

CASE STUDIES

Scroll through for a selection of case studies for each treescape. Find out how farmers are changing their practices to incorporate hedgerows, how a community created an orchard and how tree cover in urban areas is on the up.

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Woodland



Natural Flood Management of the Blenheim Estate

The Queen Pool on the Blenheim Estate regularly becomes clogged and needs to be dredged. This is caused by sediment run off in the Glyme and Dorn River Valleys further upstream. To address this, Blenheim plans to plant 141 hectares of catchment and riparian woodland in the Dorn Valley. The trees will be planted on land that is currently cultivated. Local construction firm Morgan Sindall will provide part of the funding.

The Queen Pool SSSI on the Blenheim Estate steadily silts up requiring periodic dredging. This is largely caused by sediment run off from the Glyme and Dorn River Valleys further upstream. To help address this, Blenheim plans to take 152 Ha of arable fields along the valley out of production, planting them with 136 hectares of mainly broadleaf woodland. International UK construction firm Morgan Sindall will provide part of the funding.

Water quality in the area is poor due to high phosphate levels, soil erosion and sewage discharge. The trees will help reduce runoff, and in the longer-term, deeper root systems will enhance percolation into the soil, helping groundwater recharge in the winter.

One of the central aims of the project is to provide new publicly accessible woodlands. The area is already criss-crossed by 6 footpaths and the proposals develops a 16 km circular path from Blenheim Palace by linking the existing footpaths with 6km of new permissive paths through the woodlands. There will also be a Forest School centre providing outdoor learning.

The new woodland is designed to enhance biodiversity with over 25 tree and shrub species being planted helping to link and expand a range of woodland and shrub habitats. Rides, glades, and open areas over 11% of the project will be seeded with grass and wildflower mixes. Tree species will be predominantly native, broadleaf, and climate resilient based on 2050 and 2080 climate predictions.

The project is also expected to sequester 28,000 tonnes carbon over 25 years and up to 69,000 over 100 years, both through tree planting and removing land from cultivation.

The site will host research by Oxford University into carbon sequestration and soil carbon, trials of alternatives to plastic tree guards and squirrel control trials.

Jobs will be created via the planting, maintenance, and management of the woods, and at the Forest School centre.







June 2009 April 2017 May 2020

Natural Regeneration in the Cherwell Valley

Some areas of land may lend themselves to natural regeneration rather than tree planting schemes as they are less productive or difficult to farm.

The owner of this 10-hectare, field decided to pause farming operations about 10 years ago. The three photos show how shrubs and trees have regenerated naturally and become well-established at the site over time.

The local geology means there are springs in the area which made the ground so wet farm machinery was getting stuck and soil was being washed away down the sloping land. As well as eroding the soil resource, soil erosion affects water quality and can cause harmful nutrient issues in streams and rivers. As this was unproductive land it was not much of a loss to food production and farm income.

When allowing a field to naturally regenerate, what will grow and how quickly it will become established is hard to predict as every location is different.

Sites which are near existing deciduous woodland will have a ready source of seed and the wildlife in the woodland will distribute it. This has the added benefit of extending precious ancient and existing woodlands. Allowing trees to grow from the natural seed bank in the ground will encourage trees that are native to the local area, promoting biosecurity and variety making the woodland more resilient.

Grassland



Restoring Species Rich Calcareous Grasslands

Species-rich grasslands are not only biodiverse but are also an intrinsic part of our natural and cultural heritage. Oxfordshire has some of the rarest and finest grasslands in the country.

Calcareous grassland dominated the chalk hills of Southern England for many centuries, and was widespread until the 1940s, covering many of the steeper slopes in the Chilterns, the North and South Downs, Salisbury Plain and the Lincolnshire and Yorkshire Wolds. Little now remains.

Oxfordshire's calcareous grasslands support nationally important rare plants, including the bulk of the UK populations of downy woundwort, meadow clary, early and Chiltern gentian as well as three of Oxfordshire's rarest butterfly species, the Adonis blue, the silver-spotted skipper and the Duke of Burgundy.

Swyncombe Downs SSSI (46.4 ha) is an exquisite part of the Oxfordshire Chilterns, renowned for its chalk grassland and beech woodland at the eastern end of the site, and its scrub and bird communities. It is outstanding for its butterflies and moths. During the 1980s the site suffered from a lack of grazing which resulted in significant habitat degradation, but over the last 20 years the current landowner has worked tirelessly to restore it.

