Farmer Profile: James Bucher

Hall Farm, Knettishall, Diss, Suffolk

Farm size
500 hectares

Manpower
2 full-time staff
- Sam and Stuart

Farm type
Mixed – Arable, Red Poll cattle and sheep for 6 months of the year

Tenure
Owner occupied

Region
East Anglia

Rainfall
660 - 710 mm

Altitude
100 - 120 m above sea level

Soil
Sandy loam

Approach
Regenerative agriculture and agroforestry

AGRICOLOGY
SUSTAINABLE PRACTICAL FARMING

WOODLAND TRUST

The farm

I’m a second-generation farmer. My father was born and brought up in Edinburgh. He fell in love with farming through visiting his uncle’s farm in mid-Norfolk, and then went to study at Harper Adams.

He carried on working on his uncle’s farm before the tenancy came up on this farm – 400 hectares (ha) of grassland with a Friesian milking cow unit, and he took that on in the mid 60s. He bought the land in the mid 70s, then in the late 80s, after being told he wasn’t earning any money and needed to get rid of “those black and white things,” he sold the cows and the milk quota, and the farm became a fairly traditional Brecks (Breckland) farm.

We’re on the edge of the Brecks here (just in Suffolk), so the land was predominantly ploughed up, and (common to many Brecks farms) was rented out to large vegetable producers, whilst farming some cereals and sugar beet. An abstraction licence was obtained from the Environment Agency to pull water from underground aquifers and the farm was set up to run like that.

> *From the late 80s, it was run as an arable operation with root cropping; sugar beet, carrots, potatoes, parsnips, sometimes onions… intensively growing root crops on some of the land every other year.*

With root crops, there’s a lot of tillage involved – sometimes ploughing twice in a year, rooting, stoning…

I came back to the farm in 2003 after having worked in Sydney, Australia for a while, then London for a few years, and decided I didn’t want to stare at computers or live in a city anymore. I told Dad I was interested in getting involved and started working on the farm, learning the ropes. We carried on running the intensive system until 2018. Between 2000 and 2018, we saw significant decreases in crop yields, we were putting more fertiliser on, and had more fungicide costs to try and maintain yields, which was really squeezing the margins. We were seeing yields drop on some of the land by up to 50%, and couldn’t blame that all on droughts or global warming! So in 2018, we decided to do something different, and looked at how we could start improving the soil…

We initially started growing cover crops in front of sugar beet, some spring cereals and some vegetables, but in January/February, we were being asked to spray them off and plough them in, and the whole system would start again… It felt like we were going one step forward and two back. We had also been experiencing very heavy rain, the land and soil structure was totally shot, the fields were getting areas where water just wasn’t able to percolate through, and we were getting run-off, significant soil erosion, wet holes, and areas where there was no good biology, no worms. They say the barometer for healthy soil is being able to find 14-16 worms in a spade-full of soil, we were struggling to find one!

We did cover cropping for a while, but felt like we weren’t moving forward fast enough. We gave the vegetable guys notice; 2021 was their last harvest, we haven’t grown vegetables here since. In 2021, I consulted with Ben Taylor Davis (aka Regen Ben) after hearing him talking with John Kempf on the Regenerative Agriculture podcast, and he came out to the farm… He’s from the UK and does some consulting work. I said we didn’t want to use fungicides, insecticides, plant growth regulators or seed treatments anymore, and wanted to cut back on synthetic fertilisers.

Ben has been on board with us since then, holding our hand through this difficult journey of going cold turkey from being very intensive since the 2021 harvest. We have seen yield losses. The first full year that we did this was the run up to the 2022 harvest and there had been a very dry spring and a really hot summer. We cut all our wheat by the end of July. The yields were awful, but we'd also had temperatures of 40°C, so it was difficult to apportion the yield losses to reductions in any one thing.

From 2022, we started looking at companion cropping and introduced legumes into the system. We then looked at what other crops we could grow. We try to have a reasonably broad rotation with diverse cover crops.

2022 was very hot and no-one really needed to use fungicides that year, but 2023 and 2024 were quite damp springs, and conventional agronomists who looked at the farm and walked through our wheats, were astounded by how clean they were without using chemicals. So the proof is there – if you go down the route of blends, you don't suffer. And if you can chuck in a companion or two, so much the better!

