover of approximately €109,000. As a social enterprise, we are not looking for a large net turnover and rather reinvest in the organisation. With the money produced, however, we have been able to sustain two full-time members of staff and two seasonal part-time members of staff and have purchased all the equipment necessary to run over



Close-up of the newly-made beds.



Salads and greens in 10m beds.



A mixed CSA box by the pond.



Chicken tractor version one, for 50 hens.



Our first beehive, an enterprise we intend to expand.



Our Oxford Sandy and Black breeding boar.

1,450m² of market gardens year-round, including caterpillar tunnels, a BCS two-wheel tractor, polytunnels and specialist tools like the paperpot planter. As previously mentioned, one issue we do have is regarding haulage. Our average haulage bill is over €4,400 per year. Compost for the no-dig market gardens is a perfect example; where 20,000 litres of municipal compost may only cost a few hundred pounds, to get it to the farm costs at least €550 in delivery fees. We were fortunate to receive grant funding last year for an in-vessel rocket composter, which we now use to produce much of the onsite compost needs. We collect waste from the care home we deliver to and before the COVID restrictions from the high school also to manufacture compost on-site. However, all other feed, tools and materials still have high delivery costs.

2020 has been a year of significant change for all. For ourselves our main contract was stopped overnight as the schools shut, our international interns could not attend, and as we also had to homeschool two children our workload increased dramatically. We decided that we would do our best to just produce as much food as we could despite the difficult circumstances and donate it to our local food bank. However, we were fortunate that one of our funders heard of our plan and suggested we apply for Scottish government funding to provide for our community during the lockdown. Therefore this summer, due to this funding, we were able to significantly increase our growing space by 1,000m² and bring on additional seasonal staff. This allowed us to produce over 1.3 metric ton of food which we distributed to those financially struggling as a result of the pandemic. This new market garden space will be used in subsequent seasons to increase our production, without any limitations on the income produced.

During standard times, as a very small island, we rely heavily on word-of-mouth for marketing. With only 4,500 residents on the island, we have to cater to our community's unique needs, as there is not a reliable way to sell to the larger populations on the mainland. This has meant growing crops that they are comfortable with and not over-stretching their palette too quickly, as we did initially. One of the main things we have learned is that if you have to explain something you will be unlikely to sell it, at least within our context. We have therefore reduced the number of crops grown and focused on those which we know will sell regularly with a higher profit margin. We continue to challenge the low food market price, demanding a premium for our products; however, we have to monitor this closely, as unfortunately culture in the UK is still around constantly lowering food prices, instead of

increasing standards. Regarding animal enterprises, we choose to focus exclusively on egg sales as this is the best return for the amount of time spent. This is an enterprise we intend to expand over the next two years, both with public and wholesale markets available.

As mentioned previously, doing too much too soon was an expensive mistake we made and advise against. Since focusing on market gardens and eggs, we have been able to increase our production more gradually and efficiently. While it is unavoidable that mistakes will be made at the beginning of establishing a farm business, this is the thing we always tell new farmers: start small and keep your ambitions in check. Farming always provides the unexpected while taking everything you have and more, so if you are doing too much from the beginning you will only burn out. If you are planning on farming as a couple or family as we do, then considerate and clear communication and boundaries are essential. Financial pressures, constant hard work and Scottish weather combined have often pushed our tempers and patience to the limit and as two fiery characters, there have been times where this has been a recipe for disaster. As much as we love what we do and accepted the inevitably huge amount of work starting a farming business would create, there have still been extremely tough days. If your relationship has noticeable cracks before starting, they will turn into gaping fissures at one point or another. We counter-balance this by trying to joke and laugh as much as we can and keep Sundays as sacred family time. However, the odd in-bed discussion about chicken tractors does still occur, so we are constantly trying to recommit to off-work boundaries.

With the lessons learned from our first four seasons and having successfully adapted to the very changing circumstances of 2020, we are looking towards the next five years with renewed optimism. Brexit and the post-COVID economy means that food security is more important than ever. Due to weather and ferry issues our community is used to empty supermarket shelves for a few days at a time, however, seeing it occur nationally has changed the public perception around local food. We aim to capitalise on this as our products have often been viewed as a luxury, not a necessity. Through constantly analysing our sales figures and holistic context we have learnt to focus our attention on what works for our specific community and fits our lifestyle well. We aim to add a small herd of Shorthorn Beef cattle to the farm in early 2021 and will continue to research the viability of raising meat chickens on-site. As our egg enterprise increases, we will have to deal with larger numbers of birds coming out of production each year and there does appear to be a market for



Andy operating the Norwood HD36 mobile sawmill.



Our Tidy Planet Rocket composter being delivered.



Our mobile shop up in Lochranza.

pasture-raised meat birds; however, we have the challenge of high feed costs. With this in mind, we continue to review if or when will be the right time to invest in an on-site slaughter facility. Our immediate aim is to purchase 13 acres of the farm by the end of 2020 allowing us to focus on perennial agroforestry crops and increasing our laying flock up to seven hundred birds. A mixture of fruit trees, bushes and coppice wood species will add income which after setup fits within our seasonal timescale. We also aim to tap into the tourist market; over 400,000 visitors come to Arran each year and capitalising on that market is a priority for growth. The local timber aspect of our business is also something we are keen to develop. The only on-island sawmill closed in 2018 and as over one-third of Arran is covered in timber, with almost all of it being shipped off-island or cut for firewood, there is an opportunity to build into the forestry industry on the island and promote local timber products and agroforestry techniques in the replanting scheme. The sawmill is mainly operational during the winter months, and this year we aim to build up a stock of green timber while building a solar kiln to dry hardwoods for future sales. Alongside the raw timber products, we will be producing garden furniture, raised bed kits and other products for sale from our timber. We also received funding this year to improve our intern accommodation, so we will be using that to produce a tiny house build which we could use as advertising for producing further sustainably built buildings in the future. Beyond these immediate plans, we are waiting to see what the upcoming year provides before making any long term goals, as it appears 2021 will be just as fluctuating as 2020, in the UK at least. Our long term goal to purchase the farm at the end of our tenancy remains our ultimate ambition, however, with high house prices in our area, the question of agricultural land-worth continues to be an issue. Valued at over €665,000, our farm is the perfect example of how the housing market and land availability makes it nearly impossible for new entrants to get a start in farming, as does the fact that one-third of the island is still owned by an off-island aristocrat family. Land ownership issues aside, it is clear that our island needs more local food and we are ideally suited to provide it. However, with such great uncertainty in the UK currently, we intend to take our time with reviewing and adapting our new holistic context and ensuring our business and lifestyle is sustainable for the ever-changing future.



JENNY AND ANDY MACDONALD

Woodside Arran, Scotland

MAIN ENTERPRISES:

Market Garden

Pastured Layers

MAIN SALES CHANNELS:

CSA

Wholesale

Farm Shop

AREA IN PRODUCTION: 39HA

STARTUP YEAR: 2017

STARTUP INVESTMENT: €35,000

REVENUE: €88,000 pa average

NET PROFIT: €38,500 pa average

website / instagram / facebook



SANDRA BAER AND LYNN CASSELLS

Lynbreck Croft, Scotland

We only meant to homestead

We never meant to be farmers.... We started with a shared goal of wanting to live closer to nature and the land. We had a dream of a couple of acres with some trees, some hens, a veg plot and maybe a corner for some camping spots to earn us a small income. We always knew we wanted to grow our food and live more symbiotically with nature and in harmony with the seasons. We wanted a place where we could quietly grow old together, opting out of a society where material wealth dominates and having time to stop and appreciate all life around us.

We were looking for land for 8 months before we found Lynbreck, and the old cliché of 'we just knew it was right' applied. It was above our budget, but we believe it was our focused drive and determination that made it happen. We pushed ourselves financially to buy a landholding that was bigger than we had planned in an area where we knew no one, many hundreds of miles away from friends and family. It became clear to us very quickly that we would have to review our plans to sit within a new context of owning a small farm.

But where it felt right was seeing the potential of what

lay ahead. We knew that Lynbreck had everything we would need to run a successful business that would provide mental and physical sustenance. Ultimately our health and wellbeing have to come first and that is something we believed that life here could provide for us.

First steps

Within the first few weeks, we started to tackle 2 main jobs; the first was to set up our kitchen garden. Our belief from day one was that we can't feed those around us until we can feed ourselves. An area in front of the house was fenced off and raised no-dig beds installed.

The second task was planting trees. We had just come from 2 years working as tree planters in the south of Scotland and this was a project we felt we could tackle with confidence. We have an area of about 15ha of hill ground that was starting to reforest with Scots Pine and Birch, due to a period of low-intensity herbivore browsing. We decided to speed up the process and add more diversity by planting a native broadleaved woodland.

We applied for funding from the Scottish Government for a woodland creation grant scheme and were success-

ful. By undertaking the majority of the works ourselves, we were able to bank any surplus money. During this time we started to understand the benefit that this decision would have in the longer term for our new farm business. Through planting, we would be creating 15ha of sheltered hill grazing with a more diverse mix of fodder for our cattle and pigs.

Alongside delivering these projects, we were earning as much money as we could off the croft and were starting to focus our ideas into a structured business plan that we could use to guide us and apply for other funding in the future. We were starting to think more seriously about sales and marketing, accounting and other core aspects of business management that we had no direct experience in. Like everything else, we wanted to do as much of this ourselves as we could – we've always felt that we are the ones who know our business best and therefore we are the ones who are best placed to make the decision.

Investments and income

After many years of working and saving, we had managed to gather most of the financial capital to pay for our land upfront. We had a shortfall of around €22,000 which we were able to cover thanks to a loan from a good friend. Therefore, when we moved to Lynbreck, we had zero money with a debt needing to be paid back within an agreed period of 2 years.

On reflection, this sounds a bit risky but it never felt that way as we recognised the potential of the landholding. Our first task was to start earning a regular income which we did through off-farm jobs. We have always been happy to turn our hands to anything, so finding work was always quite straight forward. This income would pay our bills with any surplus going towards the loan.

We quickly made use of any grant funding available provided through the agriculture support system. As we were deemed young farmers and new entrants, it meant that we could access 80% funding on capital projects up to the value of €28,000 which enabled us to build a new barn, renovate an old stone building, improve our farm track and put up some new fencing. We had our tree planting project 100% funded and we managed to get a new deer fence around an area of 9ha of naturally regenerating woodland in another section of the croft. And by having a business plan, we were able to qualify for the Young Farmers Start-Up grant, a €70,000 payout



View of Cairngorms.



Highland cattle.



Pigs.

to fund a kit which included our animal handling set up and a quad bike with implements.

We did have to contribute our own money as and when it became available to make up the shortfall on the capital grants. We tried to maximise the €28,000 project available, meaning that our contribution was often around €5,00 - €6,000 per large project. Whilst our investment costs have been high, we were able to build a long-lasting infrastructure that requires little to no maintenance and should stand the test of time. Our motto is to build once and build it well to last. And this investment has substantially increased the value of our landholding and enabled us to progress our business model.

It has taken us a few years to start to document and understand our costings. This financial year we are projected to make an income of €39,150 from meat, eggs, honey, tours and engagement and writing contributions, of which €14,500 will be profit.

Next year, our profit margin will increase by an estimated €110,000 due to running courses, extra tours for holiday companies, a publishing deal and income from our holiday rental. Once we have repaid the finance on the holiday rental conversion, we anticipate an annual profit from it alone of around €16,600.

Core decisions

We moved to Lynbreck in March 2016 and it's fair to say that we hit the ground running. We were working 16-hour days every day doing a mixture of outdoors and desk-based tasks. Whilst a lot of similar setups have decided to go down the route of getting in a volunteer workforce through opportunities like WorkAway and WWooffing, we made the decision fairly early on that that would not be the route we would want to take.

We've always been acutely aware that whilst we want our work here to engage with a worldwide audience, Lynbreck is our home and we live and work here as a couple. Therefore from day one, we have been very conscious of balancing the amount of time we give to others and the amount of time we give to ourselves.

Often this means that jobs take longer because there is just the two of us working on them. It also means we have to be realistic about what we can do and achieve here with a limited workforce. Whilst the potential for Lynbreck is endless, we have had to carefully explore what it is we want to do here and the workload we are willing to take on board, balancing that with making a living.

This is where we have found Holistic Management has been helpful through the writing of our Holistic Goal. We undertook training as a couple a few years back and it has been really useful in guiding us through different crossroads in our journey. It has helped us to stay true to who we are and what we want, rather than getting caught up in endless projects. It has helped us balance the three core aspects of ecological, economic and social wealth.

Building a customer base

As we were new to the area, we had to build a customer base from scratch and an easy route in was through egg sales. We started with selling eggs from our honesty box which sits at the top of our track. We also started to use social media to share our vision and raise awareness about our work.

After 2 years, we had substantially increased the number of laying hens we had. We were interested in the REKO model and were conscious that we didn't have time to spend going to farmers markets, but we enjoy the direct customer relationship. Therefore we started our own subscription-based Egg Club. It's a very simple model whereby people pay in advance, either monthly or annually, for a box of eggs delivered to their door. We only deliver once a week and to our nearest town which is 5 miles away. Our delivery takes between 1-2hrs and that's all the eggs gone for the week. Egg Club has been a huge success as it now runs itself and we have an excellent customer retention rate.

We decided to opt for a similar model for our meat sales. We produce small amounts of seasonal pork and Highland Beef, some of which we offer in meat box sales. The rest goes through our Little Mountain Meat Club that offers artisanal produce which we craft ourselves. We invite members, again exclusively within our local community, to sign up for an annual subscription whereby they receive a monthly instalment of our added-value produce directly to their door. Our club has been so successful that we have a renewal rate of over 90% and a substantial waiting list, so any vacancies can be filled quickly.

Another good way to build up customers has been to create a mailing list. Whilst our produce is exclusively local, we offer tours, courses and holiday accommodation which has a much wider audience. By releasing occasional produce with updates that include other relevant parts of our business, we can get good sales on our farm diversification elements, which form a significant



Butchery.



Whisky Oak Smoked Highland Beef.



Egg-mobile.

part of our income stream.

Staying true to the original vision

When we were dreaming of our place, our bit of land, we wanted to grow our food and live as harmoniously as we could with nature. When we moved to Lynbreck, the stark reality of needing to earn money hit us fairly quickly. We both wanted to live and work here full time, but to do that, we had to come up with a plan to pay the bills.

We started to build a strong social media presence and word began to spread of our 'progressive' approach to farming. We became better known and started to win awards for our work, catapulting us into the limelight even further. In 2018 we spent 9 months with a film crew from the BBC charting our first year of farming here at Lynbreck and when it aired in 2019, we became better known, now even in far-flung places.

We have found that people are asking more and more from us, wanting a bit of Lynbreck, and that is something that we have had to manage very carefully. Our early vision has held steadfast and, if anything, our appetite for it has increased. We are passionate about sharing our story of high welfare regenerative farming, our commitment to local sales and our business learning to help others on this journey and to help our customers make informed food choices. But now we host scheduled tours or offer an opportunity to book a private tour. We give talks but ask for a contribution in return to justify our time off the croft. We have never been solely motivated by making money, but by charging for our time we are asking people to value what it is that we do and the time that we can share.

Overcoming challenges

By far our first major challenge was financing. We put ourselves in a good position by buying our land but we had spent everything we had to get us there.

The most obvious route was off-farm work. We also started to look at funding available through the Scottish Government for agriculture support and looked closely at the range of available capital grants. The advantage of the capital grant is that you apply for funding towards a project and once it is delivered, the money is paid out. As long as you deliver what it is you say you will, it's quite a straightforward process and we felt there were multiple options for us which would align with the infrastructure we would need for our new business.

We have decided to opt-out of ‘management’ schemes that include annual basic payment subsidies and environmental schemes as we find these too prescriptive and restrictive. We’ve always set out to build a business that will pay for itself annually through the products and services that we provide.

An additional challenge was maximising the return on our meat product sales. We carry low stock numbers, to ensure our animals have a positive effect on the land, but it is difficult to earn a notable return for the time and effort invested. We were awarded a 5- year interest- free loan from the Organic Research Centre who were offering support to small ecological farming units to diversify. We installed a high spec micro-butchery including freezers, a walk-in chiller, meat processing equipment and a smoker. We taught ourselves butchery, had the facility approved by environmental health and started making added- value artisanal produce. The investment pays for itself with no additional burden on us to find extra money.

We are now in a position where Lynbreck is valued at nearly double the price we paid for it. We have the infrastructure we need to run our business which is now delivering an annual profit. And we have the capital we need to reinvest for the long term to give more diversified income, which helps to build greater resilience into our business.

Looking ahead

We feel as though we have reached a turning point in our Lynbreck adventure. This summer we managed to gather the funds to start the renovation of our old croft house. This will become a holiday rental and once we have repaid the finance, it will be a really good earner for us into the future. To get this underway is a major piece of the puzzle completed.

This coming winter we will be writing a book. We were approached by Chelsea Green Publishers earlier in the year and, following conversations, were offered a deal to write a book on our experiences at Lynbreck. They are a label who has published some of the biggest names in regenerative agriculture and organic growing and to appear next to names like Joel Salatin, Charles Massy, Ben Falk, Steve Gabriel, Eliot Coleman and Gabe Brown is very exciting for us.

We also plan to expand our kitchen garden. We have just installed a large polytunnel which will be transformative to extending what we can grow and our growing period. We want to improve our skills and knowledge



Beekeeping.



Tree planting.



Kitchen garden.

around food preservation, learning more techniques around fermentation and drying. We plan to build a root cellar for more winter storage of our summer harvests. We also plan to get 2 goats for our dairy consumption. Now that our business has strong foundations, we are enjoying the fact that we have more time to pursue what it was that initially brought us here.

Another goal is to work more cooperatively with other regenerative farming businesses in our area. We have started to offer our butchering services and we hope to share marketing and promotion going forward.

And of course, a final goal is to get a holiday! It is the one area we have failed in, so we are excited to finally get away again in the not too distant future!

Our two cents on starting up

The first piece of advice we always give to people who haven't yet started, who haven't yet found land, is to enjoy what we call the 'dreaming' phase. We spent so many evenings talking excitedly about what life would be like when we realised our dreams. This is a really special time and looking back, we wish we had enjoyed it even more.

The second piece of advice is; don't rush. We spent many many years working and saving to build up enough capital to buy our place. Even then, we were a little short, but we were confident that we could make it work with the solution we had found. But to own somewhere outright gives you so much freedom to do what it is that you want to do. It takes longer but there is no monthly mortgage or rental to pay and the weight that takes off your shoulders is immense. All of a sudden the day to day bills seems much more achievable.

Thirdly, where possible, visit other people who do what it is that you want to do and learn from their experience. This was invaluable to us and helped to shape our unique approach to farming.

And finally, if you are going into this venture with a partner, then look out for one another. Allow each other to develop your areas of specialism and find your roles, but always keep the communication levels flowing so that you are working as one unit. It's not easy and tempers will fray and stress levels rise, but it's important to keep talking and keep forging the road ahead together as a team.



SANDRA BAER AND LYNN CASSELLS

Lynbreck Croft, Scotland

MAIN ENTERPRISES:

Layers / Cattle / Pigs / Bees /
Farm Tours / Courses / Holiday
rental

MAIN SALES CHANNELS:

Subscriptions / Member club /
Honesty box / Website

AREA IN PRODUCTION: 61HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: N/A

REVENUE: €39,150

NET PROFIT: €14,500

website / instagram / facebook



SOFIA MARIA BANG ELM

Avdem Gardsgrønt, Norway

The farm

Our farm is called Avdem and is located in a quite harsh climate 600m above sea level, in the very north of Gudbrandsdalen in Norway. The farm is run by my partners' parents, who have 40 milking cows and their dairy where they make high quality, unpasteurized cheese.

When my partner Hans and I moved here in 2017, Hans joined his parents in the work on the farm and I started a diverse market garden on 2,500m² called Avdem Gardsgrønt. I grow around 40 different vegetables on raised beds, without pesticides or artificial fertilizers. I sell the vegetables to restaurants, to the locals in weekly boxes, and in our local-food shop Avdembue, where we also sell our cheese and other products from small-scale farmers around Norway.

Becoming a market gardener

My main motivation was to create a space and meaning for myself in an already well-established farm business. To create my own small business and through that get in touch with and get to know the locals and the environment here, which is extremely different from my native Denmark. The vision also turned out to be to show that

it is possible to grow high-quality vegetables up here, even though we have a very short season and a risk for frost throughout the summer. Apart from that, I wanted to be in control of my own time, be economically independent and create an active, meaningful and healthy life for myself.

Getting started

In the beginning, it was all about figuring out what would grow up here. I tested a lot of different vegetable varieties and tried to grow almost everything.

Then I needed to find some customers. Since our farm is located very far out on in the countryside, and the people who live out here are spread out over big distances, it was a challenge. But one good thing was that since nobody else is growing vegetables up here, my project received a lot of attention, and the customers began to show up quickly. I also had the advantage that my partners' parents let me use their well-known farm-name, and I spent a lot of money on a logo that fitted into the style of their dairy logo. That meant that restaurants etc. associated me with them, which was, and still is, very helpful. Otherwise, the start-up was all about growing, selling, explaining, learning about VAT and

how to make invoices.

Some numbers

I invested approximately €9,400 to get going. That included all the seeds, trays, soil, row covers etc., as well as an old two-wheel tractor, a rotary plough to make the beds and some necessary hand-tools. We built a 45m² greenhouse ourselves, and then I was good to go. This year, 2020, the revenue will be around €37,500 and the net around 50%.

2020

It's going very well now. I was very surprised to see how many different vegetables could grow up here, and how big an area one person can manage with hand-tools.

It has been a steep learning curve, and it still is, but I'm enjoying growing vegetables and all that comes with it. The soil work, the seeding and planting, the harvest, the washing and packing, the contact with the customers, and so on. The second-year was much more focused, well-planned and structured than the first one, but I think this is still where I have a lot to learn.

This season, my 4th, I've had my 1-year-old son with me, and that suddenly brings up a lot of new challenges, especially time-wise, and it also means a whole new focus and role in the business. I have been more a manager than a worker in the field. Luckily, we've had a lot of good people helping out this year, and all in all, I think this will be our best year so far.

Selling

Right from the start, I have delivered vegetables to two restaurants, two local food shops, and a few markets during the season. Last year I also delivered weekly vegetable boxes to the locals. The first year I did not know what to expect, since I neither knew what I would succeed in growing nor what or how much my customers would buy. Therefore I was very satisfied when I had sold out almost everything I had grown when the winter came. The second-year I did some bigger investments, for example in a BCS with a lot of equipment, so I needed a bit more predictability in my economy. Therefore, and because I think this is a very exciting and social way of selling, I offered weekly vegetable boxes for the locals in the area. It was very well received and it gave stable and predictable sales, quite opposite to the sales to the restaurants which could vary a lot. Because of the



Sofia with her partner Hans and their son Alfred.



The market garden seen from above.



The flower garden beside the new cafe.

vegetable boxes, more structure, and a better feeling for which vegetables people wanted, I doubled my turnover the second year and have increased it with €9,400 every year since. For such a short season the turnover this year is satisfying, but that does not mean there is a lot left for me when all the bills and workers are paid. But now, when a lot of the major investments are done, my goal is to keep the expenses down and try to give myself a better salary. And I think these 2,500m² can still be optimised a lot, so there are still good possibilities to increase the production and the turnover.

Current vision

A big part of the vision is still the same as when I started, but of course, some things have changed. In the beginning, I planned to refine a big part of the vegetables and make pickles and jam etc. But after these first years, I have to admit that you also have to give yourself some limits; a single person can't do everything. And my passion for growing the vegetables is bigger. I have not completely abandoned the idea, though, and since Hans' sister runs a local food shop just up the road, I think there could be a good market for it. But it will have to wait a few years, or perhaps until another person gets involved in the business.

The focus is also changing as I learn how to do things in a 'leaner' way, and the more I recognise the importance of good planning and effective work. But all in all the top-vision was to create a good, free and active life for me and that is still my main focus and goal. That said, my priorities have also changed quite a bit since having a child. So, from being a one-woman project, the vision now is turning into opening up the business and ideally have a few workers every season, both for the free time that can give me where I can prioritise my child, but also for the social aspect. I love to live on a farm with a lot of life and activity.

Challenges

We have quite a few bigger challenges up here. One of the biggest is the climate, which is certainly why no one else is growing vegetables for more than their household here. The farm is located in the north of a long valley with mountains on each side, 600m above sea level. The winters here are very long and very cold, and the temperatures can drop to between -20 and -30 Celsius. The winter starts in October, so most of the vegetables need to be out of the garden by then. I am normally



Mixed mixuna-leaf salad is one of the things that the restaurants here are most interested in and that brings in the most revenue.



In order to have diversity for 5 months of weekly boxes, Sofia grows 30-40 different vegetables during the season.



Even with the risk of frost throughout the whole summer, most vegetables thrive if they are covered with row-cover in the cold periods.



Preparing the weekly boxes. In 2020 Sofia delivered weekly boxes to 40 families from June to October.



An example of what a weekly box can contain.



It was important to get a professional logo from the beginning. It makes it easy for the customers to recognise the products when they are sold in the shop.

able to plant out at the beginning of June. That means that we have max. 4 months where we can grow outside. And even in these 4 months, there is a high risk that we can get night frost a few times. I try to solve this by choosing fast-growing, hardy vegetable varieties and always have row-cover ready, so when I know that the temperature is dropping, I will cover anything vulnerable. Especially in the first few weeks, I keep almost all the newly planted seedlings covered. Both because the weather can be unpredictable in June and because the seedlings are very vulnerable before they are properly established.

Another challenge is that there can be very strong winds here. Luckily the garden is a bit sheltered by the surrounding trees, but we will need to plant more shelter for the future. This is also an area where we have very little rain, especially in the spring, and we are dependent on irrigation. Fortunately, we have enough water around here, but I do spend a lot of time watering during the season.

This might seem like a very challenging place to grow vegetables and it is, but I also want to mention that there are many advantages. Like the very sweet, high-quality vegetables that come out of it, the reduced disease- and pest pressure, and the lack of competition since there are no other vegetable growers around. And it is really beautiful here. I use the long winters to help out on the farm, study, travel and catch up with my friends and family in Denmark. This is also very important to me.

The last challenge I want to mention is growing alone. Of course, I get some help from my partner Hans or visiting family, and I have also had some refugees and a trainee helping out in the season, but to be only one person to make all the decisions, plan the season, be responsible for all the sales and so on can be lonely. Sometimes I long for someone to discuss with and someone to share the responsibility with. I try to solve this by prioritising networking with and seeing other vegetable farmers, and we have built an active Facebook group for small-scale vegetable growers in Norway. This gives me the possibility to ask questions and learn from others. When it's possible I also try to make some smaller trips to my friends' farms, both in Norway and in Denmark, to see how they are doing things.

The future

In 2020, I applied and received big funding from Innovation Norway, I have a pretty clear picture of what at least the next 3 years will look like.

We now have the money to optimise everything and make it a bit more professional. We will expand the garden with 1,500m², put up a 150m² greenhouse, get a professional sprinkler system for the fields, do more experiments with perennials and focus a lot on soil-testing and soil-health.

I've held a few 'growing in a harsh climate' courses this spring, and I want to continue doing something like that as well. I find it very rewarding to have people from all over here on the farm, and I like to convey.

But all in all, I just hope I'm doing a lot of what I am already doing. I love growing vegetables, and I feel that I've found my role in life.

Startup advice

My first advice to people starting up would be to integrate into the local community. Especially if you are doing something new or different. Show them your face and what you are doing. Say yes if they ask you to come to give talks about your project. I think you will be much more comfortable and have a much bigger chance to succeed if you farm in a community that supports you.

Write down everything that you do from the start! When you seed, when you weed, when you harvest etc. That will help you a lot with planning the next year and give you an idea of when you can have products ready for sale, how much you need to grow when you should do your last seedings etc.

If you start up alone, then make sure to have someone close by you can ask for help. You will need that many times.

Don't underprice your product, rather take the time and effort to inform people about the effort behind it.

Get in contact with other farmers, and don't be afraid to ask stupid questions.



The caterpillar tunnel makes it possible to harvest the first crops almost a month earlier in springtime.



Trying to keep the tools in order, as it makes the workflow much more efficient.



The new café seen from above.



SOFIA MARIA BANG ELM

Avdem Gardsgrønt, Norway

MAIN ENTERPRISES:

Market Garden

MAIN SALES CHANNELS:

Wholesale / Restaurants / Farmers markets / CSA

AREA IN PRODUCTION: 0.25HA

STARTUP YEAR: 2017

STARTUP INVESTMENT: €9,400

REVENUE: €37,500

NET PROFIT: 50%

[website](#) / [instagram](#) / [facebook](#)



JORGEN ANDERSSON

Fjällbete, Sweden

What Fjällbete is about

Fjällbete has been the name of our entity since 2002. The word translates into “Mountain Graze”. I have never considered Fjällbete a ‘farm’. It is more of a ‘pastoralist community enterprise’. We own grazing animals, but no land. Besides tending our sheep and cows we are functioning as a Hub within the global Savory network. This means that we are advocating regenerative agriculture and its pre-requirement, holistic management.

Registering Fjällbete as an economic association back in 2002 marked the end of a 10-year long process that included surveying the remains of our farming community as well as an inventory among the ever-more thriving tourism entrepreneurs residing the Åre valley.