SSSIs are intended to protect small islands of remaining high-quality habitat and landowners are legally obliged to manage them appropriately. But where real gains start to be made is where landowners stop cultivating adjacent parcels of land and bring them into conservation management. The Swyncombe Estate has done just this with 32.5ha of arable land. With careful grazing management and natural regeneration, this has developed over time into good quality, species rich, semi-improved grassland with herb-dominated swards. Additionally, during the last 10 years neighbouring landowners in near-by Greenfield and Christmas Common have won awards for reverting 14.8ha of arable land to meadow through flower meadow creation.

Hedgerows



Mapping and Managing Hedgerows

Watlington Climate Action Group have teamed up with national hedge expert Nigel Adams to survey the hedgerows in their parish. They want to discover the condition and length of local hedges and, if asked, to provide management advice. They are also looking for opportunities to plant new hedges and hedgerow trees. The group feel very fortunate that the majority of local landowners have allowed access to survey the hedges.

The parish of Watlington straddles the western edge of the Chilterns Area of Outstanding Natural Beauty. The Chilterns has many well-established tall, wide hedges with wide field margins. These provide one of the best farmland habitats for wildlife that it is possible to achieve. Some of the hedgerows contain up to 15 woody species including hawthorn, hazel, spindle, wayfaring tree and elder, and are up to 10 metres wide reflecting their great age. They are rich in bird life, especially songbirds such as yellowhammers and corn buntings, as well as the more familiar robins, blackcaps, greenfinches and goldfinches.

Hedge management is often seen as an annual tidying exercise using mechanical strimmers. But they are often too heavily cut. Light trimming is preferable, ideally to an 'A' shape. This better supports fruits, birds, small mammals and insects. Gaps in established hedges can also be filled with a range of native hedge or tree species: the more variety the greater the number of habitats and food sources supporting wildlife. Leaving trimming until January or February allows birds and small mammals to feed during the coldest months when other food sources are scarce.



How a Cumbrian Farm saved £18 a Ewe

Adding hedgerows to a livestock farm can increase its productivity.

Paul and Nic Renison moved to Cannerheugh farm in 2012. The farm has rough grazing, improved pasture and a. small area of established woodland. It is home to between 900 and 1000 ewes, 30 suckler cows and 70 dairy heifers.

Paul and Nic decided to change to a 'mob grazing' system with a view to improving farm profitability. Small fields of just over 1 hectare were created using hedgerows. These are grazed intensively over short periods of a day or so, and then left to recover. The sheep are forced to eat all the plants on offer reducing their ability to be selective. The animal waste from grazing increases soil fertility. Feed and fertiliser costs were reduced by £18 a ewe within five years.

Combining mob grazing with new hedges and trees also led to better grass growth over a longer season as the provision of shelter increases the soil temperature in early spring and late autumn. And by providing new shelter for livestock on the farm, Paul and Nic have reduced lamb mortality.

The mob grazing system has improved the farm's productivity by concentrating on soil health, sward diversity and shelter, but has also increased biodiversity across the farm. The trees and hedges are part of a productive farm system which also works sustainably with nature.

Article excerpt and images reproduced by kind permission of Farmers Weekly. Photos Michael Priestley. Read the full article at

https://www.fwi.co.uk/livestock/sheep/how-a-cumbrian-farm-saved-18-a-ewe



Robert Crocker on his Oxfordshire farm; photo credit: Richard Lofthouse

Why One Farmers Wants to Create a Hedgerow from Oxfordshire to Cornwall

Robert Crocker is part tenant, part owner of 450 acres just west of Oxford city. His own property Glebe Farm is a mixed arable and pasture farm with a beef herd. It was owned by his father before him. Robert converted his farm to organic fifteen years ago, with the help of an arable conversion grant. Some land is now in countryside stewardship, which includes support for Robert's styles of hedge management.

WHY HEDGES?

Robert sees himself first and foremost as a food producer, but he is passionate about hedges, and the benefits that they can provide for agriculture and wildlife. His style of hedgerow management fits within his farming business.

Robert is keen to see more and better hedges on his own and other farms: "the hedge is a huge asset. It offers a windbreak, shelter for my beef herd whether from the sun or from the rain and wind and snow, huge pollinator benefits. I cannot prove that my hedges contribute X to the bottom line, but I can estimate the loss if they were taken away."

