

Engagement

A large part of what we do at Hope Farm will only have a positive impact if we can share lessons learnt and compare notes with other farmers, researchers, policy makers and conservation organisations. In the 2021 – 2022 harvest year alone, we engaged with nearly 1500 people either by welcoming them to the farm, or virtually.

Our LEAF Open Farm Sunday event has become a regular occurrence, welcoming nearly 1000 people through the gates to learn about nature-friendly food production.



Policy makers have come to the farm to see what we mean by nature-friendly and sustainable farming in arable systems, and to discuss what needs to change to better support farmers to reverse the decline in nature, reduce our carbon footprint, produce food and look after farm businesses.

Nearly 150 farmers, 40 advisors and over 200 individuals from conservation organisations have joined us to share lessons' that they have learnt and take home ideas to help improve the important work we are all doing on the ground.



Stay connected

Keep up to date with the latest thinking, news, events and information from the RSPB in your local community.



Head Office

RSPB The Lodge
Potton Road
Sandy
SG19 2DL

The RSPB is a registered charity in England and Wales 207076, in Scotland SC037654. 223-0603-21-22
Cover image credit

Farming and the RSPB

About one quarter of UK land is arable, making it a hugely important land use for nature, food production, the rural economy and our carbon footprint.

In 2000, the RSPB purchased Hope Farm to trial and demonstrate ways to farm with nature and run a profit.

Our work has shown that wildlife can thrive on highly productive farmland. Since 2016, we have tested new ideas to use regenerative farming methods in restoring nature. Across all of our work though, we are looking more and more to see how nature interacts with the farm system to help combat both the nature and climate crisis.

The farm is accredited under Fair to Nature, the only UK certification scheme with a focus on biodiversity and a proven approach to restoring the balance of nature in farming.

This gives us access to niche marketing opportunities, rewarded through our practice of farmland management with an evidence base behind it to deliver for the farm ecosystem.

To find out more about Fair to Nature, follow this QR code:



Monitoring

We monitor breeding birds, wintering birds, butterflies and bumblebees annually. This work is crucial to understand how the farmland ecosystem is responding to our management.

Breeding bird monitoring: XX% increase

Breeding birds are monitored using the Common Bird Census (CBC) method to map the breeding territories of all birds on the farm.

We specifically report on the 19 Defra Farmland Bird Index species to compare Hope Farm to the national farmland bird trends. Our index has reached a higher equilibrium 2.5 to 3 times baseline.

Over the past 22 years, we have seen increases in all index species except one, with grey partridge, lapwing, yellow wagtail, and corn bunting colonising the farm during this time. The only declining species is greenfinch, which has stabilised in recent years.

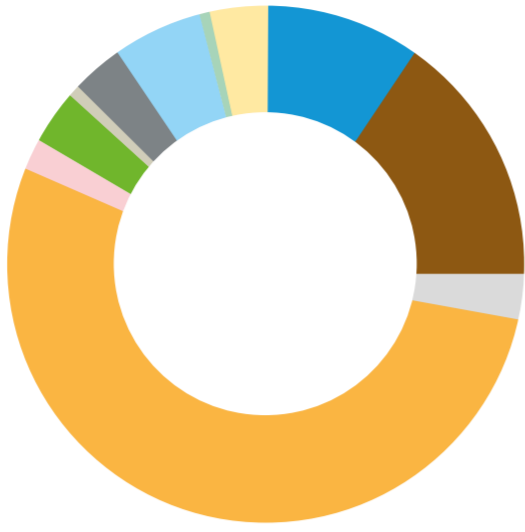
Butterflies on the farm: XX% increase

Our butterfly monitoring uses the UK Butterfly Monitoring Scheme method to allow national comparisons with the farm data.

We produce an index figure that gives a measure of the average change for the species that make up the DEFRA Farmland Butterfly index. Butterfly population trends fluctuate more than birds due to seasonal differences, and it is likely our index will continue to rise in response to our management changes.

Over 100 students have joined us either at visits, to undertake research, or on online events to find out more about the scientific elements to our work and see how nature can thrive on farm.

