The Aquifer Partnership

Protecting Our Precious Groundwater

Saddlescombe Farm - Case Study

Farmed by Camilla and Roly Puzey, National Trust tenants

Sheep and beef farm

182ha, of which approximately half is permanent pasture with no inputs

The Aquifer Partnership is supporting Saddlescombe Farm's move to regenerative agriculture

Saddlescombe Farm is at the start of a journey into a more regenerative farming system.

Approximately one third to half of the farm has temporary rye grass and clover leys. Camilla and Roly have found this seed mix is very dependent on nitrate fertiliser inputs for productivity and is not drought resilient. Sheep and cows graze the fields for extended periods, as is common practice, which means that the grasses have a short recovery period which constantly puts the plants and their roots under pressure.

Fertiliser applications on these fields for the last couple of years has been a 20:10:10 compound applied at 300kg product/ha. This is split as 150kg in autumn, then 75kg x 2 in spring (this equates to 60kgN/ha).

Camilla and Roly want to reduce or remove the need for inorganic fertilisers, which would be a positive step for groundwater protection, and reduce the farm's greenhouse gas emissions.

Grazing in regenerative agriculture

Camilla and Roly were inspired when they visited Rob Havard's farm in Worcestershire where they saw regenerative grazing techniques. Livestock are allowed to graze more intensively for shorter periods, following which the pasture is rested for longer periods, allowing the grasses and herbs to recover. The increased forage not only covers and protects the soil but also promotes greater root growth helping the plant be more drought resilient. This system also increases organic matter in the soil, storing carbon, improves flood tolerance, making the farm more resilient to climate change, and reduces the need for inputs by promoting soil biology and nutrient cycling.

As part of the change in farming system Camilla and Roly want to reduce sheep numbers and increase cattle numbers. Cattle grazing behaviour is better suited to this system as they are less selective grazers than sheep. More herbal leys will also be established to replace some of the ryegrass and clover leys.

"We are already seeing the benefits. If we hadn't started to implement the system this year we would be struggling to find enough food for our animals due to the lack of rain we have had this summer"

Herbal leys

Herbal leys are mixtures of grasses, herbs and legumes. They deliver many benefits; for the farm, associated wildlife, soils and water:

- Provide pollen and nectar for the wildlife
- Contain deep-rooting plants
- Improve soil structure
- Draw up essential vitamins and minerals for the animals
- Help nutrient cycling
- Contain legumes for nitrogen fixing
- Have better drought resistance
- And they look wonderful!

Monitoring success

A comprehensive soil analysis will be taken this year to establish a baseline. This includes a worm count, infiltration test, soil structure examination and a soil analysis (the Albrecht test). This will be repeated in 3 years to monitor change.

Examination of fertiliser application records will also allow comparison in years to come.

Camilla and Roly will monitor the productivity of the farm by calculating the 'livestock units' supported annually.

TAP would like to hear from other farmers who have ideas for reducing N inputs. Please visit our website for more information and our contact details.

TAP support

TAP is funding the soil testing across 3 years, and seeds and establishment costs for an additional 8ha of herbal leys.

Other grants

Smaller fields/paddocks and more frequent animal movements requires more infrastructure (water supply, fencing).

Southern Water's Farm Capital Grant Scheme will assist with some of the costs of fencing.

Some of this fencing will protect new hedge plants, re-establishing historic hedgerows, creating and linking important habitat.

wearetap.org.uk/rural-business-and-farmers