Robert talks about how hedges can act as corridors across the country for wildlife: 'If you take hedgerows as an item, they're the bit that links everything else together, and given that we've lost about 50% of the hedges that ever existed, we still have over a quarter of a million miles across the UK.'

Robert has hatched a scheme with one of two farming brothers in Cornwall: to link a single unbroken hedge from Cornwall to his farm in Oxfordshire. It's an ambitious project but creating links across the landscape with hedgerows can be hugely beneficial for nature, and is supported by Woodland Trust and Countryside Stewardship hedgerow funding.

Since 2016 Robert has been trying to spread the word among farmers across the country that managing hedges to provide these benefits does not need to be complicated. As well as benefits



Robert's beef cows benefit from the protection that hedges provide from sun, wind, rain and snow. Photo credit: Richard Lofthouse

for agricultural production, "they also support nature and wildlife, noise suppression, tourism and mental health in the broader sense".

HEDGEROW MANAGEMENT

Robert has been managing his hedges in different ways across the farm for decades. Some were planted ten years ago and now form a hawthorn-dominant native English hedgerow with standard trees at intervals. Others are the grown-out product of pre-existing hedges and are wider and thicker. Robert does maintain these, but only selectively to a copious 'A' shape. Still others he has decided to cut and lay to a traditional hedge laying principle, using a professional hedgelayer.

He recounts, 'these decisions were not from nature idealism; they stemmed from the fact that heavy Oxfordshire clay grade 3 and 4 soils are not the place to grow grain. I was throwing chemicals at them, but the reality is that you get three good years and then it falls off. Wrong crops, wrong place.'

Robert understands that annual cutting of hedges is routine for many farmers, but he thinks that in time attitudes will change. Here's how he suggests hedges should ideally be managed:

"Let them go for about three years, so you can see what you've got. Then trim, but to a big A-shape or other 'copious' formula.

Let your standards grow; you can selectively coppice faster growing species such as ash, sycamore and elms if needed.

Let the heavily fruiting varieties such as the crab apples grow. Bats and swallows love these sorts of hedge. The fruit never happens in a flailed hedge because the species are devoting all their energies to repair and regrowth – fruits are only produced on stems at least a year old, so if you cut them back every year you'll miss out on the fruit.

Many of my standards are junior oak trees, 30-40 years old. If the hedge gets away with itself you'll instead have a linear copse which is also fantastic.

In some boundaries I have allowed linear copses to develop, in others I have shaped and maintained the hedge to a copious 'A' shape, and then in a third instance I have instead cut and laid the hedge. For that I employed a well-known, prize-winning hedgelayer, who I found through the National Hedgelaying Society. That is beneficial because while the hedge is a textbook case of 'neat', the way the pleachers grow back is 'dense' and forms the future structure of an immensely biodiverse hedge.

The grant only paid for 50% of the hedge laying cost so it remains expensive and difficult. But balance that with not needing to flail it for maybe a decade – that's a lot of financial saving on diesel."

This hedge was professionally laid; care was taken to retain some standard trees, and it has been protected from stock by barbed wire fencing. Photo credit: Richard Lofthouse.

WHY DON'T WE HAVE MORE HEDGES?

Thinking about the bigger picture across the country, Robert acknowledges that hedges are a total waste of time seen from within a post-war farming mindset. They require effort and fuel for maintenance, but bring in no money beyond relevant grant funding.

Being more tenant than owner by acreage, Robert understands that the picture is even more complicated for tenant farmers: 'if you own the land you decide, so it's much easier.' Robert has received grant funding for hedge management on some of his tenanted land, as his principal landlord agreed to a Higher Level Stewardship (HLS) agreement some years ago, but this is not something that will always be possible for tenant farmers.

Also, agricultural subsidies are changing: 'We are all to some extent waiting on the transition from the Basic Payment to ELMS, with the Sustainable Farming Incentive (SFI) allowing for hedges among other progressive measures.' The Countryside Stewardship scheme remains open to new applicants, but the hedgerow standards within SFI are not due to be published until 2023, leaving many farmers unclear on how they can be supported for hedgerow management.

Despite these challenges, Robert still sees hedgerows as the way forward, and is keen to continue promoting them to other farmers. Oxfordshire Treescape Project is helping him with this aim: working with Google and Oxford University, we are mapping hedgerows across lowland England. Robert has offered to trial the new mapping on his farm, bringing an invaluable data source a step closer to being reachable for many more farmers.

Written in collaboration with Richard Lofthouse.