During the nineties, I concluded a possible supreme indicator for sustainable development to be ‘the distance separating decision-making from its consequences’. Initiating Fjällbete was my contribution to reducing the gap between the management of land and the people benefitting and/or suffering from the quality of this particular management. A flock of sheep was purchased to work undercover as ambassadors in this quest.

Within a few years, we had 150 members sharing ownership and responsibility as production approached 10 tons of lamb carcass, exclusively sold within the group of owners such as restaurants and hotels etc.

Since day one Fjällbete has been collaborating closely with the surviving dairy-farms of the valley. Together with the ever-more organised tourism destination Åre, we set up the goal of ‘all the food produced in the valley to be consumed in the valley’. In ‘a kingdom of grass’ like ours that primarily meant milk and meat. In 2012 we gained national fame when the authorities brought us to court for selling fresh milk and for initiating something we called ‘Mjolk är tjockare än vatten’ (‘milk is thicker than water’), a campaign where consumers were enabled to allocate an additional payment to local farmers when they purchased their milk in the supermarket.

Among the initiatives where Fjällbete has been serving as a guinea pig for ‘new’ ideas is our experiment with ‘crowd equity funding’. This came about because I believe the absence of ‘local financial markets’ where small entrepreneurs can obtain ‘own capital’ represents a major ‘log jam’. And as important as financing one’s

enterprise might be, I still consider the opportunity for ‘people-farmer-relationships’ to provide the supreme benefit in such arrangements.

Fjällbete went through a debacle 5 years ago that put us on the verge of destruction. The disturbance caused an evolution into a more resilient community enterprise, as the members of the economic association transformed Fjällbete into a modified shareholding company.

So here is the present model as it now appears after the initial 18 years of testing: A shareholding company with shares deprived of profit and speculation. Our shares simply reflect the proportion of responsibility taken. Investments into the company are done with a financial instrument called ‘participating debenture’, and can be tailor-made according to the needs of the entrepreneurs and the investing public. Fjällbete has 180 investors holding €235,000 in the company. When investors want their money back, the company pays 50% of EBT (earnings before taxation). New entrepreneurs getting into Fjällbete as custodians are not paying for their shares just like they are not paid, as these shares are passed on to the next in line carrying responsibility. Shareholders are committed to maintain and grow the value of Fjällbetes assets. When successful, the company builds trust along with financial power. A pastoralist community enterprise like Fjällbete needs to have a transparent vision clarifying what kind of landscape, and what kind of society, we are striving to maintain and create.

Our long term vision is the restoration of grasslands like we had them in the Pleistocene era. Where others see boring forests, we see ‘steppes to become’, and where others see monoculture cropland we, again, see ‘perennial grasslands in the making’; beautifully diverse landscapes with plots of vegetables within screens of trees and shrubs.

Fjällbete - Teaming with Life, Enabling Our Finest

This statement of purpose is rooted in our definition of “regenerative agriculture” as ‘the art of satisfying human needs by enabling the highest imaginable vitality of ecosystems’.

Our statement of purpose does not only inspire us to run enterprises with sheep and cows. It guides how to do it as well as on why we need to be transparent and inviting.



Sheep and people in Ottsjö.



Grazing in remote areas.



Grazing in the ski resort Åre.

Pastoralist community enterprises like Fjällbete may be seen as the ‘keepers of our landscape’. The responsibility for ‘keeping such keepers’ falls on everyone preferring perennial grasslands to reside within, to feed on, to visit, or possibly even to save mankind with. But the responsibility for enabling the wider community to support a pastoral community enterprise falls on us who are running it.

I label ‘Holistic Management’ as a language. A language for us, the land-managing entrepreneurs, to communicate among ourselves and, maybe even more crucially, to communicate with our supporting communities.

Grass and grazers are such a team that it is no longer possible to understand one without the other. Homo sapiens used to play successfully within this ‘steppe and savannah’ team before we happened to be domesticated by some powerful species of grass providing us with the grain. This event sparked the evolution of our modern civilisation.

The way we see it, Fjällbete has a role in reconnecting ourselves and our community with nature. ‘Teaming with life’, therefore, includes society as a whole.

People may be separated into two groups. Those who already are ‘involved’ in the processes, putting food on their table and those still alienated. Managers of land/animals can be divided into those proud to be transparent and those who will rather not show their operations.

Referring back to our definition of regenerative agriculture as ‘the art of satisfying human needs, by enabling highest imaginable vitality of ecosystems’, to us ‘teaming with life’ is rightfully categorised as a ‘human need’. Looking at it this way makes it impossible to execute regenerative agriculture while maintaining the alienation between people and ‘their’ land. Inviting people into the complexity of extracting food from vitalising ecosystems simply becomes a pre-requisite.

Meat for vegans

As we now are in the process of refreshing our holistic context for the season of 2021, I can share some of the ideas we are considering to integrate. Since Fjällbete has always been about deepening relations between the end consumer and the primary producer, we asked ourselves how to proceed along that line.

We like vegans because they care, and aiming for



Corre de faros through the village of Undersåker (1).



Corre de faros through the village of Undersåker (2).



As local as it gets.



Kids and sheep getting along (1).



Gotland sheep.



Kids and sheep getting along (2).

their approval keeps us on track. We also like vegans because they do research, and we have a lot to show and tell. Our idea is to offer weekends for people who care and would like to find out whether there may be a good way of tending landscapes with animals. Success or not, this idea provides an example of our reasoning as we are looking for ways of getting more ‘teaming with life’.

Another aspect of this reasoning is the possibility of turning negotiations of price on its head. Keeping our price low is a way of supporting our local economy, while customers may become eager to pay more to keep our operation sustainable. Such relations need to be earned over time. Earned by actions as well as by communication. Holistic management provides ‘internal clarity; Who are we? What do we manage, where to, and why? Such clarity in communication combined with clarity on how our community may support us is the difference between a lonely battle and teaming up with society while building it.

Eating someone you know maybe the most powerful way of reconnecting to the nature we are made of. When Fukuoka suggested farming to be a way of becoming our finest, I find the moral process dealing with our right to kill to be a possible path in such a quest.

The fact is that we, in Fjällbete, stay in control over our animals from their birth to their death. And the equally simple fact that participating in the slaughter of the individual one intends to eat may be seen as a moral obligation suggests that we should start slaughtering ourselves. This is why we are investigating the opportunity to provide a ‘kill them yourself-service’. We intend to perform some initial tests of this enterprise during 2021. As long as the meat from such slaughter stays within our household there is no legislative hindrance stopping us. But our long-term goal is to have customers teaming up with us, our animals and our landscape in this work to provide meat for themselves.

Yoghurt as a line of defence in our immune system

We only have a small experimental herd of 8 cows. They are of the classic Swedish red breed. We do not look at cows as milk- or meat-breed. We rather see them as cows, plain and simple; excellent ecosystem builders and essential team players who offer us meat and milk as well. Our idea is to let the cows



'Mjolk är tjockare än vatten'; enabling consumers to pay more for the milk.



Graffiti spreading across the country.



Winter quarters.

have their calves on the grass in spring and to keep them at foot while we harvest a surplus of milk until the arrival of winter.

We intend to purchase a small mobile milking parlour for the season of 2021 and to start experimenting with making yoghurt instantly from body temperature. We are passionate about having cows vitalising grasslands while also transferring some of this vitality to people. We know the benefits of fresh milk as well as we know the hardships required to bring such milk beyond the guarding soldiers from the food industry and their institutions. Yoghurt may provide a better way to deal with the challenges of letting cows vitalise ecosystems and public health through dairy. Once fermented, the milk has a longer shelf life, reducing the stress associated with distributing small amounts of fresh milk. The technical requirements for making yoghurt directly from warm milk are relatively small.

All in all, we see a great opportunity in having cows building our future landscapes supported by yoghurt, having travelled in a straight line from the landscape to the local store.

Holy Local

Fjällbete is an accredited hub within the global Savory network. We facilitate a Nordic network for regenerative agriculture. As a part of that, we are participating in the establishment of the brand 'Holy Local'. The label can be found on dairy products in Stockholm and on Gotland. 'Holy Local' is a follow-up on our initiative from 2012 where consumers in the supermarket here in the valley of Åre were enabled to allocate an additional payment to local farmers. For every package sold, €0.10 goes back to the landscape that made the food. The money is for enabling the landscape to vitalise in line with regenerative agriculture. We are responsible for finding the best use of this money. We intend to use it to boost the use of EOVS in the management of land and to enable visualisations of future landscapes as they are described in the holistic context of land-managing entities. We see an opportunity for more producers to use the 'Holy Local' brand to state their will to collaborate with communities sharing their vision of a particular future landscape.



JORGEN ANDERSSON

Fjällbete, Sweden

MAIN ENTERPRISES:

Sheep

MAIN SALES CHANNELS:

Direct sales

AREA IN PRODUCTION: N/A

STARTUP YEAR: 2002

STARTUP INVESTMENT: €19,600

REVENUE: €147,000

NET PROFIT: €0 (after salaries)

website / facebook



JESPER SANDSTROM

Kyrkbygård, Sweden

The beginning

My farm Kyrkbygård is located in Slättåkra, 18 km north city of Halmstad in south-west Sweden. It is 30ha and features pastured beef, pastured hens, a no-dig market garden, fruit trees in Keyline design and 4 beehives.

I think the beginning took place many years ago when I was a teenager. At that time I was a member of a youth organisation and we used to spend the weekends camping and looking for wildlife. Since then I have had strong feelings for biodiversity. I have a master's degree in chemical engineering and studied ecology for 1.5 years. I had a dream of working with nature conservation someday. I did what was expected and worked with material development in rubber factories for 17 years, but I never felt comfortable in the industry. I was concerned about food security for my family and read whatever I could about permaculture. What happens if we get a disturbance in fossil fuel production and global delivery of food to Sweden stops? This concern and a dream of planting a food forest made me purchase a cattle farm.

Initial plans

The practical beginning was in spring 2015. The farm

had been certified organic for 16 years. I bought the farm empty, without animals or machinery. I had very few ideas about what to do more than planting a fruit forest and grow vegetables. The farm has 21ha arable land, 8ha pasture and 3ha wetlands. I was considering different options for the land when I asked a nearby friend, Carina if she wanted to join me in taking care of the farm. She answered 'Yes, I want to have cattle!' A friend of Carina's also joined and suddenly we were three families starting up in the season of 2015. I took the financial responsibility and the intention was just to produce food for the families. We bought 9 heifers and a bull, 9 pregnant ewes, 6 young pigs and 20 turkey chicks. Carina is a farrier and I had been growing vegetables in gardens for 25 years. None of us had any experience in farming.

The first three years

We managed to run the farm, selling vegetables in a very small farm shop. Meat boxes with either pork or lamb, and later also beef, were sold on Facebook. We kept the ewes and heifers to increase numbers of animals at the farm. We also sold some hay to get rid of excess grass. Carina's friend left us the first season. Carina left after

2.5 years when new employment made it difficult for her to continue. The second-year we sold enough to pay variable costs and depreciation.

We learned a lot about basic farming the first years: taking care of animals and having them breed back, a lot of weeds in a tilled market garden, taking care of a tractor and some tractor tools, taking care of the economy, and difficulties in direct sales to local end customers.

Contact with Regenerative Agriculture

I understood that manure is a limited resource in organic farming. Our fields have sandy soil and a lack of potassium. The deep bedding produced in the winter was enough for fertilising our market garden and one 3ha field per year. We could therefore apply manure on a specific field every seventh year with the number of animals we had. But all fields needed fertility, so I felt something was wrong or missing.

I was searching for different ways of doing agriculture with perennial crops and plants with bigger roots to be able to keep the fertility and moisture in the fields in a natural way. I was inspired by permaculture and Mark Shepard's Restoration Agriculture. With my background in chemistry, ecology and interest for biodiversity, it was obvious to me that something like this was the way forward.

I participated in Richard Perkins' first online course Making Small Farms Work (now The Regenerative Agriculture Masterclass) in winter 2018. It made me understand how I and the farm could benefit from Holistic Management, Regenerative Agriculture and Keyline design. We started the season 2018 as a regenerative farm. We started planned grazing with cattle (2018), built an egg mobile and bought 200 hens that follow the cattle (2018), made a plan for planting fruit tree lines in four of our fields over four years (2019-2022) and decided to turn our vegetable production into a no-dig market garden with 84 permanent beds (first planting 2019). To be able to manage this and reduce some of the workloads, I decided to slaughter the pigs and sell the sheep.

Start-up investments

- Purchase of farm €290,000
- Tractor 95 hp with a front loader, 13 years old €25,000
- 12 used tools for the tractor €7,000 (over the first 3 years)
- 9 heifers heritage breed + 1 bull €4,200
- 6 steers (1 year) Fleckvie €5,200



The farm with the four fields with tree lines. Two of the fields in a Keyline design.



Cattle grazing tall, fully recovered grass.



Hens grazing in new grass close to a pond.

9 ewes €1,020

Start-up costs for regenerative enterprises
(No labour cost in these numbers)

Materials for planned grazing, cattle:

Reels, posts, poly-wire €1,600

Material for egg-mobile €2,500

200 hens, 16 weeks, organic €1,700

Water access all over the farm:

25mm pipe 1,600 m, 200m 8mm hose,
16 quick couplings, fitting and valves €1,800

Treelines: organic matter, material, 2m fence + 3m posts

Fruit orchard 2ha (2019): including purchased grafted trees €6,500

Cider apples 3ha (2020): plants from own seeds €5,100

Nut trees 3.5ha (2021): purchased seeds and some plants €6,200

Cider apples 2.2ha (2022): plants from own seeds + windbreak €5,600

Materials for the no-dig market garden:

Homemade compost from deep bedding €0

Peat and wood chips €1,800

Excavating irrigation pond + raising ground level in garden €3,500

Irrigation €600

Greenhouse from used windows for transplants (2020) €1,500

Washing station (2020) €1,200

Hand tools (seeder, tilther, greens harvester, small things) €2,500

Revenue and net 2019

Sales, beef €16,900

Sales, vegetables €13,000

Sales, egg €26,700

Sales, rental farm-house €8,000

Sales, other €3,300

Subsidies €18,700

Sales total €86,600

Variable costs €36,000 (including all costs for fruit orchard)

External costs €17,000

Total costs €53,000

Net (before depreciation, tax and salary) €33,600

Beef cattle

Today we have 12 cows and one bull with their offspring, which makes a total of 38 cattle. They are Rödkulla, a heritage breed. It was the most common dairy-cow in southern Sweden before 1950. The goal is to cull 10-12 animals per year, but so far we have not culled more than 8 in a year. We keep the heifers until a minimum of 30 months and steers until 36 months.

We have two herds when the bull is at the farm from May to mid-August. The bull is with the cowherd first and then with the heifers. After that, we leave the bull on a nearby farm which makes it possible to keep all the cattle in one herd. This year we started to reduce the time animals are in the winter stable. We started feeding hay and silage on November 1 and continued with daily movement until December 28, then moved them into the stable. Calving happens from March to May. This year we took all the animals except the 12 cows out on pasture on April 4 and did the feeding and daily movement. In this way, we reduced the stable period by one month in both ends of the winter compared to what is common in this region. There was not much to graze but it saved indoor stable work, and we think the trampling and the manure left on the pasture in the winter months is very effective and important for soil microorganisms. We think organic matter left on the soil in winter creates more stable soil carbon than at other times of the year.

Planned grazing

Learning planned grazing has been more challenging and more interesting than expected. Before I knew the pastures as 1-6ha paddocks. I knew that some pastures were better than others. Now I know the pastures in detail as 1,500m² paddocks.

We move the cattle once a day. Different seasons need a different kind of grazing. In May we do a fast rotation on the early grass. We do this rotation 2-3 times faster than normal to leave a lot of standing grass and create a pasture with grass of different ages. In the next rotation in June to July, we are aiming for grazing 50% of



Cattle followed by hens in May 2020.



Building of a heated table for seedlings.



Seedlings in the greenhouse in spring.

the grass. This results in trampled grass and some untouched grass producing seeds. We do the third grazing in the fall, and with our new ideas of reducing the stable period, we may do the fourth grazing in combination with feeding from now on. One grazing per year per field is replaced by a harvest of silage.

When we started planned grazing in 2018, Sweden was hit by the worst drought in 100 years. Nothing was growing and we could not trample as much grass as we wanted. The soil was bare and unprotected in some of our driest pastures. In 2019 we had rain in the spring and the first harvest was good. We decided to take as much as hay as possible. June was wet and we waited until midsummer to get a week with good weather for drying the hay. We cut all our fields just at the beginning of what would become 9 weeks with temperatures around 25C and no rain. In this period the recovery of the grass was 10cm. Again we had no grass to trample. We learned it could be risky to cut all the grass at once and especially at the beginning of a hot period, so for the season of 2020 we made a new strategy. We had seen that our best pastures were the smaller ones that had not been harvested. We decided to harvest a field just once in a season and not all at the same time. That will improve the bigger fields that have been harvested the most in the past. The goal is to reduce the harvest of a field to once every second year in the future. Spring 2020 was very dry with winds from east and frost every night until May 15. Again we did not have much grass to trample. We harvested grass at different times and avoided the hottest periods. That gave us a better age distribution for the next grazing. Longer recovery resulted in the enormous blooming of clover and a huge harvest of honey. All clover disappeared in the drought 2018. We think the return of the clovers is the first step in our no-till renewal of good pastures.

Give us a spring with some rain and we will graze and trample the first harvest on our driest fields. We want armour on the ground and then the positive spiral of increased grass growth will start.

Hens

We have 300 hens following our cattle in a Ridgedale-style egg-mobile. We have built two egg-mobiles on old hay wagons but are at the moment just using one of them. We have the hens within two 50m electrical nets. The nets and the egg-mobile are moved every morning at 5:45 am. We have tried to move the nets every second day and the egg-mobile every day within the nets, but

the second day our hens dig too much in our sandy soil and destroy the pasture.

We feed in the morning and then feed and pick eggs at 10:30 am and 4:00 pm. Nests are swept every second day and laying mats banged on the wall to get rid of dirt and manure every day. Doing this we never clean the laying mats with water.

We started 2019 with 500 hens and both egg-mobiles. At the same time our neighbours at Lya Gård 101 also started up with 200 hens, and another farm started with 200 hens in the town north from us. This was a huge increase in pastured eggs in the region and we had problems selling them all.

The beauty with eggs is that it is a product that everybody needs every week. That gives continuous sales and contact with customers. We have experience in just selling vegetables and meat boxes. When doing this you have a long winter without sales and you lose the customers. It takes a month or two to get them back when the season starts again.

The draw-back with hens is the need for daily care. In summer, days are long here. In June hens go into the egg-mobile around 10:30 pm. That makes the nights short for a farmer. It is also difficult to keep the hens from fighting in the dark winter. We give the hens new straw bedding, two sand baths, 10kg of carrot or beet-root, vitamins and access to an outdoor area every day. This has made the flock calmer in the barn.

No-Dig Market Garden

Our market garden takes most of our time and maybe we should reduce the size. But we love to have our abundance of vegetables and we have the manure, so therefore we do it.

We started the 84 bed (0,75mx10m) no-dig garden at a new site in 2019. South of the barns, we have a field that is perfectly protected from winds by hills and trees in the west and east and by the barn in the north. This is the hottest spot on the farm. The problem was that it was a waterlogged wetland. I decided to dig an irrigation pond just outside the market garden and to use the material to increase the ground level 0.8m. We did not expect that the excavation would destroy the soil aggregates in the clay soil. In the first season, we had severe problems with waterlogging in the beds. We decided to drain the garden by digging down drainage pipes in the walking paths at a distance of 11m. This improved the situation in 2020 a lot, but this unexpected problem by disturbance of the ground will take some time to heal.



Hot aerobic compost is made from our cattle's deep bedding with an old manure spreader at low rpm.



Market garden with greenhouse, irrigation pond, washing station within 10m from the garden.



Our new washing station under a transparent roof.



Putting out horse manure in preparation for tree lines.



Tree lines are prepared with organic matter and covered with fabric.



One-year-old apple trees from our own seed stock.

When we started the beds, the soil was a construction area. We covered the soil with 7cm peat and added lime and rock dust. That was covered with a 7cm layer of homemade compost. The peat was used to increase the weed-free layer since compost was limited. The walking paths between the beds are 35cm and covered with oakwood chips.

Compost was made from our cattle's deep bedding with straw. We turned the stack with the front loader of the tractor eight times in six weeks. The compost was 50-65C in four weeks and became weed-free. But the front loader did not break down the 20-30cm pieces of clumsy material. We had huge problems transplanting and seeding in that compost the first season. Beds were perfectly clean with no weeds. This season 2020 we have had weeds in the garden coming mostly from deeper layers. It is difficult to avoid seeds coming from deeper layers, for example when harvesting carrots. It is also difficult to avoid that the layers are mixed when you sometimes have people helping you. Although everyone knows that it is a no-dig garden, things still happen. We have managed to take out all weeds before producing seed. Next season we plan to add 3cm of compost to reduce weeds.

With the water-logged season of 2019 in mind and an inquiry to supply a festival with 500 people with vegetables, we decided to also open our old market garden in 2020. We did it no-dig and just added a thin compost layer. For weed control, we covered the soil with silage plastic one month before transplant/seeding. We made 20 50m long beds. We planted crops that are easy to weed in this garden, like cabbage, beans and garlic, but also beetroot.

Treelines

My goal with planting trees in the pastures is to increase diversity, soil life, photosynthesis and wind protection as well as to create some shadow and get food from the trees. I planned four fields, in total over 10ha, to be planted over four years. A fruit orchard with berries in 2019, cider apples in 2020, nut trees (walnut, hazelnut and sweet chestnut) in 2021 and more cider apples in 2022.

In our area, it is necessary to put up a 2m high wildlife fence as protection against the hare, deer and moose. It takes two people about three days to fence a 3ha field. We use a tractor to press the poles into the ground and for unrolling the heavy fence. Then we transfer the lines from the map to the ground. It took two days to mark

out our Keyline design this year, so be sure to save some time for this. We used measuring tape and measured in many directions before we were happy with the result.

The soil preparation is as follows: Rototill the marked tree lines in the pasture; rip the soil to a depth of 50cm with a homemade hook from a plough; apply 40L horse manure, 40L oakwood chips and a shovel of good compost per meter; make two small ditches with discs behind a tractor; apply a 1.2m landscape fabric over the row and dig down edges in the ditches.

We plant one-year-old seedlings from our own seeds. We think it is important to try to find new varieties adapted to our local climate. We plant apples at a distance of 1.2m. Roots are soaked with a fungi inoculant when planted. The trees will become 10m in size so the plan is to keep the best tree of nine to get one tree per 10m. Over some years it will be necessary to add new trees were small plants have died. For nut trees we will do something similar, but also include trees like willow and maple in the row as protection.

Hot composting our deep bedding

In 2020 we changed our way of fertilising the soil. In past years we have kept our cattle winter manure one year in a pile. This was an attempt at slow composting. We wanted to make the straw softer before spreading it on the grass and be able to harvest hay the same year without contaminating the harvest with manure. We now think this is a bad way of handling manure. We get lots of rain in our area. This makes the pile wet and anaerobic and pathogenic micro-organisms may multiply. By using this pile on pastures, we spread organic material (good), nutrient salts dissolved in manure liquid (bad) and pathogenic micro-organisms (bad). If we instead use good compost, we spread organic matter (good), healthy aerobic micro-organisms (good) and the same nutrients absorbed into the micro-organism cells (good).

This year we have made three 50m³ batches of hot compost. The deep bedding is turned through a manure spreader on low rpm. The spreader is moved forward in one-meter steps as a 1.25m high pile is created. We made this in a period without rain and the pile was turned 5-6 times in four weeks. In this way, the composting temperature was 50-65C for at least three weeks. About five weeks after starting composting, the temperature was 40-50C and the compost was spread on the pasture.

When we had this good compost, we also produced a few 60L batches of compost tea and sprayed it on the

leaves in the tree lines. The plan for the future is to fertilise the pastures with good compost and the trees with compost tea.

Sales

Over the years we have learned that sales are the most difficult part of running your own business. It takes a lot of time and you have to accept a lot of 'no thank you's' from customers. We have three sales days every week.

Thursday is REKO Ring-day in the city of Halmstad 18km away. Food, preordered on Facebook, is delivered at the REKO Ring during one hour in the evening. We sell vegetable bags with a value of €20-35 depending on the season. We also sell our eggs and sometimes meat.

Friday and Saturday our farm shop 'Slättåkra Närproducerat' is open. It is a cooperation between four local food producers in the village. The three farms are all regenerative and the micro-dairy is certified organic. In the shop, you find vegetables, pastured eggs, pastured meat, cheese, jam and pickled vegetables. Everything in the shop is made by us four producers. All sales are invoiced by the producer. When no money accumulates in the shop, we do have much to fight about.

Coming years

I am planning to scale up or add some enterprises. The goal is to be able to be two people at the farm full-time. As it is today, I have to work every day of the year. With two people on the farm, it would be possible to have a day off per week.

We have two egg-mobiles but are at the moment just using one of them. I am considering to start with broilers. It is a good business and a good product for the farm shop. Another interesting product could be fermented vegetables. It adds value to a lot of vegetable waste that could be used.

Advice to people starting up

Just do it. You can prepare by reading books for years without learning much. Take the opportunity to work as an intern on a good farm or just start your own. It is by doing and observing that the learning takes off.



JESPER SANDSTROM

Kyrkbygård, Sweden

MAIN ENTERPRISES:

Pastured beef / Pastured layers /
Market garden

MAIN SALES CHANNELS:

Farm shop / REKO

AREA IN PRODUCTION: 30HA

STARTUP YEAR: 2015

STARTUP INVESTMENT: €374,520
(incl. farm)

REVENUE: €86,600

NET PROFIT: €33,600
(before depreciation, tax
and salary)

website / facebook



MOLLY RYGG

Lya Gård 101, Sweden

Vision and first steps

We are a husband and wife, Molly and Jonas, owning the farm. We purchased and moved onto the farm in 2018 and started production in 2019. Current enterprises are vegetables, strawberries, cut flowers, pastured eggs and some processed food products (pickles, jams, etc.).

Jonas is from Göteborg, Sweden and is a sailor on tall ships who would like to start a business doing sail cargo. I, Molly, am from the USA and have been previously working as a chef.

We had both travelled a lot and lived in a lot of different countries and were looking to settle down somewhere and start a family. I wasn't sure about farming in Sweden, so I spent a summer at Ridgedale. That showed me there was a path to starting a farm in Sweden, and I felt like the market wasn't as saturated as in the US and there was a lot of opportunity for a small farm focused on regenerative agriculture principles, so Jonas came to Sweden and bought our farm. It's close to the coast, a twenty-minute drive from a decent-sized city (Halmstad), 6ha with 4ha of farmable land, has a house that we could move into right away and a price we could afford. When planning and designing our farm, Ridgedale has

been a major influence for us. For the previous twenty years, the farm just had a few horses grazing on it, with the big field being cut for hay. Our land borders a large stream and our soil is a sandy clay loam. Our main goals for the farm were to provide an income for me, live a climate-friendly lifestyle by storing carbon in our soil, improve our land (in terms of soil, biodiversity, water retention), grow and raise a large portion of our food, and build something that we could leave to our son that would provide him with food and a career if he wishes.

We were interested in growing a lot of perennial crops as well as annual vegetables and flowers. Using the Ridgedale model, we wanted to have lanes of fruit trees and berries on our big field (about 1ha+) with pastured layers and some grazing animal being run between the tree lanes. We wanted to plant windbreaks and hedgerows with edible trees/shrubs, as we can get a fair amount of wind. We have also planted a dozen or so nut trees for our future consumption. We didn't have a place in our barn to keep the hens in the winter, so we constructed a polytunnel for them that is used for cucumbers and tomatoes in the summer.

Since we are on a busy road and we had a good space in our barn, we had the idea that we should make an

on-site farm shop. Jonas and his dad did all the renovations to make our cute and rustic shop. We discovered that there was another farm in our little town inspired by Ridgedale with many of the same goals and the same vision as us. I felt that if we didn't find a way to work together, we would end up as competitors. I approached this other farmer, Jesper, from Kyrkbygård about doing the farm shop together with us. He agreed as he had a farm shop but it was quite far from the road and difficult for visitors not from our town to find. He also knew of two other producers who might like to also join; Andreas, who does holistically grazed cattle and sheep about 15 minutes away and Jesper's sister, Linda, who has her own cheesery. We four producers formed a co-operative (ekonomisk förening in Swedish) and our farm shop Slättåkra Närproducerat was born.

Forming the farm shop co-operative was not specified in our plans when we first bought the farm, but some sort of community-building has always been a goal of ours. In the future, when we can build accommodation, we would like to be able to have other people, couples or families, join our farm for one or several seasons as a sort of incubator. We would like to have a diversity of enterprises on our land, but do not want to manage all of them. So if someone wanted to have a small flock of sheep and practice holistically managed grazing for a year before they start their project, they could do that while putting in some work for us and knowing they have a shop waiting to sell the result. We are open to having more members join our shop and have a bigger variety of products as long as they share our philosophies of sustainability and quality and are within the local area. We think having to juggle all the aspects of running a small farm alone is a daunting task and are looking to form collaborations with other likeminded people in our area as much as possible.

