

Cold Harbour Farm

Case study



- Aiming to improve the efficiency of harvesters through the use of technology
- Work with Agri-EPI complements the aims of a LEAF demonstration farm
- Agri-EPI able to tap into co-operative to discover future needs and concerns of growers

“A network like Agri-EPI which brings together that knowledge, expertise, innovation and funding know-how is not just a mutually beneficial arrangement for our business, it’s necessary to make progress.”

– Paul Hayward, Farmer at Cold Harbour Farm

Background

Cold Harbour Farm is a satellite farm for the Agri-EPI Centre in Edinburgh, working in partnership to identify and develop innovative solutions to some of the issues facing arable farmers today.

The farm, near Beverley in East Yorkshire, has been in the same family since 1889 and covers 300 hectares of the Yorkshire Wolds.

It is a largely arable farm, producing wheat, barley, oilseed rape, and grass to feed the Belgian Blue cross beef herd and dairy heifers. The farm is also part of The Green Pea Company, a co-operative of 250 farms growing vining peas for the Birds Eye factory in nearby Hull.

Farmer Paul Hayward said the famous boast that the peas go from field to freezer in under two and a half hours wasn’t just a marketing slogan.

He said: “It’s true! If the peas don’t get into the freezer in 150 minutes, they are rejected. The

crop goes off the field, through the freezers and is packed into the bags, and we do have to meet those timescales.”

He said that although he hadn’t suffered the shortage of skilled workers that other farming sectors had as yet, he was always looking for ways to help his workers be more productive.

He said: “Our business uses skilled people, locals, and so far, so good. They are tech literate but there’s no doubt we’re not getting younger people through so increasingly we will face staffing challenges.

“The reason we’ve been able to grow without growing our team is thanks to the technology we supply them with to do their jobs, we are more productive but our people still have a sensible working schedule.”

Since 1993, Cold Harbour Farm has been a LEAF – Linking Environment and Agriculture – demonstration farm, aiming to show that intensive agriculture is consistent with caring for the environment.

Under the countryside stewardship scheme, the farm has a long-term programme of hedge planting and restoration, areas of woodland have been planted and fields now have grass strips at the edges planted with native grasses and wildflowers.

Away from crops, an unused cowshed at Cold Harbour Farm has also recently been converted into Calf House Studios, a collection of affordable studio and workshop spaces for local artists and craftspeople.

There are several Neolithic sites of historic interest on the farm.

How Agri-EPI has made a difference

Farmer Paul Hayward said the farm’s relationship with Agri-EPI was a result of its LEAF status.

He said: “We are a LEAF demonstration farm and have been for some time. The advantage of our role is that LEAF make introductions, and they brought the idea of working with Agri-EPI to us. It’s brought some real advantages to our wider business, Agri-EPI can make introductions to key stakeholders in our network.

“We had a few deficiencies in the way we use technology. We are always trying to improve and develop but using innovative tech was the one field where we could do more. We had spent money and got some benefit, but we thought there was a lot of benefit to be achieved and thought this might be a way of doing so.

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“Individuals just can’t do what Agri-EPI do, you just can’t. You have to realise your limitations. I am happy to put work in and support and add a little bit of our expertise, but it’s got to be a team approach.

“It’s all about evolving and progressing.”



Paul said that initially the farm would suggest projects and staff from the Agri-EPI Centre would provide support and assist with funding bids. Now, he said, the projects were being developed more collaboratively from an earlier stage.

Expert support from Agri-EPI was particularly helpful, he said. “Agri-EPI do the funding bids really. Bids take an enormous amount of resources, and know-how, and contacts. It’s the glue, and the mentoring, knowing where to go.”

He also believed that Agri-EPI's mission to drive innovation and cutting-edge technology in agriculture complemented the environmental aims of LEAF. He said: “What we do as a [LEAF] demonstration farm broadens the field – LEAF is a progressive organisation rather than “We must turn the wheel back or maintain the status quo”. They are for responsible improvement.”

As well as Cold Harbour Farm benefiting from Agri-EPI's expertise and resources, Agri-EPI in turn is able to tap into the network of farmers Paul works with through the Birds Eye co-operative, helping to capture the needs of the industry and develop ideas for solutions.

Paul said: “It’s a big operation for the co-operative- we grow about 80 hectares out of a total of 10,000 hectares. I think it was an attraction for Agri-EPI that we had connections with other growers and there was an opportunity to make a difference in that size business.”

A current project the farm is working on with Agri-EPI involves making better use of drone technology by extending the use and application of it – and Paul said the training supplied by Agri-EPI would be particularly beneficial. He said: “There’s the drone itself and there is training to go with it.

“We can fly it and take some images, but it is all about making best use of those images quickly and translating them onto a piece of kit that will go onto the field and do the job.

“At the moment I or Adam, my son, can fly it, take a picture and get a different perspective than when we’re on foot across the field, but if you could feed that information into the controller for the fertiliser spreader, or something like that, it would be a great help.

“It’s out there, but it’s not out there for the everyday farmer like myself.



“Drone technology could ultimately help with timeliness, precision application and, not replacing people, but making people’s time more effective.”

Agri-EPI is also working together with Cold Harbour Farm to find funding, which was led by the farm's need for new technology.

Paul said: “We had a project that would improve efficiency and quality and everything else. We needed help with the technology to progress it, and Agri-EPI supplied that.

“Agri-EPI supported us getting the project, and with the hardware. The problem we had was interpretation of data. That was a project that would have delivered, and it might do in the future.

“It was using a technique called near infra-red, replacing people actually physically going and grabbing peas and taking them to the factory to sample with real time information. With the logistics of 15 harvesters, when you’re working 24/7, small margins make big differences.

“That was a good example of where Agri-EPI highlighted things that we could try to improve things, and we gave it a good go.”

The next steps in Agri-EPI's collaboration with Cold Harbour Farm are to enable systems to improve data handling on the farm and supporting the farm to find future funding.