Agroforestry and Farming



Farming in Three Dimensions

Stephen's farm is the UK's largest agroforestry system. It consists of 4,500 apples trees in rows with spring wheat, barley and oats and winter wheat grown in between. The trees are planted in a North-South orientation at a density of 85 trees a hectare with 24m arable alleys between them, wide enough for a combine harvester. The 3m wide strips of trees are under-sown with pollen and nectar mixes.

Stephen had to work within a 15-year tenancy and provide a reasonably quick income stream. He chose apples rather than a hardwood or nut crop such as walnut, as the trees mature more quickly. Productivity from the fruit crops is roughly the same as from the field crops, on a per unit area basis.

"WE'RE USING THE SPACE ABOVE THE GROUND AND BELOW THE SOIL IN A MORE IMAGINATIVE WAY" SAYS STEPHEN. "WE'RE FARMING IN THREE DIMENSIONS."

The trees have helped boost conventional crop performance by reducing soil erosion from wind, creating better drainage in winter and creating microclimates which support moisture levels in dry periods. With two crops a year taken off the same land at different times, he points out he is harvesting more sunlight for longer.

Stephen had experience of agroforestry from working abroad. Looking at a future with warmer UK climates, Stephen calls this "climate-smart" farming. Combining annual and perennial crops have helped to mitigate the increasing risks associated with extreme weather events. Meanwhile he is making better use of his soil, fixing more carbon and reducing nitrogen leaching. Adding new woody elements to his cropping system has also improved levels of beneficial fungi in his soil and biodiversity has flourished on his farm with recorded increased populations of beneficial insects and bird species.



Integrating Bioenergy and Livestock Production

Elm Farm was the base for the Organic Research Centre from 1980 to 2019 and is now privately-owned. The farm sits within a wooded landscape in the North Wessex Downs Area of Outstanding Natural Beauty. It has approximately 9.5 kilometres of large traditional mixed species field boundary hedges. The soils are mainly Wickham Series poorly drained clay loams, susceptible to structural damage which limits the range of agricultural activities.

An innovative alley cropping system integrating short rotation coppice for bioenergy with livestock production was established in April 2011. This used an alley-cropping design with tree rows running north/south, planted in twin rows 0.7m apart with 1m between trees, with an initial density of 1,000 trees per ha. Willow was chosen as it has a dual value as both a bioenergy source and a livestock fodder. The second species was common alder which fixes nitrogen and coppices well.

The system allowed the farmhouse and buildings to be entirely self-sufficient in fuel, while also providing potential sources of tree fodder, woodchip for animal bedding and increased shade and shelter for livestock therefore increasing the resilience of the farm business. The environmental benefits include increased biodiversity on the farm, increased carbon capture and storage and soil protection.





Farm owner Henry Astor and farm manager Matt Childs at Bruern Farms, Oxfordshire. Photo credit: Richard Lofthouse.

Building a Business with Nature Friendly Farming

Henry Astor took over his father's 1,200 acre Bruern Farms in 2012, working with progressive farm manager Matt Childs who first joined the farm in 1999. Together they continue to farm for food, but in a nature friendly way. The farm has 350 acres of woodland including managed

coppice and 200 acres of permanent pasture, but is predominantly an arable business. It has been in environmental stewardship agreements for over a decade, and has been in Higher Level Stewardship since 2019.

Henry's father David bought the farm in 1946 and always ran it to be productive, but not at the expense of nature. He wanted 'a nice place to live and work, with nature'. That translates in 2022 into a striking array of nature-friendly practices, embedded within a productive farm.

RESILIENCE THROUGH DIVERSIFICATION

Henry and Matt have been very open minded and creative, finding resilience to variable weather and volatile crop pricing (a strong feature of 2022) in diversity, including a move into heritage grains, a thriving farm shop/café business and even setting up an air BnB in the old grain siloes.

Heritage grains such as rye have brought them in a new customer in an Oxford-based distiller that uses Bruern rye in its whisky. Other species grown include einkorn, spelt and durum wheat for pasta, some of which is sold directly to a baker in London. Matt is cultivating some of these grains using a direct till system with an understorey of white clover, which protects the soil and fixes nitrogen.

The farm's grain output has reduced from 1900 tonnes to 600 tonnes a year, yet net profits have doubled. This is due to the high price commanded by heritage grains, along with a 75% reduction in herbicide, insecticide, fungicide and fertiliser inputs. They also grow a wide variety of fruit and nut trees amidst the arable crops, providing further income and try to coordinate different crops so that they generate different harvest timetables.

