

Case Study

Maple Farm – a three pronged approach to agroforestry

April 2017



WOODLAND
TRUST

Agroforestry for timber, biodiversity, coppice and nut production

Maple Farm is a 138-hectare organic farm with small fields and high hedges, 50 hectares of woods and more than 25 ponds. It is mostly arable, but with 2400 layer hens, as well as pigs and sheep on a small scale. The farm has a strictly 'plot to plate' approach, growing wheat, rye and spelt, which are milled into flour on site; the by-products are fed to the animals on the farm. Maple Farm sells organic food from its barn, and supplies food shops and restaurants.

“The main intention was to provide our layer flocks and in-house reared pullets with natural range cover, without losing the arable ability of the field. This allows us to make full use of the nutrients deposited on the field by the hens, as part of our organic system.”

Mike Mallett, farm manager

By planting trees in alleys in three large fields, Maple Farm aimed to improve its low soil fertility and generate new sources of income. Further objectives included an increase in biodiversity, the production of wood resource, and the opportunity to explore diversification through wood fuel and nuts (hazel). Maple Farm received financial assistance, advice and time from the Woodland Trust to carry out the tree planting.

The Woodland Trust funded the full cost of trees and guards via the PUR scheme. In 2014, 1700 trees were planted for timber: walnut, sycamore, beech, sweet chestnut, oak, and wild cherry.

The following year, 1050 trees were planted in the second field for biodiversity and wood fuel: oak, hornbeam, small-leaved lime, crab apple, goat willow, hawthorn, spindle, and many more.

And in 2016, the third field was planted with 1500 hazels, mixed with cobnuts/filberts, to provide nuts and wood fuel, and offer shelter for the hens.

The alley planting on the three fields will contribute to soil fertility via leaf litter and improve soil structure (via deeper root systems). The trees will also produce their own 'crop' in the form of wood fuel and nuts within the rotation scheme of the farm. The rotation cycle involves keeping hens in mobile sheds on a field for one year, during which time they fertigate [fertilise] the soil. For the next two years, cereal crops (spelt, wheat or spring barley) are grown. The field then returns to pasture and hens.





The scheme will be monitored by the Woodland Trust and Maple Farm to assess its benefits. We anticipate the increased soil fertility will lead to increased crop production. The trees should also provide new sources of income.

Maple Farm sits on heavy clay and is prone to waterlogging. Great care has been taken to plant the new trees in rows that are in line with and between the existing land drains. This will prevent roots from blocking the drains in future years. The farm's youngest land drain schemes are now over 30 years old, and it is hoped that as time progresses the new trees will compensate for the shortfall in the capability of the drains. Deeper rooting trees improve soil stability and additional organic matter from leaf litter and root debris will also promote soil structure improving water infiltration rates.

Key Facts

1. Maple Farm is a 138 hectare organic farm, mostly arable, but with 2400 layer hens.
2. The 4200 trees and 1.2 metre tubes cost around £6000, funded by the Woodland Trust via the PUR project.
(PUR Project is a French social business which, supported by the hotel chain AccorHotels, supports reforestation and agroforestry projects throughout the world)
3. The trees will have monetary value in terms of timber, coppice and nuts.
4. Planting was on a north-south axis to benefit from the sun and reduce crop shading.
5. Natural shelter on a range, from trees or shrubs, can increase the production of grade A eggs by 2%*, which would boost Maple Farm's income by £350 per ranged hectare per year. All hen welfare protocols now call for this type of shelter.
*David Brass, Woodland Eggs in Broadleaf Autumn 2016

How the Woodland Trust can help

Our woodland creation advisors have years of experience advising landowners on the benefits of trees. We provide subsidised trees and independent advice and support to farmers interested in planting trees, including:

- A free tree planting assessment for your whole farm
- A bespoke planting scheme
- Identification of potential funding support
- Ongoing support over the subsequent years to monitor results

Find out more

For more information about how we can help you to plant trees on your farm, call **0330 333 5303** or email plant@woodlandtrust.org.uk



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