We started our pastured laying hens the first year because we were looking for a product we could sell all year round and there seemed to be a big demand on the local REKO Rings for pastured eggs. We also planted 1,600 strawberry plants the first year, as our region has a lot of strawberry farms but only one other certified organic strawberry grower. We also grew vegetables and started planting some of the windbreaks and perennial crops, like asparagus, our first summer.

Investments and income

The major expenses for starting up the farm were:



An aerial shot of the farm.



The team behind our cooperative-run farm shop, 'Slättåkra Närproducerat'.



Products on the shelves in our on-site farm shop.

Barn/farm shop renovation and cool room (for materials; labour was in-house): €9,650

Polytunnel: €6,750

Egg mobile (for materials; labour was in-house) €2,890

Compact tractor: €4825

BCS walking Tractor with amendment: €5790

2019 was our first year of farming and our revenue was about €32,000. If we attribute our largest start-up expenses to a 5-year or 10-year payment time, our net profit for our first year was about 37% of our revenue.

How we are faring

Now that we have finished our second summer, we can say that things were a lot better than the first year, but there is still a lot to improve. For our vegetables, we got the perennial weeds in our permanent beds under control, found a good source of mushroom compost to spread on all our beds, got the irrigation system going, our washroom completed and were a little more used to the climate and the seeding dates that worked here. So things were better in that sense, but we still had some crop failures due to slugs and wrong timing. But on the whole, there was an improvement and we learned what we needed to do for next year.

For our laying hens, sales of the eggs were great, but our production was down as it was time for our hens to be slaughtered. The slaughterery where we planned to take them went out of business, so we had to keep the hens for an extra two months while we waited for space in another place. This will affect our profit margins, as we were feeding them the same amount with decreased production. Now we have a new flock of 300 hens and the eggs have been selling on pace with the production. A big improvement for our egg profits is that Jonas was able to construct 2 small grain silos in our barn. In 2019 we were buying hen food in 25kg bags, which is significantly more expensive and not as satisfying to the hens as the bulk food we now fill our silos with.

In hindsight, it would not have been necessary for us to start the farm shop the first year we started farming. We probably should have just focused on growing great produce, but on the other hand, then we might not have been able to sell it all. The first year we were able to sell everything that we produced, but our production was not where we wanted it. This second year we have also sold the majority of what we produced, and will aim to produce more next year. Even though it was chaotic to be starting so many projects in the beginning, having

the shop from the get-go gave us an instant image and story to sell to the customers that we wouldn't have had if we were just a new producer selling at a REKO Ring or the market. Selling products on the farm has allowed us to be fully open with our customers about how we produce our food and has given us the chance to meet people in our local community that, as newcomers, it would otherwise have taken us years to meet. The other advantage of having the farm shop from the beginning was to have a form of co-workers in our fellow co-operative members. Working on the farm all day with no other employees can be lonely and it has been nice to have an instant network of people to come to with questions and bounce ideas off of.

Sales in the shop have been pretty good so far. We were open all year our first year, but in January, February and March we had few customers and little to sell, so we will be closed this year for those months. We are still working on ideas to improve the customer experience at the store and attract new people to make the 20min drive out here from central Halmstad.

As we plan for our third year farming, Jonas, having completed most of the initial infrastructure projects, would like to work off the farm sailing. Previously we had divided the work so that Jonas was doing the hens, book-keeping and infrastructure projects while I was doing the vegetables, flowers and prepared food products with both of us doing the sales and marketing and jumping in to help each other as needed. We are hoping to get a student intern for the summer, have recently begun hosting WWOOFers, and are looking to get one other part-time helper.

Sales and marketing

We started sales for our farm in May of 2019 when we opened our on-site farm shop. The shop is open every Friday and Saturday. We also have a drive-in egg kiosk with self-serve eggs (and sometimes vegetables) open all day, every day.

We also sell at 3 local REKO Rings and occasional markets and do a few wholesale customers. In 2021 we plan to look for a few more wholesale customers and to offer home delivery together with our farm shop co-operative members.

We would like self-pick to be a part of our sales in the future. In 2020 we started with some self-pick flowers and a small amount of self-pick strawberries. For 2021 we will offer more self-pick strawberries and flowers, and we plan to have self-pick fruits from about 250 fruit



Jonas feeding our pastured laying hens.



Our egg-mobile in our Big Field.



Our eggs for sale in our farm shop.

trees as well as raspberries, blueberries, currants, etc. when they are ready.

We have found our customers through social media, word-of-mouth, local tourism initiatives and a few newspaper articles. For our farm shop, we were also fortunate that the other 3 producers we created the shop with had been established for several years and brought their customer base with them. The shop is also located next to a fairly busy road, so some people come to the shop or the drive-in egg kiosk simply because they saw the signs by the road.

Taking stock

Our initial vision hasn't changed. There hasn't been anything that we wanted to do in the beginning that we no longer want to do. The biggest change that has come from experience is that we have greatly adjusted the time it will take us to reach that vision and run all of the planned enterprises.

Challenges we have faced

Balancing life as a new family who has recently moved here and starting our own business for the first time has been a challenge. I have now lowered our expectations of what we can accomplish in a year and am okay with that. When I am feeling stressed or overwhelmed by failures, I try to take the time to appreciate the beauty of what we have. Those things have helped a lot. Our son turned 2 years old in our first year of farming, and I had a lot of internal conflict between wanting to put all my energy into building the farm and taking care of him. One book that helped me sort out these feelings was *All the Dirt: Reflections on Organic Farming* by 3 women, 2 with children, who have an organic farm co-op in Canada together. The advice from that book that worked for me (which might not work for every mum) was that the time that your child is young and dependent on you is very fleeting in the long run and as also a very precious time in their life. Relax some of your timelines, so that you have more time to spend together. For me, this means that from the time I pick up my son from pre-school until he goes to bed, I try to focus on him and put the farm aside. This mostly works out.

The biggest challenge for my husband was to deal with the change of lifestyle from nomadic sailor to a landlocked farmer and everything that comes with that. After 2 years of helping me start up the farm, he will eventually go back to sea in some way.

Another major challenge we still struggle with is slugs. I had never dealt with slugs before and am still learning how to control them and prevent conditions that they like. On a rainy day, slugs are visible everywhere on our farm. Having the hens move through the fields has been good for disturbing their eggs, but it is still a big problem. We tried to keep ducks this year with two batches of 3 ducks, but both times they flew away after a few weeks and were spotted downstream from us. Next year we will try a larger batch of ducks in the spring and raise them from ducklings in an enclosed space before giving them the full run of the farm. We will also try to focus on keeping the grass bordering the beds very short as that is where they creep in from. The crop most affected by the slugs was lettuce; most of our lettuce was unsellable because of them. But they also damaged some of our cauliflower, romanesco, chard and carrots.



No-till vegetable beds with our polytunnel in the background.

Looking ahead

For the next 3-5 years, we plan on finishing planting all our fruit trees, berry bushes and perennial hedgerows around all of our vegetable and flower beds.

We would like to have a small batch of pastured turkeys in 2021 and increase that number yearly. We are also interested in having some sort of grazing animal to run through our fields ahead of the hens.

For the vegetables, our main focus is on improving quality and efficiency as well as building up a healthy soil full of organic matter using compost and cover crops.

For our farm shop, we would like to increase the farm experiences that will draw people to the shop as more of an outing than just a shopping trip. That includes increasing the self-pick options and offering refreshments/snacks in an outdoor seating area, and starting in 2021 we will have a small children's garden where kids can play and learn how vegetables are grown. Our 10-year plan for the farm shop is to convert a room in the barn into a commercial kitchen, build a deck onto the back of the barn and make ice cream and wood-fired pizzas.



Rainbow Chard.

Startup advice

My advice for people starting up is to get some work experience with someone doing what you plan to do on your farm before you begin. I wish I had more experience growing vegetables before I started doing it on my own. You can read books and google things, but hands-



Flower bouquets for sale in the farm shop.

on experience is so valuable.

I would also advise beginning farmers to get to know the people in their area growing food. Find out where they buy equipment, seeds, packaging products. Find out which product niches in the local market are already saturated and which products they are always sold out of or see a demand for. There could be a lot of potential for working together with the people already doing a similar style of farming in your area.



MOLLY RYGG

Lya Gård 101, Sweden

MAIN ENTERPRISES:

Market garden / Pastured layers

MAIN SALES CHANNELS:

Farm shop / REKO / Market
Wholesale

AREA IN PRODUCTION: 4HA

STARTUP YEAR: 2019

STARTUP INVESTMENT: Ca. €30,000

(excl. farm)

REVENUE: €32,000

NET PROFIT: 37%

website / instagram / facebook



CARINA VAN STEENBERGEN

Ca-Le Jonstorp Escargots, Sweden

Becoming a farmer

After a major life crisis, I decided to give my life a completely new direction. I met my present partner and after living in a small apartment in Stockholm we decided to move out to the Swedish countryside.

It's easy to find a farm here with several hectares of land attached to it, but that was not what we wanted. I had a vision of going into farming, and to be exact; to start a snail farm. I had already been following the regenerative agriculture movement for a while and a snail farm has a very low ecological footprint. At the same time, snail meat has an abundance of minerals, vitamins and amino-acids and is still a protein source for a lot of people around the world. Plus, starting to produce a niche product here in Sweden was appealing to me.

So I took the necessary steps and learned as much as I could, then went on a course with an experienced snail grower and finally started on a small scale in the summer of 2019. But knowing that it would take at least two years before I could have some return from it, I also started a small market garden and bought a flock of laying hens. That way I had some security of income.

The plan is to cut down in commercial sales of vegetables as the income of the snail farm increases. Then

I plan to grow vegetables for preparing the snails for sales, like parsley and garlic.

It's important to me to farm in an environmental-friendly way. Growing snails doesn't require a lot of land, water or feed and lets you produce a high quantity of healthy, nourishing slow-food.

Initial focus

I still don't call myself an experienced grower, and since the beginning in 2019 my focus has been on how to grow as many snails at the wanted size as possible within a short Swedish growing season. I'm also focused on finding out if the varieties of snails I have, *Helix Maxima Muller* and *Helix Maxima Maxima*, are the right ones. These varieties are known for their good taste and tender meat. Because the variety *Helix Maxima* cannot take any frost, *Helix Muller* is a good alternative.

The design of our little field was a concern; everything needed to be planned in the best way for optimal use of the available space. 3,000m² is not much, but with a good set-up, it's all the space I need to produce 1,5tons of snail meat.

Investments and income

We own the field, so there's no rent involved, but the total investment cost was €38,000. This included a 200m² tunnel, a multifunctional new-built shed that holds a cold-room, a packing station, tools, a small kitchen where I can process the snails, an outdoor irrigation system and an irrigation system for the snails.

It's hard to give exact numbers yet because I'm only in my second season, but I managed to grow 240kg of snail meat that can be sold at €60 per kilo unprocessed (sold alive). Processed the prices are higher because it involves a lot of manual work. I'm targeting snail sales at both restaurants and private customers. Last season I got a lot of demand from private people who wanted to buy snails prepared the 'classical' way in garlic-butter blended with parsley.

In the second season the market garden (315m²) brought in €14,000 in sales, but the maximum potential of it has not been reached yet. The last beds were made in June this year. I had no well thought out plan and was deciding on the spot, so next winter I will take the time to make a good, solid plan that will allow me to get as much as possible out of the garden. The vegetables are mostly sold through REKO.

I have a growing demand for the eggs, so I will increase my flock of layers (currently 155 hens) accordingly next season. Eggs are sold at €0.4 and the flock counts 150 layers.

2020

For being only in the second season, I think it's going very well. More and more people know who we are and what we are doing and appreciate it. We can count on a certain number of regular clients and quite a few people are following us on Facebook. But I know I need helping hands next season, so we are thinking about having some young WWOOFers come here to work and learn. Working this hard and this many hours is not something I can keep on doing year after year. But most of the infrastructure needed is up now and what's not there yet will be installed this winter, so I can put all my focus on the growing and producing next season.

Sales and marketing

Here in Sweden we are lucky to have REKO, so my partner and I started one up in a small town nearby and that



Carina delivering the first live snails to a chef.



Now you can also buy quality escargots in Sweden.



Sweden's first snail farm is located in a little village called Västtorp.

has been going very well. 2 other REKO's in the neighbourhood and sales straight from the farm after an announcement on our Facebook page made sure all the vegetables and eggs were sold. We have agreed with a local business for home and garden products that let me come there every Saturday for 2 hours to sell my eggs and deliver the ordered vegetables. Quality is easier to sell! For the snails, we have a small number of customers who are willing to test them on their menus, while restaurants are contacted by us and get a free number of snails to test the quality.

Learnings so far

My business is still so young, but I have already found out that people appreciate quality food and that the concern for the environment is much more present than I thought.

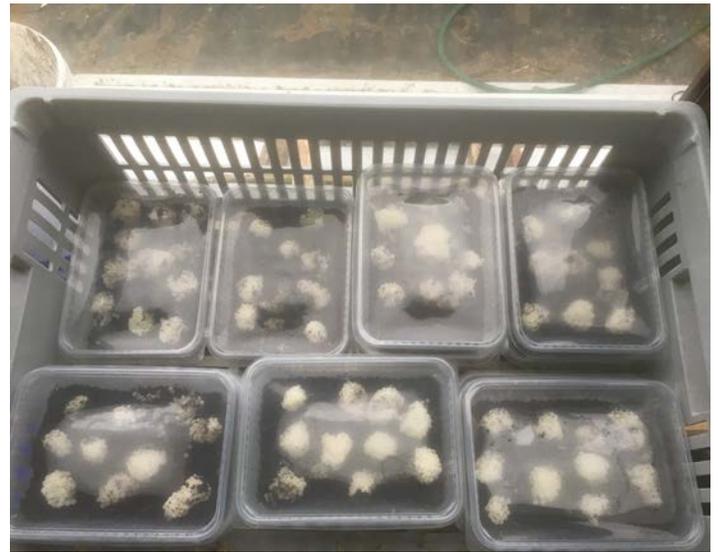
Challenges

My biggest challenge is the snails themselves. It looks all easy and simple, but if you don't know what you're doing, your snail farm can quickly change into your worst nightmare. Having a business demands good planning and I'm not a good planner, so I have to work on that; good thing we have long Swedish winters.

Another challenge is the 'snail walks' or 'snail safaris' that we plan to start hosting next year. We want to invite people to our farm on a chosen day and time to learn about snails and heliciculture in general, taste them and, if they want, buy them. We want to do that in collaboration with our kommune, since attracting visitors to this area will be a win-win situation.

Plans for the future

In the future, the market garden will grow fewer vegetables for sale while the snail farm will increase. I will mainly grow vegetables for processing the snails so that I have full control over the process. My goal is to grow 1,5 ton of snail meat, which is the limit this little farm has. Hopefully eating 'escargots' will once again become common in Sweden, like it was in the eighties. Locally produced escargots, that is, not imported ones. I don't want to and cannot compete with snails in a can. That product has lost a lot of its good taste and the buyer doesn't know what he's buying. Those snails might have been picked in the wild or come from low-paying countries.



Snail eggs about to hatch.



Collecting snail eggs.



Snails laying their eggs; a new generation will soon be born.



View of the snail pens (1).



Snails having dinner.



View of the snail pens (2).

I also plan to produce snail caviar. The problem is the preservation procedure; you need to be able to keep the exclusive taste that makes snail caviar so outstanding and at the same time get the right consistency.

Some advice

When you become a snail grower, you will find yourself doing interesting work. At the beginning of the season, when you hope to produce baby snails, you are a bit of a biologist, giving them the right conditions to mate and produce eggs so that you are certain of a new generation for that season. Later on, when growing them in their parks, you are a farmer who mainly needs to observe a lot; there's not much heavy physical work, and nothing goes fast with snails, so maybe it's not for everyone.

If you want to become a 'heliculturer', make sure to educate yourself as much as possible, because you have to know what you're doing. You will find a lot of information on the internet, but make sure to also go to a real snail farm to see how they do it because there are different systems and different ways of setting up your snail farm. Observe as much as possible and start small (100,000 snails).





View of the snail pens (3).



Baby snails; they grow exponentially.



Cooking the first batch of snails.



CARINA VAN STEENBERGEN

Ca-Le Jonstorp Escargots, Sweden

MAIN ENTERPRISES:

Escargots / Layers / Market garden

MAIN SALES CHANNELS:

REKO / Restaurants

AREA IN PRODUCTION: 0.3HA

STARTUP YEAR: 2019

STARTUP INVESTMENT: €38,000

REVENUE: €14,000

NET PROFIT: €0

(Still investing in scaling up)

website / facebook



DANIEL HAGERBY

Alvas Naturbete, Sweden

Alvas Naturbete

Alvas Naturbete is the name of the enterprise run by Daniel and Johanna Hägerby on the farm Södra Skärshult in the south-east of Sweden, between the towns of Kalmar and Oskarshamn. Daniel and Johanna manage 30ha of farmland of which 18 are pasture and 12 are arable. The main income stream is generated by the pastured eggs, but Daniel and Johanna also produce pastured lamb, pastured beef and honey, and are starting up a market garden.

Naturbete is Swedish for pasture. So the idea is that all the main enterprises are pasture-based. That goes for the eggs, the sheep and the cattle, and also for the honey as the pastures and the trees in them are full of flowers that the bees collect their nectar from. The market garden is, however, not connected to the pastures by any stretch of the imagination.

We started their journey to establishing the enterprise in 2012 when they moved to Daniels childhood farm, Södra Skärshult. The first years were focused on homesteading, with some heritage sheep, beehives, a small garden, some layers and a family cow. After participating in the online training Making Small Farms Work (now The Regenerative Agriculture Masterclass, ed.) in

the early spring of 2018, they got the courage to start the process of building up a business to enable both of them to quit working off-farm jobs.

As an integral part of the course, the participants had to articulate their holistic contexts. In our case:

‘We aim to produce the best possible food and nutrition for our child, Alva, and to sell any surplus to others who are also looking for proper beyond-organic food. We believe in letting the animals live as natural lives as possible in a way that improves our land through carbon capture and the establishment of perennial food sources; for our daughter, her generation, and their descendants. We strive for practices that are future proof, especially with regards to a changing climate and fossil fuel shortages.’

In May of 2018, the first flock of 250 layers at point of lay were picked up and put in the repurposed hay wagon that had been made into an egg-mobile. It cost about €1,000 to build and they used an old tractor to move it. Apart from the egg-mobile, they bought fencing, an energiser, an adapter to be able to receive the feed in bulk, and a pallet of egg trays. Also, of course, the point of lay hens. All in all, they spent approximately €4,700. On top

of that the couple invested in a larger herd of herbivores; five heritage cows, each with heifer calves. Many lessons were made the first year, but the eggs sold out and there were no big mishaps. Then came the drought. All adult sheep and half of the cows had to be slaughtered, and customers had to be found for the meat! Naturally, that was a major setback – but also a strong reminder of WHY they are doing this. The need to rapidly improve drought resistance and boost pasture resilience was obvious.

With a heavily reduced ‘fled’ of herbivores they just made it through the winter, having to work for silage at a neighbouring farm during the spring and planting monoculture spruce in the kind of hell-scape that is left after clear-cutting and ‘ploughing’ what used to be the forest floor. That helped drive the lesson home; do not get more animals than you can feed, and improve your pastures so that the number of heads you can support is predictable, even with ever-increasing climate anomalies.

Still, as the pastured eggs part of the business was going well, they decided to expand to two egg-mobiles. Using the same design, they were able to use a second hay wagon as a mobile feeder for the herbivores during the winter and then, after fitting walls, perches, and nesting boxes, use it as an egg-mobile during the summer. By now REKO had started in the two closest towns and though selling all the eggs in the start of the season was challenging, come October they were sold out and Daniel and Johanna began considering a third egg-mobile. In mid-October, they bought a polytunnel to house the chickens through the winter. The first winter an indoor space in the barn had been used but was found unsatisfactory.

After the culling of some of the cattle due to the drought the first year, the herd has grown back, and then some. The couple has further invested in an electric ATV (expensive), another polytunnel, way more fencing, installed water infrastructure in the pasture, bought a second-hand feed silo, market garden tools etc. All non-essential investments that have enabled streamlining of the daily chores and set the base for further expansion.

Come spring 2020 a total of 850 new layers were brought in to fill the egg-mobiles, including a third one built in April. Last year’s flocks were slaughtered and sold as stewing birds, barely covering the cost of slaughter and transport.

At the time of writing, Alvas Naturbete is closing up the third season and are at present turning over approximately €90,000 annually. After deducting costs,



One of the egg-mobiles in front of the small polytunnel at an Open Farm-day.



Nesting boxes facing outward for ease of picking.



Engaging the customers’ kids can be a good way of establishing relations.

that yields a net of around €40,000. Most of that is from the layers, but the pastured meat, honey and vegetable enterprises are all growing, both in absolute and relative terms.

However, because they keep expanding and are using the business to invest in the farm and development of possible new ventures, most of what would be available to take out as salary is not withdrawn. But now they are at a level where they could quit all other work off-farm. It is only for the sake of resilience in income streams that they have not. Yet.

A normal workday at Alvas Naturbete (365 days a year) starts at around 5 o'clock and ends at 3-4 in the afternoon, apart from on delivery days (three of them every two weeks) when the deliveries go on until later in the evening. That is fine for a few years, but with small children it is tough. That is why they would like to get to a situation where they have someone who can stand in from time to time and be paid well.

They have made a lot of mistakes, naturally, but keep learning from them and get better every day. Now they know how to minimise the risk of animals getting out of their paddocks, how to make sure the eggs end up in the nesting boxes and nowhere else etc. They are still improving in day-to-day operations, always striving to get more efficient and better at adapting to the seasons and the grass growth.

In the winter things are different. The layers are in the polytunnels, the herbivores are not moved as often, the beehives are dormant, and the market garden is asleep. This means it is a good time for rest or rather to catch up with things that they cannot find the time to do during the summer. Like forestry, building projects, and this year raising layers from day-old chicks instead of buying in point of lay birds.

The toughest part of starting the business has been to establish a customer base. The first year they charged only €9 per tray, delivered to the customer's door! That amounted to a lot of driving per delivery but was a sure way of getting very faithful customers. They did this knowing that they would be ramping up pastured meat, honey, vegetables and perhaps a micro-dairy. So the door-to-door deliveries were a conscious choice to establish a reliable customer base that they could expand sales to in the future. With the customers addicted to pastured eggs delivered to the doorstep, Daniel and Johanna have been able to raise prices to €12 without losing more than a few customers.

Each year they have expanded their pastured egg-business with another egg-mobile. This has been an easy



Daily moves of cows and sheep.



Many customers like to bring their kids to see the lambs.



Milking by hand in the pasture.



Checking the experimental top bar hive.



Pouring distilled summer blossom honey.



Alva and a jar of liquid honey.

choice as the demand for the eggs has been high. Still, every spring/early summer eggs have been piling up and Daniel and Johanna have been worried that they will not be able to sell them all at full price. But sales have always caught up and stock levels have never gotten critically high. Now they have learned that having a healthy stock going into autumn and winter is a good thing, as that enables you to keep the deliveries going all through winter and not having to cancel customers only to try to get them back a few months later!

Now REKO has come along, which makes things a lot easier. But REKO can also bring about more competition and can be riskier in case of pandemic shut-downs. So a combination of different types of customers and delivery modes is a more resilient strategy, compared to putting all pastured eggs in one basket.

Joel Salatin, one of their main sources of inspiration, says ‘it is easier to find 100 customers to spend \$1,000 than finding 1000 customers to spend \$100’. That has been their strategy – to get a smaller number of customers spending more, rather than trying to reach a wider range of customers.

Now they are looking to expand to a level where they can employ someone so that they can take a weekend off occasionally. Also being more people is more socially enjoyable and makes the development of working routines easier. As they already have the customer base and a lot of on-farm resources as well as plenty of land and investment capital, they are sure they will find like-minded folks to partner up with.

During the next few years, Daniel and Johanna aim to slow their growth in pastured eggs and get more people in to diversify the business. Ideally, every new partner/employee comes with his or her expertise and ideas to supplement the offering to the existing customers base. The most obvious thing is to expand the market garden. But micro-dairy, apple juice and pastured chicken are other ventures that they are considering. The point is to match each business to their resource base and their customer base and find things that level out the workload throughout the year. That way everyone gets some time off and have a sustainable situation with regards to family time etc.

One change that is already in the works is reducing the number of sheep to a minimum. The reasons for this are several. First of all, sheep are a lot more work than cattle; they are more difficult to fence, they need shearing and they often reject their lambs. If only one ewe rejects one lamb, that is enough to have to bottle-feed for weeks. That is especially annoying when you think

of the second and more important reason, profitability. The slaughter costs way more per kilo of marketable meat compared to cattle. And because the customers are not willing to pay more for lamb than for beef, that makes margins much smaller. When calculating the financials of the different enterprises during the online course, sheep seemed good enough. But the reason they fall short of the planned profit is due to the difficulty in selling the fleeces. Daniel and Johanna assumed that every lamb would, apart from the income from selling the meat, generate another €70 net for the fleece. That would have been the case if the fleeces were as easy to sell as the pastured eggs. But, alas, they are not.

Another plan for the future is to plant tree lanes in the pastures to provide shade, reduce wind speeds, and get a second crop from the same acreage. Because of the constant expansion of both the number of egg mobiles and heads in the 'flerd', the optimal width of the tree lanes has changed over time. If the idea is to run the layers a few days after the herbivores, and the egg-mobiles each need their paddock, then it is easiest to run the egg-mobiles side by side. As it is a waste of fencing to make the layer paddocks too narrow (that would yield very little fresh pasture per move), three egg-mobiles result in rather wide tree lanes. So this is a lesson in why it is a good idea not to run too quickly into all of the infrastructure investments because you do not know from day 1 how big you want to be or how to run things smoothly with minimal effort. As things stand, a reasonable way forwards seems to be to start with really wide lanes and then, perhaps, in the future introduce more lanes. So 50m wide lanes could turn into 25m wide lanes in the future.

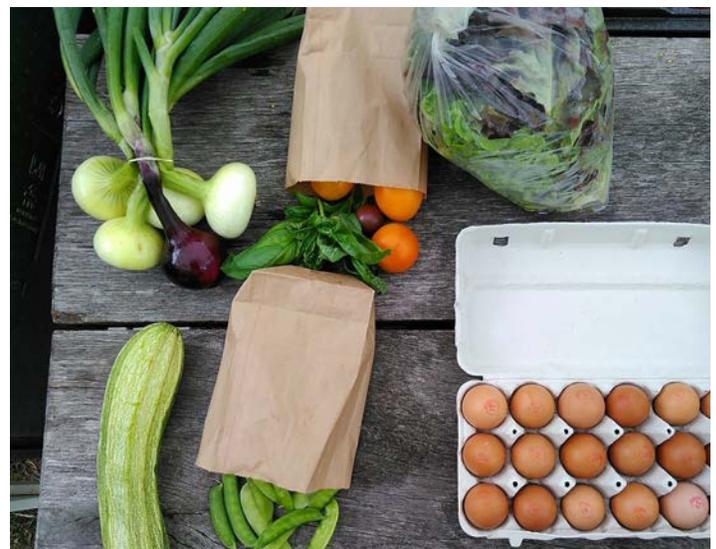
Our main advice to someone starting up is to start small and scale up with a growing customer base. Even a small flock of a few dozen hens or a hand full of beehives will give you a taste of what it means to handle that kind of work and sell the product, what kind of setbacks to look out for, etc. Also, producing things that you like to eat is a good idea. First off, sales get a lot easier when you know how to prepare food from your produce, and secondly, you can eat much of the 'waste'.



An overhead view of the old garden beds and the root cellar.



75cm wide no-dig market garden beds.



A sample of our produce in the summer of 2020.



DANIEL HAGERBY

Alvas Naturbete, Sweden

MAIN ENTERPRISES:

Pastured layers / Pasture-raised cattle / Pasture-raised sheep / Honey

MAIN SALES CHANNELS:

Subscriptions / REKO

AREA IN PRODUCTION: 30HA
(out of 360HA)

STARTUP YEAR: 2018

STARTUP INVESTMENT: €4,700

REVENUE: €90,000

NET PROFIT: €40,000

(currently still reinvesting)

website / facebook



TYCHO HOLCOMB

Myrrhis Permaculture Agroforestry Project, Denmark

About our project

Myrrhis Permaculture Agroforestry Project is owned by Tycho Holcomb and Karoline Nolsø Aaen. Our primary production is of fruit (apples, pears, plums, quince, cornelian cherries, mulberries), nuts (chestnuts, walnuts, heartnut, hazelnuts) and berries (Aronia, wineberry, tayberry, honeyberry, black currant, gooseberry, saskatoon, silverberry) in an alley cropping system together with annual and perennial vegetables and an edible perennial nursery with potted plants. Also, we run a small seed business of primarily edible perennials. Pastured rabbits, geese and ducks graze the grass between some of the tree rows. We use the farm for education in the form of courses, workshops, and farm tours. Secondary production (important for the whole but not bringing revenue) includes laying hens and sheep.

Our vision

The initial Agroforestry project vision is both a production, trial and demonstration site for different forms of agroforestry, regenerative agriculture and farm-based permaculture. We practice as well as educate about integrated small farming while at the same time building

soil and biodiversity. We also do some plant breeding and selection, in conjunction with our nursery, on fruit and nuts and perennial vegetables for our local climate.