FUNDING NATURE FRIENDLY FARMING

Farm manager Matt has overseen numerous initiatives that have increased the natural benefits the farm provides, funded from diverse sources. This includes a natural flood management programme to protect a nearby village prone to flooding which involved planting over 20,000 trees, funded by the Environment Agency, a Woodland Creation Grant; both Basic Payment Scheme and Higher Level Stewardship grants, and lately a Farming In Protected Landscapes (FIPL).

Although Henry and Matt have benefited from a number of government funding schemes, they are cautious about the Sustainable Farming Incentive (the lowest of three tiers within Defra's new farming subsidy programme: the Environmental Land Management Scheme) as so far they don't see how it will stack up financially. They also see the traditional land agent model as a huge obstacle to nature friendly farming, owing to its bias towards intensive techniques.

Right now their focus is on diversification. They are engaging with the local community by making direct sales of farm produce to the public through a farm shop and are soon to open a café; they're keen to encourage people to enjoy the wildlife while they're visiting. With these new ventures, the air BnB and the heritage grains, Matt describes the farm as 'four or five businesses, not one.'

Henry notes that 'farmers [typically] hate trees', but he has brought in a specialist to coppice a wide range of hedging products from hazel stools, while the woodland produces all the farm's heating for free via a biomass boiler. These elements add up to great value given soaring fuel costs.

Matt is only now looking at intangible products such as carbon credits. A recent audit of the farm suggested that they are sequestering more carbon than they generate, but Matt is worried about greenwash and notes that different assessments produce different measurements.

2022 has been an unusual year. While war in Ukraine has more than doubled crop prices, the price has also become very volatile, and input prices have quadrupled, from fertiliser to fuel. This overall situation has made coherent planning difficult, but has led to innovation: for example Henry and Matt have sown a new sunflower crop, in light of global shortages. They will sell the seed to the public and leave the crop residues for winter bird feeding.

UNEXPECTED BENEFITS

Henry and Matt consider that their nature-friendly farming practices have resulted from personal ambition rather than commercial logic, but they have also been surprised at some of the commercially beneficial outcomes such as reduced crop inputs and resistance to disease in some of the heritage grains. In one case a commercial crop was ruined by disease despite spraying; the equivalent heritage grain has not suffered in the same way, with no spraying. This type of averted cost is a growing theme of nature friendly farming practices.

With uncertainty as to the success of the shift in agricultural subsidies towards protecting nature and the benefits it provides, it's inspiring to see farmers like Matt and Henry demonstrate how innovation can support successful nature friendly farming.

Written in collaboration with Richard Lofthouse.



Gail Buswell on her family farm in Oxfordshire. Photo credit: Richard Lofthouse.

From a Career in Finance to Agroforestry on the Family Farm

Gail Buswell returned to her 400-acre arable family farm after a career in finance. She had developed a broad interest in sustainability that could have gone in any direction, but her light bulb moment was when her own parents' farm in Garsington, near Oxford, needed future stewardship. This brought her to realise that given approximately 70% of the UK is farmed, farming is 'one of the few solutions'.

Gail took the time to do a lot of thinking about the farm's future. In her view we cannot rely on intensive farming of most of our farmland, complemented by little bits of conservation or rewilding at the margins. Instead farming systems have to become regenerative to make agriculture sustainable. Gail also has a strong interest in engaging with local communities, which is how she remembers the farm from her childhood.

Gail settled on agroforestry as the most promising approach to achieving her goals. The appeal is that it is a system that has a lot to offer the farmer looking to balance food production with environmental and social benefits and that it can take a number of forms depending on the specific objectives and challenges. So, Gail hopes to retain and potentially increase food yields while both supporting nature recovery through on-farm practice and opening up opportunities for community engagement.

AGROFORESTRY ON THE FARM

Gail did not pursue a formal agricultural qualification: 'I created my own programme through reading, podcast listening, volunteering, and a valuable course at FarmED in Oxfordshire', Gail tells us. At FarmEd she met Edd Colbert, an independent agroforestry consultant, and Mark Franklin, from The Woodland Trust, who have given her advice and support on developing her agroforestry plans.

Gail's agroforestry plans are maturing, but she is taking her time to prepare thoroughly, and as yet there is nothing in the ground. There are two years left to run on the farm's Countryside Stewardship agreement, and she's using that time to make the land ready.

