

An intelligent harvest

Forward-thinking farmers

Real-time monitoring of field operations has helped one Hertfordshire grower to keep on top of harvest and make agile decisions without being in the combine cab. CPM unlocks the benefits of digital platform, FieldView.

By Janine Adamson

Harvest can be one of the most stressful times of year in the farming calendar particularly if it's stop-start and plagued by inclement weather, as experienced by many recently. But having the insight to make decisions quickly and adapt to change is a means to alleviate some of that pressure.

For those not driving the combine, one way to access that critical intel might be through a quick phone call to the operator, who would no doubt prefer to be left to get on with the job. However, there's a more

convenient solution which caught the eye of Ben Cannon of Hyde Hall Farm.

The Buntingford farmer says because he doesn't drive the combine himself across the 200ha site, or the 800ha managed through contracting agreements, the FieldView digital platform offers him real-time information without having to bother his team.

"During harvest, rather than drive the combine, I'm the one with the trailer or at the store so I wanted a way to access the cab information without having to keep asking the driver questions."

Accessible data

"Combine manufacturers deliver similar levels of data, but in reality, it's not always easy to use. It has to be real-time and easily accessible so I know how to manage harvest most effectively. It's useful knowing field progress but real-time data on yield and moisture is the greater value," explains Ben.

FieldView, from Bayer, was originally developed for the United States, but is now used globally having been launched in the UK in 2020. Its purpose is to give farmers a deeper understanding ▶

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▶ of their fields to make informed operating decisions.

The platform provides instant data on field progress from drilling, spreading, spraying and harvest, including yield and moisture levels whether that's for one machine, or an entire fleet. Simply put, it reflects all of the information which would usually be accessed from the cab.

According to Ben, it's proven invaluable when overseeing the

contracting side of his business. "Aside from accessing the information in real-time, the platform also provides reports which reduce the administrative burden of contracting. It's there ready to share straight away in an e-mail which saves time and effort when working across multiple sites and customers," he says.

Min-till approach

The crop rotation is based around wheat, oilseed rape, spring and winter barley, and beans, which are mostly managed through a min-till approach with rotational ploughing if required. OSR is direct drilled using a Horsch Avatar and followed up by an application of digestate, which Ben believes helps to keep cabbage stem flea beetle at bay.

To mix things up, this year he's aiming to grow all milling wheat at the home farm and feed wheat across the contracting sites. As a result, he hopes to use FieldView



The purpose of FieldView is to give farmers a deeper understanding of their fields to make informed operating decisions.

to understand performance variability on a per-field basis.

"As with most farmers, I'm interested in identifying the poorer performing areas of the field. Often we experience a yield loss on the headlands and have been trying to improve that through playing with seed rates and being more conscious of compaction," explains Ben.

"There's a lot of untapped potential in the FieldView maps but interpretation is key. Harvest 2023 was our first year using the tool, so I think we'd benefit from some additional guidance."

With four digital activation specialists on hand to provide such help, that shouldn't be a problem. Bayer's Edward

Part of a bigger picture

Ben Cannon firmly believes that the future of Hyde Hall farm lies in food production, but acknowledges the importance of incorporating environmental best practice. This is because despite being on prime arable land, he says there are opportunities which make economic sense without compromising on the cash crop.

For 10 years he was in Higher Level Stewardship (HLS), implementing actions which offer 'significant benefits' to high-priority areas. The farm has since transitioned to a combination of Mid-Tier and SFI (Sustainable Farming Incentive), alongside other complementary schemes.

"Much of SFI we were already doing, such as managing crops insecticide free — we'd not used one in five years. We also have a fencing and amenity side to the business which offers hedge and tree planting schemes, so it aligned nicely," he explains.

With 20ha of grassland under Mid-Tier, Ben is able to graze cattle through 'B&B', which supports an independent producer who sells at local farmers markets. He also has 20ha of woodland and is in the process of planting an

additional hectare. Although this isn't core to the commercial enterprise, Ben says it helps to spread labour costs and supply for logs has gone from 75-250t which generates additional revenue.

Furthermore, the farm's restored a series of ponds with support from the Farming and Wildlife Advisory Group (FWAG). This is part of the District Level Licensing (DLL) scheme which aims to compensate for the great crested newt habitat lost to housing development.

As for the commercial side of the business, Ben has been working to optimise his cropping rotation by incorporating legumes and cover crops. "We're eligible for Thames Water's Catchment Fund so that's another way to be rewarded for best practice such as cover cropping, which protects water, which is of course in all of our best interests.