Debt-free from the beginning

Since our land is rented with a 30-year lease, starting in 2017, we were not pressured with starting with high production and revenue from the first year. This gave us a couple of years to plant trees and shrubs, both fruit and nuts as well as nurse trees (alder) and windbreaks. We started the market garden in 4 stages (4 alleys), preparing the ground one alley at a time with landscape fabric for one year followed by establishing deep compost mulch no-dig beds. The establishment is mostly finished now after 4 years. We are also trialling different animals to find out which species fit us and the land and how many to have of each.

It was important for us to keep investment low and spread it over a few years so we wouldn't need to borrow money. The tree planting was very inexpensive for us as we wanted to focus on breeding new varieties, and so we started with 90% seedling-produced trees. The trees and shrubs have also mainly been from our nursery. The costs are a bit difficult to calculate as we don't sepa-

rate the hours for our nursery plants from the nursery production for sale. Due to our trees being primarily seedling trees we count on having to top-work graft or replace some of them through the years. We spent approximately €800 on nurse trees and windbreaks, and about €540 on other production trees. The trees are currently planted primarily on one hectare but we will be expanding in the fall of 2020.

Due to the small size of the market garden (approximately 1,000m²), we have avoided having any machinery, and we work with normal garden hand tools that we had already had. The main investment costs have been landscape fabric, insect nets and row covers costing approximately €940, and then some extra hand tools like a bed rake, extra wheelbarrows etc. for approximately €270.

The investment in the animals is primarily in the infrastructure consisting of mobile housing and electric fencing. We have 5-6 does (female rabbits) and each has her own grazing house on wheels of 6m². Also, we have 2 bucks (male breeding rabbits). Each grazing house ('Rabbitat') costs approximately €135 to make with new fencing materials and wood construction and used bike wheels. That's €800 in housing plus a bit more for getting new breeding animals. Most of the rabbits, except for the bucks, we can replace with our stock. The geese and chickens also have mobile housing, a modified version of the rabbit grazing houses. These houses are also 6m² and on wheels, used mostly for night housing and shade. They cost €135 to make as well. Then there is the electro-netting fence we use for the geese and chickens and sheep, which we have spent approximately €1,200 on.

Additional later investments are grass and clover seed to renovate our pastures at approximately €400, and replacement and expansion of windbreaks and additional fruit alleys at approximately €400.

Revenue

Current revenue is primarily from the nursery and the market garden, as well as a small amount from meat. We expect some revenue from berries within the next year, and fruit and nuts in the following years.

The nursery is our biggest revenue driver currently at about €6,050 of which approx. 80% is net after water costs and pots and potting soil are subtracted.

The second-most important revenue driver is the mar-



Our house in the forest garden.



Myrrhis agroforestry project.



Tycho and Karoline.

ket garden at about €5,375. About €4,030 is from a self-harvest subscription, and €1,345 from sales to a local restaurant and some other local sales. About 90% is net after water and seeds.

We also sell seeds from mostly herbs and perennial vegetables for approximately €2,685 revenue on online sales in the winter. 95% of that is net after packing costs.

The rabbits generate approximately 60 animals for slaughter per year which generates approximately €670. The revenue is all net as we don't have feed costs with the rabbits. The breeding animals which overwinter live entirely on waste vegetables like root crops and waste apples and a bit of hay.

Geese and ducks are variable, as some years we have geese bought as day-old goslings, others not, and the ducks hatch out between 10-60 ducklings a year. Geese and ducks on average are €535 in revenue per year, netting 50% or so.

In addition to the land-based production, education related to the farm (courses, farm tours) generates about an equal amount.

Dynamic farming

For us, farming has been a dynamic process and we are having a lot of fun. Working with plants and animals and living ecosystems is a dream come true. We can support 2 people from farming and related activities, which we love. However, it isn't without challenges. It has been a steep learning curve turning what was a hobby for us for many years into a business. We are learning what markets we want to work with and are making decisions accordingly. We have had a hard time with weather and are having to constantly adapt to the challenges of drought (3 years in a row). We also have a difficult site which is open and windy and with low organic matter (1-2%).

Finding markets has been one of our challenges, not necessarily in finding them, but in deciding what fits into our quality of life-assessment. We live close enough to a larger city (35km) to market there, but we don't enjoy driving around much. Instead, we have opted for taking a lower price and selling locally with customers coming to the farm to harvest and a restaurant in our village within bike distance. As we don't expect or need our product range to expand much, we can sell



Sheep and geese rotationally grazing together.



Chicken silvopasture hazel grove.



Rabbits in mobile grazing house.



Plant nursery and demonstration beds.



Drone image of part of the alley-cropping area.



Alley-cropping annual vegetables between rows of fruit trees and perennial vegetables.

exclusively within 10km or so. Some of our vegetables are sold as a prepaid subscription running from June to December to which people subscribe before the growing season begins in early spring. Our customers come as they please and harvest the crops themselves. Despite only being able to take a relatively low price for the market garden products, we enjoy this model as we have no transport, packing or washing of produce. The customers get a connection to real food and get it fresh as they pick it themselves. They also have the choice to harvest when they want to. We are considering a separate but similar model when our berry bushes and fruit trees begin to bear in the future. We estimate we could probably double our revenue from our market garden by marketing boxes and adding more restaurants, but we would also have increased working hours that would be spent washing, packing and delivering, which for us is less fun than the growing.

Our nursery is also only on-farm sales as we don't send plants by mail to avoid unnecessary regulations and packaging. Meat is also sold directly to the consumer. According to current regulations we don't need an approved slaughterhouse as long as the customer is participating in the slaughtering and processing of the animal. With the limited amount of meat we produce, we can find enough local people who want this kind of arrangement. We have mostly found our customers by word-of-mouth and social media.

Adjustments

While our vision has remained the same, we have had some challenges that have required that we adapt. Due to the combination of our sandy soil's lack of ability to hold moisture and several drought years in a row we have had to add more organic matter in the form of compost than we initially intended. We aim to close the nutrient cycles on the farm and limiting imports by integrating animals. Due to our conditions, however, we have come to accept that importing more material is necessary to jump-start the regeneration of our soils.

In addition, we are making more investments on drip irrigation for all our trees, including our windbreaks which have not grown in 4 years. We have had trouble having sufficient food for our grazing animals and drought has forced us to keep the number of animals low, as we can only graze each paddock twice per year (once in the spring and once in the fall). The low number of animals on the other hand means that we have way too much grass when there aren't drought condi-

tions. We hope that as organic matter increases we can have green grass for more of the year but have had to accept the reality that we don't yet.

We have had to invest more on tree protection from voles, which we have learned the hard way are a big problem. All new trees are now planted with a mesh net around the roots. Part of our vision was to limit establishment costs, and we have had to accept we need to invest more. It would have been better to invest in drip irrigation and tree protection from the start.

Near future

In the next few years, we want to get our pastures producing better and our trees growing faster. Since we have a source of free horse manure which gets delivered on-site, we intend to use more of that resource to spread on our gardens and tree rows than we already have. We are even considering spreading a thin layer of horse manure on some of our pastures to jump-start them!

Starting fall 2020, we are planting more trees in our pastures including an area of chestnut silvopasture savanna and more fruit tree and leaf fodder rows which will be grazed between.

We want to establish more and better restaurant connections. As of now, we are selling some 'little-known' vegetables like tomatillos and yacon to one restaurant, and we would like to sell to others. Our fruit tree rows, which divide the market garden into alleys, are planted with perennial vegetables like hosta, daylilies, sweet cicely, Turkish rocket, patience dock, rhubarb, perennial kale, perennial onions and asparagus. We would like to explore the market a bit more for these perennial vegetables, particularly with restaurants but also with our self-harvesting subscribers. For us, it makes a lot of sense when having tree rows with fruit and berries that the 'understory' is also productive with products we can sell. Most perennial vegetables thrive in the semi-shade that the fruit tree canopy creates. We are also increasing the number of tree rows underplanted with perennial vegetables, to trial which may be successful and marketable products.

We are currently several years into a perennial kale breeding project to create several new varieties which have different shapes, colours and tastes compared to what is currently available. We hope some of these new varieties can be useful not only to home gardeners but also to market gardeners who wish to incorporate more perennial vegetables into their production. We have some really promising individuals!



Self-harvest market garden beds.



Intercropping in the market garden.



Inspection of the perennial kale breeding project.

We want to explore the different possibilities of using cover crops in no-dig systems so that over time we can reduce the amount of compost we import to the market garden. We are experimenting with both late vegetable crops planted out mid-late June that follow an overwintered rye cover which gets either mowed or laid down in place, as well as early vegetables are sown or planted into a winter-killed cover crop, such as barley-radish-buckwheat, leaving a nice early spring mulch. We like the idea of growing our organic matter on the spot in the form of cover crops instead of having to wheelbarrow organic matter around, but it takes almost double the space to commit to cover crops as either an early or a late crop of vegetables is missed where the cover crop has to grow.

Recommendations

Overall, we are happy with our establishment. However, it would have been best to invest a bit more in establishing the trees from the beginning, and this is what we now recommend to others. Fruit and nut trees are an investment for the future and they will be there for many years, so it makes the most sense to give them really good protection from animals like voles, as well as establishing an easy way to keep them watered for at least the first 5 years or so. We also highly recommend planting trees generally, as many other products can be integrated with trees, be it vegetables, mushrooms, grazing animals, or even grain. Trees add structure, create a better microclimate if well designed, and give a yield into the future. We are hoping and counting on the tree element to be giving yields later in our lives. It could be that we reduce the annual vegetable growing with time as our farm landscape changes and succeeds into something more perennial. It gives us options as our bodies get older and we perhaps don't have the energy for growing annual vegetables anymore. Investing in the trees from the start of a project is smart so they can have the possibility to give yields later, while in the short-term bringing revenue from vegetables and animals.

We have also learned that it's best to expect the extreme when it comes to weather, rather than expecting the normal and adapting last minute when there are extremes. In our experience, we have had to deal with drought, and in hindsight, it would be good to expect it by having the necessary irrigation, rather than having to get it when the need arises.



TYCHO HOLCOMB

Myrrhis Permaculture Agroforestry
Project, Denmark

MAIN ENTERPRISES:

Nursery / Market garden /
Education

MAIN SALES CHANNELS:

CSA / Pick-your-own / Farm shop
Restaurant

AREA IN PRODUCTION: 4HA

STARTUP YEAR: 2017

STARTUP INVESTMENT: €5,620

REVENUE: €30,000

NET PROFIT: 90%

Website / facebook



KATRINE BACH HANSEN

Øhave, Denmark

The vision behind Øhave

In the spring of 2018, my former partner Anders Højlund and I started Øhave together. In the fall of 2019, we parted as a couple, and after a few months of careful deliberation, I decided to take over the project on my own.

So my story and this presentation of Øhave will have that new beginning as its starting point. I acknowledge and appreciate all the hard work, vision development and infrastructure that Anders and I built together, and will bring it all with me into the future of Øhave.

My main goal in the spring was to keep Øhave running. I knew it would be a tough year, being responsible for and doing everything myself. During the season I realised that my bigger visions also could happen; one where Øhave became a platform for more than vegetables. A platform to learn from and a platform from where I could have a voice and develop the things I found important. I wanted to show that it is possible to achieve your goals and that it is important to try out your dreams. Not only in agriculture, but in all aspects of life. I think it makes us more resilient in life to move toward our dreams. As soon as you start living them, they will change and take new forms and there will be

room for new dreams to appear and so on. I think this movement is important. And along the way, you realise that you learn a hell of a lot and you get more and more resilient and you become more capable of executing your ideas.

I want to take part in a positive regenerative change in agriculture, and I believe reaching far and wide socially is of critical importance. Therefore I talk to my customers about soil health and nutrients. I give almost-weekly farm tours and interviews to articles, and I do it with enthusiasm and will-power even though I rarely have the time for it. But I want to participate in the real world and influence the current views of agriculture, and I can use Øhave as a platform for this. And people listen because I'm doing it.

My initial focus

Øhave consists of 1ha rented land on which I have 140 beds of 25m x 0.75m, a 560m² tunnel and a 150m² nursery. In the beginning, my focus was on making it happen, on getting the business running around. I had to learn all the things I didn't know, such as economics, regulations, controls and a lot more. And at the same time try to make as simple a season as possible. My main

focus was simply to succeed this first year on my own. My bigger goals for the company were on hold initially. I dived into the practical stuff and operating the day-to-day work on the ground. I did this with awareness. Normally I think it is important that the leader can switch between the day-to-day work and the bigger visions. If the person in charge only moves around in the field, the company will never move and develop. But at that time I had so much to learn that I had to focus on all the small details and kind of put the vision aside for a while.

So what were the main things I focused on to make the year as sustainable as possible? I hired a very good friend of mine for the summer. She was super capable of the work and at the same time, it was reassuring for me that she knew me well and knew the business. She was a key component for some stability and security for me, both personally and professionally. Then I tried to have a few volunteers, only one at the time. With the thought of keeping the focus on as few things as possible, I reached out to customers who had simple orders, who only bought salad mix, to make the harvest easier and faster. I also decided to stop my market sale on Saturdays to have more time at the weekends to get on track with workloads and have fewer harvest days and more field days.

Simplifying things went well, but of course, it was still a super crazy year all in all.

Investments, costs and revenue

The majority of our startup phase was funded with a €40,000 loan and some savings we had. This covered both living costs, running cost and investments.

Material we invested in from the beginning (2018):

- €10,000 on our box van
- €10,000+ on road, washing shed, tunnels
- €1,000 on delivery boxes
- €1,500 on a cold room
- €500 on seed trays
- €1,500 on tools

Running costs in 2020:

- €6,000 on seeds, potting mix, compost
- €3,000 on water, electricity, miscellaneous
- €1,000 on rent of land
- €1,500 on insurance
- €4,640 on employee salaries



Øhave from above.



Me cultivating the pathways.



Salad Mix is a crop that sells well at Øhave.

Of course, there have also been more investments since 2018; a paperpot transplanter, a new tunnel and a BCS tractor. I plan to pay back my loan after five seasons. We tried to start simple and develop our business before investing too heavily. I have not had any side income since starting Øhave in 2018.

My company is a sole proprietorship. This means that I'm personally liable for everything; also if I go bankrupt. And I pay taxes of all profits in the company.

My revenue this year is approximately €87,200. This is excluding VAT, which is 25% in Denmark. I pay approximately 15% of 87.200 in taxes.

2020

I tried to plan as well as I could before high season. Even so, during this season it did not take me long before I couldn't keep up with my production plan. The spring was too busy on my own. I thought I could do much more than what I could in reality. I worked super hard and crossed my fingers that I had enough vegetables to meet my targets, and surprisingly I did.

I do a weekly round in the garden where I plan all the tasks for the upcoming week. Then the team and I have a weekly meeting organising the tasks at hand and the week ahead. We have a simple agenda facilitating the meeting. I have a monthly meeting with my employees where we are just listening to each other talk about expectations and how things are going overall. We normally make a weekly outline a quarter ahead, making sure we have enough time to implement and plan everything. This is also done at monthly meetings.

In the field, we work very efficiently. We have breaks at the same time every day, and we follow a fixed structure that I plan to avoid unnecessary planning and discussions in the team during the day. I try to implement systems when solving problems, with awareness on implementing solutions which can be managed and taught by others than myself. When the structure is working, I find it important to think about workflow and engagement in the work. This is the difficult part. Of course, this is partly about how experienced the team is, but I find it essential that they enjoy coming to work, so I do my very best to make sure that my employees feel seen and recognised for their work.

Sales and marketing

When Anders and I started, we made cold calls to set up meetings with potential customers and people of in-



Sowing seeds manually in Paperpot trays.



The golf cart has been a game changer.



The golf cart transports everything within the garden.



Planting out tomatoes in the big greenhouse.



I'm always surprised by fast growth in the greenhouse.



I love the imperfect beef tomatoes, and so does the chef.

terest. We were new to the area, so we had to learn the ropes and get to know as many as possible. We always tried to give our customers a high level of understanding of our values and methods, so that the relationship could be based on willingness and cooperation.

Now I have a good and permanent foundation with a handful of customers who are ready to buy every week and some customers who only buy sometimes. I do all my deliveries myself and I'm aware that it is very important to have a good social connection with each of my customers. The close relationship to them makes my business more secure and resilient.

My main customers are education institutions/boarding schools, catering businesses, restaurants and special events during the summer vacation. I am very much aware that I still haven't spread my season enough, so finding good outlets for the peak of tomatoes and baby leaves has made a huge difference for me.

Right now I'm also working on starting a small private sale revenue stream in the form of vegetable boxes, but for now, it's a work in progress.

Current vision

Right now I have the crazy learning season behind me and a new season to come where I will have more time to plan and more time to step out of the day-to-day work and look around and reflect. In a lot of ways I find myself going in the right direction.

There is still a lot that needs attention. The last couple of years my work-life balance has been a bit out of balance. I have worked most of my waking hours while at the same time feeling behind most of the time. This is stressful and not a sustainable way to live. So I'm trying to get my head around how to live out the goal of making the business run regeneratively and be financially stable and at the same time live a balanced life where there is time for friends, loved ones and other activities. I think this is a very important focus for me, for the future of Øhave and for new farmers who are inspired by Øhave. I have many small ideas for making a more sustainable business. One of the tools that I see can help me on the way is working with a holistic context.

In the last year, I have worked without a context written down and this is something that I truly want to change. I think it is important for both me and my employees to have so that everybody knows the bigger picture and the values of Øhave.

Challenges

It has been a big challenge to run Øhave on my own. There have been many late working days after the team went home. When something broke or the organic control came by I was the only one with the responsibility and had no one to share both the good and the bad things with on an equal responsibility level. It can be hard and lonely to be the only one in charge.

A solution could be to find a new partner for the business or to find a very dedicated employee who is willing to take responsibility and stay longer than one season. It has to be the right person. That is not easy to find and I do not want to make an unnecessarily hasty decision. For now, I'm inviting people to work and during the season I will delegate more tasks and give more responsibility to those interested. This could be a way to make my employees feel more as a part of Øhave and maybe a partner will appear. Of course, this is not an easy process. There will be disappointments and difficult processes on the way. But I'm willing to open up the business and take some risks.

Meanwhile, I'm in the process of starting a group around Øhave. A group of people that have no interest of their own to push Øhave in any direction, but are only there to support Øhave and discuss problems and ideas with me to help find solutions that can benefit Øhave as a business. This will be a group of people with different competencies, as an advisory board. I'm very excited about this and I'm sure this will help me in my work with Øhave. It's essential to have more brains involved in a project like this to make it more diverse and vibrant.

Most importantly of all, I need to twist my brain to find ideas that will make this journey much more fun and to structure a life where I control the business rather than everything being so tight that the business controls me.

Looking ahead

I have many ideas and the concrete future could look in many ways. But I want to bring my home, social life and work closer together. I'm currently living 12 km away from the farmland. It has pros and cons, but when we started we prioritised starting our business rather than finding the perfect context in the first attempt. Now I have a working business and a well-known name in the local community. When I find the right and more permanent place, I can pretty easily move the infrastructure.



Super cold harvest day; my fingers were freezing.



Snack carrots. Love them small and without carrot fly.



This was in September, still in the middle of a crazy season; we just wanted a new greenhouse.

Up until last fall, I was dreaming of a future Øhave together with Anders, and of course, the dreams look very different now. I haven't had the time to explore my new context. I'm starting working on a holistic context this winter and in this process, I will get more in-depth with my plans and ideas.

Startup advice

Start as small as possible while still doing it 100 %.

Try to be humble and curious about the work. Working with soil and living things takes time and patience.

Always have a good relationship with your customers and always visibly express that you are in a good mood and that you trust in yourself and your business.

Network. Be sure to have a good network with like-minded farmers.

Make sure to recharge yourself during the week in any way possible; be alone, read, go for a swim, listen to podcasts or socialise with people who are not involved with the farm.

Be sure to have people around you who will support you, also in difficult times. In really difficult times, seek help from people whom you trust in or find some sort of life coach.

Most importantly; it is your business, so run it in a way that you find inspirational and rewarding to work in and with.



KATRINE BACH HANSEN

Øhave, Denmark

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

Wholesale

AREA IN PRODUCTION: 0.33HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: €36,000

REVENUE: €90,000 (ex. VAT)

NET PROFIT: €33,600

(before Katrine's wages)

website / instagram / facebook





CLAUS ILSØE

Ilsøegaard, Denmark

Ilsøegaard

Ilsøegaard is based in southern Jutland in Denmark and owned by Claus (me) and Janne Ilsøe. Starting up full time in 2019, we wanted to produce fresh organic vegetables for restaurants and the farmers market.

Ilsøegaard only has limited space available. The total space available is 0.45ha and that includes the house and the stable. In 2019 we grew vegetables on only 250m². This year we have/are in process of adding/preparing 1500m² extra; 1,000m² for vegetables and 500m² for berries like Raspberry, Gooseberry and Red Currant.

Vision

During 2017 and 2018 I felt more and more dissatisfied with my job. Even though I had a job as Municipal Leader and a decent salary, an unease and a longing for 'something better' was increasing. I had become the perfect citizen, but in reality, I was not happy about my job situation. I knew I wanted something different, so I started a long process of finding out what this would be. After much thinking and seeking a lot of information, both on how to grow vegetables but also about

how you start up a business, we were ready to give it a go. We started up last season (2019). Before that, we had grown our own vegetables for many years. Our vision and goals were to produce mainly vegetables but also eggs and meat from chickens, ducks, quails and pigeons. Mainly our focus was on restaurants in the area, but also on private sales at e.g. the farmers market. We wanted to make a difference in the local community regarding food. When we started up, we had a dream that food would not have to travel 100km or 1000km before ending up on your table. We still hold this thought very dear, and although potential buyers (both restaurants and private people) ask if we can deliver to or be at a farmers market 150km away, we refuse to do so. We believe that if we start to make compromises we will become unaligned with what we believe in and might end up losing our drive and credibility. It is worth noting that we had no customers before starting up.

Initial focus

Our initial focus was on learning a lot. We read numerous books on different aspects of growing vegetables and watched a ton of YouTube videos. One can only marvel

at how much information is available on the internet. It was particularly important for us to get as much information as possible, also on different aspects of growing vegetables, including different ways to grow them. All of this information was sometimes written down, or documents were saved. From watching all of the videos, visiting different websites and reading books, we decided to mainly go with the no-dig approach. I say mainly because instead of just putting compost on (which we had very limited amounts available of), we dug the ground and got rid of a lot of rocks and gravel. After around 3 containers, we first put down manure from chickens, quails and ducks and then a small amount of compost on top of that. We also focused on getting our very first greenhouse ready for the growing season, so that we could produce tomatoes, cucumbers and sweet peppers. This resulted in a 50m² greenhouse, which ended up being far too small. We – like many others, I guess – have a way of putting too many plants into a limited space, and this rarely gives the best result.

Investments and revenue

We probably invested around €15,000 the first year. This was for the greenhouse, seeds, garden tools, organic soil, pigeons, quails, ducks, geese, chickens and a lot more. The investment could have been way higher, and if we had invested more we would have been able to have all the greenhouses ready at once. On the other hand, though, building up as you earn money is a huge motivation factor that one should not forget. It is hard to give an exact number for the revenue this year because of COVID. We have some investments to do, so we will probably not make a lot of money this year. However, we have learned a lot this year which will benefit us greatly next year.

Current situation

Here in the middle of November, we are still busy outside. We have a lot of new space to get ready for next season. This includes weeding and getting rid of rocks and gravel. We are also making more space for compost. The situation right now is hard. COVID is still going strong and restaurants do not use a lot of money on expensive local vegetables, meat etc.; they are busy just trying to survive. In Denmark, restaurants have been completely shut down for a long period, and even though they are now open again, the number of guests allowed is lower. No Christmas arrangements are allowed, so the restau-



Establishment of no dig beds.



First productions in the new beds.



New homemade greenhouse.

rants are losing money and therefore so are we. From November to May our main income is microgreens and our main customers are restaurants. We still sell microgreens at farmers markets, but the amount we sell is a lot smaller than what we would normally sell to restaurants. We use the extra time to prepare the existing beds as well as new ones for next year; a lot of new beds. Now is also the time where we decide what to grow next year and look at what has been good for us and what has not. Did something sell very well or did something sell unbelievably bad? This is, therefore, the time when we decide what we should grow more of, what we should grow less of, and whether we should grow something new. This spring, we also sold tomato plants, cucumber plants and sweet pepper plants. We will do this again next year, so we try to grow some plants that might be interesting, both for us but also our customers.

We still focus on meat production, but not in the same way as we did before. However, we still keep pigeons and we will focus on getting more pigeons in the future. We will also have quails for egg production.

Sales and marketing

When we first started, we had zero customers. We would call restaurants, and often they would ask us to drop off a few vegetables so that they could taste them. Usually, this resulted in no deal. We did this several times before realising that we had to be a lot more aggressive in our way of dealing with them. Usually, if you just leave them vegetables, chances are they will probably not even try them; they will simply forget about them and about who you are. So we started asking for a business meeting with the restaurants instead. We also quickly realised that our focus was on restaurants with an expensive menu. These are the restaurants that are most likely to pay a decent price for quality vegetables.

We started up with farmers markets last year. We attended a farmers market once a week and had decent sales the first year, but they could have been better. We realised that people have habits. If they buy from one seller, chances are they will likely buy from that seller next time also. So we started to offer tastings, especially of our microgreens, which boosted our sales. This year we have sold very well at the farmers market, but because of COVID, it has been troublesome. For periods the farmers market has been shut down completely. Farmers markets are great; you get to talk to a lot of people and you slowly get 'your own' customers. Do keep in mind, however, that you are 'the new guy in town,' so

you have to be patient.

Challenges

Dealing with restaurants can be hard. One should never be too optimistic. You realise extremely fast that you do not deal with a restaurant, you deal with the head chef. This means that if the head chef changes, you have to start up all over with this restaurant. This means new meetings, and you have to invest a lot of time in this. We have tried this several times. We probably thought that we would spend most of our time in the garden doing what we love the most, but a lot of our time is spent in meetings or making sure that the restaurants actually pay on time and so on. Just a lot of noise. Also, it has been challenging that you never quite know what to grow in your beds. A restaurant can seem extremely interested in beetroots one year and the next they might have zero interest. So you probably have to think a lot about what you produce and who you think you will be able to sell it to. An example of this from last year was when we produced a lot of lettuce only to find out that most of the restaurants we sell to do not use lettuce at all, and that the ones that do can buy this at an exceptionally low price.

Another challenge can be to deal with people both in the farmers market, but also just people in general. Organic vegetables can be unbelievably cheap in stores, but you have to command a much higher price than that. Your vegetables are also completely fresh and local, but a lot of people will prefer to buy the cheaper vegetables from the store. It gets better when you have built up a customer base that values what you produce.

Concerning meat production, we had a huge setback in 2019 when the COVID hit the world and restaurants shut down. We had just started delivering quails to a restaurant at this point. During this period that particular restaurant got rid of their head chef, and since the new head chef did not want to focus on quails, we had no customers for that kind of meat. We ended up selling the livestock and at this point do not keep quails. This gave us a valuable lesson. If you produce livestock, you must consider what you produce. Quails are not in high demand by anyone else than restaurants. It probably would have been easier to produce chickens that people are more familiar with. The competition, however, will also be harder if you produce more normal livestock. During this time, we realised that vegetables you can always sell, but niche production of meat will be tricky. We do however plan to start up with quails again this



Golden beets.



Pink chard.



Watermelon radish.

very year, and the focus will be more on egg production rather than meat. If a restaurant wants us to produce quails for meat, it will require that the owner also signs up for it, rather than just the head chef. We believe we can sell a fair amount of eggs at the farmers market and also to restaurants.

The main challenges are probably what to grow and dealing with restaurants that can/will change the head chef. I guess we found out that if you want to sell on the market day, you have to grow a lot of different vegetables and you also have to make sure you have vegetables almost all year. People will expect that you have enough vegetables, so even if they show up 5 minutes before closing time, they will still expect you to have a certain vegetable. This is challenging because, on the one hand, you want to bring enough vegetables, but on the other hand you don't want to have to throw a lot out at the end of the day. And keeping vegetables that are 3 days old or more is not an option. People will most likely be disappointed and probably not buy from you again if they don't receive fresh vegetables. Remember, you can only get a high price from vegetables if they are fresh and of good quality. Dealing with restaurants is challenging and you must decide how far you are willing to go. Things change and are never stationary. You must be able to change focus very quickly.

Plans for the future

We will continue to sell both to restaurants and at farmers markets. We will have 2-3 days at farmers markets. We will produce way more compost and be self-sufficient with this. We also plan to harvest more of our seeds, especially from tomatoes and sweet peppers. The short-term focus this year will be on getting the new beds ready for vegetables. We will also start producing some berries, and we have tried growing a few buckets of mushrooms which sold very well, so we will probably do more of this as well. We will most like start to sell quails (again) and pigeons and quail eggs to restaurants. We will build 2 more greenhouses; one will be 150m² and one will be 50m². That will give us a total of 3 greenhouses. The 150m² greenhouse will be for tomatoes and be heated. This will mean that we can start up earlier than we do now. We will be able to produce more vegetables in this greenhouse all year. The two 50m² greenhouses will be for cucumbers and sweet peppers. We look forward to having all our greenhouses ready. We started selling at another farmers market this year, so our focus will be to sell well at that place to. We are

the only organic seller.