She plans to begin with alley strips of fruit trees between arable crops in a few fields, taking on more land over time. But before putting in trees, Gail is using the remaining two years of her Countryside Stewardship agreement to plant pollinator strips in potential locations for trees. This allows her to trial how well the tree spacing will work with farm machinery.

As well as growing productive nut, fruit and timber trees within the agroforestry fields, Gail will be including new hedges with standards, and is also considering shrub crops, such as blackcurrants. To spread the risk, she will plant the trees in strips over a few years. And using different varieties and species will also reduce the risk of disease affecting all her agroforestry at once.

WHY AGROFORESTRY?

Agroforestry is emerging as a distinct sector and approach, with several schemes across Oxfordshire already planned and supported by local advisors. Until now agroforestry has fallen between the two stools of forestry and agriculture, with little recognised role in UK agricultural practice. This is despite widespread application in other parts of the world. This has resulted in a dearth of knowledge and examples within local farming communities. However, agroforestry will occupy a role in the forthcoming Sustainable Farming Incentive, with the agroforestry standard due to be open to applicants in 2024. And The Woodland Trust has started to build support for agroforestry across the UK, and since 2013 has supported approximately 215 agroforestry pilot schemes altogether comprising nearly 270,000 trees added to farms.

Specialist advisor Edd Colbert recommends 'thinking of agroforestry as a toolbox not a tool; it is far more than just alleys of trees amidst cereals. There are multiple whole system benefits that range from soil improvement and preservation to flood and drought mitigation, yield improvements and ultimately resilience to future weather patterns through complexity rather than monoculture.'

Gail also sees opportunities for community involvement by bringing in other specialists to increase farm efficiency. Growing more than one crop in the same field is a good way to improve productivity and can help to reduce soil erosion and to diversify the business. Gail thinks that this can be achieved using a multi-stakeholder approach rather than a traditional 'one farmer one farm' model. This involves the landowner growing a wide variety of crops, and then coming to an arrangement with a specialist producer so that the farmer does not have to become an expert in a new crop or in finding new markets to sell the harvested crops into. This approach is sometimes referred to as 'enterprise stacking'.

Building a successful agroforestry system means thinking about how different crops might work together. One option might be to partner with an apple juice business that needs all the apples to be harvested at the same time, in which case you would plant varieties which ripen together. But a fruit and vegetable box provider might want the opposite, as long a harvest as possible from many different varieties, to maximise variety and season length. Depending on what was

grown in the alleys, there would also be considerations around the timing of planting and harvesting so that one crop did not conflict with another.

Other benefits of agroforestry include carbon credits, biodiversity net gain or supporting the health and wellbeing of local communities. There is also the advantage of having a greater diversity of crops within the business model, each with differing susceptibility to disease and weather conditions, and differing seasonal labour requirements. This increases the resilience of the farm business.

Written in collaboration with Richard Lofthouse.

Community



Setting up a Community Orchard in Bicester

In August 2012, local community group Grassroots Bicester was given permission by Bicester Town Council to manage the Langford Community Orchard. The one-acre site was originally farmland with still visible ridges and furrows formed by ploughing with horses. It had been planted up with fruit trees and bushes by a landscape architect when Langford Village was first built, but then became neglected for many years.

The first task was to rescue the fruit trees from a massive overgrowth of brambles and elderberries which smothered everything. Bicester Green Gym joined in enthusiastically with the work. More fruit trees were uncovered as well as redcurrants, blackcurrants, raspberries, and even mulberries!

The next stage over two winters was to prune the neglected fruit trees to remove dead branches and to let light and air into their middles and finally to mulch them with compost and grass mowings.

As yet, there is not enough variety of wildflowers in the orchard to attract bees, butterflies, moths and insects important for pollinating the fruit trees. The plan is to plant a wildflower patch in the grassy area and encourage more plant variety in the hedges. This will encourage wildlife, but a rich variety of plants makes an attractive place for humans too!

Apple Day is celebrated every October. Activities include apple pressing, face painting, a scarecrow competition and bug hunting with the local wildlife trust.

How One Person can Motivate a Community



In Autumn 2019 Lucy Staveley set herself the challenge of planting 2,020 trees by December 2020.

By March 2020 there were almost 2,500 trees in the ground, including over 2,000 planted for hedging; today Lucy has built a sustainable project which by the end of the 2022-23 planting season will have delivered over 9,000 trees.

