

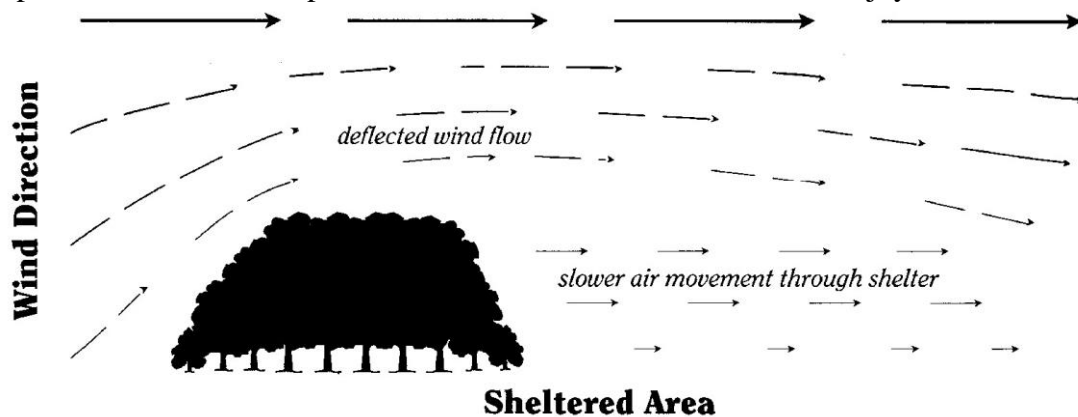


Why this Project ? We are tree experts, farmers, wildlife professionals and scientists planting novel shelterbelts in England and Wales. This project will measure improvements in agricultural productivity, biodiversity and natural capital arising from the rollout of the Optimal Shelterbelts (OSB) created by research in Oxford University & by Tree Shop.

The Farming and Wildlife Advisory Group SW (FWAGSW) charity no. 1146071 (Jen Phelps MBE, Maisie Jepson, Sarah Wells - www.fwagsw.org.uk) and our partners have done a fantastic job fundraising to allow us to plant 20 OSBs.

Why this is unique? The unique feature of this project is to use and develop our national mosaic of historic and often degraded hedgerows. These exist as thin ribbons of natural capital and biodiversity, and which we can now extend to 5m width, creating the OSB.

The science. By planting additional rows of trees next to old hedgerows, this deflects the wind up as the trees convert wind energy into warmth and humidity. We expect a minimum of 20% increase in crop productivity & biodiversity, prevents wind damaging crops while the OSB will provide a humid location for livestock to enjoy and thrive.



Case Study - Guiting Manor Farms GL54 5BZ

Guiting Manor Farms has been run and developed by Nick Bumford over the last 30 years and is an exemplar of both productive farming and of best conservation practise. Nick believes that both interdepend and indeed cannot be sustained, the one without the other. He has 1500 acres in hand and Nick farms a further 1000 acres on Farm Business Tenancies. The land is not the best in the world, as anyone farming “Cotswolds Brash” will appreciate. The farm is owned and farmed by a Charity, established to conserve and to develop responsibly Guiting Power Village, which is one of the several hidden gems of wonderfully preserved living villages in the Cotswolds.

The farm employs 6 full time staff, uses 5 yearly crop rotations, maintains a herd of sheep, a shoot, and a flourishing firewood business, in addition to holiday rentals and residential tenancies. A purpose built new farmyard complex houses superbly maintained and state of the art modern expensive machinery which delivers above average yields on less than average soil. At the same time, barn owls have returned and are everywhere.

Modern farming and food production can only survive in this country by using best science with any hope of feeding our enormous increasing “global village” in the future. Nick recognises this, and understands that rotations are essentially monoculture for their season, involving a responsible use of herbicide, pesticides and fertilizers, which will to some degree always will challenge biodiversity, and the multiversity of habitats interacting together. The many miles of historic hedgerows on the estate provides Nick with the key opportunity to develop areas of ”total non-disturbance”, and our expanded 5m width with trees forming key protective habitats and adjoining shelter will deliver exponential benefits.



OSB details. Nick gave us his best possible site for the project of a mostly derelict hedge continuing across 3 fields, totally 860 metres, along a broken ridge, half way up one of those beautiful sloping valleys which makes up our unique Cotswold landscape.

Trees. The trees are Aspen, Birch, Bird Cherry, Black Poplar, Crab Apple, Common Alder, Field Maple, Hornbeam, Goat Willow, Grey Alder, Rowan, Scots Pine. The shrubs are Alder Buckthorn, Common Buckthorn, Guelder Rose, Hazel, Hawthorn, Spindelberry. We planted 2795 trees in total. The trees ranged in size from 30cm tall to 90cm tall.



Guarding. It is vital to protect the trees against deer, hare and rabbits. With Nick, we developed his idea of an affordable guarding option, and which we are currently using for our carefully laid out plan of 18 native species of tall, intermediate size trees and shrubs. The guards are 1,2m for the tall and intermediate sized trees and spiral guards for the shrubs. It is also to prevent weeds growing around the newly planted trees, as weeds take vital moisture and nutrients reaching the trees. We used Ecotex biodegradable matting to eliminate weed growth.

Anyone spending hours there on the ridge, as we did when we were planting the OSBs, can feel the accelerating wind even through thick clothing, and savour the future prospects for crops and wildlife, arising from the renewed hedgerow and the sheltering OSB. We remembered the old farming proverb of “the lazy wind that goes straight through you”. Thanks to the FWAG staff and the 15 cheerful volunteers who helped our splendid team.



Achievements so far. Since 2020, we have planted 20 OSBs covering 10 kms on 13 farms across the Cotswold Area of Outstanding Natural Beauty and the Upper Thames basin.



Control measurements. The increase in agricultural productivity, biodiversity and natural capital will be measured on the 20 sites. Regular bulletins will explain the challenges, the issues and our trialled solutions and outcomes, successful or otherwise.

The future. Every farm has at least one potential hedgerow that could benefit from being turned into an OSB, which could bring immense benefit to farming productivity and natural ecosystems. If all the 106,000 farms in England planted one OSB (an average OSB is 500m), this would lead to **176 million more trees being planted, one third of the Government’s woodland creation target.** Every farmer we visited wanted an OSB, it is universally popular!

We will prepare regular case studies and profile each of our 13 farmers / landowners in the trial, together with specific topics relating to the rollout of Shelterbelts, both nationally and locally. Each of our farmers are real practitioners in differing aspects of agriculture and conservation in the Cotswolds and the Upper Thames basin. We will highlight a different interesting aspect and indicate pointers forward in order to stimulate and to gain more general acceptance for OSBs across England and Wales. Please take time to read and think.



How to plant more OSBs? Government grants do not currently cover OSBs. We are lobbying DEFRA explaining the benefits of OSBs, but in the meantime OSB planting requires private donations. Please consider a gift at <https://www.fwagsw.org.uk/donation> and mark your donation 'OSB'. Thank you so much.