## **Leading the transformation of** the UK food system from the Midlands





Source: Hope Ash Farms

## **Hope Ash Farms**

Hope Ash Farms is a family-run farm by husband and wife, Robert and Rachel Davies, that specialises in mixed turkey, dairy, beef, and cereal farming, with cider interests.

The farm hosts 150 dairy cattle, rear turkeys, have 350 to 400 outdoor beef animals and grow 700 tonnes of cider fruit, with a separate traditional organic orchard. On the arable side, the farm crops 150 arable acres of maize, winter wheat, winter barley, and temporary grass which has a rye grass, red cover, and lucerne grass mixture. The farm also rents 40 acres for spring arable crops, maize and wheat.

Hope Ash farms has put a number of measures in place to investigate their soil health and reduce use of phosphate. This includes soil testing of macronutrients to inform the farm's nutrient management plan, as well as enhanced testing to show soil organic carbon, organic matter, and total nitrogen levels. This allows the farm to measure the regenerative and sustainable effects their farming management practices are having on their soil health, and to inform their future practices. Furthermore, silage store roofing and drainage is contained, and the slurry is tested for the composition of elements.

Following the soil testing, the farm is making an effort to reduce phosphate levels by working with a nutritionist to tailor their cattle feed, and by avoiding applying phosphate to high index fields. This includes exporting poultry waste off-farm and reducing the application of artificial fertiliser. Hope Ash Farms further utilise knowledge and skills by working with two agronomists for arable and fruit production who help plan nutrient application for soil and crop health.

The maize, which previously had stubble turnips as a winter cover crop now has a green mixture, which has shorter roots, and will be grazed by sheep on tack for less time. This will keep the soil covered, reduce run-off, and give soil microbes a habitat. Lucerne is also grown in the grassland to take up higher amounts of phosphate and potash.

Hope Ash farm is also in mid-tier Countryside Stewardship, with measures in place to look after and improve the environment. A priority action for the farm in this regard is water, and buffer strips have been placed between the watercourse and either arable or more intensive grassland, to reduce soil erosion and intercept nutrients. Parts of the watercourse have also been fenced off, to further reduce soil erosion and run-off from cattle.

These measures extend to the farm's landscape, and they host a bio-diverse habitat of low-input varied species grasslands, that are no or low input to reduce applied nutrients, as well as converting a permanent pasture field into a herbal lay to intercept nutrient runoff.

Technological aspects are also aiding the farm in their pursuits and the family use GPS including automatic steer in their tractors, funded by a Severn Trent Environmental Protection Scheme grant, to reduce soil compaction, fuel use, and optimise nutrient application, as well as solar panels and further planned renewable technology.