

Trailing ahead

Growing European demand has driven development at Claydon, but after two years it has a high-capacity trailed drill aimed at bigger farms and a much wider global market

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"The family business has had to expand to keep up with demand for its products"



Running a business requires dedication and hard work. Just ask any farmer. But to branch out and begin manufacturing your own farm machinery is a completely different matter. For that you need to speak to Jeff Claydon, CEO and founder of Claydon Drills. The Claydon family has been farming in Suffolk since the early 1900s, and Jeff and brother Frank are the third generation. In 1980 Jeff Claydon invented the first yield monitoring system to be fitted internally to a combine harvester and has been diversifying into engineering ever since.

Jeff hasn't just followed the market though, and instead of producing something that is already on sale, he has looked to his own family's farm to develop machinery around their own requirements. As Jeff puts it: "We don't just listen to the end user, we are the end user."

Growing quickly

What started as a small business has seen considerable growth in the last few years, and the family business has had to expand to keep up with demand for its products, which includes the latest Hybrid T trailed drill. "Expansion into Europe and beyond has seen sales of machinery in more than 25 countries as far away as Chile and New Zealand," says export manager Jacob Darby, who has been racking up air miles since joining the company two years ago.

In 2011 Claydon was building two drills a week at the most. Three years later and production peaks comfortably at six drills, and capacity for more is planned with a proposed new development around its existing factory. In 2011 two drills every week were just enough to meet demand around East Anglia. Word soon spread though, and soon Claydon drills were appearing in Scotland, Ireland and throughout the UK. Today, there are few counties in England where you won't see one of the distinctive yellow drills.

With a wider market and growing audience came a need for Claydon to start looking at a wider product range and the line-up now includes rolls, straw harrows and a selection of drills. The latest drill, the Hybrid T, was developed out of a need to offer a drill that could comfortably manage the needs of 1000ha-plus farms in the UK and Europe. "Increasingly, existing and potential customers have been asking for a trailed version of our existing linkage-mounted Hybrid model, of which we have produced more than 400 units," says Spencer Claydon, sales director and son of Jeff.

The new Hybrid T has been introduced after 18 months of design, development and testing, including establishing crops on the Claydons' farm. Frank Claydon puts every new product developed through its paces in a real-world farming environment. To date he has covered over 40,000 acres with the company's products

TECH SPECS

Claydon Hybrid T
 Working width 6m
 Transport width 3m
 Hopper size 5500 litres
 Power requirement 300hp to 350hp
 Output 10 acres per hour
 Weight 6.75t unladen
 Length 8.75m



Two-metre wings fold down in field to give a 6m working width



Far left: Front breaker tines allow minimal soil disturbance

Left: Quick-fitting seeding coulters are easily interchanged



Right: Drilling chassis is supported by five centrally mounted wheels, wings by two wheels each



Below: Seeding tines are fed by pipes from the 5500-litre hopper

► in order to feed back to the engineers, as well as establish the family's own crops.

It is Frank's feedback that has been invaluable in developing every product, as well as proving the benefits of the 'Claydon System', which follows harvesting with straw harrowing and drilling directly into stubble. Rolling afterwards means the surface is then ready for the chemicals to get to work. There are a number of benefits to this method and the Claydons have seen a rapid reduction in blackgrass on their farm, as well as cost savings.

Yields up, costs down

Establishing a crop with the Claydon's system is notable in its requirement for less input, with savings of 25 per cent seen over traditional cultivation methods, and the Hybrid T uses the same principles as the Hybrid. Jeff even believes that the system results in a ten per cent increase in yield

Inset: Folded, the Hybrid T meets 3m transport widths

over ploughing. With input reduced, less machinery is required, and any machinery is also subject to fewer hours in the field, so come replacement time it should lead to a boost in residual values.