We're trying to farm with nature, bring diversity into the field, and reduce pest and disease pressures. Our silvoarable system that we planted in 2023 was designed with the same philosophy in mind. Reduced tillage is another thing we are trying to do... we have a low disturbance subsoiler we use sometimes, but often we just use our disc drill straight into standing cover crops and stubbles.

We took on Sam (our foreman) and Stuart when we embarked on our new direction of farming. They both come from very conventional backgrounds but have been brilliant, embracing what we're trying to do. They come to Groundswell with me every year, and whenever Ben comes on-farm, they always come with us, so we're all learning together. There are less tractor hours and less weekend work on the whole (apart from during harvest), so I think the way we're now farming benefits everyone, as well as the farm. It has not been an easy journey, we're the only ones around here doing it – there is a lot of vegetable growing and the payments you can get for renting land for vegetable growing are quite significant... £1000 per ha. But the damage to the land can be significant as well, particularly when crops are harvested in damp conditions. Compaction and soil erosion can be big issues... the nice pay cheque doesn't account for the work you have to do to put the soil right afterwards.

The bulk of our wheat goes to Wildfarmed – we've been working with them for 18 months. This year, we have a blend of 150 different varieties of wheat, Wildfarmed have taken some of it. We're finding with not using fungicides or insecticides, the blend acts really well as a pest and disease deterrent. We also supply a local artisan bakery called Woosters, who are a Suffolk-based family business. After visiting the farm, they said they'd like to try some of our wheat blend to produce a loaf. They're now selling the pesticide-free 'Knettishall wild loaf,' with an understanding of the story behind it. Whilst they were here, they saw our hens who were on a lovely field of clovers, trefoils and vetches.... We now sell them eggs as well as supplying them with about 4 tonnes of wheat. I love the local story. They're selling the loaf with our leaflet on Hall Farm Knettishall, and it's helping spread the word about how we're farming and hopefully encouraging other people to give it a go...

Photo by James Bucher

> *We rescued about 100 hens from in Kent – we move them about every 3 days*

When we signed up with Wildfarmed in the summer of 2023, it was an easy move as we already met their requirements, and we get a good premium from them for our crop – £285 a tonne for milling wheat. The initial remit with them was to grow wheat, but we also now supply them with barley, and some oats will be going to them shortly. We are growing wheat with beans, peas, linseed, clover, a vetch sometimes... Initially, you pledge a field for 3 years and there has to be livestock integration in those fields during that time. People commonly do that by growing a cereal, then putting a cover crop in and having animals graze a cover crop... On our light soils we can graze through the winter because we don't get damage from the animals, so our winter cereals are grazed as well. We produced a nice crop of wheat last year with quite high protein. We also grew some spring oats with some spring beans. Spring barley, which we have in the ground in the agroforestry field, is due to be going to Wildfarmed as well. They're doing a joint beer venture with a brewing firm down in London, supplying them with pesticide-free spring barley and our oats are going up to a mill in Scotland for oatmeal.

We started working with Hodmedod's 3 or 4 years ago... We did produce a very small crop of lentils, but it's mainly been the carlin peas that we have supplied. They are sold to Bold Bean Co and also to Holland & Barrett. We'll carry on growing the carlin peas – they're delicious to eat, full of protein and so good for you! We've tried growing linseed for a couple of years, it's quite a low input crop which suits our system, and very good for building soil health, but it's not very competitive so really hard to grow without any herbicides. We've had problems with grass weeds on one field and have had to spray it which has put the linseed back a bit. The linseed at the moment is going to a business called Premium Crops.

There's a yield penalty for farming in the way we're farming, but I feel like the margins are greater because we're not using the costly inputs that conventional growers are using. We probably get 5-6 tonne per ha on our winter cereals. Previously the farm was averaging at 6 1/2 to 7 1/2 tonne per ha, so we're now about a tonne lower.

> *We have about 25 Red Poll who are currently calving. We've only had them for about 15 months. We were keen to have a native breed, they calve relatively easily and are pretty hardy.*

They're outside 365 days a year and I just think they're beautiful animals. We're really happy with them but think going forward we probably wouldn't increase the herd much because they take up quite a lot of management time. We would look to produce some beef and market the beef under the Hall Farm logo Knettishall... we're trying to build our brand. They've been on herbal and legume leys and grassland, but this coming winter or early spring, I'd like to try and introduce them onto some of our arable crops and run a much more proactive grazing regime where we're mob grazing – and hopefully bring benefits to the soils and plants. We would also like to integrate them a bit with sheep. We have a neighbour who has been grazing sheep on our winter cereals and cover crops for about 6 years. Different animals grazing in different ways provoke different responses in the soil, so that's the route we'd like to go down.