Sum of visitors to the farm/webinar attendees in 2021-2022 harvest year



Sum of farmers	145	Sum of supporters	4
Sum of corn orgs	238	Sum of research/ag organisation	27
Sum of RSPB staff	32	Sum of university	112
Sum of public	809	Sum of food industry	2
Sum of policy	15	Sum of agricultural/conservation advisor	40
Sum of volunteers	57		

Want to stay up to date on the work that we do at the farm and across the RSPB in farming? Sign up to our newsletter here:



Hope Farm

Farming for a sustainable future - for people and wildlife



Winter Bird monitoring: XX% increase

A whole-farm bird count is conducted every month through the winter. The index is calculated using an averaged percentage change of each Farmland Bird Index species to produce a Hope Farm index. This has increased even more dramatically than the breeding bird index with a current average at 10 to 15 times baseline.

Bumblebees

Bumblebees have been monitored at Hope Farm and compared to a control farm without the environmental management using Beewalk methodology. On average, 11 times more bumblebees are found on Hope Farm thanks to the provision of food, shelter and breeding habitats

Habitat management

Everything we have done at Hope Farm is aligned to the Farm Wildlife six key actions identified by the partnership of leading wildlife organisations.

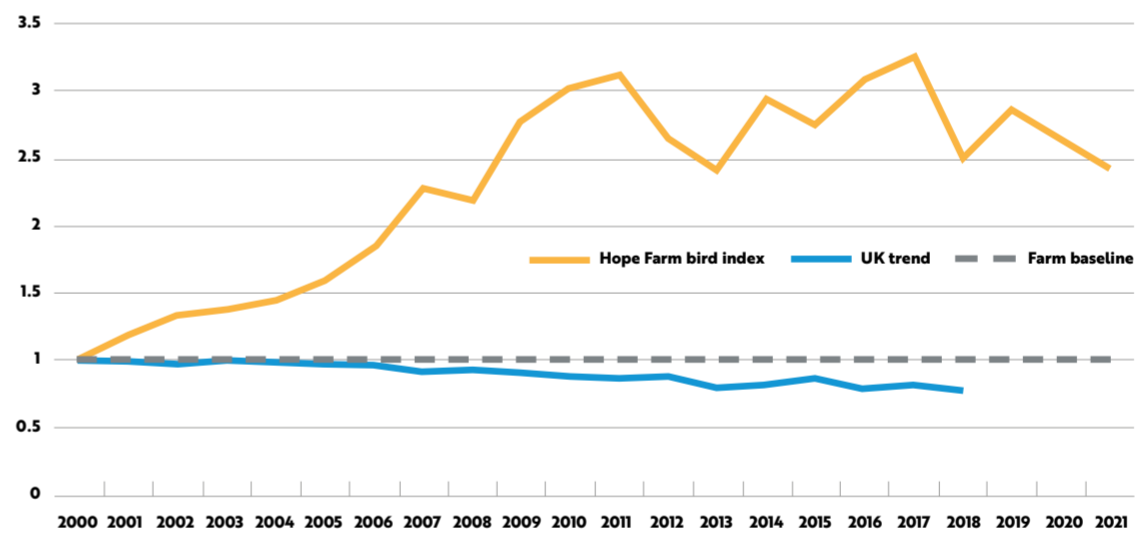
Farm Wildlife six key actions:

- **Look after existing habitats** that are already established on the farm as they are often the most wildlife-rich. Looking after the existing features on the farm and managing them well should be the priority when providing space for wildlife.
- **Field boundaries** are an important habitat for wildlife, as well as connecting habitats across the landscape.
- **Seed-rich habitat (2% minimum)** are important to support many farmland birds through the winter.
- **Flower-rich habitat (2% minimum)** are important to support a diversity and abundance of insects including crop pollinators and pest predators.
- **Wet features** are a crucial element for a wide range of wildlife, not just aquatic species.
- **Farmed area** can be improved with regenerative practices, restoring biodiversity in the soil and help protect our crops.