It's not just a numbers game: along the way Lucy has shared ideas of nature recovery within the local community, developed some strong relationships with landowners, supported the creation of local assets in the form of two community orchards, provided a hub for others interested in nature and trees in the local area and learned valuable lessons that she's keen to share with other community groups.

She's also now working for the International Tree Foundation, for which her experiences since 2019 are extremely valuable.

So how did Lucy go about this and what can we learn from her experiences?

First steps: funding and land

Lucy started by raising a small fund for tree planting through approaching Burford Town Council and the Burford Festival (a local charity), and a notice in the local newsletter. She then worked with Burford Town Council to identify planting locations within the town itself and, realising that to plant this number of trees she'd need reasonable amounts of land, she then started putting word out to potential landowners.

Lucy identified farmers and landowners from a variety of different sources: one farmer she knew personally; another landowner contacted her having read the newsletter's notice. She contacted anyone she knew who with links to landowners who might be interested in letting her plant trees on marginal or underused land, and finally, the Blue Cross (Shilton) came forward because they were interested in initially planting 600 trees. Today the Blue Cross planting plan has expanded to more than 5000 trees across their land.

Building a community

Lucy's planting began with a mixture of planting on community land, and in larger private gardens, but she needed to build a strong community of volunteers to help realise her larger-scale plans.

This coincided with the COVID pandemic; despite the enthusiasm for socially distanced outdoor activities as restrictions eased, Lucy found that it took ongoing efforts to build the community. She used a mixture of technology and the personal approach to help her, including advertising her activities on Facebook and creating an online spreadsheet for planting event sign ups, plus lots of phone calls and simply button-holing people in the street! Planning events on a mixture of weekends and weekdays and at different times of day helped by allowing people with different schedules to get involved.

A core team began to form as people started to come regularly and feel ownership of what they were doing with trees. Today, with the help of organisations such as the Cotswold Wardens and the Wychwood Forest Trust, Lucy has built a team of stalwart volunteers who continue to volunteer today. She has recently set up a weekly Wednesday morning working party to help with the ongoing maintenance of the trees which brings between 5-8, mainly retired volunteers every week.

Know your volunteers

Lucy sees building strong community networks as key elements of both her voluntary and paid roles; this can take time and effort but is essential for bottom-up nature recovery. Volunteers bring a huge range of skills: in Lucy's view, there is a role for everybody. However, a big challenge in this is that people are not only busy, but can be wary of taking on responsibility, especially when there is anything controversial involved which might risk upsetting people within their community. The answer is to make nature recovery a team effort, not just one person's idea.

As well as the volunteers supporting nature recovery, Lucy sees the work as being of value to the participants; this is important to consider, as understanding the motivations of volunteers and the potential benefits to participants could help with recruitment and retention. In her own case, having taken up this work following time out to have a family, Lucy has gained confidence and skills that have helped her secure her role with the International Tree Foundation. Lucy wonders whether people who have retired can lose confidence, and that getting involved in volunteering could have huge value in terms of physical activity and expanding social networks; it all speaks to supporting engagement and re engagement at either end of busy careers.

Working with landowners

Lucy and her volunteers now work with several landowners, some of whom choose to plant the trees themselves, while others were happy for community planters to do the work. When the volunteers are doing the work Lucy has found that it really helps to agree arrangements clearly with the landowner well in advance so that both sides know what to expect. They decide together exactly where the site is, which trees are suitable for the site, planting dates and number of volunteers and who is supplying the trees.

Planting the trees is not the end of the job! Care and maintenance of trees is needed for up to ten years to make sure as many trees as possible survive. On occasions where farmers "donate" land that is either marginalised or not so good for their farming business, Lucy says it is important to formalise plans for long term collaboration. Maintenance jobs such as strimming around the trees, mulching and eventually removing tree guards need to be carried out, but can be challenging for volunteers without suitable equipment. She thinks there is a need to make sure that landowners are properly invested in all stages of the project including responsibility for the established trees over 5 to 10 years and potential for thinning at 15 to 20 years. What would happen if the land ownership changed?

Last words

It's vital for communities to be a part of local nature recovery, but they do need support. Lucy sees a role for district or county councils in supporting parish and community groups in nature recovery projects. A team comprising a council officer and expertise in ecology, mapping, and community facilitation could support the establishment of nature recovery community groups and help with advice and problem solving as the group gets going.