Prior to 2003, we weren't involved in any stewardship. My dad was running the farm how the Government had asked to farm over the years, fairly aggressively, up to the ditch edge and the hedgerows etc. A year after I returned to the farm, we joined the entry level scheme (as it was called then) – a 5-year scheme, then in 2009 we

joined the higher level scheme, and put a 10 year agreement together with the RSPB. It involved pollen and nectar margins, we overwintered a lot of stubble, put some wild bird food mixes in, planted some hedgerows... In 2019 when the scheme finished, we joined the mid-tier stewardship scheme. FWAG who we were working with at the time advised mid rather than higher tier would be better for us. We've come out of one mid tier scheme and we're now a year and a half into the second...

> *With the new scheme, we've added in cultivated margins, more winter bird food mix, and have plans under the Countryside Stewardship grants to plant another 6 or 7 kilometres of hedgerows.*

We are seeing wildlife constantly improving... Under the sustainable farming incentive (SFI) (joined initially in 2022), we have been able to get payments for not using insecticides, companion cropping etc. – £100 a ha for those two options straight off. We also managed to get a payment of £380 a ha for low density agroforestry, which was a big incentive for implementing the silvoarable site – we realised we would get a good bit of money from the field straight away. The SFI was a great encouragement for growers to move away from conventional growing to more sustainable methods...

I feel like we've become more resilient – our soils are definitely more resilient. We're reducing the need massively for irrigation because we're not cultivating, we're keeping moisture in, not drying soils out, using cover crops to break any compacted layers, and we're less reliant on artificial intervention than we ever were before. With all the diversity now in our fields, there's nothing that really feels like a boundary, it's a more integrated approach, and we're seeing more numbers of birds and new species, so we are definitely doing something right...

The silvoarable field with wooded area beyond

Sustainability in practice

Spring barley and linseed in the agroforestry field

Companion cropping and cover crops

Since 2022, we have tried growing oilseed rape, carlin peas, chia, linseed... We're still trying linseed, we've tried borage in a couple of fields, lentils... We've had small piles of different crops lying about over these last couple of years and with the slightly limited storage space we have, it's quite challenging to manage. So from last harvest, we decided to get rid of some of the niche crops and look at growing oilseed rape with white clover and vetch and buckwheat, wheat with beans or wheat with crimson clover, beans with spring oats, spring barley with linseed, peas with triticale, linseed with buckwheat and clover, and some spring wheat as well. With winter wheat, we're growing blended wheat. We're growing fewer crops, but always growing them with companions. As of the last 2 years, we have found that it is a fantastic way of mitigating pest and disease pressures.

Wildfarmed specify growing under certain parameters – you're not allowed to use any pesticides and about a third of what a conventional grower would use of synthetic fertiliser. You have to apply nutrition based on SAP analysis, aiming to keep the plants as healthy as possible. More often than not, rather than nitrogen (N), it's magnesium, boron, perhaps some silicon that we're lacking, so we tend to apply those trace elements during the growing season which also help the plants withstand pest and disease pressures. Wildfarmed also specify growing wheat crops with a companion.

They've tried to introduce new crops for us to grow, adding to the diversity. With Wildfarmed and other customers, our cost is cleaning the wheat. They'll pay us a good price, but we incur a £25 a tonne cost for getting the wheat cleaned (removing the by-crop). We are considering growing wheat with linseed next year. We can set the combine up to blow the very light, small seeds out of the back so they won't be in the sample. It would be nice to get away from having that separation cost.

We wanted to grow cereals with legumes mainly because of the ability of legumes to fix quite significant amounts of N in the soil, which benefits the companion crop and fixes N for the next crop.