One of the things we look most forward to is having everything 'ready'. It takes a lot of time to make new beds. We must make sure that these will be ready so that we don't have to start new ones all the time. We look forward to having all our greenhouses ready. It takes a lot of time, energy and money to invest in these things.

We will produce eggs from quails and pigeons for meat. Pigeons are a very inexpensive bird to keep, and although they only produce 1-2 chicks at a time, they breed 6-8 times a year. They do not require a lot of space and they make an exceptionally good fertiliser.

Startup advice

Know your area. Who do you want to sell to? Go to the market fair and be smart. Look around. What are people selling? If there is already an organic seller of carrots, grow something else. Look at what the sellers are selling and consider what you think is missing. If no one is producing and selling strawberries, then you should. If no one is producing lettuce or radishes, then go for it. People have habits. If they have bought carrots from the same seller for the last 2 years, 5 years or perhaps 15 years, chances are, that they will continue to do so. So be smart and look at your surroundings.

Dealing with restaurants can be tricky. Decide what your focus is. Do not ever show up at a restaurant without a sample of what you want to sell. You can claim that your beets are the best in the world, but you have to let the restaurant decide. Take them by storm and show them what you are made of. Do not ever sell a vegetable that is not high quality – not even at a reduced price. As soon as people have paid for it, they will forget that it was at a reduced price, and chances are that they will not buy from you again or perhaps even talk badly about your product. You do not need this. If you want to be associated with high quality, then sell high quality. You can also choose to sell to bigger companies and sell a lot at a time. Find out what your main drive is. Only you have the answer but stick to this. Your reputation can easily improve, but it can deteriorate even faster. Decide if you want to make a living from farming or just create a second income. If you want to make a living from it, chances are that you will work many hours each day and that the payment will not be great. Can you live with this?

Also, it is way better to produce a lot of 3-5 kinds of vegetables than to produce everything. This goes for both the restaurants and for the farmer's markets. If you



Artichoke tubers.



Celeriac.



Carrots.

want to sell to the restaurants, one of the questions we receive a lot is if we can deliver a certain vegetable all summer and autumn. If the restaurant is to put your product on the menu card, they will want to make sure you can deliver this every week. They wish to have no yellow beetroot one week because you cannot deliver. If you cannot deliver, chances are you will lose this customer. The same thing goes for the farmers market; if people think your carrots are the best in the world, but you have no carrots left in September, then they will buy from others. You do not want this. You want them to buy from you. Chances are they will not take you seriously and start buying from others instead. So focus on growing a lot of a few vegetables rather than growing a few of every vegetable you can think of. You can always expand once you have a few years of experience.

Good advice concerning selling at the farmers market is to be active. Do not just sit on a chair and complain about the lack of customers. We do not sit down at all. Stand at your table and smile. Be someone that customers want to meet. Call them over and say hi. Talk to them about how you grow your vegetables. Never claim that your product is better than the others'; let the customers decide. Realise that a lot of your new customers have bought vegetables from another seller for many years, so be respectful to the other sellers.

Remember to have fun. You should grow vegetables, have bees that produce honey, grow mushrooms or whatever it is you dream of because you think this is the best life for you in the whole world. Write things down, so that you can go over your notes and learn from them. This will give you a huge advantage the following year, and you will become better and better. Do not listen to people who put your idea down. A lot of people will not believe that you can make a business out of growing vegetables in a small space. Spend less time with these people. Chances are they will be someone close to you; your parents, your sister or brother, your friends. Negativity is not good for anyone. Spend more time with people who are positive and can give you valuable criticism and not just tell you that your dream is impossible. Listen to valuable criticism, but do not listen to the negative people. They are everywhere and it is extremely draining for everyone. And remember – have fun.



CLAUS ILSØE

Ilsøegaard, Denmark

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

Wholesale to restaurants

Farmer's market

AREA IN PRODUCTION: 0.175HA

STARTUP YEAR: 2019

STARTUP INVESTMENT: €15,000

REVENUE: €30,000

NET PROFIT: €0

(everything still being reinvested)

instagram / facebook



ASTRID NIELSEN, HANNES HÖHNE AND ALBA GARDENAS

Gut Haidehof, Germany

Gut Haidehof

Gut Haidehof is located on 20ha outside the city of Hamburg in northern Germany. The main enterprises are pastured poultry (dual-purpose), mother cows (dual-purpose and Galloways) and a no-dig biointensive market garden. The farm is also the Savory Institute's German Hub for Holistic Management.

In early 2019 the team at Gut Haidehof established a small, diversified, regenerative farm with the mission to produce the highest quality foods for the neighbouring communities and the city of Hamburg while regenerating the ecosystems. In the first year, the team consisted of Alba from Spain, Astrid from Denmark, and Stephan from Germany. With Bork and Hannes from Germany joining this year (2020), the farm is now managed by five people with a common vision to rethink how we produce our food, demonstrate what a small-scale regenerative local food supply could look like and connect producers and consumers on the farm to strengthen the understanding and importance of our everyday purchasing decisions.

Currently, the farm operates within three major production enterprises: A biointensive, no-dig, compost mulch

market garden, ruminants under holistic planned grazing and pastured poultry.

The garden constitutes the heart of the farm and was also the first enterprise to be established in early 2019. 130 varieties are grown in 8 sections supplied with automated irrigation. Each section consists of 20 beds of 20m length and 75cm width, which sums up to a total net-growing area of 2,400m². The sections are separated by perennial beds of 1.5m width where agroforestry elements are being developed. All plants are grown from seed on the farm in a dedicated caterpillar tunnel. Most of the growing area is outdoor, while currently two caterpillar tunnels extend the season for early and late crop production and allow for a season that runs from April to early November. Cultivation has been a major challenge the first year, as there was not adequate time for bed preparation and smothering out perennial weeds by occultation and mulching. Primarily compost is used as a mulch. Certified organic compost was bought in 2019 and 2020, though there are ongoing trials and attempts to increase the compost production on-site to lower the required amounts of bought-in compost. This is important both to be able to close the nutrient cycle on the farm and because there are regulatory restrictions on

the amounts of compost that you are allowed to import and apply. Besides a traditional composting system, the team is also doing trials with a scaled-up version of the Johnson-Su bioreactors with passive ventilation and automated irrigation to allow for successional batch-composting of organic waste and garden scraps. Over the next four years, the garden is planned to expand to 16 sections, which will give a net growing area of 4,800m². It is expected that this size of the garden will require 4 full-time growers and two seasonal interns.

On the pastures of the farm, the team runs a small mother cow herd operation, which is composed of old heritage dual-purpose cattle (black-spotted German lowland cattle), galloway cows and a few heritage sheep. The team initially started with the dual-purpose cattle with the plan to allow for the future establishment of a micro-dairy enterprise. However, experience has shown that the meat quality is not up to the expected standard. With the dairy not yet being a relevant and prioritised business, it was decided within the holistic decision-making framework to move the herd towards more desirable meat traits by the introduction of galloway cattle. The cattle are managed in an adaptive multi-paddock grazing scheme. In this holistic planned grazing pattern, cows are moved frequently to new paddocks, which comes with the challenge of facilitating watering spots and fencing infrastructure for all grazing cells. In November 2019 the farm was accredited as the German Hub for Holistic Management under the Savory Institute. Thus, the cattle are not only part of the farming business but also serve regenerative grazing teaching and demonstration purposes.

The pastured poultry enterprise was started in October 2019 with the french dual-purpose breed Le Bresse known for its high-quality meat and decent laying rate. In 2020 it was expended with a hybrid laying flock to minimise risks until sufficient experience with the dual-purpose breed has been gained. The whole pastured poultry enterprise is structured under the concept of ultra-mobility, though a final stable design that accommodates regulatory requirements, as well as the requirements of the team, is still on the drawing board. It is envisaged to implement a lead-follow grazing approach within the coming season, where the chickens follow the cowherd, making use of the sanitising effects of poultry. It is the plan to grow this enterprise over the coming years, aiming for approximately 1,800 layers with an integrated breeding enterprise, raising the male birds of the dual-purpose breed as broilers.



Drone view of market garden and chicken hoops.



The farm shop in action.



Hannes hosting a farm tour.

Sales

Without major investments in marketing, the customer base has mainly grown thanks to convinced customers spreading the word and sharing their experiences. Weekly farm tours during the opening hours of the farm shop have done a great deal to raise understanding of the regenerative approaches applied at Gut Haidehof, and many of the gastronomy customers have joined after having attended these. The farm tours have attracted visitors from places near and far, and have become an integral part of the communication strategy.

All the products of the above-mentioned enterprises are directly marketed from the farm within one of three sales channels: box subscribers, farm shop and gastronomy. Now being in the second season, the farm supports 70 veg-box subscribers, sells over 1,500 eggs a week, operates a weekly farm shop with an average of 100 transactions per Saturday, and delivers to over 10 top restaurants and high-class canteens in and around Hamburg. Building a close relation to the customers is an important aim, and the team makes great effort to communicate what it means to eat seasonally, regionally and regeneratively produced food.

Team

The farm team is a diverse, international group of people with different backgrounds united by shared values and ethics in farming. They live and work together, and bring a multitude of complementary skills. The team works with well-defined responsibilities based on their core competencies and interests under a flat structure without hierarchy in a community-oriented approach. Currently, the farm pays 4 full-time salaries and the garden holds one intern position in return for learning opportunities, food and accommodation. As in all start-ups, the initial workload is high, but the first fruits of the efforts are already being harvested and signs of regeneration becoming visible on the land, positively influencing the production enterprises.

Challenges

While the first year was focused on growing a customer base and setting up initial infrastructure, the second year gave room to work on the optimisation of processes and building up the gastronomical customer base and relations to top-class chefs in Hamburg. The farming business is embedded within a broader context of the vast

estate, which in itself requires a lot of additional energy and effort, adding to the general challenge of building up a working farm. There is no doubt that the first years of starting up a new farm requires a lot of communication with authorities and legal clarifications.

Legal restraints were a major challenge for the farming business, as many regenerative farming methods are not yet fully understood by authorities, nor adequately reflected in rules and regulations. For example, it has been a very lengthy and difficult process to get layers out on the pastures. It has always been the plan to have them follow the cows, but up until late 2020, the authorities neither granted permission for the intended design of a fully mobile hen house nor to move the developed interim solution of chicken stables onto the pasture. In addition to the struggle with regulations, the team was starting up on poorly managed sandy soils. The original soil conditions at the start of the season 2019 were extremely bad and it took some major efforts to turn the 'arable' land into a productive market garden. Also, extremely high weed pressure – especially couch-grass – made the first season very tough. However, the second season is already showing significant improvements in soil fertility, harvest quality and quantities!

Start-up costs and revenue

Market Garden

The start-up costs of the market garden were around €28,000, out of which approximately half was attributed to the bigger investments of a deer-proof fence, caterpillar tunnels, compost for mulch, an irrigation system and a cool room.

Chickens

The mobile chicken stables are built on a very low budget to reduce risks until there is more clarification regarding the regulatory struggles. The start-up costs of this enterprise were around €15,000, whereof $\frac{1}{3}$ are the initial investments in stables, fencing, incubator, egg packery, etc. and the remaining $\frac{2}{3}$ have gone into purchasing additional ready-to-lay birds, feed, egg trays etc.

Cows

Until now, 10 heads of cattle have been purchased and either bred or slaughtered for meat. A total of €13,900 has been invested into establishing the herd and an ad-



Establishing the garden.



Alba in the garden.



Astrid and Alba at the washing station.

ditional €2,200 in fencing, drinkers etc. On top of this, the team calculates with a cost of roughly €250 per animal for hay to get through the winter.

General farm development

Some basic infrastructure had to be put in place in the early start-up. The most significant investments were an electric UTV and pipelines supplying the animals with water in the fields. Another cost that should not be underestimated is inspection fees. There have already been 6 inspections of animals, garden and egg packery since the beginning of the project, and it is certainly not for free. The total costs for the general development add up to around €28,000 in the first year.

Salaries

By far the biggest cost for the project is the salaries, but it is a central topic for the credibility of the business. You cannot sustainably run a farm if people are not paid for their huge effort and dedication. The income of the first few years of a project will not be able to cover these costs, so it is important to have a reserve to take from until the business becomes profitable. The pressure that this puts on the overall balance of the business is often highly underestimated. The project paid 3.1 full-time salaries in the first year; a total of €85,000. On top of this, the team was provided with full accommodation. With the expansion of the team in the second year, the business has paid 4 full-time salaries plus the food and accommodation expenses for a seasonal intern.

Revenue

The majority of the revenue in 2019 came from vegetable sales, which amounted to approximately €22,000 net. In addition to this, another €4,000 income came from sales of beef and the first few eggs. This year, with a doubling of the vegetable sales and the addition of eggs, meat, and processed produce, the prediction of the income lands just under €100,000, which is around 15% more than expected.

The future of the farm

While the farm is currently still building the operational business, the next years will allow for the establishment of agroforestry systems on our pastures and fruit-and-nut orchard. It is planned to facilitate diverse,

successional silvopastoral tree systems in the pastures while the fruit and nut trees will be located around the garden. The long-term plans also reserve the room for including further developments on synergetic businesses like a café, a butchery, a bakery, a processing kitchen etc. as well as facilities for workshops, seminars and events. This creates unique opportunities for small entrepreneurs who share similar ecological, social, and economical values.

Words of advice

Choosing your people

When embarking on any farm project, the most important aspect, and where things can go the most sour, is the careful selection of which people to include, be it family or friends. It cannot be stressed enough how crucial it is to be aligned in a shared vision and holistic context and above all to feel good around each other. These people will not just be your colleagues with whom you share professional standards but will also be who you choose to share most of your everyday life. You need to feel that you are in an unconditional safe space with your team, where you can express your thoughts without fearing judgement and where there is space and understanding for your personal needs.

Thorough research

Despite months of planning before start-up, almost every conceivable - and unconceivable - the challenge has come up during the past two years; unkind neighbours, old tenants that occupy much-needed living space, insufficient housing for the team, leaky sewage pits that pull in groundwater, leaking roofs, an alley full of dying trees that are a liability for cars, an access road full of holes, well water that is not of drinking quality, illegal and insufficient electrical installations...

Investors

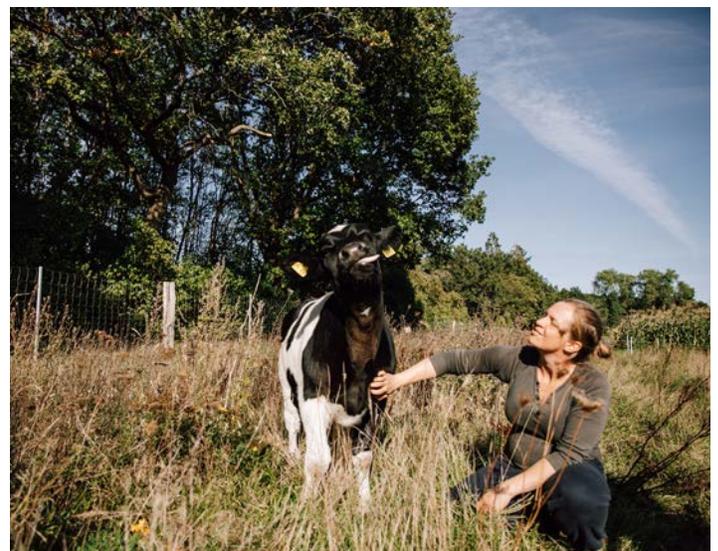
When you do not have the funds to facilitate your start-up, teaming up with investors is a valid consideration and might present the only chance to acquire the necessary funds. Especially when it comes to enterprises that have higher entry barriers or require longer amortisation times, strong financial partners can be extremely valuable. Also, when you consider your immediate and future resource base, you might want to find people to



Stephan feeding the hens.



Stephan and Astrid collecting eggs.



Astrid with a heritage calf.

team up with to realise your visions. If you share ownership of the farm there are some considerations: At Gut Haidehof, financiers and operational team are bound by a jointly developed context that allows for a common vision for the place and is strongly interlinked with the overall farm values. Make sure that potential investors understand what you are doing and get them on board with the long-term development plans. Keep shareholders in the loop of what you are doing, and share successes and failures. Find clear means to retain or gain equity and jointly elaborate security mechanisms that suit your personal needs. A solid business plan is essential to framing monetary potential. Plan conservatively! It is always better to exceed communicated goals. In general, regenerative farming must not follow classical investment approaches where immense dividends are not reflecting the true value creation, and potential financial partners must be aware of the risks and potentials. Regenerative farming can be a profitable business case, but it is a long-term endeavour to build healthy agroecological ecosystems that will improve over time. In addition to direct monetary profits, also keep in mind, and make it clear to the people involved, that there is a lot of additional benefits to be gained. There is money to be made, but it will not come quickly and easily. In return you will generate other forms of profit, such as increasing ecological health and resilience, building community and working towards a more liveable future, following a meaningful and fulfilling work that rewards you with an amazing quality of food, nutrition and outdoor work.



ASTRID NIELSEN, HANNES HÖHNE AND ALBA GARDENAS

Gut Haidehof, Germany

MAIN ENTERPRISES:

Market garden / Pastured layers /
Dual-purpose heritage chicken /
Pasture-raised cattle

MAIN SALES CHANNELS:

Subscriptions / Farm shop /
Gastronomy

AREA IN PRODUCTION: 20HA

STARTUP YEAR: 2019

STARTUP INVESTMENT: €90,000

REVENUE: €30,000 (2019)

NET PROFIT: €-60,000 (2019)

(Still investing in business)

website / instagram / facebook





HENDRIK HENK AND JUDITH OELTZE

Gärtnerhof Wanderup, Germany

Gärtnerhof Wanderup

When we started our CSA, we rented a small shop in the centre of Flensburg. It's 30m², with a cellar of the same size where we store our onions and pumpkins in the autumn. Most of our CSA members pick up their share there. We found this room together with some of our members and it turns out to be a place for 'transition projects' at the moment. It hosts a food coop as well as a distribution point for food savers, and groups working with environmental issues can come together there. The shop has helped us a lot in terms of acquiring new members and making our farm visible in the city of Flensburg.

Vision

Our vision is a permaculture micro-farm with an ecologically enhanced 2,500m² market garden and an additional 7,000m² vegetable production cultivated with the use of draft horses. Our mission is to nourish 150 CSA members with fresh, nutritious vegetables, fruits, nuts and grain while simultaneously creating a healthy and resilient farm organism with a wide diversity in

plants (especially trees), animals and habitats.

Our idea is to at any one time cultivate half of the market garden and leave half of it covered with cover crops, hence letting the soil rest for one year at a time. 1.4ha shall be cultivated using two draft horses, leaving 7,000m² for the vegetable production. Soil conservation techniques will be and are already applied. Fruit trees, herbs and shrubs are planted in between the rows of vegetables. Grain, hay and straw are also produced on the farm for our use. Carbon emissions are significantly reduced by cultivating the land with horses as well as transporting the produce from the farm to the distribution point with a cargo bike.

Initial focus

We started in 2016 as a more or less classic market garden inspired by Eliot Coleman and Jean-Martin Fortier, with 35 CSA members and an area of 5,000m². One year later we acquired another 7,000 m² for winter crops, likewise cultivated using a market gardening system. Today our farm is an individual enterprise with 140 CSA members. At the moment we run the farm together as a couple, with 2 permanent employees who

work 30 hours per week and two additional aids working 15 hours per week. We produce a high variety of vegetables, with a very good harvest. One of our focal points is the production of vegetables with low carbon emissions. Therefore we deliver our vegetables to Flensburg twice a week with a cargo bike and trailer. We can highly recommend the bike trailer Carla Cargo for a market garden. On our farm, it is used for several jobs, such as transporting crops and bringing out nettle swill or other liquid substances.

The near-term future aims are to transform our market garden into a permaculture micro-farm. We have ecologically enhanced the market gardening with intercropping, mulching, cover cropping, compost tea and agroforestry. 28 fruit trees, herbs, perennial flowers and shrubs were planted in between the rows of vegetables. We plan to plant another 50 fruit trees as well as some nut trees on the sheep pasture. We already have five dairy sheep and chickens for self-sufficiency, which are holistically managed. We realise that this level of diversity brings fun, joy and beauty as well as some additional work. At the beginning of 2020, we made a substantial investment in a compost turner and a small tractor to pull this machine. For us, this was a logical step, as compost is of high importance in market gardening. We were not satisfied with the quality of the compost available for free, and high-quality compost was too expensive. We get cow manure from an organic farmer 3km away from our farm and mix it with loam, green waste, vegetable residues from our farm, straw and shredded branches. Collecting the organic material is quite labour-intensive; however, this way we can ensure that no toxic materials will be transferred onto our farm.

In Germany, there is a law that regulates the amount of nitrogen you are allowed to spread on your land. The cooperation with the nearby organic farmer who supplies us with manure is a win-win situation, as he has an overproduction and is otherwise forced to give the excess away. The temperature and the CO₂ level has to be measured once the compost is piled. When making quality compost, the CO₂ level and the temperature have to be measured constantly. When the CO₂ level rises above 14% and the temperature exceed 60°C, the compost pile has to be turned. The compost turner was invented specifically for the so-called 'Controlled Aerobic Composting', as it can turn and simultaneously water the pile. The watering is essential for the micro-organisms. We are very content with the quality of compost we are producing; however, it does take a lot of



This is our market garden for summer crops. We have another plot (approx. same size) 200m away from our farm centre, where all the winter crops grow.



Our house, which we bought two years ago, is situated right next to the market garden.



The market garden with two 250m² polytunnels and a smaller one of 195m², plus one 77m² tunnel for our nursery.

work to manage the piles and collect material.

The amount of compost and the problem regarding the collection of material was also part of the reason why we decided not to go no-till. You cannot apply increased quantities of quality compost on the beds because it's so high in nutrients. The compost that is communally produced and available for free is mainly made of hedges that are close to roads, parking places and conventionally managed fields. It is certain that this compost is not only highly contaminated with plastic (as we were experiencing) but also with chemicals from conventional farming and pollutants from traffic. We did not want to transfer that toxic material onto our farm. The contamination with plastic was so severe that we were afraid that our farm would look like a dump after only a few years. Having no alternatives, we applied this low-quality compost in the first year and are still finding and removing plastic in our beds from this period.

Since we are focused on establishing a micro-farm, we are very happy and excited to see things grow and develop. Farming, for us, feels like an adventure and an amazing interaction with nature.

Startup investment: €60,000 for infrastructure (tools, polytunnels, irrigation, etc.)

Other large investments: compost turner and compact tractor, €50,000 for both

Our yearly revenue is €150,000, almost all of which is reinvested into the farm, especially in the creation of necessary infrastructure and improved processes, which makes money for living expenses quite limited. We expect to get an appropriate salary for the farm managers and employees in 2021.

How things are going

We have a positive feeling about the progress we have made so far. We are also very satisfied with the quality of produce we are achieving. Since the beginning of this year, reasonable working hours (8 am-5 pm) for employees were established with the help of CSA members and two interns. In prior years we were working at least 10 hours a day. In September 2018 our little daughter was born. This new curious being changed so many things for us, which means the farm is not our only objective anymore. Because of the COVID pandemic, we had several volunteers at the farm, as people had more time to spare and wanted to work outdoors. This has helped

us a lot. We also tried to improve our workflows on the farm. We gained some time by dividing our fields into winter and summer fields because the summer crops are closer to our home and farming base. We are very satisfied with having mulched most of our crops with silage this year. We covered all the beds which are not occupied with vegetables with cover crops. Last year we often had problems with carrot flies on carrots, celery and parsnips. This year all crops look wonderful and it looks as if we are very well prepared for the winter.

We have the impression that where work was a struggle in the first years, it is gradually becoming easier to manage. We have achieved a lot of things that make the production go more smoothly. Everyday farming life is not so chaotic and constantly challenging anymore, and it feels like things are beginning to flow more naturally. Nevertheless, we still have a lot of projects on our way towards a living micro-farm.

Sales and customers

The cargo bike Radkutsche, with which we transport around 300kg of vegetables twice a week from the farm to Flensburg for distribution among our members, has our logo printed prominently on its canvas. It is a great eye-catcher and a good way to get new customers. There are also several magazine articles and newspaper articles about our approach to gardening, one being the cover story of a major food magazine in North Germany. Also, a portrait of us aired on television, which helped to acquire new customers as well. In our third year, we printed a 14-page illustrated brochure describing our philosophy and explaining the CSA model and our farming techniques. We had the impression that this also helped to acquire new members, with rather low investment costs.

Changes

As already mentioned, we find it more fun to develop a resilient and sustainable farm organism than to focus solely on vegetable production. We also want to apply more and more permaculture principles on our farm, especially when it comes to infrastructures, such as rain-water saving, solar panels and compost toilets. We think that a tiny market garden is great; however, we can have a bigger positive impact on the environment by managing a larger area. That is why we want to work with draft horses, as our aspiration is a high grade of self-sufficiency with low to zero carbon emissions. Draft horses are



Our daughter Rosi in front of the fruit tree-, shrub-, and perennial flower rows we planted between the vegetable plots.



We use our bike trailers for many purposes.



We use our two trailers to transport our vegetables to the washing station and chiller.

our approach to cultivating grain and making hay. At the moment we do not have a solution for carbon-free compost production, as the amount we need makes the compost turner and small tractor necessary.

Challenges

One of the major challenges we face is a weed problem on our winter crop field. In the future, starting in 2022, we want to cultivate the area with draft horses to reduce manual labour. Managing 1.2ha in the market garden system without any machinery is very labour-intensive. We only achieved reasonable working hours this year because there are a high number of CSA members helping regularly because of the COVID pandemic. Nonetheless, we cannot rely permanently on the voluntary help of our members, which makes a change in concept necessary. People sometimes think we are crazy because of our plans for the future. Ever since the beginning, we have had big aspirations for our farm. We want to achieve our plan in a very short time, which is why we always have a lot to do, but that is also how we realise a lot of things within a short period. It is very empowering to see things develop in a brief time.

The future

Within the next 3 years, we want to reduce the market garden area to one-third of the current size. Our vegetable production area is divided into two fields; one for summer vegetables and one for winter vegetables. The area for summer vegetables will remain to be cultivated in the market garden system, however only for greens and fruit, giving the other half of the area a rest with cover crops each year. All other vegetables will be cultivated on the winter field (1.4 ha) with the help of draft horses. For this area, we also plan an agroforestry and intensive cover- and intercropping system. This means we will need to double the size of the field, as half of the area will be covered with cover crops. Our main focus here is the soil protection and composition, wherefore we will only work with shallow tillage and extensive cultivation. 5 years from now we hope to be a big step closer to our zero-emission farm producing vegetables, herbs, fruits and grains for a community of around 150 CSA members.

Advice

In the beginning, we were working 80 hours a week

because we were simultaneously building up our infrastructure (a well, an irrigation system, a washing station, a cooling station, sheds etc.). Therefore, we highly recommend building up the infrastructure before you start producing vegetables if monetary means allow it.

We started with a low price for the vegetable share (€75) and also offered half-shares. As we did not have the number of members we were hoping to have, people with a half-share were getting as much as we calculated for a full share, to not let anything go to waste. That meant our members were getting a large number of vegetables each week for a, for us, unsustainably low amount of money. That is why we recommend starting with the number of members you are calculating with. If you do not have enough members, do your best to get more! In the second year, after we had the number of members we calculated with, we had to change the price for the share to €85, which was still not enough to cover living expenses reasonably. So the quantity and quality of the products were not reflected in the price. Because of the increase in prices, we lost 30 members at the beginning of the season. That was a big setback and we had to balance by paying ourselves a very low salary. This probably sounds quite deterring, but after 4 years the situation has drastically improved. We have a constant number of members (despite COVID) and our members' appreciation of our products is very high. Everyone who now cancels the membership does it because of more substantial reasons, such as moving to another city, and regrets not being able to get our vegetables anymore.

The first 3 years we were working with a typical market garden system, wherefore the focus was simply on production. We invested a lot of time in the beauty and design of the farm. Since we planted trees, shrubs and perennial flowers it has become much more fun to work in the garden. The beauty of a place tells you something about the coherence of it. It indicates if your work is in harmony with nature and the cosmos. We also miss animals in the concept of market gardening. In the concept of biodynamic agriculture, it says that animals inspire and enliven a place. We think that is very true. A farm without animals is not a farm, which is why we decided to have sheep and chickens, and hopefully in the future horses as well.



Our compact tractor with the compost turner was a game-changer for producing high quality compost..



Hendrik working with a draft horse.



Our distribution point in Flensburg. We share this room/shop with other projects.



HENDRIK HENK AND JUDITH OELTZE

Gärtnerhof Wanderup, Germany

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

CSA

AREA IN PRODUCTION: 3.5HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: Ca. €60,000

(excl. farm)

REVENUE: €170,000

NET PROFIT: €20,000

website / instagram / facebook



JASPER DE WIT

Helle Bauer, Germany

Helle Bauer

The Helle Bauer farm, run by Jasper de Wit and Anna Lammert, is situated on a 2.4ha plot of land in the valley along the Weser river in Höxter, Germany. The project commenced in October 2017 after Jasper returned from an Internship program at Ridgedale. The farm is based around three main enterprises; a no-dig market garden, pastured layers and agroforestry. The first two years we also leased 7ha of white asparagus.