"In honesty, we've had mixed results with pulses and legumes because their performance is so unpredictable. However, we've grown good wheat crops in the following rotation, due to the legacy effect," he says.

In terms of the enterprise as a whole, Ben's aim is to help support his local area and as a



As well as the farming enterprise, Hyde Hall has become a local hub for business owners.

result, has converted a series of former farm buildings into business rental units. The farm also regularly hosts school visits.

"We're trying to do our bit when it comes to farm to fork. Those from more urban communities often know little about farming and food production so it's our way of helping them to understand it better," he concludes.



FieldView links data from various sources with other agronomic information such as satellite imagery, as-planted, as-applied, and yield data.



Moisture fluctuated a lot during this year's harvest at Hyde Hall Farm, meaning the team found the real-time data from FieldView was helpful. Photo: Charlie Cannon.

Lawton-Bradshaw works across Ben's patch and before working for the company was a farm manager and early adopter of digital tools.

He says one underutilised function of FieldView is the scouting pins (based on GPS coordinates) which once dropped into a field map can be shared with interested parties such as agronomists or sprayer operators. "This is great for getting a second opinion and allows someone to find that exact reference point at a later date. It's all about data sharing across stakeholders," says Edward.

And whereas Ben has used the tool to improve harvest management, there's even more to be gained if it's used alongside on-farm trials. According to Edward, it's a 'failsafe' way to log and measure success regardless of size or complexity.

"FieldView simplifies the process of conducting an on-farm trial. We often hear that because a commercial crop takes priority, trials can be left until last or feel like an additional burden," he says.

"Whereas using the platform, you automatically log what's been applied where from the beginning. For those who use variable rate seeding and nitrogen applications, you can access a banded yield breakdown at harvest. This is

much more quantifiable than trying to achieve the same measurements by eye."

Importantly, rather than duplicate entry, FieldView connects with other farm software for data interoperability and to minimise ambiguity. All that's required is a FieldView Drive and an iPad with a data connection and the information feeds straight in and can be viewed remotely from anywhere.

According to Bayer, FieldView has been adopted quickly on a global scale and currently helps to manage more than 80M hectares worldwide.

Comprehensive data

Edward says a likely reason for this is its compatibility with a wide range of equipment manufacturers. "It doesn't matter what colour the tractor, combine or sprayer is, through using Fieldview Drive or API FieldView, data can be captured. That's important because many farms aren't exclusive to a single machinery brand," he says.

Another reason, he says, is that the captured data is more comprehensive than what's possible with telematics alone. "FieldView seamlessly connects with telematics systems, thus providing further layers of insight. This ability to link data from various sources with other agronomic information such as

satellite imagery, as-planted, as-applied, and yield data, enables growers to evaluate field performance. This can only help to refine crop management strategies."

So on reflection, having now trialled it on-farm, what did Ben think of the tool? "I found myself regularly checking FieldView during harvest to gauge how things were going. I know I didn't use it to its full potential, but that's because I'm just finding my feet with it.

"Harvest was very stop-start and are our yields were around average for the farm, whereas in 2022 we had ideal conditions and yields were amazing.

Because moisture fluctuated a lot this year, the real-time data from FieldView was really helpful.

"I hope there's the potential to link the platform into our agronomy advice which will be particularly useful for managing the home farm and to prioritise field walking. I imagine digital platforms like this will play a huge role in farm management in the future."

Farmers can still apply for a demonstration of FieldView by signing up for a one-year free trial via the Bayer website. This allows a thorough evaluation of the platform without the commitment to a year's subscription. ■

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With robotics, gene mapping and molecular markers, digital technology and bio-chemistry, it is a dynamic time for anyone involved in agriculture.

Challenges lie ahead for UK agriculture, such as improving productivity while minimising its environmental footprint. But farmers have always had to deal with change and adopt new ideas and technology.

Bayer is at the core of these agricultural advances, working with farmers throughout the UK and further afield to trial and develop new diagnostic tools and evaluate different

farming strategies, coupled with exciting plant breeding and product development programmes. It will help us develop innovative solutions and services to assist farmers achieve profitable and sustainable agronomic practices.

Despite the challenges facing UK agriculture there is much to look forward to. This series of articles focuses on how innovation and partnership between farmer and industry will help us face the future together.