There are other benefits from carlin peas – the cereals provide a scaffold for them to climb, (otherwise they can end up going quite flat on the ground which can prove quite challenging at harvest time). We have been experimenting with the seed rates, the first year, we applied 40 kilos of triticale, which wasn't enough, 60 last year, 80 this – it looks to be quite a healthy population, we don't want to out compete the peas. Next year, we might look at planting crimson clover with the wheat. It is quite low growing again, with a very small seed. We've seen with white clover when it remains as a green understory under the stubble, it soon gets going again with daylight and provides great food for the sheep or cows. It also benefits the cash crop through fixing N, acts as a weed suppressor, protects the soil from sunlight, and provides biodiversity benefits from the enhanced insect life...

Above: Cereals provide a scaffold for the peas to climb. Photo by Janie Caldbeck

De-risking the business

We now only occasionally use a herbicide on some crops and always try and plant a cover or catch crop within 3 or 4 days of harvesting a crop and keep soil protected right through the winter, or even just for a couple of months until we plant an autumn-sown crop. I suspect we will go down the route of more spring cropping because we're seeing grass weed problems. Growing more spring cereals where you can plant them in March is often a good way of reducing that pressure. We may look at growing multi species cover crops between August and March, then planting a spring cereal... I think having animals on the farm, from a sustainability point of view, is also helping to derisk the business – beef prices are very good at the moment.

We are on the verge of completing a Biodiversity Net Gain project with a business called Environment Bank. We've taken a fairly unproductive field which equates to about a twentieth of the farm and have pledged it. Although we haven't yet signed on the dotted line, it will be a 30-year agreement whereby they manage it, create the habitat, and we get a rental payment per hectare for the field, which is good at today's prices – it's a guaranteed return. With unpredictable weather and commodity prices, it's nice to have some surety. On the back of that, we might be able to look at some glamping and bird watching opportunities.

People ask me, are we being risky farming the way we do? And my argument is I suspect being conventional is more risky because the costs are so high. You reduce the risk through diversity across the board.

Diversity across the board

Lime tree in the foreground

Agroforestry

Besides our 13-ha silvoarable site, whilst probably at least a third of the farm borders natural heath (which is very wooded), there isn't much woodland on the farm – perhaps 4 ha. We've put in about 2 ha of trees through the England Woodland Creation Offer (EWCO), a Forestry Commission initiative. We planted 3 blocks of woodland a couple of years ago, and we've planted a lot of hedgerows with infield trees every 20 metres (m) or so. We've also planted some standalone lines of trees alongside some of our field boundaries.

We farm around an old Second World War air base and it is quite exposed, so we have planted 6 – 7 kilometres of hedgerows since 2009. We have really good numbers of hares, skylarks, grey partridge, corn buntings, yellow hammers, they quite like the open air environment that we have up there, so I was mindful of this and was advised by the RSPB to not put trees everywhere, as it wasn't necessarily going to benefit all wildlife.

Silvoarable site background

Farming around what was an old air base, it can be quite exposed and bleak at times, and I was keen to change the landscape and do something innovative and creative, with a bit of a wow factor... We went to see John Pawsey's agroforestry system at Shimpling Farm that he had just put in (and was having massive problems with deer), and Stephen Briggs and Wakelyns as part of the 2023 Agroforestry Open Weekend. Wakelyns is amazing. It's incredible to think that it was implemented over 30 years ago. Stephen Briggs set-up is great, very different. He runs it as a commercial, quite intensive enterprise (unlike us, he's a tenant farmer, and probably making pretty good money out of the apples).

It was again amazing that he had the foresight to implement it 20 years ago. His tree rows are about 2 m wide, and he was farming right up to that. We wanted to have larger spacing for the trees to sit within before we started cropping anything.

Wakleyns convinced us that we wanted to be more diverse. One of the guys from Wakelyns (who had taken us on a tour when we visited) came over to the farm and advised us on which tree species might do well in our area and soil, which Sam then took up and we liaised with the Woodland Trust in planning the whole project. The Woodland Trust have been amazing, they've paid for everything bar the labour.

> *Previously the field, like a few others on the farm, had been in a conventional, fairly intensive, root cropping rotation, and farmed hard until 2021.*

It has some of our lightest soils so it's the sort of land that the vegetable growers like, because it can be aggressively farmed and never gets too wet. It's not moisture retentive on the whole but we're looking to try and build organic matter with the way we're farming now. When we farmed more intensively (with more tillage) in the past, the site was very prone to wind blow. We used to lose a lot of topsoil off it. If we were still farming more intensively, the trees would definitely be beneficial in preventing that from happening. Who knows what will happen in the future 50 or 100 years time, but hopefully the trees will still be there, and they'll do a really good job of reducing any risk, in whatever way the land is being farmed.