After spending the summer of 2017 at Ridgedale, Jasper planned and gathered ideas for his initial vision, a market garden. However, we did not yet have any land, so when he returned from Sweden that was priority number one. Together with Anna's father Karl-Heinz, the first step was to search for a suitable place to realise our vision. Soon we came across the perfect property. A beautiful old timber-framed farmhouse with outbuildings dating back to the mid-1800s, coupled with an orchard and a small piece of land suitable for a market garden. That it was located in the village where we lived made it extremely convenient. The land was perfectly suited to what we had planned. The house and outbuildings, however, were in desperate need of renovation. We came up with a plan of action; Karl-Heinz would buy

the property and focus on restoring the buildings as a retirement project and we could use the land as well as help with restoration work.

We immediately set out by designing a fitting plan for the property. It was too big for just a market garden, and besides, part of the deal of buying the house was to lease seven hectares of organic asparagus which would have otherwise been ploughed under. The final plan was a no-dig market garden starting on 2,500m² with another 2,500m² to expand into in the following season, a pastured layer enterprise coupled with agroforestry systems in the orchard, and a two-year lease of the asparagus farm, including machinery. The latter included a farm shop on the main street a few hundred meters from the property, which was equipped with a walk-in cooler and already had an established customer base. During the asparagus season, we would also have 20-25 employees helping with the harvest, post-harvest and sales.

Our initial focus was on getting financing from the bank with the help of a detailed business plan, and then to set up the infrastructure needed for the coming season (2018). The first thing we set up was the layers. Whilst at Ridgedale, Jasper had spent a lot of time working with the hens and thoroughly enjoyed it. The new

farm seemed perfect for a flock of laying hens, as the pasture had only been mowed for the past few years and needed some animals. The egg-mobile was designed by a good friend, Albert Beisel, whom Jasper met during his Ridgedale internship, and we finished constructing it in just over 2 weeks. The design is a hybrid between Richard's model and the Australian Chicken Caravan with the roll-away nest boxes. It has a maximum capacity for 350 hens and cost just under €3,000 to construct. Other set-up costs included nets and a solar energiser for €500 and a second-hand feed silo costing €150. In 2019 we had to make a few changes to comply with German regulations, costing an extra €250. To move the egg-mobile, we have the use of a small tractor bought by Karl-Heinz for farm renovations. The egg-mobile is moved every 2-3 days depending on the animal impact and rate of growth. As the hens weren't eating much grass as a large herbivore would, we used them as a proxy for trampling. They were scratching the pasture into a thick mulch mixed with high nitrogen chicken manure.

Next up was the market garden. For the first season, the set-up was fifty 20m beds and a polytunnel with heated propagation tables and seven 23m beds (870m² total beds pace). Our initial plan was to offer 40-50 CSA memberships and sell the rest through the farm shop which would be open twice a week to the general public. The setup cost of the market garden was around €12,000 broken down into €6,000 for the polytunnel, heated propagation tables and laying electricity from the farm to the garden; around €1,500 for irrigation, including sprinklers for outdoor crops, drip line in the polytunnel, a pump and water lines from an existing well on the farm which had to be bored under a road; around €2,000 allocated to purchasing tools, which included a 4-row seeder, a greens harvester, hoes, knives, seeding flats, harvest containers, scales etc.; around €1,000 for crop protection, fleeces, insect nets and pegs to hold them in place; around €1,500 for seed, potting mix and compost. Jasper created a detailed crop plan that included 32 different types of vegetables of many different varieties. In the second season, we grew the CSA to 70 members and added 30 more beds to the garden.

Overall, the first two seasons we met our targets and managed to set up our farm as well as run the asparagus enterprise that we leased. However, taking on all these different tasks, nearly all of them new to us, was mentally and physically exhausting. In winter 2019, after the second season, we decided to no longer lease the asparagus enterprise which didn't fit our context and values.



The old timber-framed farmhouse next to the newly renovated farm shop and event room.



Top view of the market garden in autumn 2020; each block of 10 beds is divided by a row of fruit trees.



The hens enjoy the cover of the already established and newly planted trees and shrubs.

We chose to focus fully on the market garden, the hens and the organisation and structure of the farm.

The winter break gave us a chance to plan. We worked out daily and weekly routines and set up structures that would help volunteers coming to the farm. We also reflected on our own needs and boundaries, which seemed to be a key aspect of living and working together with people as well as dealing with customer relations.

After restructuring in the winter, the third season went a lot smoother than the previous two years. We increased the CSA to 90 members and built a new polytunnel and two caterpillar tunnels, growing the garden to a total of 1,500 m² bed space. The layer flock grew to 250 birds. We met all our financial targets whilst keeping a healthy balance between work and free time. Having the time to meet our friends and family, having a daily yoga routine and getting time away from the farm hiking in the forest gave us a chance to recharge regularly.

We sell our vegetables in weekly CSA boxes and our farm shop. For the boxes, we offer two sizes: a big box which costs €27 per week and a small box at €17. The customers have the option of including eggs in their CSA. They sign a contract before the season, pay in advance for 26 weeks, and pick up their boxes either from the farm or from pick-up points in the two nearest towns. Our farm shop is open twice a week. We offer a broad range of vegetables, pastured eggs as well as honey and other products we buy-in. We also have an honesty stand for eggs in the village.

By taking over the asparagus business we also took on an established customer base. This gave us a platform for selling our vegetables and eggs in the first season. We acquired new customers by advertising the shop opening in the local newspaper, in flyers and on social media. Our most successful strategy has been to host open days and invite the local community to farm tours, talks and presentations and to serve farm-fresh, home-cooked food. These events helped us make a name for ourselves and share our story, which then spread in the local area through word-of-mouth.

Once we had managed to establish a customer base of our own that didn't depend on the sales of asparagus, it was important for us to keep a close relationship with our customers. By selling only directly to customers and taking the time to exchange ideas as well as creating channels for feedback, we can offer the customers the products and service they require.

When we first started, our main focus was on the ecological side of farming. We wanted to build up an example of how food can be produced whilst regenerat-

ing our land base. Over time the social aspects of food production became increasingly important. Through organising events, giving presentations on Regenerative Agriculture in the local towns and setting up cooperations with kindergartens and schools, we try to create a space for education and exchange of ideas.

Based on the feedback we received from our customers, we shifted our initial focus from the main season in the high production months to extending the season and offering our products for as long as possible. To provide customers with food not only in the summer months and to show that this model of farming works all year round, but we also built a second polytunnel and two caterpillar tunnels.

Our major challenge in the first two years was taking on too many different tasks that were all new to us. We started without having time to set up routines, yet we had to juggle the asparagus, the market garden and the hens all at the same time. The asparagus season had us on our feet 12 to 16 hours a day, seven days a week. We had to manage 25 employees, run the shop, organise the asparagus harvest and at the same time prepare beds, plant out the market garden and look after the hens. Especially in the beginning, we also had to deal with the bureaucratic side of setting up a company and having employees. The asparagus season went on for three months and when it came to an end in late June, the main workload in the market garden was just getting started. In the first two years, everyday life was challenging. After the second year, we decided to give up the asparagus lease and took time to organise and structure time and workload.

Another challenge that we faced was creating a frame for living and working together with people. We have been lucky to receive a lot of help, both from volunteers and employees who have lived on the farm with us. As much as we appreciated everyone that came and put their energy in this project, living in close quarters and also sharing our free time made it hard for us to find a balance.

Again, these major challenges were addressed only after the second season. We worked out our boundaries as well as our own needs, both personal and as a family. Out of this reflection, we developed policies for work and in the house. These policies, clear communication and weekly check-ins with everyone were set in place to make everybody feel welcome and comfortable and meet our own needs during the hectic seasons.

The third challenge that we faced was dealing with strict regulations. Many of the practices we use on the



Jasper de Wit and Albert Beisel standing in front of the egg-mobile they built in the winter of 2017.



Diversity is key to a healthy market garden.



Jasper is happy with the kohlrabi harvest.

farm clash with the regulations put in place for industrial farming. One example is our egg mobile; German law states that hens must have an enclosed scratching space to which they have 24-hour access. This law makes it very difficult to have a highly mobile and easy to build egg-mobile. Through constant communication with regulators and creative thinking, we managed to retrofit the design to comply with the German laws. However, this is a challenge that affects not only us but many other people and changes in the regulations are necessary to support this way of farming.

The first three years have been very intense with the farm developing and changing every week. For us, the next 3 to 5 years are about settling into rhythm and routine after the initial hectic start.

The first big change for us will be moving into the newly built farm shop. This season we sold our products directly in the garden as a temporary solution while Karl-Heinz and his team renovated one of the old barns. In this beautiful old sandstone building, there is space for the shop as well as an egg packery, cool room, toilets and a big event room on the first floor.

This infrastructure also allows us to host different events, such as education, farm-to-table dinners or events for the local community. On the second floor of the farm building, there is lots of space, in which we would like to put in a yoga studio to offer yoga courses in the winter.

We would also like to focus on developing different techniques to extend our season and offer our produce year-round. The new farm shop allows us to create a nice sales environment even in winter and continue to attract customers to our farm after the CSA season.

Another addition to the farm soon will be a few jersey cows. The cows will be homestead scale and not for production but to diversify the farm, increase biodiversity and offer valuable learning experiences.

Starting a farm or garden is not easy; farming is hard graft and you have to work smart and effectively to make a living from it. However, there are so many resources available to help you do just that. Some advice that we would give anyone looking to start a farm is to start small and not take on too much in the beginning. Give yourself a chance to grow. Make sure you plan well before the season starts, keep records and take time in the winter months to reflect on how the season went. It is important to assess if what you are doing aligns with your core principles and to see what changes need to be done to run the farm successfully while keeping a healthy work-life balance. For us, it was a huge help to

set up routines and make a weekly schedule with daily tasks to break the workload into smaller, manageable chunks.

It is very helpful to have a great network of people around you in which everyone is willing to help one another. Friends, family, people from the local community, close customers and other farmers are usually willing to help out and give advice on various aspects of farming and food distribution. Everyone has their expertise and most people are happy to support your project. Do not be shy to ask for help.

For us starting a farm has undoubtedly been the best decision of our lives. We enjoy working hard, overcoming challenges, being creative and spending lots of time outdoors. Now we get to do that pretty much every day and all that while regenerating the land and ecosystems that we manage. Furthermore, we get to impact our local community positively, teaching people how to be more connected to the land and their food. We have had so many amazing experiences along the way; happy customers, packed out open days, and lots of visitors from all over the world, some of which got inspired to start their projects. Influential to the success of Helle Bauer has been all the support we have received from family, friends and customers without whom it all would not have been possible.

With good planning, dedication and the right attitude, Regenerative Agriculture is an awesome and very fulfilling way to spend your time on this earth!



Anna Lammert harvesting spinach.



Shopping baskets from happy customers who really enjoy buying their produce directly from the garden.



The makeshift farm shop in our washing station whilst we renovated the old barn.



JASPER DE WIT

Helle Bauer, Germany

MAIN ENTERPRISES:

Market garden / Pastured layers /
Agroforestry

MAIN SALES CHANNELS:

CSA / Farm shop / Honesty stand

AREA IN PRODUCTION: 2.4HA

STARTUP YEAR: 2018

STARTUP INVESTMENT: Ca. €15,900

(excl. farm)

REVENUE: €90,000

NET PROFIT: €62,000

website / instagram / facebook



SEBASTIAN GIRMANN

Biotop Oberland, Germany

Vision

Biotop Oberland is a vegetable CSA organised as a cooperative. It features 1.7ha outdoors and 1,500m² in greenhouses.

Our goal was and is to build up an independently organised supply chain in our region. The first step was to establish community-supported agriculture (CSA) that produces fair organic vegetables. Fair in our understanding includes all parts of the supply chain. In our case, that's our employees, our cooperative-members, society as a whole and of course the soil and ground that we grow on. As a consequence, our main goals when we set out were: being able to pay fair wages to our team-members while retaining reasonable "prices" for our cooperative members, reducing food waste and plastic packaging to an absolute minimum and using regenerative agricultural techniques to build up soil and an ecologically rich environment.

Initial focus

The first milestone was to attain enough cooperative-members to be able to run an economic enterprise. To be able to reach that goal quickly, we decided to limit

the price for a vegetable-share to a reasonable amount that the average household in our region would be willing to pay. The alternative would have been to ask for really high prices for the veg-shares to cover all the business costs including fair wages from the beginning. We decided against that option, as in our opinion it would keep the number of potential cooperative-members to a limited and small group and leave out people with low or average incomes.

By deciding on the low-entry-barrier solution, it was clear to all the founding team members that we would have to put the fair wages-plan on hold for the first 1-3 years until we reached the optimum number of households. As all financial investments in our cooperative are financed by the cooperative members, it seemed like a fair deal that in the beginning - instead of investing financially - we, the founding team, put in our free workforce as our investment. For us, this turned out to be a lucky and rewarding decision, as we acquired new members fast and by doing so we're able to pay above-average wages and cover all other business costs after around 3 years.

Startup investments and revenue

The build-up of our farm was divided into two phases: Phase one was a test phase of around one year, with no real financial investment. During that time, we were able to rent 0.5ha from an existing befriended farm. We could also use their machinery and tools on an hourly rate. This was a great opportunity for us to try out and improve our concept without taking on bigger financial risks. Having gained that experience, confidence and our first members, we set out to start the second phase: the foundation of our farm with everything that goes with it, like greenhouses, a washing station, machinery and tools. We were able to find around 2ha of land which we could rent for at least 13 years for a reasonable price, with the prospect of an extension after the 13 years. It was pasture, so there was no infrastructure at all and we had to build up everything from scratch.

After doing the math we ended up with two numbers: a minimum amount of money (around €60,000) that we needed to get things running on a low-budget level and an optimum amount (around €160,000) which would enable us to build up an ideally equipped farm. With those numbers, we went into our annual general assembly and presented the plans to our cooperative members. The community decided to accept those plans and also to finance everything with cooperative shares to keep the cooperative independent from bank loans. It took around 6 months for the money to come in from the members and it was even a bit more than our optimum scenario required. It was a huge success and a strong confirmation that - for us - the legal form of a cooperative was and still is the ideal solution.

Our total revenue with 450 households is approximately €270,000/year. With this amount, we can cover all of our business costs. Our main costs are personnel expenses that add up to around €150,000/year and include the wages for our gardeners and our board members. Other cost blocks are our operating resources, like seedlings, fertilisers, compost and also vegetables that we get from other farms during the winter months totalling around €60,000/year and all others costs, like rent for the washing hall, electricity, water, depreciation totalling another €60,000/year.

Current situation

We reached our initial goal of 450 households (around 1,000+ people) 4.5 years after starting up. This exceeded our expectations as we are in a pretty rural area with no



Panorama of the farm.



Aerial view of the production.



Young plants.

bigger city in the vicinity. The two main towns to which we deliver the majority of our vegetable shares have around 9,000 and 17,000 residents, so we expected our growth to be slower. With 450 households we feel that we have reached the ideal size for our vegetable growing operation regarding economics, efficiency, community feeling, team size and land use. Of course, we could grow bigger in terms of households, which would enable us to be even more efficient in the vegetable growing, but at the same time, we could lose the 'family-feeling' that we get by working in a small team and knowing many of our members personally.

Our vegetable growing is going very well and we are totally happy with the yields that we can achieve in our pretty cold and rainy climate 670m above sea level. The last few seasons we have harvested around 50 to 60 tons of vegetables a year on 1.85ha of land (including the greenhouses). We could intensify this a lot more, but we also see the benefit of not overdoing it and having longer time-slots for cover crop-growing. We are still learning what the optimal level of intensification looks like for us.

In terms of fair wages, we are already pretty happy with the status quo which allows us to pay above-average wages for a farmer/gardener. But as we believe that a farmer's work is essential and as important (if not more) than many other jobs, we aim for a wage level that matches the average income in our living area. If everything goes well, we should be able to reach that goal in about 2-3 years.

Something that works very well for us is the fact that every team member can have at least two weeks of holiday plus a couple of days off during the main season. We also make sure that our workdays do not exceed 8 hours, which seldom happens. We rarely work on weekends and official holidays are usually rest time, except when weather conditions do not permit it. In our opinion, this works so well because we have always made sure that all the tasks on the farm are equally distributed between team members, and also that every team member can be replaced by another team member at least for a few weeks. We strongly believe that a sustainable farm should not only focus on producing natural food and caring for the soil, but also on the people who work on it. For us, a sustainable work environment means an environment that enables employees to get enough rest and conserve energy for many years to come. We also observe that on short workdays and often not a full-time workweek we get things done much quicker and more efficiently than if we 'worked' 50 hours a week.

In the beginning, the fact that we often went home at 3 pm in the height of the season seemed strange and somehow 'wrong, especially when you see some of your neighbouring farms going the 'burnout-farmers' way. But the long-term results encourage us and show us that for us this is the way to go.

Sales and marketing

The vast majority of our 'sales' goes to our cooperative members in the form of vegetable shares. We market a small number of leftovers to local organic stores and gastronomy. The decision to do that was made at one of our annual meetings and agreed to by our members. They also decided on the following principles for the external marketing: Members always get served first, which means that vegetables are only offered to stores and gastronomy after all members have received their full weekly share; quality standards are the same for member-veggies and external sales, meaning no B-quality for members and A-quality for sales; and profits made by external sales go back into the cooperative and can be used for wages, investments or distributed among the cooperative members as part of a dividend. We always make sure that external sales stay easy and uncomplicated with small logistics and efficient processes. An example of that is that we only offer pick-up directly from the farm or at an existing delivery point that we already use for our cooperative members. This way we have no extra rides for external customers. Another example is that we send out a weekly offer on Monday and customers must report back by Tuesday evening, which enables us to do all the harvesting for the cooperative members and external customers in one go. Orders that come in late are not served anymore. This is not the most customer-friendly way, but as we are not dependent on those sales and our focus is on the member-shares, it's the most efficient way for us.

We never had trouble getting members. Before we even started our test-phase, we had one public event where we informed about our plans. People seemed interested in our concept as there were already almost 100 people at the event. Since then we have had about one public information event plus 2-4 farm tours and one big farm-fest every year to attract new members. We always try to accompany this with an article in the local newspaper 1-2 weeks before the event. This works pretty well as they are usually interested in having some alternative content and is read by a lot of people.

Other than that we make sure that our website contains



Transplanting.



In the field.



Greenhouse planting.

all the relevant info and is up to date, and we put quite a lot of effort into our social media channels. Especially Instagram is becoming more and more relevant to us, as it is a relatively easy way to get attention and connect with likeminded people and projects.

We also send out a newsletter around four times a year, which can also be subscribed to by non-members, and last but not least we deposit flyers on strategic spots, like organic shops and supermarkets or local gastronomy.

Our most important tool, though, is word-of-mouth in the form of our members talking to family, friends, colleagues and neighbours. We encourage this regularly with a friendly reminder to spread the word.

Learnings

Our vision hasn't changed much, as we have been confirmed in what we set as priorities from the beginning. There were a few points that were important to all the founding members: everybody, also team members with a leading role should be able to have max. 8 hours workdays, enough rest and holidays also during the main season, and we wanted to pay fair wages (meaning above every farmworker) to every employee.

To be able to attain this, we have had to make sure that all our daily tasks can be executed with maximum efficiency. In our opinion this only works if everybody in the operation agrees on the same high standards, thus creating an atmosphere where a hint to do something better is not seen as negative criticism but as a suggestion on how to improve. We are very lucky to have a team where this seems to work out perfectly. The organisation of our daily operations and use of tools is inspired by Ben Hartman's lean farm concept that we adapted in a way that better fits our context.

The fact that we can (now) pay our employees well, ensures that we can hire highly qualified workers and keep them long-term, which is something that seems more and more important in team-based organisations like ours. In our experience you need skilled and responsible team-members to be able to run a non-hierarchic structure where decision-making daily is not dependant of a leader.

Challenges

We haven't had to overcome one major challenge, it has been more like much smaller or bigger steps that have needed special attention at a given time. A huge advantage for us was that our founding team consisted of only

one gardener. All the others came from completely different backgrounds and brought in their qualifications, which all turned out to be useful in some way. Some examples are accounting and bookkeeping skills, craftsmanship, event management and planning, communication skills and IT-knowledge.

Finding land was probably what seemed like the biggest challenge at first, but we were lucky to find the perfect location in about 3 months. What helped a lot was the fact that we never looked for land to buy – which is unaffordable for a low-budget start-up in our area anyways – but we're clear that a long-term rental was an option for us. We now have a 13-year contract with our landlord and are confident that we can stay there for much longer.

Plans for the future

We do not see our operation growing bigger and bigger in terms of the number of households, even though the demand is remarkably high. Because we believe that we have found the perfect size for our farm, we are instead considering creating offspring or subsidiaries. For example, we as the Biotop Oberland e.G., or somebody else that we could share our experience with, could found farms after our example with the same concept in towns nearby.

There are also other ideas for the future that range from a cooperatively run local shop to a farm school and everything that goes in the direction of a community-supported economy. There are so many options and potential new business areas that we see the biggest potential in letting our cooperative decide what projects will be next, as this is a group of likeminded people willing to support our next steps actively and financially.

Words of advice

Plan well and plan realistically. It is worth taking the time to do so, as it is so much cheaper and less frustrating to figure out what might not work beforehand.

In our experience, for an operation like ours, it is crucial to forming a good team from the beginning, ideally one that brings in people with different skills, as mentioned above.

Define your goals before you start planning anything else. Goals can be anything, from a certain number of households to an income that you want to achieve or a



Inside one of the greenhouses.



Community tomato sauce making.



The Biotop team.

particular ecological or social impact that you want to have. It doesn't matter what the goal is, but it is important to know what you are working towards. Of course, goals can change over time, but having clear short-term goals (1-3 years) makes planning the details so much easier.

Be clear and honest about the fact that you are going to start a full business with everything that comes with it. The actual gardening or farming work is only one part of it. Others parts are financials, employee management, craftsmanship, legal questions, taxes, and many more. So you should be willing to deal with these things, as it is not possible to avoid them in a highly regulated environment like the EU.

That does not mean that you must be a professional in all of those fields. Instead, our take on this was and is the classical 'make or buy'-approach: Take your time to consider what your main skills and therefore tasks in your business are, and outsource the rest. We have often seen that especially farmers tend to do everything themselves. While this might be a good skill in some cases, especially when quick or cheap solutions are required, it can also lead to a lack of focus. In other words: put your energy in what you are good at and make money with it to be able to pay (external) people for the work that you are not good at or would need a long time to acquire the skills for.



SEBASTIAN GIRMANN

Biotop Oberland, Germany

MAIN ENTERPRISES:

Market garden

MAIN SALES CHANNELS:

CSA / Wholesale

AREA IN PRODUCTION: 1.85HA

STARTUP YEAR: 2015

STARTUP INVESTMENT: Ca. €160,000

REVENUE: €300,000

NET PROFIT: All surplus reinvested
into the cooperative

website / instagram / facebook





ANNA AND PAVEL MESKA

Kveteto, Czech Republic

Vision

Kveteto is run by Anna and Pavel Meska. It is 2.7ha, whereof 1ha is production beds and tunnels, 0.4ha is an orchard and 1.3ha is garden and meadow. We mainly produce cut flowers and are expanding into vegetables and fruit (all organic).

We had wanted to move to the countryside for a long time, for many reasons. The city life was not for us. While working in New Zealand for a year we came across conventional horticulture and organic farming. After experiencing conventional farming (working with herbicides, pesticides), we knew our path would be organic farming.

Within one year of our return, we found our organic farm. Finding our spot for farming (close to Prague) wasn't easy. We were lucky and found a farmstead with fields around the property and water on the site that was only a one-hour drive from Prague, fulfilling our expectations for an ideal place. We chose cut flower production because of the gap in the market in the Czech Republic. It's similar to other European countries, as local cut flower production is almost non-existent. We are gradually adding other enterprises such as fruit orchards and market garden-style vegetable growing.

What we focused on initially

From the beginning, we focused on growing many different types of annual cut flowers. We gradually added more and more flower beds each year. We were very inspired by Jean-Martin Fortier's book *The Market Gardener*, and we tried to apply his approach to cut flowers. Our plot was mainly pasture before we changed it into production beds. Initially, we tried raised beds, which turned out not to be the best option for cut flower growing in our climate. Our climate is temperate oceanic, with warm summers, and we found that the beds were drying out too much during the summer.

Now we have a different approach to annual flower beds; we use a power harrow and landscape fabrics with holes. Our stony soil has been an issue, as stones are quite difficult for the small BCS tractor to operate, and extracting stones has become our periodic work almost every time we have used mechanisation. From the beginning, we have been applying manure (horse, sheep, cow; all locally sourced within 1km) to the beds and we can see the difference now. We planned to sell our flowers seasonally through a weekly market and arranging wedding flowers (bouquets, decorations).

Startup investments

Our biggest investment was the farmstead with the fields. It cost approximately €120,000. The farm also has a nice-sized dwelling for our family. For half of the price we needed to get a mortgage, the rest we could cover with our savings and support from our families. We invested €13,000 in a BCS uniaxial small tractor and some tools for it. We built three tunnels, which are all second-hand. The total investment into tunnels was around €3,000. We then invested around €3,000 in irrigation, fencing, landscape fabric, black tarps, hand tools, aluminium/steel supports, trays, heating cables etc.

For the first two years, we used our family car for delivering the cut flowers, but then we invested €4,700 in a small second-hand van. From the beginning, we did not need to invest in a cooler, as we have a quite cold cellar which was sufficient for our early years. This year we bought two new walk-in coolers as the cellar was not sufficient anymore.

Revenue

Our income can be divided into four main segments. We do flower setups for weddings, supply florist, attend a farmers market and sell flower bouquets in a local café. Our season starts in April and ends in October (occasionally we do some weddings in November or March). Our approximate revenue during the seasonal months is around €4,000 per month from which almost 50% is net profit. This is also applicable for this year, where the spring was quieter but then August and September were very busy. This year we made a tiny portion of our revenue by selling vegetables at the farmers market. At the moment almost all of our profit is reinvested back into the business (new tools, repairs of farmstead buildings, expanding the beds etc.). We are trying to get to a level where we have sorted out all the main infrastructure projects.

Current situation

At the moment our main production area is divided into 4 standardised blocks of 12 beds each. Next year we are adding another 6 blocks. Our approach is to also grow green manure on 1/3 of our block at any time. Our beds are 1m wide and 15m long. This year we have 1 block of perennial cut flowers, 2 blocks of annual cut flowers and one block of vegetable production with



Flower beds in spring time.



Wholesale flower delivery.



Farmers market stand.

some experimental beds. Beds with flowers have two irrigation options (from above and drip under the landscape fabric). Annual cut flowers are grown in landscape fabric with steel/aluminium supports and horizontal netting if needed. For perennial cut flowers, we use wood chip mulch, which we source from the nearest sawmill. Additionally, we have several smaller blocks of beds which are not standardised, in which we also grow perennials. During the years we have set up 3 tunnels out of which one is used only for seedlings and two for season extension.

We also have around 70 fruit trees in the orchard, which we are gradually expanding. In the future, we would like to sell some fruits. This autumn we planted 50 new fruit trees. Mainly we grow old varieties of apples, pears, cherries and plums, sourced from a local tree nursery. We also have one apricot and peach tree, but this is only a trial as our climate and elevation (480m above sea level) is probably too harsh for these trees.

We are happy with the setup for the cut flowers, but for next season we are considering changing our vegetable block by adding more compost, using more chip mulch and changing the bed size. We are not sure if we will find a good compost source nearby.

Sales and marketing

As mentioned before, our income is divided into four segments. Weddings are an important part of our revenue. In the beginning, we did weddings for a couple of our friends with the help of our more experienced friend. Over the years Anna gradually learned to work with flowers for wedding setups. We mainly use social media for our marketing. This year during the summer and autumn we reached our maximum capacity when it comes to preparing wedding flowers and had to reject some orders.

We have a couple of florists to whom we deliver cut flowers material regularly, and we would like to expand this part of the sales next year. We are also planning to deliver twice a week instead of only once. On the farmers market, we are still building our customer base, as we changed to a new farmers market earlier this year. We see a demand for local organic vegetables, which is why we want to diversify our business.



Our family in the new orchard.



Bed prep with BCS.



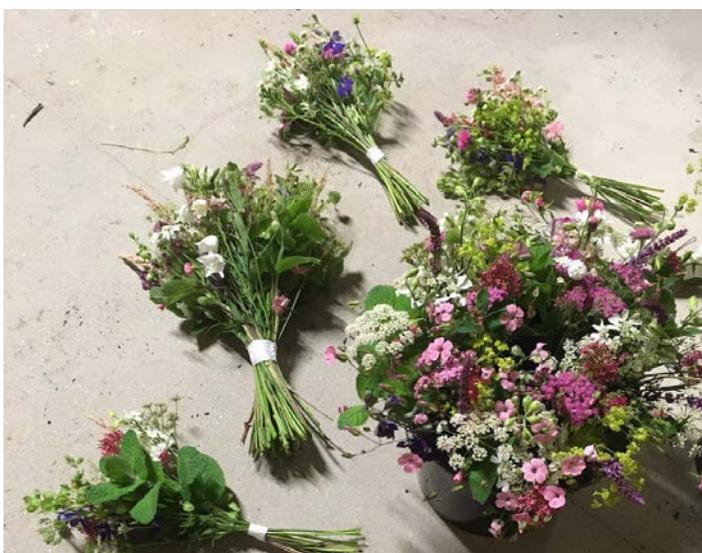
Vegetable trial beds.



Flower harvest.