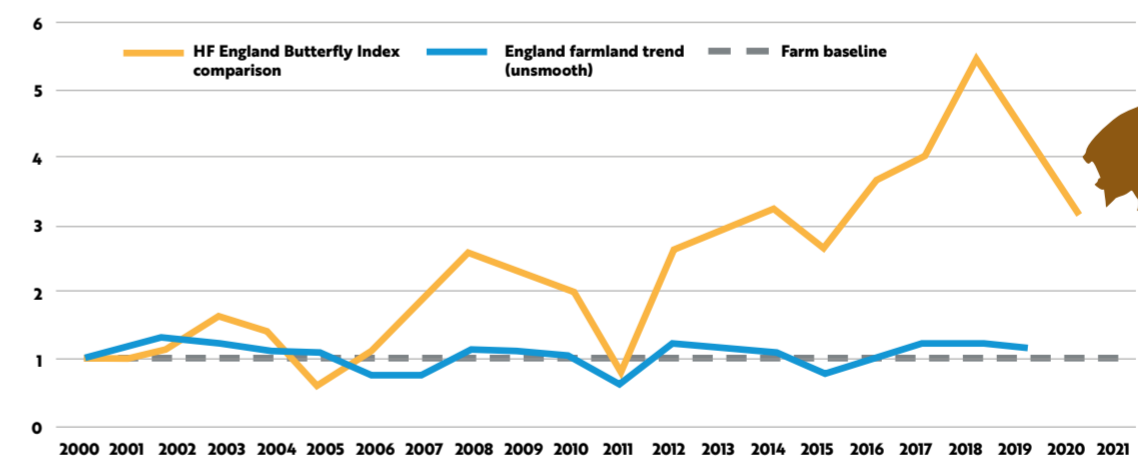
Follow this code to the Farm Wildlife website, to keep up to date on joined-up advice from the partnership.



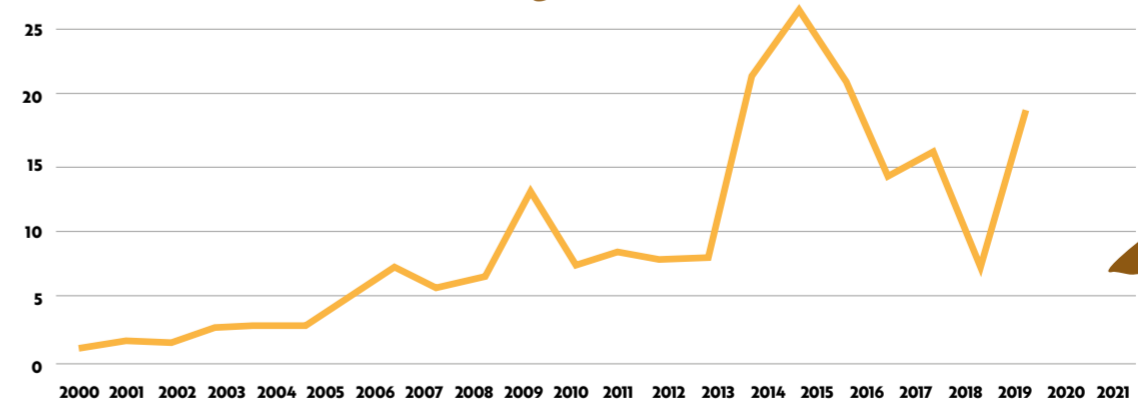
Breeding farmland bird monitoring



Butterfly monitoring



Winter farmland bird monitoring



Research Trials

Researching new solutions is an important part of what we do. To keep up to date with our trials on farm, subscribe to the farming blog here:





Cropping management

We have moved to regenerative practices to boost natural resources from the soil, and beneficial invertebrates and microfauna to help crops to thrive in a more sustainable way.

Here are some of the key regenerative principles that we look to adopt on farm:

- **A more diverse rotation** – we have diversified to grow seven different crops in our rotation, in contrast to just growing wheat and oilseed rape when we first purchased the farm.
- **adoption of cover cropping, intercropping and companion cropping** – to assist in improving our soil health, and to reduce the risks of pests and disease affecting our crops
- **reduced cultivations and direct drilling** – to enable our soil to function better and by reducing disturbance
- **adding organic matter** – to improve that base food availability of micro-organisms and soil fauna that should help to improve soil function
- **integration of livestock within the arable cropping system** – this is an aim over the next few years, to bring organic matter onto the farm, whilst adding another income stream and diversifying the kind of food we produce
- **Integrated Pest Management** – we have stopped using insecticides and reduced our reliance on other pesticides through cultural control of pests and diseases. Diverse and connected habitats can numbers of beneficial invertebrates. Tolerant varieties are selected to improve crop resilience without using pesticides. Although we are not an organic farm, we adopt many organic strategies to improve our ability to honestly use pesticides as a last resort.