Planting design and method

I liked the slopes and undulation of the field we chose, and when the guy from Wakelyns came out, he spoke about the benefits of having a north/south orientation which this field lent itself well to (we originally looked at planting on a field that would have had an east/west orientation). We have irrigation on the farm (although we don't use it so much anymore), so we also wanted it to work in with where our hydrants are and how we irrigate the field.

John Pawsey recommended Sam Morgan (who had helped push his project over the line) to help with the design. Sam visited and we discussed what we wanted to achieve, which was basically a big mix of trees as we do with our wheat blends and other crops on the farm.

We knew we wanted the trees to sit within at least 4 m flower-rich strips (our drills were 4 m wide) and decided that they would need to be at 24 m intervals across the field because our sprayer is 24 m wide. It's really important to work the layout to your kit. So we measured the field, and worked out that we could plan for 8 rows of trees, and decided that 4 of the rows (every other row) would be under a short rotation coppice. Sam (our foreman) mapped it out using GPS and then drilled the rows. We started from the woodland side, and he drilled the 4 m strips with a pollen and nectar mix. We then followed up a few weeks later with planting the cash crops in between. I would say that you need a minimum of 4 m for your flower-rich strips, so that the tree roots are, to a fair degree, protected from whatever you're doing in the field. We still do use some herbicides, so avoiding getting any spray drift on the trees was also important for us.

> *We planted about 2000 trees at 5 m intervals. It was very much a team effort; family members, Sam and Stuart, external contractors... The Woodland Trust provided all the materials.*

The willows... Photo by Janie Caldbeck

Below middle: Willow woodchip around a tree base – helping with weed suppression, moisture retention, and hopefully some fungal introduction to the soils.

Below right: There isn't any one of the same tree next to each other,

We planted all the apple trees last winter (2023/24), and every other fruit and nut tree this winter (2024/25). With the exception of the willow, there isn't any one of the same tree next to each other, so real diversity, and hopefully that will help mitigate disease pressures, we'll see!

The native standards are 2 m apart, and they are species such as oak, white beam, silver birch, cherry... trees that do quite well on our sandy soils. We also planted 200 willow in the coppiceable rows, which Sam thought may struggle to take with our dry soils. But we planted them two thirds of the way across the field, in the lowest and hopefully dampest point, and they're actually doing quite well. We planted them at every half metre (as advised by Sam), in a staggered row.

With each tree, we sprayed off a circular area of about a metre diameter, planted the tree, then put some willow woodchip around the base to try and keep the moisture in. It also acted as a bit of a weed suppressor and is a great source of fungi. We're trying to gradually get more fungally dominant soil generally, after having been very bacterially dominant with the way we used to farm with the use of heavy tillage and pesticides etc. Introducing fungi to the tree roots will hopefully help boost the fungal network across the farm and provide those plants with nutrition and water from much greater areas than the plant roots can alone.

Cash crops

We wanted to plant a diverse mix of cash crops that would be suited to the soil and would also be a nice illustration when showing people around of what we are trying to do on the farm. We might put in some herbal leys, because I would like to see more livestock in the system, but we'll probably still retain some arable crop rows...

> *The original plan was to grow different crops in each row, but a couple of crops failed, so we ended up not doing that totally. The first full row is oilseed rape, which we grew with vetch and buckwheat.*

We have spring barley (variety laureate) in another row, which we've grown with some linseed, and wheat which we grew with peas (for Hodmedod's)

With the triticale and peas in the agroforestry field, the idea is that the peas can climb up the plants and make life easier (and less costly!) for the combine driver.

In another field, we grew a winter wheat blend with beans, and we grazed it with sheep in late February. We found that the sheep like the beans, so they've eaten the beans and some of the wheat, but the beans haven't returned. In this situation, maybe we can just harvest a single crop.

We spread some farmyard manure (FYM) on the 24 m rows in March. We do use some synthetic fertiliser, but we top it up with FYM where we can.

The white in here is a bit of oil radish that's a legacy from a cover crop from the previous year

With the triticale and peas in the agroforestry field, the idea is that the peas can climb up the plants and make life easier (and less costly!) for the combine driver.