Bouquets for the farmers market.



Wedding bouquets and decorations.

Learnings

From the start, we were heavily influenced by Jean-Martin Fortier's book. Over the years we have found out that operating BCS tractor can be quite challenging and that some equipment is quite heavy to use (especially the power harrow). This piece of equipment creates a great outcome but is hard to operate in uneven terrain, which is why we are now looking at more ways to use a classic small tractor with similar equipment (power harrow). We have also rejected raised beds, as they are not good in our climate (they tend to dry too quickly in our hot summer). We are also using bigger spaces between our beds, as cut flowers (according to our experience) need that. We would still like to keep our enterprise a family business, but in the future, we are planning to get more people involved with the farm (at the moment we have one part-time employee during the season). We still follow the plan from the beginning, slowly expanding and adding new ventures.

Weddings are great for income, but actually, it's not easy. There is long and demanding communication with the couple before the wedding. We use only our flowers for all of our orders, so we need to have a big variety of flowers all the time.

It was an advantage for us that I (Pavel) had an off-farm office job, meaning we were not stressed by income and had time to think about the best sales channels. The disadvantage to that, though, was having no free time with nearly two full-time jobs.

Challenges

Our fields are quite weedy with horseradish. When you view it as a weed, horseradish is almost impossible to get rid of, as its roots go quite deep. Black tarps do not help, even when they are applied for the whole hot season. But we have found out that wild horseradish sells very well at the farmers market. We do battle this weed where it is necessary, but where it is not we instead see it as a new product for the farmers market.

As all our fields are quite stony, we are still removing quite big amounts of stones every season. We think this will never end (although low tillage helps).

Sometimes it's quite tricky to combine caring for children and running a farm, and proper planning is necessary to be efficient at work. But at the same time raising children on a farm makes sense to us.



Wild flower bouquet.



Bridal bouquet.



Harvested vegetables.

One of our other challenges is windy weather and our tunnels. We always struggle with keeping them in a good shape.

We want to mention our experience with development subsidies. It involves heaps of paperwork and you're never sure if you're going to get it. Mistakes aren't acceptable, not even minor once.

In terms of long-term challenges, we foresee that a water crisis could be a problem in our region. Fortunately, this year was quite wet, but the previous years were dry and the drought in the lower layer of the earth is constant. We have built a new reservoir for water into which we will drain water from all the roofs of our farmstead.

Looking ahead

Our vision for the coming years is to diversify our business. We want to expand our organic vegetable growing. We would like to explore more ways of delivering our products directly to our customers. We would also like to better explain to our customers why it is important to produce flowers and vegetables in an ecological/ regenerative way. From a private perspective, we would like to establish the business to a point where we can afford to go on holiday for two weeks during the summer.

Startup advice

Start the business and learn along the way. We believe there has never been a better time to be a full-time farmer. There is a steady decline of farmers across all of Europe, but increasing demand for high-quality local agricultural products. It is better to start on your property as infrastructure like tunnels are expensive to move and some things cannot be moved at all (fruit trees, wells).



ANNA AND PAVEL MESKA

Kveteto, Czech Republic

MAIN ENTERPRISES:

Cut flowers / Vegetables

MAIN SALES CHANNELS:

Direct sales / Farmers markets /
Wholesale

AREA IN PRODUCTION: 1.4HA
(out of 2.7HA)

STARTUP YEAR: 2016

STARTUP INVESTMENT: €19,000
(excl. farm)

REVENUE: €28,000

NET PROFIT: €14,000

website / instagram / facebook



TOMASZ JAKIEL

Lubuskie Angusowo, Poland

Here is the story of our farm called Lubuskie Angusowo. I am a city boy, who decided to become a farmer. I was born in a city family with no connection to agriculture and farming. At the age of 25, I graduated from Technical University with a master's degree in telecommunication, got a nice job and started working in the telecom industry. After 20 years, with a bag of experience, knowledge and money, I decided to start to search for other options for my future life.

Here began the story of my way to becoming a regenerative farmer. I had noticed that the world around me had changed and that it was, and is, much more difficult to buy good quality, healthy food than it used to be. Farmers in my country spend their time in a race focused on the quantity of a product which very often we cannot call food. While looking for options to invest my money, more and more I started to look at the farming industry and I developed a vision of producing the healthiest food in our local area. Unfortunately, no one I knew in my country, Poland, had a similar a vision, and therefore no one could help me explore it further. Luckily there was a lot of material available in English, and this is how I started to study the visions of Alan Savory, Gabe Brown, Joel Salatin and Richard Perkins. In early 2014 I made the decision and started to look for land for

my future farm. As it was difficult to buy a ready-to-use existing farm, we decided to buy land in the middle of nowhere and build the farm from scratch.

We designed everything ourselves in the family - my daughters and wife played a huge part in it. We decided to have 3 main pillars on our farm as the revenue-generating enterprises: a cow/calf operation with pedigree Red Angus breed, goats for milk and cheese and poultry with layers and broilers. We keep broilers in Joel Salatin-style chicken tractors that we have improved to be women-proof, as very often they are managed and operated by my daughters and wife. We have layers in 2 egg mobiles, designed and built based on Richards Perkins' book but adapted to Polish conditions. We have a goat barn for keeping and milking the goats.

To make our dreams come true we have had to invest approximately €250,000, which includes buying 14ha of land, building infrastructure, and buying animals and equipment. So far we do not have a tractor, but we use a Yamaha quad bike and a Nissan Nava to transport goods around the farm. We have built a polycarbonate tunnel to produce tomatoes for our family and we also have a small garden that supplies the family table with the best and healthiest veg available. Also for our family supply, we decided to keep a small herd of Mangalica,

a heritage breed of pasture-raised pigs. Our profit after 5 years is around €50,000, but at the moment we are not concentrating on improving profits, but mainly on building a respected brand, educating customers and developing our farm. The farm is located about 20km from our current house, and we are now building a second house very close to the farm to avoid travels back and forth between the current house and the farm, which will limit the cost of running the farm. To be able to build the house I still work in the Telecom industry, hence our farm work and profit is mainly limited by the 'force' of my wife and daughters. I can truly say that this farm is women's proof and fully operated and managed by my girls, something we don't see often in Europe.

At some stage in our project, I decided to create a YouTube channel to present who we are and what we want to do. I had noticed that in our country such knowledge is very limited and I wanted to be a pioneer in presenting this way of thinking. This is also a great opportunity to build the brand and be recognised in such a hard market. We sell all poultry products to the local market - family, friends and local customers. Our farm is located very close to two big cities, hence we do not have any problem with selling our products. Our calves from the cow/calf operation we sell countrywide. We have bought a dedicated trailer for delivering the calf to the client, which is very convenient for the buyer as it saves them money on transportation.

Our goal is to improve the soil, and we use different techniques to this end. During the season we use rotational managed grazing with our herd of cattle to allow the grass to grow in a controlled manner while supplying the highest quality pasture to our herds. We also use rotational moves for our layers in the egg mobiles and our broilers in chicken tractors. During winter we use a bale grazing system to improve our pasture. This helps to evenly distribute carbon and manure from our herd and we have noticed a rapid improvement of the pasture after just one season. Our main goal is to use animals in rotation to improve soil and to create a carbon sponge to keep water in our soil. This has increased pasture production, which we can see year to year as I collect all data in a grazing chart. Looking at that data, we have doubled production in just 3 years.

The major challenge for us is weather and regulations. We had a drought two years in a row, which of course caused lower production and a lot of effort to maintain the animals in good condition. Laws change very often, especially in regards to demands around bird flu and African Swine Fever, which is present in Poland now.

We have had to build double fences for our pigs and invest in mats to protect them. The government now also require that we fill in and keep a lot of documentation. All of these things make farming harder.



The Lubuskie Angusowo headquarters.



Hens in polycarbonate tunnel.



Hens and egg-mobile.



Young Mangalica.



Angus cattle on pasture.



Mangalica sow and piglets.



Angus calf.



Mangalica.



Bale-grazing.



Kitchen calf!



Our goats.



Bruno the Border Collie and our goats.



TOMASZ JAKIEL

Lubuskie Angusowo, Poland

MAIN ENTERPRISES:

Pastured cattle / Pastured poultry
/ Goats

MAIN SALES CHANNELS:

Direct sales

AREA IN PRODUCTION: 18HA

STARTUP YEAR: 2015

STARTUP INVESTMENT: €250,000

(incl. farm)

REVENUE: €50,000

NET PROFIT: €37,000

youtube / instagram / facebook



DAVID PEJIC

Zrno Organic Farm, Croatia

The original vision of Zrno Organics

The core idea of the vision of our family business was the notion that a healthy individual is a precondition for a healthy society. Throughout the years, we have developed a web of activities and enterprises to bring this notion to fruition or, at the very least, provide the means for individuals to improve the quality of their lives. Starting with activism and education programs, our business has developed into book publishing, wholesale and retail of organic foods and products, as we recognised the necessity of providing the content of the theoretical knowledge we taught. This development peaked with the acquisition of Croatia's oldest organic farm in 2010, as it allowed us to complete our vertical integration and control the entire supply chain from start to end, guaranteeing the highest quality.

Our initial focus

In developing the farm, our initial focus was on setting up the bakery production and the range of its products including sourdough bread, pastry and ready-to-eat products such as sandwiches and salads. In 2013, we opened our restaurant in Zagreb, Croatia's capital, as

the first and only certified organic restaurant in Croatia. We then focused on strengthening our processing unit with a range of naturally fermented products, as well as a plethora of 'half-products' intended solely for our internal use, within the different production facilities. In 2017 we began work on redesigning the systems of our crop production that culminated in 2019 with the finalisation of our biointensive garden and its 200 no-dig beds.

Our startup investments

Our context here is a little different, as the beginning of our farming enterprise came through the acquisition of the Zrno Organic Farm and its operations at the time. What is noteworthy is that the entire business ecosystem developed over 30 years, generally pulling itself by its bootstraps throughout that time.

Our revenue

In 2019, our combined net sales throughout all enterprises were €1,000,000 which was also the first time we hit that milestone. A strong tourist season facilitated the growth of the restaurant's revenue, while new products

such as organic gluten-free sourdough bread opened up new channels for the baked goods segment. Likewise, our crop production continued to gain momentum and relative strength thanks to the investment in the setup of the biointensive garden. As of 2020, Bio-zrno d.o.o employs 38 people across its farm and restaurant enterprises.

Our current situation

It's always hard to determine the present situation, but I would say we are doing ok given the circumstances and the ambitious nature of the project. We have managed to build a brand, create a customer base, network with other relevant actors in our context, innovate through new projects, educate based on old ones and, finally, establish ourselves as a leading organic producer in Croatia. One continuous metric that I measure our success against is the depth and complexity of our vertical integration. It represents an almost infinite pool of opportunity for various types of synergies that we often lack resources and time to fully capitalise upon. It makes me particularly happy to see us make progress in this area continuously, no matter how much there is still left to do.

Our sales

We sell our products exclusively through our restaurant and our parent company's chain of 16 organic food stores – bio&bio. The fact that we are integrated in this manner allows us to have a very clear perception of what the market and the customers demand. It also allows for more leniency in testing new products or accommodating overproduction if and when it happens. Our strategy is to develop products that have no direct competition in terms of perceived quality and composition. This fact, combined with the exclusivity of their distribution, gives our products a special status on the market that is appreciated by our customer base. We try to build relationships of trust and understanding with our customers, based on the appreciation of the fact that the way we make food is unique.

Our vision for the farm

The vision of Zrno Organic farm is encompassed by three main insights:

A farm as a representation of a living cell



Farm stand.



Preserved products.



Bread.

A farm is part of an ecosystem as well as an ecosystem in and of itself

A farm is a platform for showcasing the interaction between man and nature under the paradigms of sustainability and ecology

What changed over time is the approach and the timeline towards achieving the full scope of the vision. Namely, it became clear that there is a point at which we can be too diverse in our activities and that we need to develop what we already have to a greater degree of efficiency and volume before we move into other envisioned enterprises. Secondly, the initial pace of development in terms of infrastructure turned out to be too ambitious, making it clear that a more incremental and pragmatic approach is required.

Finally, the role of the Zrno Organic Farm as a competitive advantage within the context of our wider business ecosystem has become more prominent with further significance given to activities that capitalise upon this notion.

Our challenges

The ambition of the Zrno Organic Farm is matched by the challenges facing it. Due to the poor rural infrastructure, the costs of the bakery and processing production units are higher than they would have been in a more developed environment. The poor infrastructure also imposes a strong limitation on the development of certain production units, undercutting the speed at which new products can be placed on the market. The complexity of our production cycles is another significant challenge that often generates increased costs. For instance, the soybeans that we grow in our field production are processed on the farm into tofu which is then used in our sandwiches and by the restaurant. Any oscillation in quality or cost of the production in the early segments of this production chain compounds and has long-term effects throughout the later segments. And since we have many of these types of multilayered production cycles, we also have a daunting quantity of potential points of failure jeopardising the entire supply chain. Another challenge is managing the sheer number and diversity of products that come out of the farm. In total, across all enterprises, we have over 150 organic, local and vegan products – all made in relatively small batches. This puts us close to the point of being overdiversified and stretched out too thin. I mention these



No-Dig Garden (1).



No-Dig Garden (2).



No-Dig Garden (3).



Mechanised cabbage.



Shiitake logs fruiting.



Hosting a workshop.

points as they are simultaneously the very essence of what our customers love about us, namely the fact that our products are farm-made using the ingredients from our fields. Hence, one of the ways we manage these challenges is precisely by making a significant effort to communicate and market these values and criteria through our brand. The unique efforts that we put into the making of our products are only valuable insofar as they are perceived, hence the importance of continuous storytelling.

Our short-term plans

In the given timeframe we have to build new production facilities for our enterprises that will allow us to scale up the production in terms of quantity and add new products that we know there is the demand for. In more ways than one, the success of the farm truly depends on how well we utilise the financing available to us and how quickly and pragmatically we push the development forward. Beyond facilities, however, we will need excellent and passionate employees who can realise the potential of the farm and develop it autonomously towards the shared vision. If we succeed in bringing such people together on the farm, that in and of itself will be the greatest testament of our success.

Our startup advice

Don't put too much value on diversification. You don't need to do everything, and chances are that what you have in mind as you're starting is already way too much. Find something that works for your context and make it efficient to the point where you have free time and feel comfortable. Add new enterprises from that point of comfort. Count your hours properly. Include hours that you spend thinking about farming, reading about farming, researching on the web, figuring out the financials etc. All of these might seem ludicrous to count in the beginning, but if you don't they will come back to affect your mental health later and could lead to burnout. Don't let who you are become reduced to the process of farming. Figure out in advance whether you want your enterprise to be a lifestyle business or a growth business. If you do it, later on, you will have to delegate to outside people which changes many things and introduces new layers of complexity. Visualise both positive and negative outcomes. The former will help you reach your goals; the latter will ensure you keep moving forward when things go wrong.



Prepared salads.



Our farm-made Tofu.



Muffins from our bakery.





DAVID PEJIC

Zrno Organic Farm, Croatia

MAIN ENTERPRISES:

Vegetables / grains / Processing
Bakery / Restaurant

MAIN SALES CHANNELS:

Own restaurant and stores

AREA IN PRODUCTION: 23HA

STARTUP YEAR: 2010

STARTUP INVESTMENT: N/A

REVENUE: €1,000,000+

NET PROFIT: N/A

website / instagram / facebook



TILEN PRAPROTNIK

Kmetija Vegerila, Slovenia

Our farm is situated in the northwestern part of Slovenia and it currently has about 3 hectares of land altogether. The primary enterprises on the farm are a market garden, microgreens and pastured layers. We also have the beginnings of a pastured broiler enterprise and we are establishing a small heritage-variety mixed-species orchard.

For several years before establishing our farm, my family and I were operating a large family no-dig vegetable garden, constantly on the lookout for beyond-organic practices. We started thinking about starting a commercial farm after I had been researching some of the work of Eliot Coleman and Jean-Martin Fortier in early 2016. This set us a challenge to establish an economically viable small-scale farm and to be a good example and an inspiration in a time of despair for farmers in our country. Given our existing experience in vegetable growing, market gardening was a logical first step, but we realised soon enough that a holistic farming approach requires the integration of animal enterprises as well.

Since we started with very limited land resources, we initially focused on establishing a no-dig market garden. From the beginning, we focused on standardising beds and making a good seasonal plan. Microgreens

were added a year later as a reaction to demand from some local restaurants and as a low-work-input and relatively profitable operation.

One of our most important early steps was standardising operation procedures and setting up good workflows. By being very pragmatic, we aimed to keep our operation as lean as possible and generate enough profit to justify the labour input. Investing in only the basic tools and movable infrastructure, we tried to keep future options as open as possible.

We worked on getting to know our customer base, whilst keeping numbers manageable and in accordance with the size of our production and the fact that we both have off-farm jobs. We were already dealing with a lot of time spent farming on multiple locations, so to avoid losing extra time on deliveries we decided to keep sales ultra-local for as long as possible.

One of our early aims was to establish good relationships with other organic farmers in the area to share ideas and experience and get some economic benefits from collaborations.

Starting with investments into our market garden infrastructure, our 2x2m walk-in chiller cost €3,500 and the five 25x3.6m movable field caterpillar tunnels with

a 4x6m nursery greenhouse we managed to put up for the bargain sum of about €1,700. We made both of these investments in the middle of the second year of our market garden production. Over the first few years, we slowly enlarged our essential hand tools collection – two basic seeders, a broad fork, a bed roller and some other small tools, adding up to approximately €1,000. Our second-hand nursery greenhouse heater cost us €200 and tarps, fleeces, insect and deer protection amount to about €1,000.

In early 2020 we were able to get a used, roofed and rainproof transport car-trailer free of charge. With minimal adjustments, we started using it as an egg-mobile. It can accommodate a small flock of up to 70-80 layers. The nests were made from a plywood sheet from what used to be the inside floor of the trailer. This left us only with the investment of about €1,000 towards electric netting, an energiser and other equipment to establish a pastured laying hen operation. We will have to build a bigger egg-mobile when we will be increasing our bird number in the future.

Up until now, we have already put in about €1,500 to start a broiler enterprise that for the moment serves only the family needs. This year we raised two batches of 50 birds in a Salatin-style chicken tractor. So far we have invested into some essential slaughtery equipment. Our county's two-tier regulation system gives us hope that the overall investment into a future small-scale on-farm poultry slaughter facility will not have to be too big.

The single biggest investment to date on our farm was the purchasing of our current base land plot at €20,000. We bought it at the end of our first production year. We could not avoid this cost because the market for rental land in our country is almost non-existent. Since then we were able to add on plots by leasing them. It is difficult, but once we establish a relationship with a landowner, we will usually get a rent-free arrangement as long as we release them from major liabilities associated with owning farming land.

In the context of talking about investments, we perhaps have to mention our small 4x4 car and a light cargo trailer. We have bought the trailer a few years before starting for our private use, but it is now essential for transporting things between our home and the multiple locations we farm on. We also use the 4x4, among other things, to move our egg-mobile every two days. Since the car also doubles as a secondary family vehicle, we should not count it as a farm asset exclusively.

We have a free usage agreement for a walk-behind trac-



Farming is one of the few professions that allows bringing children to work - Tilen, Nace, Mateja and Vito.



Standardised garden beds arranged in blocks had to fit around natural features.



Patchy landscapes are a drawback for modern agriculture, but they provide shady pastures and windbreaks.

tor owned by a colleague farmer of ours. Nowadays we use it mostly for keeping the grass low in places we cannot reach with animals and for some other odd jobs on the farm. As we are transitioning slowly to a compost mulch gardening system, we do not find much use for it in our vegetable plots any more.

The largest part of the income on the farm comes from the market garden. Sales of vegetables at the moment add up to approximately €8,500. It is the most work-intensive operation we run, we spend about 1,400 hours throughout the year. Running costs for the market garden amount to about 20%. Our garden area seems to be big, but we are far from using the entire intensive production potential. We think a future shift to a compost mulch system will increase our work and running cost, but also largely increase our production.

Our microgreens operation followed in our second year, and we could carry it on the back of some of the infrastructure we were already using for our market garden production. At an income of €6,000 and a running cost of about 15%, it is one of our most profitable enterprises. We estimate the labour input to be about 200 hours. We sell the majority of the microgreens to restaurants, and we think it has the lowest market expansion potential of all our operations.

At the current scale, our pastured layer enterprise will bring us an estimated income of €4,800-5,200, depending on what we do with the spent hens. We put in about 450 hours with our birds and we have a running cost projection of about 40%. Egg sales seem to have a great expansion potential and scaling up the production will certainly make it more profitable.

We get some running cost savings on our farm by buying things like seed, animal feed, packaging, potting soil and other materials in bulk in collaboration with other organic farmers in our area.

It is important to note that at this size our farm does not have some of the major running costs some bigger farmers face. In Slovenia farms below a certain size are exempt from paying VAT; they only pay a land area-based cadastral tax, which for our farm is a few hundred euros per year. The other thing is that my wife and I both pay our health and pension insurance from our off-farm jobs. In case our farm gets bigger in the future, these costs will have to be taken into consideration.

For now, farming is not my only source of income. I earn about 20-30% of my money with my non-farming projects. My wife Mateja has a full-time job and my mother, who also works on the farm, is receiving a pension.

For purely pragmatic reasons, we do get some grants from the local and the national governments, but this has represented only a very small amount of our income.

Slovenia is a country of very diverse climatic conditions. Our farm is located at the foot of the Alps at an elevation of 500m above sea level. The specific climatic conditions we face are determined by the proximity of high mountains. Our vegetation cycle is about two weeks behind compared to the central part of Slovenia. The frost-free period starts around May 15 and we can expect the first light autumn frosts between mid-September and mid-October.

In our country, the scattering of land and small land-parcel sizes has not so much to do with the former communist regime but with topography and historic circumstances that go even further back in time. Although land prices in our area are among the highest in our country and the land policy favours bigger established farmers, in the autumn of 2016 we were able to buy close to 1ha of marginal land at a favourable price. We consider it our 'base plot'. We use about a quarter of this land for intensive vegetable production. The rest is partially a very shady pasture and partially a newly planted orchard. We get to lease a neighbouring plot about a third of a hectare in size. This makes the described location the only one suitable for keeping any kind of animals.

We run the farm as a family with Mateja taking care of marketing and costumers, me being in charge of the planning, organising and every-day running of the farm, and my mother dealing like a 'force of nature' with repetitive tasks. All of us have to be able to take on different jobs from time to time and certain aspects of farm work require multi-person workflows.

We have divided the market garden at our base plot into 60 permanent beds 25x0.75m in size. There are 10 additional beds at this site still in preparation. An auxiliary plot at another location has 40 permanent beds, on which we grow vegetables that require less attention. In both locations, we did the initial ploughing before making beds. From that time onwards, we keep them weed-free using careful management and occultation tarps. We use a broad fork, a rake and a roller to prepare them before planting or sowing.

With our soil conditioning, growing and harvesting techniques, we try to stick as close as possible to the methodology developed by Jean-Martin Fortier. It had to be adapted slightly to fit our circumstances. The plan is to convert fully to a deep-compost and wood chip



Running the hens right next to the garden is keeping the invasive slug population down.



Green manures and cover crops help to keep the beds covered until a good compost supply arrives.



Late-October crops under season extension.

path system within the next couple of seasons. We make our wood chips from clearing our land, but the compost issue is a different matter.

We have no way of processing the vegetables on-site. After harvesting, we take the produce to our farm's headquarters at our house located in a semi-urban setting 2km away from our base plot. We have a simple post-harvest station there, a chiller and some other storage facilities as well.

Our small nursery greenhouse is also situated at our house. We do the majority of our transplant production there and it serves for our microgreens production as well. We used to grow a large range of microgreens, but have since narrowed the selection down to just pea shoots and two kinds of radishes.

We try to integrate all the tasks connected to the broilers and the layers into the time spent in the market garden. All the equipment, feeding regimes and techniques we are using in our pastured poultry enterprises we have based on the methodology developed by Richard Perkins at Ridgedale. Thus far, they seem to be working perfectly in our particular context.

We also have a couple of small arable fields at yet another location. There we alternate between growing different grains and fodder peas in addition to some small amounts of potatoes and a heritage variety of maize. We do this to satisfy our country's legal requirements which state that a farm paying only cadastral tax has to grow a minimum of half of its animal fodder consumption. We have to hire outside farm services for that because we do not have a tractor or any equipment. Having no previous experience in this, I view this part of our farming as a learning ground. In time and with the advent of suitable equipment, we are hoping to convert our arable field fodder production to regenerative practices.

One of our side projects, that also generates some of our income, is growing heritage-variety bean seeds for a local seed saving initiative. The organisation in charge of this project provides the initial seeds, gives us technical support and buys the newly grown seeds at the end of the season. We took on this enterprise because seed saving of beans is relatively straight-forward, we don't have to market them on our own, we can usually incorporate the growing into our market garden and the surplus from this operation, that is still very good quality, we can sell at a favourable price to our customers as dry beans.

All of our land, plant production and the feed we buy in are organically certified, but we opted to exclude our animal enterprises products from certification.

The location of our farm headquarters gives us good access to private costumers. Within a 20km circuit, we can reach a population of around 50,000 people. In addition to that, our region has a high influx of tourists in both the summer and the winter season, so we have quite a few hotels nearby and a vibrant restaurant scene.

To keep things simple to plan and run during the main growing season (June-October), we opted for a model of subscription box sales for our private costumers. We organise a five-hour pick-up window once a week at our doorstep. We treat our box scheme similar to a CSA, but we do not demand payment in advance. Some of the costumers choose to pay ahead for a month or the whole season because they find it more convenient. Off-season we take biweekly individual orders of vegetables from the same costumers, joined by some additional costumers. Delivering to our capital Ljubljana about 50 km away would expose us to a potential market of 300,000 people and increase our prices. At home, we can get around €10 for our box, whereas in the capital we could demand at least €15. For now, we are happy with a local clientele, because taking our crops to Ljubljana would take a lot of our time.

To restaurants, we are selling mostly microgreens, herbs and edible flowers. Some take vegetables as well. We have a very good retention rate with them, only the spectrum of demand changes a bit over time. Because of this year's pandemic and temporary closing of restaurants, this part of our sales was the only one to see a reduction. Deliveries were smaller, but we managed to keep the income more or less the same because we obtained some new restaurants.

For the time being, we can only sell eggs to private costumers. When we were establishing our laying hen enterprise earlier this year, we gave our regular costumers an option to buy 20 or 30 weeks worth of eggs in advance. This gave us some funds to finance the pasture equipment we needed to start the operation. In our area's farmers markets, a certified organic egg can go for about €0.35. We have set our regular price at €0.30 and we offer discounts for pre-buying and regular clients respectively. We sell eggs in boxes of ten.

We detect a very high demand for pastured chicken meat among the costumers. Whole certified organic chickens can sell for up to €8/kg, but we think a more realistic price for ours would be €6.50/kg. Although the chicken feed is quite expensive for us, we would get a relatively high-profit margin from this enterprise. The selling-potential to restaurants also looks promising, but with more demanding regulations in place for those



In CSA, or other vegetable box schemes, variety is essential.



On harvest day crops have to be transported by car to be washed and packed.



Microgreens and edible flowers destined for the restaurants.

sales, this would mean a whole other ‘ball game’ for us.

This is the first year we have been selling a part of our vegetable production through a local organic farmer cooperative to kindergartens and schools in the surrounding area. This sales channel came about because of the recently increased willingness of public institutions to buy local and organic produce. For us, it is convenient because all the delivery dates are known well in advance and we can shift relatively large quantities in one sale. Collaborating with other growers in a cooperative gives us security in case of crop delay or failure and we are guaranteed a good price with long-term contracts.

Our part of the Alps has a very high likelihood of summer hail events. Last year our July crops were decimated during one such major storm with ice particles up to 3cm in size. This attributed to a couple of thousand euros overall income loss in that season. We are addressing this hazard by buying a few hail protection nets each year and mounting them on our caterpillar tunnel frames. Furthermore, the variety and different timings of the crops proved to be an asset in this case.

Access to good compost seems to be a challenge all over Europe. We have a good compost producer in our area. They started supplying certified organic compost just recently. We have to test it to see whether it meets our standards and then we can use it.

As mentioned, one of our major issues is access to land. We addressed this by initially only establishing the operations that require less land and then adding on other operations as our land grew bigger. We have found that with time people see what we are doing and will offer their land to us. We have to work around the fact that these plots are scattered all around the place. The final goal is to add close-by land to our main production site and we plan to do this using the same tactics of showing that we take good care of the land. Ironically, since we do not live on our main production site, this also gives us the option to relatively easily change the site altogether and go elsewhere if we find a more favourable location.

We try to keep our future options as open as possible. The long-term vision is to establish a functioning, holistic regenerative farm that serves us, the community and society in general. The way forward is going to be determined by our capability to get more production out of the existing resources, the accessibility of additional land and various other factors. In the next few years, we will try to determine the path we take around those challenges and towards the described vision.

You have to know that no matter how well you organ-

ise your farm, it is still hard work. There are universal solutions, but there is no complete recipe. You have to find your way of adjusting to your particular climatic, geographic and socio-economic contexts. I find ways to solving challenges more interesting than arriving at the end-goal. The future seems to be interesting.





Traditional Slovenian hayracks lost their function in the era of tractors and hay bales. We can use one at one of our plots to dry bean plants for our seed production.