ASSIST

2 paragraphs to be added in here from CEH on the ASSIST project The trial was run thanks to the support of The Northwick Trust, and Clark Bradbury Charitable Trust. Many students also supported research throughout the trial. The cover crop mixes, and work with other farmers enabled with the help of Agrii. *add university logos and Agrii logo here*

Find out more about our work with cover crops here <https://community.rspb.org.uk/ourwork/farming/b/farming-blog/posts/hope-farm-20th-anniversary-webinar-series---webinar-2-cover-crops-soil-health-and-biodiversity>



Cover crops

In 2015, we started a trial to look at cover crops and compost, and their impacts on soils, crops and biodiversity, both at Hope Farm and as part of a trial across seven clay farms in East Anglia.

On the seven farm trial, taller more diverse vegetation on cover crops attracted many more overwintering insects, along with greater numbers of earthworms. Small insectivorous birds were found more, possibly attracted to the insect food.

On the Hope Farm trial, winter cover crops tended to support a higher diversity of birds compared to fallow land, partially dependent on establishment technique. Addition of compost tended to support organic matter feeding earthworms allowing increased summer activity close to the soil surface. Organic matter, macro and micro nutrients were impacted often positively by one or both treatments but the cover crops reduced the amount of nitrogen available to the spring crop probably due to the cereal component in the cover crop. Oilseed rape yields seemed to benefit from cover crops and compost, but we have now changed our cover crop mix before spring barley.

The trial was run thanks to the support of The Northwick Trust, and Clark Bradbury Charitable Trust. Many students also supported research throughout the trial. The cover crop mixes, and work with other farmers enabled with the help of Agrii.



Find out more about our work with cover crops here:

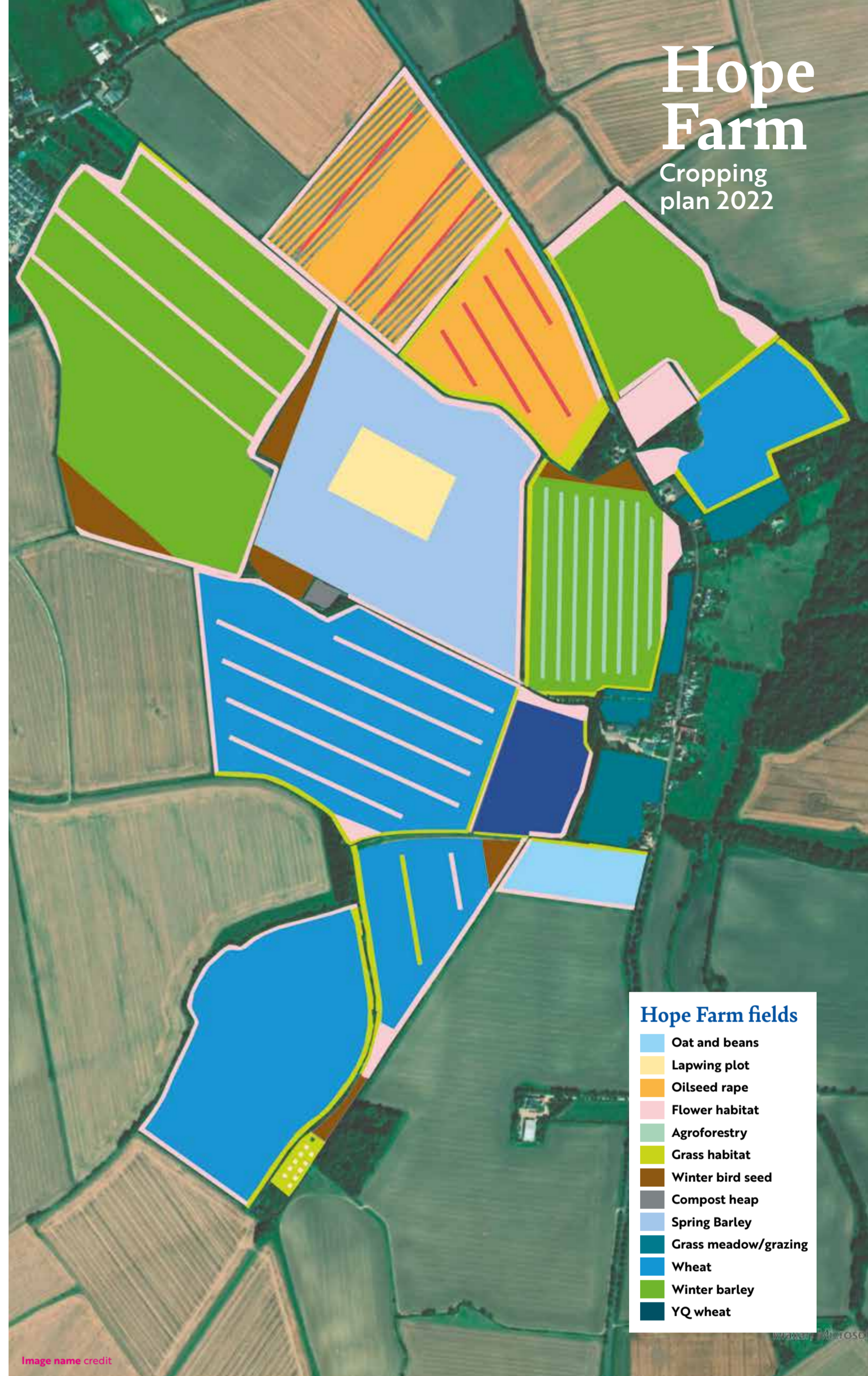
Carbon Farming Project

The carbon farming project is a two-year project looking to reduce GHG emissions by farming in ways beneficial to nature. The project will review carbon auditing tools available to land managers, helping us to then recommend practices that are win-win for climate and biodiversity, alongside a long-term plan for Hope Farm to reduce emissions in a nature-friendly way. The findings will help to inform policy, advocacy and advisory teams involved in balancing nature's recovery and 'Net Zero' ambitions.

Agroforestry

In the winter of 2021, we planted a combination of fruit, nut and native broadleaf trees into an arable field, a form of agroforestry known as alley cropping. This field, along with a control field, are being used to research the benefits and trade-offs for nature, the farm business, and carbon emissions. We're installing a flux tower to capture any cyclical carbon changes. This work has been planned with the help of many organisations, and the flux tower made possible with the help of the Centre of Ecology and Hydrology.

A flux tower is a micrometeorological tower that uses eddy covariance methods to measure the exchange in carbon dioxide, water vapour and energy between the biosphere and atmosphere. It is with this tower that you can measure the exchange in carbon dioxide between earth's surface and atmosphere.



Where next with our research?

Research is planned over the next few years to look at the impacts of pesticide exposure on wildlife and how to mitigate pesticide problems. This trial has been planned with collaboration between Cranfield University, Centre of Ecology and Hydrology, and ECORISC.

We are also hosting insecticide-free oilseed rape trials using trap crops, organic matter, and companion cropping. These trials have been planned and piloted with the help of Rothamsted Research and ADAS.



Finances

We track our yields and profits to check that our nature-friendly practices make business sense. However, this is also balanced with the risk taking on our field-scale trials, testing regenerative practices on our own land, and working through hurdles to speak from a position of experience.

We have managed to maintain a steady income from the farm, with the exception of a few poor years due to seasonal waterlogging or drought (and 2020 losses were exacerbated by commitment to a trial protocol).

Countryside Stewardship gives us a better income than we would get from cropping the low yielding areas of the farm, and also adds a reliably constant income source to buffer against poor years.



This graph shows the total profit that we attain from the farm, after paying for our contractor's operations. The profit is then split between us and the contractor under a Contract Farming Agreement.