Right: A triticale – destined to go to an Anaerobic Digester farm

Pollen and nectar mix

We had some seed left over from planting elsewhere on the farm which we planted to add some biodiversity value. We thought some flowering strips would be nice for the pollinators and aesthetically. It was predominantly a legume mix, with some vetch, two or three different varieties of clovers, trefoil, phacelia... quite pretty if you can look past the brome!

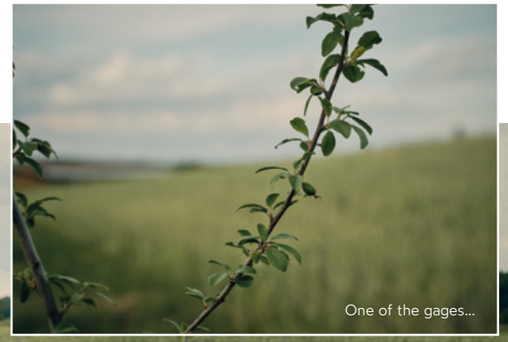
Species choice and management

Diversity and using native species were our priorities. The native standards in the coppice rows are all species that do quite well in this area i.e. sweet chestnuts, oaks, whitebeams, cherry, silver birches...

> *Having seen Wakelyns and Stephen Briggs' set-up, we knew we wanted to be able to coppice some trees because of already having a composting operation and woodchip boilers, as well as wanting to do more hedgelaying on the farm.*

We also wanted to include fruit and nut trees. Hodmedod's are very interested in taking the nuts, and a local farm shop that really love what we're doing on the farm are keen to take the fruit... We've gone with a big mix i.e. chestnuts, almonds, walnuts, green gages, apples, plums, apricots...

Below: Fruit and nut trees



One of the gages...

Sweet chestnut

We did discuss that it may be better from a picking point of view to kept species together, but went with mixing them up! I always get asked, who's going to pick them? Perhaps we will go down the route of pick your own...

The fruit and nut trees shouldn't get too tall, not in my lifetime! With the coppice species, we don't necessarily want 30 m tall trees, so I think we will maybe get to a stage of pollarding, like they do at Wakelyns... In a few years time, when we're able to coppice some of the hazels, we can chip it and use it and the willow in composting, or use it in one of our wood chip boilers as fuel. We could consider either selling it for laying hedges, or using it ourselves.

Tree and shrub species

Native tree species Crab apple, hornbeam, oak (common), rowan, silver birch, sweet chestnut, walnut, wild cherry

Native shrub species Hawthorn, hazel, holly

Fruit trees Eating apples, mixed varieties, cherry, mulberry, apricot, damson, plum, gage, miracot, pear – mixed varieties, quince, medlar

Nut trees Sweet chestnut, hazelnut/cobnut, almond

I suspect the hares could have damaged some of the trees, but not as much as deer!

Tree protection

We are considering protecting the whole field with a stock fence with an electric wire along the top to keep the deer out. I think the field is fairly well muntjac proof, but roe deer being bigger, I suspect not... We have a guy that shoots a few but I think we need to do more. There is apparently a spray you can spray on the leaves which they don't like the smell of...

We have put in a support stakes at an angle with each tree, trying not to interfere with the roots, and protective guards of black mesh around them (see below). We were encouraged to add the guards to counteract any potential vole damage, but a roe deer is going to get at it, and that is what has been happening! Last winter, we added some wire mesh around a few of the biggest trees, but discovered that it's then difficult to get in to prune them.

We have experimented with various tree guards – we found that when we had some sheep in the field (having got out of their electric fence), they broke the bottom of the brittle guards and were eating the hazel plants.

> *In a few years time, when the trees are bigger and more resilient, we should be able to rip the guards off, but I may still protect the bulk of the trees... watch this space!*

The Woodland Trust provided us with some biodegradable guards and later some plastic ones (after they were broken by muntjac). It's not great to use plastic but we're going to continue to plant trees on the farm, so can keep reusing them.

Apple tree with support and protection

Hazel peeking through the top of one of the biodegradable guards

Right: You can see the signs of what is likely to be drought (unproductive pockets) quite clearly from above

Challenges

Planting the trees (in the wintertime) was a lot of hard work! The fruit trees were lovely big trees (they were supplied in 10 litre tubs), but you had to dig a fairly big hole, put wood chip around it, add a post, mesh... it's a lot of work, but is very rewarding... It probably took longer than we thought it might take to put them all in.

