

Capacity to impress



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Machinery On Farm Opinion

Investing in technology has the potential to boost both productivity and economics — as well as improving work/life balance — as one grower in Beds has realised. CPM finds out more.

By Rob Jones

When you’re preparing to purchase a new bit of kit, there’s often a checklist of priorities to satisfy.

For some, it may be something laden with all the latest and greatest whizzy innovation, while for others it may be something that will be more efficient to boost output while helping ease labour pressures.

However, that’s not to say those two priorities are mutually exclusive, as Beds grower, Chris Papworth, has found out through the investment of a new sprayer.

Chris first considered replacing his existing 4000-litre, 24m self-propelled sprayer in 2019, so he studied the market carefully, including paying a visit to the Sprays and Sprayers demonstration at Cereals, where he got talking to Chafer’s Joe Allen.

“From speaking to Joe, it was clear not only that he had a wealth of knowledge that could help specify the features I needed, but also that the company was prepared to listen to what I wanted from the sprayer, rather than just make a sale.”

With liquid fertiliser as well as chemical application under consideration, the Chafer

Interceptor that arrived at Little Staughton Estates in September 2020 was fitted with a 5000-litre tank to offer increased capacity, while boom width was also increased, to 30m.

Increased productivity

“At 30m, we can cover more ground in larger fields and reducing the number of tramlines will also make those fields more productive — when driving the combine you can see the crop yield drop on the tramlines. It’s a good size to also increase output without being too big as we are only 605ha, and is suitable for some of the smaller fields, which although only 1-1.5ha are on good land, so are being kept in the arable rotation.”

As well as the increased output, upgrading the sprayer brought a number of features which improve its operation, adds Chris.

“I didn’t opt for GPS steering on the previous sprayer as I only really need it in the autumn; the rest of the time I’m working in the drill’s tramlines. However, we subsequently invested in a Trimble EasiSteer which could be moved from the sprayer to the fertiliser spreading tractor for variable rate work etc.

“Having switched tractor brand to John Deere, the tractors came with Greenstar GPS as they were ex-demo models, and we’ve found it easy to use.

“Chafer offers a choice of GPS systems, so it was really useful to be able to specify Greenstar on the Interceptor as it means we can share data such as field boundaries with the tractors. And while I’m the main sprayer operator, for holiday or sickness cover I’ve got a system in the sprayer that the relief driver is familiar with.”

The Interceptor has been supplied with a 7.6cm centrifugal pump, which is not only powerful enough for high-rate fertiliser work, but also fills at up to 650 l/min through a 5cm suction hose, he adds.

“It’s incredibly quick — almost too quick sometimes,” laughs Chris. “However, you can dial down the filling speed while the chemical is inducted and then bring it back up to top up the tank. I would say it takes 40% off the filling time required.”

Another neat feature favoured by Chris is the Chafer ePlumbing system which controls filling and takes care of rinsing and dilution.

“ePlumbing is a very efficient system, controlling pump on/off and valve operation, and you have to remind yourself not to try to do too much and to let it do its job. The rinsing cycles are straightforward too, you simply set the required wash time, and it’s a lot quicker, plus you have the peace of mind that the sprayer has been



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thoroughly cleaned out.”

Norac UC7 boom levelling has also been specified. “Again, it’s something I didn’t have on my previous sprayer as the technology was not established at the time, and it’s nice to have the option of a proven system like Norac. You have to learn to trust it, and as I’ve become more confident I’ve been able to work with the boom a little lower, down to 45cm on bare soil. It’s extremely accurate and I’m very impressed.”

The boom also has section control dividing it into 14 sections, and in discussion with Joe, the layout was agreed at 1m sections at the boom ends, 2m for the next two and then every 3m, increasing accuracy on short work.

“It’s a step up from the eight sections we had before and very helpful as few of our fields are square,” notes Chris.

Although the sprayer has only been on the farm since September, the tricky conditions have tested its mettle.

“One worry was its physical size and extra weight, but the balance of the sprayer and the addition of Michelin AxioBib 2 tyres means that it travels as well as the smaller machine, even on wet land when putting on pre-emergence herbicides last autumn.”

While much of the land is flat, a deep valley runs through the farm, and the acid test was provided when Chafer’s demo driver was asked to tackle spraying on the bank.

“We’d tramlined the other way as I was concerned about my previous sprayer’s stability when travelling across it, but the Interceptor has no problem at all. The Norac levelling system also handles the undulations really well.”

Extra flexibility is afforded by fitting Hypro Duo React twin valve nozzle bodies with four nozzles on one valve and one on the other, allowing a set up similar to having two lines.

“This means I can select one nozzle for work at 100 l/min and the other at 200 l/min or one for chemical and one fertiliser without having to get out and change all the nozzles, which was very handy in the autumn.”

The Chafer Interceptor has put in 112 hours in a short space of time, and Chris says that it has also allowed him to extend the working day when the pressure is on such as in the autumn, with its ‘brilliant’ work lights and powerful LED boom lighting.

“I’m looking forward to seeing what it can achieve. It could be said that it’s over the top for the amount of land we have, but the difference in cost between 4000 and 5000-litre versions is minimal, plus it gives us sufficient capacity should the opportunity come along to take on extra land.

“That extra tank capacity means that it can cover another 10ha, so I can be thinking



The Chafer Interceptor that arrived at Little Staughton Estates in September 2020.

about spraying another field without travelling back to the yard to refill.

“Plus I’ve now got a young family, so if I can get on with spraying and perhaps have a Saturday afternoon off, so much the better.” he concludes. ■

Farm facts

Little Staughton Estates, Beds

- **Arable area:** 587ha
- **Cropping:** Oilseed rape, winter wheat, spring barley and winter beans and winter linseed,
- **Soil type:** Very heavy clay
- **Mainline tractors:** John Deere 8370R twin-track; John Deere 6250R, Massey Ferguson 7718
- **Sprayer:** 30m Chafer Interceptor
- **Combine:** Claas Lexion 750
- **Cultivation equipment:** 6m Horsch Joker; 6m Grange LDL; 6m Horsch Sprinter drill

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