

New tools for new times -

delivering a Nature Recovery Network in the White Peak: three years in



The White Peak challenge



The White Peak plateau

The Lawton Report 'Making Space for Nature' concluded the White Peak National Character Area has the highest levels of habitat fragmentation within any of England's National Parks - the areas of high wildlife value being confined to long, thin Dales separated by intensively managed agricultural land on the plateau.

If Defra's 25 Year Environment Plan and the challenges set out in the Glover Review are to be met in the White Peak, the future Environmental Land Management scheme will require new tools to link and extend habitats across the plateau.

Here, we are researching new ways of delivering the **better, bigger and joined** ambitions of the Lawton Report.

White Peak Land Management Trials

Natural England and the Peak District National Park Authority (PDNPA), working in partnership with National Trust and six White Peak farmers, established a small-scale practical field trial in 2019 to investigate a range of potential management interventions and techniques across a suite of typical White Peak farms. The trial is funded by the PDNPA for a period of five years, with advisory input is provided by Natural England.

Subsequent funding for a suite of further herbal ley trials has been provided by Severn Trent Water. Additional work looking at farm economics and Biodiversity Net Gain (BNG) is being funded by Natural England as part of the Wye Valley Nature Recovery Pilot.

Better - structural diversity within Priority Habitat



Green hay spreading, High Fields Farm
September 2020

In 2018, National Trust purchased 80ha at High Fields Farm on the White Peak plateau. The land is important both for its existing special interest and potential to fulfil a key role in the future delivery of a Nature Recovery Network.

A Higher Tier Countryside Stewardship agreement was developed, with the aim of pioneering management techniques to enhance the structural diversity of existing Priority Habitats without detracting from their quality or extent.

An extensive grazing system has been introduced, centred around a herd of hardy breed cattle, which range across the entire block of land and remain on site all year round. The aim is to mimic a naturalistic grazing regime, with cattle creating variation in sward characteristics across the site through their natural patterns of behaviour. Stock numbers are designed to achieve very light grazing during the summer season and self-sufficiency through the winter.

Bigger - wildlife pasture

The vision - to expand high value sites onto adjacent productive soils.

The creation of structurally diverse grassland is being trialled, with the aim of achieving a tussocky sward containing a scatter of wildflowers and light scrub of value to invertebrates, small mammals and birds. Two fields of productive perennial ryegrass sward used for silage production immediately adjacent to the Wye Valley SSSI offered the opportunity to buffer and extend the SSSI.



Power harrowing and air-seeding into glyphosate treated sward, Beech Farm September 2019

In September 2019, a variety of techniques were used to introduce wildflowers, comparing the relative costs and benefits for species establishment and soil carbon release. Results suggest that glyphosate treatment followed by surface cultivation may be the best way to establish wildflowers whilst minimising soil carbon loss.



Cattle grazing flower-rich sward
Beech Farm September 2020

Three years in and the fields now support a wide variety of wildflowers and a complex tussocky sward which persists through the winter. Scrub establishment has proven more problematic, with scattered tree and scrub planting under consideration. However, this does give permanence to a trial with associated area payments only confirmed until March 2024. Weed control is also an issue. The coming few years will be key to test whether introduced species persist.

The annual payment associated with this trial and the silage margins is based on an income-foregone calculation agreed with the farmer. This calculation has since been corroborated by an economic assessment done by independent consultants funded through the Wye Valley Nature Recovery Pilot. They also conclude that income-foregone calculations on dairy farms would be considerably higher. Both are significantly more than annual payments available through Countryside Stewardship.

The future for this approach is uncertain but possibilities exist through covenants with funding for example from BNG or possibly through enhanced payment rates within the new Environmental Land Management scheme.

Joined - grass margins as wildlife corridors

The vision - a network of structurally and species diverse wildlife margins.

3m wide margins containing native grass and herb species have been sown around silage fields on three farms. The margins are managed without inputs and remain uncut but aftermath grazed with the rest of the field.

The establishment of wildflower species is scattered. Ryegrass persistence and incursion from the adjacent silage crop is an issue but at least on some sites the margins are developing a tussocky sward demonstrating their potential value for invertebrates, small mammals and their predators.



Tussocky 3m wildlife margin
Bent Farm October 2020

These are not popular options but could be if they were adopted wholesale across the farm.

The vision - a scatter of herbal leys across the plateau, with some being allowed to flower at any given time.

Herbal leys were originally established on five farms, with the aim of determining how best to establish and integrate these leys within intensive forage-based systems, how season-wide flowering might be achieved at the landscape scale, and the impact on forage quality.

Establishment of the herbal ley by over-seeding, preceded by either power harrowing or tine cultivating into a sward treated with glyphosate was proven to be as effective. The diverse seed mixes led to a varied sward capable of providing a flowering resource throughout the season, with nectar and pollen being available for invertebrates from June through to the autumn.



Herbal ley over-sown into a sprayed sward (left) and non-sprayed sward (right), Harley Grange



Dairy cows grazing before weed wiping spear thistle, Standhill Farm July 2020

The success, productivity and popularity of these leys, particularly when managed for silage with aftermath grazing, led to a further suite of herbal leys being established in following years with funding from Severn Trent Water and Natural England. Establishment at scale could potentially result in a large increase in flowering resource for pollinators across the White Peak plateau, but changes are necessary to the eligibility criteria within national schemes for this to happen in a landscape dominated by permanent grassland.



Flowering red clover, Lower Cumberland Farm late August 2020

Join in...

We are currently looking to expand the trials across more White Peak farming systems. If you have ideas about how to support wildlife on your farm, or would be willing to try some of the approaches laid out here, please contact:

Rebekah Newman (Peak District National Park Authority) 07925927231

The full first year report is available upon request.