Going forward, drought is always an issue. We have watered the field once this year, pretty much solely for the benefit of the trees, obviously I want to keep them going in the first few years... Last spring was quite damp but we still lost about 25% of the hazels in the agroforestry field.

I'd like to think we've reduced the pest and disease pressures by mixing the different tree species, but then with that comes potential issues at harvest – when someone wants to go and pick the plums, and has to wander 300 yards to the next plum tree! With the different apple varieties, there's going to be a real mix... The very learned might be able to tell a russet from a cox, but it's likely that all the apples will be collected together, particularly if we go down the route of pick your own. Maybe we could press all the apples and sell the juice...

With regards to the cash crops, because we've grown vetch as a companion or cover crop in a mix for a number of years, we do see a lot of vetch on fields where we didn't necessarily plant it. Whilst it's pretty and good for pollinators, it will probably mean that there will be a cost at the end of the day to separate the vetch out – particularly with growing crops for human consumption, rather than animal feed. But we've got a local seed merchant who's happy to do it. It costs money, but he does a really good job.

Motivations and future goals

The decreases in biodiversity and my keen interest in nature have definitely triggered my interest in how we're farming, along with seeing the damage we've done over the years and how that's affected yields and wildlife on the farm. The light bulb moment was walking across our grassland areas one winter's night with a torch and seeing all the worms shoot back in, and as soon as I got to the arable field, there was nothing. When soil is as dead as that, you have to feed it artificially, because there's no relationship or symbiosis going on in the soil. The great thing now is with businesses like Wildfarmed and Hodmedod's, they are keen to push that message and to try and promote how we're farming. I'm much more proud now of what we're doing on the farm and love showing people round.

> *We are hosting increasing numbers of school visits and farm tours.*

I intend to continue to try and keep de-risking the business and get away from trying to grow food for food, and feeling obliged to grow food when it's really hard to make money out of it. I would consider planting more trees – the agroforestry field is my favourite field, I love it! If we were to do it again in another field, I would look at putting some herbal leys in and integrating livestock into the system who could graze between the rows and from the trees – and potentially create a sort of buffet bar of coppiceable species, having rows of trees i.e willows, hawthorn or crab apples, that cows particularly like eating to maximise on the benefits that can give them through having a diverse diet, and potential medicinal benefits. The livestock would act as coppicers.

I may also consider more habitat creation through a landscape Recovery Project that's part of a cluster group here. We are so at the mercy of global markets that you just can't plan, and it's nice to have some surety in what you're getting paid for. We will continue to keep the best land for cash crops, and we may do something different with some of the smaller bits of more marginal land, such as installing solar panels. I know that's very controversial, but the returns are potentially really attractive to a landowner. What's worse? A field of solar panels on a herbal ley, let's say, and having the field grazed by livestock, or having an intensively grown crop of potatoes?

Farmer tips

- ✓ Spend a lot of time thinking about what trees you're going to put in. What are you trying to achieve... a secondary income stream through fruit and nut, or do you intend to coppice?
- ✓ Bear in mind trees grow quite fast, so you might not want to grow trees that get tall very quickly if they're going to potentially prove a problem for shading etc.
- ✓ For me, diversity is the key in all forms of farming, particularly agroforestry. Go for a diverse mix which will help reduce your pest and disease pressures.
- ✓ Plant in a north/south orientation. Plan your project based on how you manage the field, including your machinery capabilities.
- ✓ Just do it, it's fun! The agroforestry is probably the most rewarding thing I've done on the farm. It makes me feel good about life.

This profile was created by Janie Caldbeck on behalf of the Woodland Trust

With very many thanks to James Bucher, and Duncan Elliott for the photography and drone footage

Me with my trusted companions, Malcolm and Simba

AGRICOLOGY
SUSTAINABLE PRACTICAL FARMING

WOODLAND
TRUST

The Woodland Trust is a charity registered in England and Wales (No. 294344) and in Scotland (No. SC038885). A non-profit-making company limited by guarantee. Registered in England No. 1982873.

Trent Lodge, Stroud Road, Cirencester,
Gloucestershire, GL7 6JN

Registered in the UK as Progressive Farming Trust Ltd.

Company: 1513190 | Charity: 281276 | VAT: GB314 6681 59

agricology.co.uk | **woodlandtrust.org.uk**