Finally, Lucy has learned to accept that things don't always go to plan: she's learning the hard way that it's worth planting trees as early as possible in the tree planting season to give them the best chance of establishment, especially giver the hotter, drier summers we are having. We need to take the long view and look at planting as an ongoing project, with maintenance and sometimes re-planting factored in. There have been be lots of very real challenges along the way, but with determination and team work the results are looking promising!

If you would like to get in touch with Lucy, come along to the Wednesday working group or join any of this year's tree planting sessions please do get in touch: lucy.staveley@gmail.com (0792 9861712).

Links

Sourcing trees: Lucy sources her trees from Murray Maclean in Frilford, Abingdon (01865 391242). Other suppliers include Nicholson's, Ashridge Nursery, Hilliers, The Hedge Nursery (RHS) and 3 Fat Pigs for bare root trees suitable for planting in the winter. Alba Trees or Cheviot trees can supply cell-grown trees suitable for planting at any time of year.

Community groups: Community Action Groups Oxfordshire has lots of resources on establishing and running community groups. They also host the incredibly valuable and friendly online Trees Collaborate and the Nature's Recovery collaborate groups; contact info@cagoxfordshire.org.uk to find out more and sign up.

Trees in Cities



Taking Climate Action to the Streets

Since declaring a Climate Emergency, Hackney Council has been working hard to meet its commitment to net zero emissions by 2040. They plan to establish around 30,000 trees in parks and green spaces and 5,000 new street trees. This is the single largest investment in trees in the history of the borough. Not only will this help Hackney Council tackle global warming by locking-in thousands of tonnes of carbon, but it will also contribute to limiting air pollution, providing shade and cooling and supporting insect and animal life.

The Council plans to plant a new 'edible woodland' in Hackney Marshes. Around 6,500 fruit and nut trees, broadleaf specimens, and shrubs will be planted on East Marsh, capturing planet-warming carbon dioxide, promoting biodiversity, and encouraging the local community to learn more about foraging. The trees and shrubs are being funded by Honest Drinks through the charity Trees for Cities, which works with volunteers, schools and local communities to enhance green spaces in urban neighbourhoods. The land is being provided by Hackney Council. Local community group Tree Musketeers is inviting people to come and help plant the woodland.

If every local authority in the UK were to match Hackney's level of ambition, we would see close to 15 million trees planted in urban areas.



Manchester: City of Trees

City of Trees is an innovative and exciting movement instigated by The Oglesby Charitable Trust and Community Forest Trust and set to re-invigorate Greater Manchester's landscape by restoring underused, unloved woodland by planting 3 million trees within a generation. That's one for every person that lives in the City Region.

Residents in Trafford were keen to improve the look and feel of their streets with urban greenery. They set up the Old Trafford Tree Group to help secure funds for the initiative. City of Trees helped them plant 100 new trees in eight residential streets. Residents chose the type of tree with mountain ash and whitebeam taking root, brightening up the area.

City of Trees is researching into the value of street trees too. Howard Street in Salford was hit by severe floods on Boxing Day 2015, the worst in 70 years. Three London Plane trees were planted in a specially designed pavement, where rainwater running off the road was diverted before going back into the sewer system at the other end. This has achieved impressive results, with stormwater volumes reduced by 78% and slowed by 68 minutes.

Dr James Rothwell from the University of Manchester said "These results demonstrate that retrofit tree planting schemes in towns and cities can be used as a nature-based solution to tackle urban flooding"

Garden Trees



Greening Gardens in Bradford and Wandsworth

As part of wider tree planting projects to increase canopy cove across the urban landscape, , two councils,, Bradford and Wandsworth, have schemes tp plant small trees in schools and private gardens aiming to build healthier environments, wellbeing and cooling shade.

The Bradford Better Place Initiative is planting 55,000 trees in public places over the next 2 years, one for every child in school. But land is in short supply, so community engagement officers have been working with the residents of the Canterbury Estate to plant trees in residents' gardens. They are giving choice of 15 tree species to families for free. Apple, pear and cherry blossom have proved the favourites. Smaller trees and shrubs are often easier to incorporate into restricted spaces.

In Wandsworth, the Council has planted trees in parks and streets across the borough, including a scheme where local residents can request that street trees be planted in their neighbourhood, or replaced when they reach the end of their natural life. And to encourage residents to plant trees in their gardens, they have produced an easy to use step-by-step guide.