

Case Study

Mob grazing and creating new hedgerows for livestock shelter in Cumbria

April 2017



WOODLAND
TRUST

Mob grazing and creating new hedgerows for livestock shelter in Cumbria

Farmers Paul and Nic Renison use mob grazing techniques to improve the productivity of their farm. They have been planting new trees and hedges across their farm to increase shelter for their flock and to reduce lamb loss.



Paul and Nic Renison moved to the farm five years ago and very quickly started to look at how the land functioned predominantly as a sheep based enterprise. They had previously farmed sheep in the Lake District. The farm is home to between 900 and 1000 ewes, 30 suckler cows and 70 dairy heifers reared on contract and has 57ha of rough grazing, 105ha of improved pasture and cultivatable land and approximately 2ha of previously established woodland.

The farm was run conventionally prior to their arrival, with a few trees in blocks and otherwise large walled or fenced fields. On the edge of the Pennines the land can be cold and exposed – particularly in the face of the Helm Wind.

To help the farm's productivity Paul and Nic investigated mob grazing of animals, which is also known as rotational grazing.

The challenge

In a conventional sheep or cattle system animals are allowed to roam freely over a parcel of land which leads to a number of negative outcomes. In mob grazing these negative outcomes are challenged leading to more productive and more biodiverse and better functioning land. Trees and hedges can play an important role by adding shade, shelter, nutrient and water cycling.

Mob grazing a field introduces stock management at high intensity over short periods. Herbivores such as sheep are forced to eat all the plants on offer reducing their ability to be selective. The waste created during grazing becomes the mainstay of fertility addition. Smaller paddocks with hedges for shelter have longer grass growth seasons, provide additional leaf litter and reduce lamb mortality.

The result is better animal and soil health, a wider range of plants including herbs and clovers, more biodiversity and fewer inputs from off-farm fertilisers. Another particular aim of Paul and Nic's is to increase the biodiversity of the farm's soil. They will measure this improvement by counting the number of worms found in certain areas. Earthworms store carbon within soils by pulling in organic matter which is key in securing future soil productivity. The trees and hedges on the farm will become part of a positive farm system further increasing biodiversity and productivity.



Key Facts

- Paul has reduced his lamb loss by providing new shelter in the form of trees and hedges.
- The grass growth season has been extended through the creation of hedges, as the provision of shelter increases the soil temperature in early spring and late autumn.
- Mob grazing has reduced the farms dependency on inorganic fertilizer.
- The farm system, with its concentration on soil health, sward diversity and shelter has increased biodiversity across the farm.
- Paul wants to find 10 worms per 30 mm³ of soil across the farm. This shows healthy, biodiverse soil which is key to the future productivity of the soil.



The solution

Paul and Nic need to make the farm profitable for themselves and their family and have very clear objectives for their farm management. By changing the farm system they hope to increase the health of the soil, their core resource, to deliver better all-round productivity. Combining mob grazing with new hedges/trees creates good above ground management leading to better grass growth over a longer season, lower lamb loss rates, improved diversity and lower input costs.

We have helped the farm by providing support for tree and hedge planting and management through the provision of advice and materials. Working in partnership with the farm has helped us and the Renisons to learn more about how trees and farming can work hand in hand.

The hedges that have been, and are still being, planted at the farm range to approximately 700m long. The majority is hawthorn with dog rose and some individual, larger trees planted at intervals. Paul has also planted some small pockets of woodland around the farm.

There is also 400m of riparian planting, using a mixture of native broadleaf trees, which aims to reduce the transfer of faecal matter and pollutants into watercourses.

Large tree cages protect the trees on the farm from browsing by livestock and other mammals.

What the farm has achieved

The Renisons have achieved a great deal in a short space of time and we are pleased to have been able to help and also learn from their approach. It is important to ensure that when trees are re-integrated into a farm system they are valued for the benefits they bring.

Paul has created several hundred metres of new hedging, taking up a lot of grazing land. However, the response of the grass on either side of the new hedges has helped him to gain productivity. He is losing fewer lambs to exposure too as they hunker down for shelter behind the hillock which was created. After just one year the hedges will change the soil moisture and warmth which will extend the grass growth season.

Mob grazing has increased naturally the incidence of clover – with its nitrogen fixing properties – and has reduced the dependency on inorganic fertilizers, which has cut their costs (and environmental impacts). The farm is already more biodiverse.

Next steps

Working with land managers help us to understand all the negatives and the positives of the many approaches that can be taken. The joy of working alongside such forward looking farmers as Paul and Nic has been learning in tandem with them.

We would like to do more research on mob grazing as a vehicle to improve outputs across a range of measures – from soil and water to carbon and biodiversity – and of course to show how we can re-integrate trees and farming.

Already the number of farms looking to work with us on hedging and individual field trees is increasing and is creating a really positive story. Our knowledge of how the land is managed between the hedges also needs to increase so that we can truly work in partnership.

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