The beginnings of a pastured broiler enterprise.



Bringing people to farms is vital for spreading the message of regenerative agriculture. © Robert Špiler.





TILEN PRAPROTIK

Kmetija Vegerila, Slovenia

MAIN ENTERPRISES:

Market garden / Microgreens
Pastured layers

MAIN SALES CHANNELS:

Box scheme
Wholesale to restaurants

AREA IN PRODUCTION: 2.2HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: €29,900

(incl. land)

REVENUE: €20,000

NET PROFIT: €14,000

facebook



DANIELE BUCCI

Podere Cimbalona, Italy

Podere Cimbalona

At Podere Cimbalona we produce many different types of temperate fruit such as white and yellow peaches, nectarines, plums, cherries, apricots, apples and pomegranates. We also have a 1ha vineyard that produces white grapes suited to make wine, 2000m² of permanent market garden beds, small egg production and small berry production.

How it all started

It's hard for me to define the exact moment I set out. It's even harder to recall various visions I went through since they changed as I changed. Initially, as a teenager, it was my grandfather's inspiration that guided me towards farming. He was farming the land I grew up on and I was spending a lot of time working with him. Then I went to agricultural high school and university, where I gathered a lot of knowledge about biology, plant physiology, chemistry, plant disease etc. I was in my twenties, and my professors' words sounded like the only truth about agriculture. At that time I was farming the way it was taught in the academic environment but

without a profound personal idea about this job. At 26, when I finally graduated with a Master's in horticultural science, I slowly gathered all of my study, experience, knowledge, and ambition to set up a deeper and more personal vision about farming. I started to be more interested in and study organic farming, biodynamic farming, afro-ecology - all of the types of farming that had been marginally considered so far. I recall that moment as a turning point in both my personal and professional growth. My vision changed many times, as I had been dealing with farming since I was very young. I never reject my background or the way I farmed back in those years. I believe the journey built up the type of farmer and person I am now. However, I'm sure the vision I have now is quite distant and different from the many I've had in the past.

My initial focus

I grew up in a very intensively farmed area, where all of my neighbours were farmers and mainly conventional fruit producers. At the beginning of my farming career, the decision-making process was highly influenced by emulating the surrounding operations and what I was

taught at the university. During the initial period, I made the mistake of reinvesting most of the money, finding myself broke after a few years. This might be a situation that someone could avoid by starting on someone else's farm. I learnt a lot from this big mistake. I was about to find an off-farm job to help pay the investment. The farm I was running had very old tree orchards, obsolete machinery and equipment that did not fulfil safety regulations.

After many years of farming, I can see my mistakes very clearly. First of all, I underestimated the return time of some of the investments. Buying a new tractor is an expensive investment that won't bring in any money in the short run. Second, I desired to see and have the farm fully productive and conforming to regulations (like the ones of my neighbours) within a few years. I was impatient to see things done and I compared my farm to some that I viewed as role models, forgetting that I had just started. The third mistake was that I was not considering cash flow. When I realised that something was wrong in the farm management, I immediately changed direction and focused more on essential targets. During those years, the price of fresh fruit on big markets was highly fluctuating and in some cases, the revenue could not cover production costs. During that period I realised that part of the solution was not to reduce the cost of production, but rather increase the value of the crops.

So the first action I took was to convert the farm into certified organic. Certified organic fruit in Italy is a rising market and commands a substantially different price than conventional products. Connected to this aspect, I also started to reduce production inputs and costs by changing my farming practices. This led to less expensive fertilisers and pesticides, no herbicides, and less fuel.

The second action I took was to differentiate production and start enterprises that could create cash-flow. I planted new trees and berries and also built an egg-mobile for small-scale egg production. In that period, I was spending a lot of time reading books about market gardening, so I started a vegetable production on 2000m² of no-dig permanent beds.

A third very important aspect in my context was to differentiate revenue. By that, I mean having many channels to sell my products to. In other words, building a pool of buyers (final consumers or economic activities) that buy my products, thus owe me money. In doing so, I went from receiving down payment in September and



Our little family.



Cherries are a key product to attract customers.



The team enjoying a break.

balance in December to cashing in money every month for 10 months. To achieve this goal, I also considered collaborations with other companies which were offering services to consumers. I was willing to share part of the revenue as long as the price per unit of fruit or veggies was reasonably high and constant in time.

A fourth action was to open a social media account to share the farm life, to communicate with people and to be transparent in what we do and how we do it.

Startup investments and revenue

During the first years of farming, I invested a lot in terms of money, energy and time. Time was something I did not consider at the beginning, but it was a mistake; now I always value my time. In terms of money, due to the situation of the farm I took over, I invested approximately €100,000 over 3 years. That money was divided into new orchards, new machinery and new farming equipment, mainly to meet safety guidelines.

In 2019 the gross revenue of the core enterprises was around €75,000, 45% of which was net.

My current situation

Farming can sometimes be daunting and at other times very satisfying. I have refused many interesting and well-paid jobs to chase the dream of being a farmer, but during the first years, I had moments when I was about to quit farming. The wrong management at the beginning was leading me to failure. I was aware of the high investment; thus, I was stressing the production to raise income. Stressing soil and trees brought the opposite effect. Luckily enough, I was able to get out of this situation. I approached a different type of agriculture and farming management that saved me from bankruptcy. After many years of economic problems, things have been going very well for the last couple of years.

Sales and marketing

Only a few years ago, I was still conferring the entire fruit production to a big farmers' cooperative. Year by year I'm now constantly selling a higher and higher portion of fruit and also vegetables to final consumers or economic partners. I have followed two main roads to manage sales and build up customers.

As I mentioned before, I like to build synergy with other new activities that share the same spirit and vision. In

this case, they are very motivated to advertise my farm, because the more I sell, the more they sell. This type of collaboration spreads the name of my farm, and many customers get to know who I am and what I do on. I'm not sure how long this collaboration will last, but surely it is worth it.

I must also confess that 'behind every farmer, there is a very patient woman'. In my case, besides being very patient, my wife Sara is also very good at marketing, public relations and social media management. She is the who opened and is managing, my Facebook and Instagram pages. Once I discovered her skills, I simply delegated everything related to showing people how we farm to her. She also wanted to create a WhatsApp broadcast, to be closer to our customers: 'Emails are old-fashioned!' she said. We use this broadcast to communicate with our customers, inform them about our products, collect orders etc. Year after year we've been building up relations, trust and loyalty, so much so that now our customers are willing to taste and purchase every product we offer. Technology is a good tool, but behind smartphones there are people. Sara is very kind, talkative and up for spending a little time chatting with every person who passes by our farm shop. Now more than ever, we believe customer care does make the difference. I'm not specifically speaking about customer money care, but also about customers as persons. We live in a highly agricultural area, where many farms have started a direct sale, and where there are farmers' markets around the city every day. What makes us different from others? We want our customers to feel part of the production by keeping them informed on social media. We also want them to feel welcome by dedicating time, smiles and a chat to each of them.

Learnings

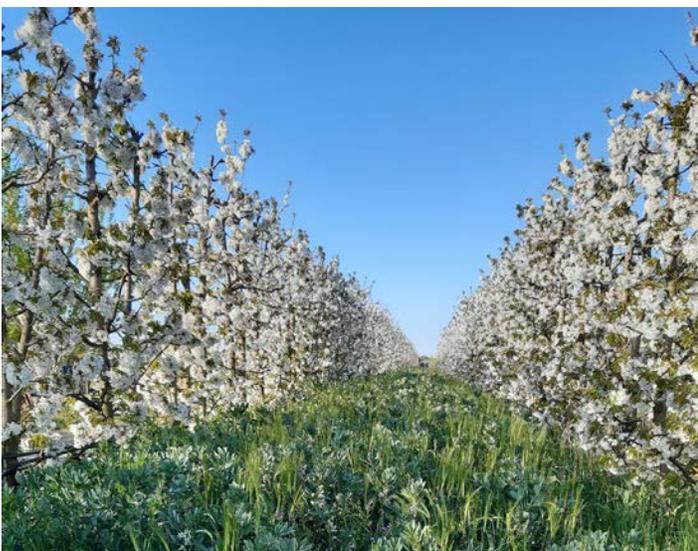
My idea of farming has changed a lot. After years of academic studies, listening to my professors' advice and being influenced by my neighbours, I've now built up my vision about the farm. Experience and mistakes have been the best and strictest teachers I could have. Being free to make decisions was a gift and I'm thankful for that. I consider it a gift because most young farmers that come from a farming background have no or low influence in the decision-making process. My background, my experience and the example of good farmers around the world brought me toward a highly different idea of agriculture compared to the one I had after I got out of university. I took that on as a strong challenge for



Apples.



Overhead view of the no-dig market garden.



Cover crop mix in between fruit orchard rows.

myself. I wanted to prove to myself that change is possible. I wanted to prove that 6.5ha with four crops and the economic problems of a conventional farm could be turned into an organic mixed-product profitable farm. The most important changes I can mention are the following:

Reduce inputs. Farming can be the easiest way to spend money. Many investments I made and material I purchased I now see as useless, and I won't buy them anymore.

Care for the soil, increase OM. I went through a huge change in perspective about soil. It is no more about plant nutrition, but rather about soil fertility. Many years of applying chemical fertilisers and using machinery had caused the soil to be depleted and compacted. Now I use only cover crops and good quality compost. We aim to increase soil organic matter, and we often test it to monitor soil health. We use chromatography analysis, which is simple and cheap.

Diversify production. Diversity means resilience. When I understood the idea of a farm as a complex organism where everything is in relation, I had to add actors in this relation. Different species, different varieties, different enterprises, different workers that bring in new ideas every time.

Challenges

In farming, we deal with many complex aspects such as soil, weather, plants, animals, markets, customers. Several problems or unforeseen issues arise regularly. Despite that, the major challenges I had to face were time and relations. Practical problems can be fixed, relations are way harder and time will never come back. Personally speaking, as a farmer entrepreneur I often tend to work a lot, at the expense of personal interests, friends, family. I used to work 10-12 hours a day on average, 6 days a week, sometimes also on Sunday mornings. Wintertime is usually a more relaxed, slower season, but it's short, and at this latitude, we don't get much snow or extremely cold weather, so I feel there's always something to do in the fields too, and what's more, I have to manage every aspect of the production. Taking note of that, I forced some constraints upon myself. My wife Sara helped me through this process; she is essential in keeping a balance between farming and family. At the beginning of the year, I usually define what I'm going to do to work a little less. It must be something affordable, not just a good intention. I make that decision about time constraint and I sincerely commit to it during

that year. Yet, I'm not so good at managing my time, by which I mean that I'm not so good at estimating how long a task could take to be completed and I hate leaving a job half-done. I would rather choose 2 days, Thursday and Saturday, on which I'm going to keep the afternoon off. This year I've accomplished my goal. I've spent every Thursday afternoon with my wife and daughter, playing, bike-riding, walking, swimming in the pool and so on. I've also managed not to work during the weekend after 1 pm on Saturdays. I feel proud of that. I've realised that to get the free time I wanted, I've been able to organise the team and tasks in the proper way. Time constraint has turned out to be a good incentive to increase efficiency. Above all, I'm very aware that all the time I've spent with my family was worth it. However, I don't know yet how I'm going to improve my free time next year.

Plans for the future

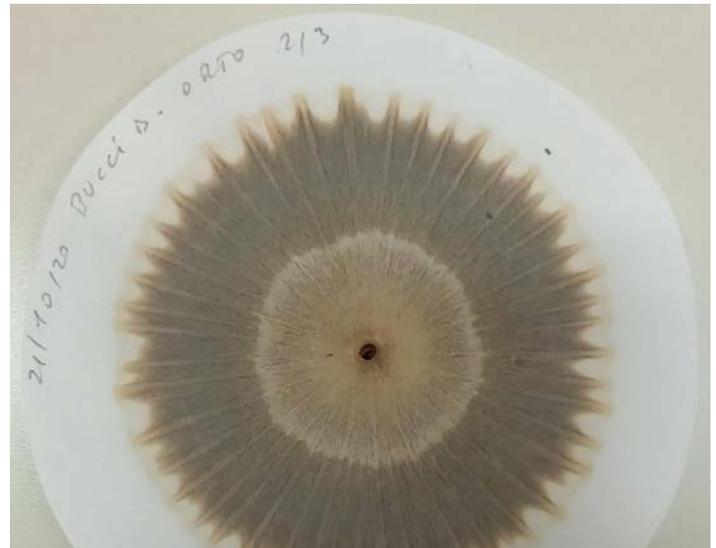
Within the next 3-5 years, I wish to be able to work less. Now that my enterprises are running well and I have some collaborators I can trust, I want to focus on my family. I hope that the coming years will bring some economic stability. I want to spend more time with my wife and daughter and also have some more time on my hobbies; I want to work to live, not the other way round. After many years of struggle and uncertainty, I want to invest more time and effort in study and research. I don't think the farm will get bigger, but I'm up for new enterprises and collaborations. I will introduce some more fruit types that are highly requested, like pears. My wife and I are thinking about turning the type of selling we have now at the farm into a CSA. I'm training some young workers who will stay for a few years; thus, I plan to delegate some activities to have more free time. Many young unemployed people are contacting me for advice about how to start farming, or how to prune fruit trees for example, or how to manage a no-dig market garden. This free time might be invested in organising workshops or other courses. There are many plans for the years to come.

Words of advice

I'm always very careful when I am asked to advise people starting up in farming. We're all different, and agriculture is such a wide field that any word might appear useless if applied in the wrong context. During these years I've gathered some experience and faced many mistakes



Egg-mobile designed to fit the vineyard rows.



Chromatography analysis of the soil.



Compost tea.

that could have been avoided. I'm going to write about those aspects that could have made things easier if I had known them.

Maniacally define what your business is about. Ask yourself: what is my business offering more than others? Why should customers buy my products? This is not wasted time; it is time well-invested in the future. Once you have a clear plan for your business, everything will go smoothly. Try to choose the enterprise you sincerely feel committed to. Choose the one you like and enjoy the most, not the one you consider most profitable. You're going to spend a lot of time doing that activity, so you better love it.

Find a way to sit down and talk with people, exchange opinions, contact experts or someone you esteem. Nowadays it is extremely easy to contact anybody around the world in a moment. Don't be afraid to ask.

Even in a busy period, find a moment to sit down and sincerely concentrate on how it is going. Use numbers, not only emotions. If something is going wrong, you'd better pause, take your time to analyse the situation and fix the problem as soon as possible.

Define, year after year, the percentage of net income for yourself. Do not reinvest all the money into the farm, it can become a black hole.

Use what you have. New equipment is fancy and super cool to use but costs a lot of money. Often it is possible to work with second-hand stuff. Force yourself to figure out low-cost solutions before you spend a single dime. Consider inputs as everything that crosses the gate of your farm; are they really necessary?

Care for the soil no matter what your operation is about. Soil is an essential resource for farming. The better you treat it, the more it's going to give back, in terms of production and consequently income. Count to ten every time your farming practice entails soil disturbance or exploitation.

As much as possible, try to find trustworthy collaborators that are as good as you or better. Delegate tasks to the members of your team; do not try to carry all the burden yourself or you're going to burn out.



DANIELE BUCCI

Podere Cibalona, Italy

MAIN ENTERPRISES:

Temperate fruit / Grapes / Market garden / Layers / Berries

MAIN SALES CHANNELS:

Farm shop / Wholesale

AREA IN PRODUCTION: 6.5HA

STARTUP YEAR: 2016

STARTUP INVESTMENT: €100,000

REVENUE: €75,000

NET PROFIT: 45%

instagram / facebook



JAKOB HALLER AND LISA KAGER

Hof des Wandels, Italy

Hof des Wandels means ‘farm of change’. Our 1ha property is quite steep and in a sort of small valley with one south-facing slope, one north-facing slope, and a strip in the middle which is also on a slope lengthways.

Our main enterprises are:

- a no-dig market garden in an agroforestry system with 100 10m beds, selling to 50 CSA members, in our farm shop and to restaurants.
- perennial lanes (pear, apricot, plum, peach, mulberries, olives, figs, all sorts of currants, gooseberries and more. There are also a few perennial vegetables. This adds up to about 30 10m beds, plus more spread over the herb garden.
- a small apple orchard, for selling both fresh and as vinegar, juice and cider, is slowly coming into production (from the old existing conventional highly intensive orchard, close spacing, M9 rootstock, old varieties grafted on). It's about 1,500m².
- a herb garden for distillation to produce essential oils

and distilled plant water; about 4,000m².

- a small nursery selling aromatic herbs and exotic plants.
- processed goods such as fermented veg, pickles, jams, juice, tea etc. that we sell in the farm shop.

Our initial vision

We are 5 people living and working on the farm: Lisa (my partner), Hanspeter and Martina (Lisa's parents), Kiran (our 1-year-old son) and me, Jakob. The farm is owned by Lisa's parents.

Lisa and I met about 5 years ago and were both very interested in permaculture at the time. Since her family had a farm and her father was farming apples at the time (highly intensive monoculture, common in our area) and was fed up with doing that, it made sense to do something with the farm together. Hanspeter was very keen on getting us involved with the farm and so were we. A couple of years before our arrival on the farm, Hanspeter completed training in aromatherapy and had got really into distilling herbs to extract the es-

sential oil. He knew what he wanted to do and his mission was clear; he wanted to set up a herb garden for his distillery and teach workshops about distilling. As he has a little blog on Facebook, he had started building up a good customer base already before we got involved.

Lisa and I, on the other hand, didn't have a clear vision of what we wanted to do with the farm, except it needed to be ecological and socially sound. As I have worked all my life as a chef in some really good restaurants, I knew I wanted to use my skill-set to build myself a solid base. So, in the first winter, we installed a commercial kitchen in the basement that could also be used as a processing room, and I started up my own catering company. My idea was to grow veg for our consumption, have great products for the catering and deliver the surplus to gourmet restaurants. I did do that the following season following the most common beginner permaculture principles, however the growing part wasn't that serious; it was very chaotic with no standardised beds, and I was making my money from the catering.

Lisa still worked as a freelance journalist and a yoga teacher, so we weren't in a rush to make a living from the farm. Our initial focus was on learning about different concepts of farming and gain experience with growing stuff. I was very inspired by the idea of creating a forest garden with a high diversity of perennials. Initially, I wanted to open a farm restaurant (and I was the only one in the family who liked the idea), produce only for that and sell the surplus to hotels and restaurants. With things evolving on the farm, it started to become clear that this idea didn't fit our context and that it would have interfered too much with our private life since we live and work together in a quite small space.

Influenced by a friend helping us out in the garden sometime, I was getting interested in market gardening. He told me about Richard's YouTube channel and that opened up my perspective on a few things. I attended Richard's 3-day seminar at 'Helle Bauer' in October, and 2 days later we started setting up the market garden.

With the size of the farm and the growing demand for good veg, it was the logic enterprise to get started with. We decided to do CSA boxes and sell the surplus to restaurants and through our farm shop. To find subscribers for the boxes, Lisa printed small flyers and dropped them in people's letterboxes in the neighbourhood, posted some short promotions on Facebook and tried to make it clear to people what CSA boxes are by explaining (and explaining again all winter long). By the beginning of March, we finally had all the paperwork done to start our farm shop, had set up the infrastruc-



The clan.



The farm seen from above.



The farm seen from the yoga platform.

ture for the farm shop and had 35 members. I had aimed for 50 shares, but it made sense to have a bit of space for mistakes to happen and some room for trials.

Operation-wise we do things completely separately on the farm. Meaning: Hanspeter is running his enterprises (distillery, plant nursery, workshops) and is fully in charge of what he decides to do, invest in and earn. And the same goes for us. Therefore it runs like two separate businesses, but on the same farm and all in his name. We found that this was the best solution for us, both on a relationship level and tax-wise. All big decisions that affect everyone on the farm are taken jointly.

In our business, we divide the responsibilities: Lisa is in charge of all the PR, marketing, communication and sales, runs the farm shop (together with Martina) and helps me with the production of processed goods; all this while looking after our son and being a mother. I am in charge of all the work on the ground, the market garden and the fruit production. It is quite important to me that I have my own space where I can operate freely and have the possibility to manifest my vision and kind of make it my own. So here we are, trying to be the change through our farm.

Our investments and returns

We have invested a total of €22,578;

- Compost and wood chips: €8,500
- Propagation setup: €700
- Equipment: €6,000
- Wash-and-pack station: €1,000
- Walk-in chiller: €2,000
- Irrigation: €800
- Trees and berry bushes: €2,000
- Plastic veg boxes: €518
- Cash desk: €1,060

Our running costs add up to €5,900:

- Seeds: €1,200

- Potting soil: €300
- Electricity: €400
- Water: €1,500
- Packing: €300
- Compost: €1,000
- Tax consultant: €1,200

We also have a 24m x 6m polytunnel and a 5m x 15m greenhouse. They are mainly used by Hanspeter; however, the propagation setup takes up a bit of space in the small greenhouse. He invested the money for those, but we can use some of the space.

Our revenue in the first season was €28,720:

- Csa boxes: €16,000€ (100% net)
- Farm shop (veg): €5,400 (100% net)
- Farm shop (other): €4,400 (65 % net)
- Restaurants: €2,920 (100 % net)

Our current situation

With the data I had from various books (Jean-Martin Fortier's *The Market Gardener* and Richard Perkins' *Regenerative Agriculture* were the most helpful regarding planning), I figured out approximately how much yield I could get out of each bed under perfect conditions. From there I decided what I wanted in every box throughout the season, and with the help of target harvest calendars, it was possible to put some sort of crop plan together. I guess starting up today is quite different to someone who started up 30 years ago since we now have all this precise and helpful data which makes things a bit easier to plan. I had some help from friends in getting set up with some simple excel formulas, which was nice since I had no prior experience. It was an interesting process to sit in front of the computer day after day to figure out the what, when and how until steam was coming out of my ears.

Even though I thought I'd done quite an alright job on my crop plan, it turned out to be a disaster. I was eager on getting as much as I could out of one bed and that



From monoculture to diverse ecosystem.



After the clearing. The beginning of the third year on the farm.



The market garden set and ready for its first production season.

was my biggest mistake, I guess. When it was time for the first bed flip, the crop was still in the ground and my seedlings were ready. Luckily, I had put up a few extra beds that could be used for random plantings, and I just used those instead. At that point, the whole plan shifted and nothing fit anymore. I tried to correct things on the plan for about a month, but it felt like a bit of a waste of time. At this point, I realised that some of the crops I didn't need to grow as much of, such as radishes, spring onions or Asian greens. I got feedback from some clients and also saw that they weren't selling well in the farm shop. So, I discarded the whole crop plan and instead wrote a new one by hand and simply put in how many successions I wanted for the rest of the year. I planted where there was space and decided quite intuitively. This worked quite well; maybe I didn't get the most out of the garden, but I learnt a lot from that big mistake.

I guess I could already fill this whole story with things that went wrong and didn't work; with seedlings that didn't turn out well, bad germination in the beds and the propagation, slugs destroying a hole bed of lettuce, aphids on beans, a blight on cucumbers, 3 beds of aubergines produced only one or two fruits... But I still managed to have a full and quite a diverse box every week, and that was the most important thing. And maybe we could have made more profit in the first season, but more than anything it was so important to have made these experiences as they made me aware of aspects that need better planning, more care, a different seed variety or a better set-up. Another thing that I started to understand is the use of different micro-climates; since we have a very hot side and a shady side, which has its benefits.

The weeding was quite annoying throughout the season. Some of the blocks had quite stubborn weeds like sorrel, dandelion, cinquefoil, couch grass and bindweed in them, and they grew right through both the layer of cardboard and 15cm of compost. But we managed to stay on top of them and get most of it out by just doing some weeding by hand.

One of the biggest challenges for me was the work-life balance. Managing a relationship and having a son at the same time as starting up the business wasn't easy. It's the moment where one's partner expects you to be there the most, yet the work outside never really finished.

Our current vision

If we go back to day one when Lisa and I arrived at the

farm, there was no clear vision nor any sort of master plan in our minds. It evolved over time and as we gained more knowledge and experience, but also with having a child which shifted a lot of responsibilities, expectations and desires. It the beginning our business mindset was not very strong. That partly had to do with the fact that we didn't know what we were doing or where we wanted to head, but also that we were both earning our money elsewhere. She had the journalism and I had the catering, which was great because it created a good resource base.

Coming from high-end gastronomy and having worked all my life in fine-dining restaurants, I felt a certain necessity to do something with my skill-set, and I guess every chef who is passionate about his work at some point has the desire to start his own restaurant and even if possible be involved in the actual production of the products. Seeing the potential in this was what was driving my desire to achieve it. Lisa helped me to understand that just because there is potential in something, it doesn't mean you have to manifest it. I started to understand that a restaurant on the farm would compromise too much and would draw me away from the production side that I was so interested in. So, we discarded that plan completely, and before I knew it I was really into market gardening.

Looking at things now, the farm has clear roles, structures and boundaries. We have a goal, or maybe more precisely a context, that we work toward which helps us navigate our way to a successful and happy hard-working lifestyle with an intense summer season and a bit slower winter. Having had the opportunity to run my own catering business and being confronted with constant decision-making and planning has helped me get real about what it takes to run a successful business. Also, having such a big team at hand, all with their own perspective and skill-set really benefits the whole enormously.

I think the major thing that has changed is that every person now has their role on the farm. Hanspeter and I have set clear boundaries around the area that we manage. We have a direction and a clear vision of what we want to achieve, as a business but also as a family. We have a broader skill-set compared to when we started, and a wider perspective of what farming means to us. We have a standard routine that helps bring a certain structure into our daily lives. For me that is something I enjoy; with many different tasks, having a certain rhythm is quite important. And most of all I feel that the relationship dynamics have shifted from discussions

and ego-guided actions into very harmonic communication.

Our challenges

One big challenge on the farm is access to water. We are part of a water cooperative consisting of various farmers who have a common well, and we only have access to the water 3 times a week, and only from 3 pm to 6 pm. I don't want to irrigate through drip irrigation, and watering in the middle of the day in the summer isn't sensible. Some areas of the farm are very exposed to the heat, so evaporation and surface dry-out is quite intensive. Having put up tree lanes of semi-vigorous fruit trees will help in the long run, I think. It's difficult to get a different slot on the watering schedule, but that would be ideal. There are a lot of options as to what we can do, but it sort of works for now and we want to solve this issue in the best and most permanent way.

I guess the biggest challenge was really to establish good basic communication between all of us, where everyone gets to address their desires, feelings, visions and problems. I think that through a lot of arguing, shouting at each other, making peace again, and then some more arguing and misunderstandings and some more shouting at each other, we developed a better feel for one another and started to respect each other more. There is something about different generations being in the same boat. Starting all together as one team, we realised that to be successful, we would have to 'split up' in a way and have separate areas of management. To me, that was one of the biggest changes that pushed things in the right direction. With our son being born and with us taking on more responsibility and being successful in what we're trying to achieve with these unfamiliar techniques (no-dig), I have noticed a reaction to that in the older generation; they want to pass things on to us, and they are proud of us.

Plans for the future

There are a few things that we want to make happen:

- Find more time for family as well as time away from the farm.
- Get good at market gardening and perfecting what there is to perfect.
- At least double the revenue of the farm income.

- Start selling seedlings to private customers that come through the farm.
- Do cut flowers. There is a big demand for it, we just need to find the right customers.
- Expand to the last parts that are still empty and establish that area with more perennial plantings.
- Get some animals in for homesteading purposes.
- Slowly increase the diversity of processed products (cider, vinegar, more fermented foods)
- Maybe start doing microgreens during the summer months.
- Build an outdoor kitchen and an area to have pop-ups during the summer months.
- Have longer winter breaks.
- Create more permanent access to water.
- Start offering courses about regenerative farming methods.

Startup advice

I think the way we started was unique. We had land. All of us already had our own business or were building it, and therefore didn't rely on a farm income. We had lots of time, and also financial support from our families. What we didn't have was a solid business plan and the skills to do what we are doing now. We could live on the farm and didn't have any big expenses. It took us nearly 5 years to get to the point where we are now. I guess if I would have worked one or two seasons somewhere else, at a place that is similar to ours and have that sort of mindset, we probably could have done it in less than that. On the other hand, there was so much else that happened in those five years, like having a kid, renovating our apartment and establishing my own business. I must say I'm quite happy about how we did things. I think learning by doing is a very effective way to gain skills and knowledge.

So, if you don't have the same resource base, I could see the benefit of working at someone else's place to acquire skills. But even so, there will always be things that you will pick up on the way. So, my best advice is: make



What romantic moments look like after becoming parents.



The first harvest of the season.



An evening stroll through the market garden with the real boss.



The first patch of the herb garden.



One of the weekly boxes.



Inside the farm shop.

sure you are passionate about this and be sure you want to work hard and long hours. It's good to be financially solid and to have done a fair amount of research about what it is you want to manage. Start small and grow bigger over time. And think about what you want to spend your money on in the beginning. Other than that, do whatever brings you joy and happiness.



JAKOB HALLER AND LISA KAGER

Hof des Wandels, Italy

MAIN ENTERPRISES:

Market garden / Processed products

MAIN SALES CHANNELS:

CSA / Farm shop / Restaurants

AREA IN PRODUCTION: 1HA

STARTUP YEAR: 2020

STARTUP INVESTMENT: €28,478

REVENUE: €28,720

NET PROFIT: €242

website / instagram / facebook