The 6m Hybrid T incorporates three 2m sections - one 2m central section and two 2m-wide hydraulically folding, contour-following outer sections, which fold to give a transport width of 3m once hydraulically locked in place. Unladen it weighs 6.75 tonnes with an overall length of 8.75m.

In 2014 the 6m drill will be the only available option in the Hybrid T range, however Claydon is looking at introducing an 8m version with the same 2m central section and folding sections at 3m each. Claydon claims that the Hybrid T can cover up to ten acres in 6m form, with a tractor requirement of 300hp to 350hp equating to 50hp to 60hp per metre.

The Hybrid T uses a vast 5500-litre



Who is Jeff Claydon?

Jeff Claydon is a farmer, inventor and manufacturer. As a third-generation farmer, Jeff farms in Suffolk with his brother Frank, while also developing an ever-growing range of arable machinery with his team. Jeff's first invention was the Yield-o-Meter in 1980, which monitored grain on any combine and gave accurate readings of the harvest. Jeff followed this with the Furrow Cracker in 1995 and the first strip tillage drill in 2002. Jeff's products now work in 27 countries.

hopper (equivalent to around four tonnes) that can be filled wholly with seed or split 60:40 in favour of seed or fertiliser by inserting a separator plate. Both sections have a CCTV camera and an adjustable seed level sensor to give the operator an exact idea of just how much seed is left. Refilling looks to be relatively effortless thanks to a simple roll-over cover. That is if 5500 litres aren't enough in the first place.

The Hybrid T is designed to be run with fertiliser, a trend that Claydon has seen a big increase in over the past two years, in the UK and Europe, remarks Spencer Claydon. Fertiliser can be placed behind the front leg, off the boards at the back of the seed frame or in with the seed, the latter being the Claydons' preferred option to get crops away quickly in winter.

The seeding system on the Hybrid T is the same as seen on the proven mounted Hybrid model. The front legs work at a depth of 4in to 6in and

the Hybrid T uses two banks of tines spaced at 2.5m apart, giving a minimum inter-tine clearance of 550mm, while row spacing can be set at either 300mm or 600mm.

For strength and longevity, tungsten carbide is used for the tines, which are all individually adjustable, aimed at the removal of surface compaction, creating drainage channels and allowing the soil to breathe. The front tine creates a channel, which allows roots and water to easily find their way down through the soil.

Claydon claims that its 180mm batterboard, which it calls an A-share, spreads seed and prevents channels for slugs and water to move down. This could contribute to a positive effect on the drainage of water.

On a level field

With flexibility in the arms of the drill, the Hybrid T follows contours to plant crops at the same depth, while also

acting similarly to a cultivator and grading fields as it operates. With minimal ruts, Jeff is confident you could ride a motorbike at speed over his fields without fear of being thrown over the front, such has been the extent of the drills' levelling. Level fields have the advantage of minimising dips and ponds, so water doesn't sit on the field encouraging blackgrass to grow.

Although a drawbar is standard, a link arm option is available on request. Operating the Hybrid T requires four spool valves, and the drill utilises an Accord Metering System, RDS Artemis electronics and radar-controlled Vari Rate seeding as standard. Each of the drill's supporting wheels runs on uncultivated grounds, which Matt Bowe, technical support and R&D manager says helps to ensure an even seed depth, even in difficult conditions.

The weight of the drilling chassis is supported by five centrally mounted depth wheels to allow the drill to follow the contours, while the seed hopper is carried on four separate wheels. This limits soil compaction, which is one of the biggest problems facing farmers.

When it comes to problems faced by farmers, the experience of growing crops themselves has been a huge bonus to Claydon. Customer feedback has also been essential, and although Jeff expects the majority of sales to continue to be made up by the mounted Hybrid, the Hybrid T has its place, although Claydon hopes that the majority of early models remain in the UK to gauge customer feedback and enable easy support if necessary.

Sights are set on global sales, however, and the Hybrid T is already being developed with braked axles as standard for the German market, something that will be an option in the UK should farmers require it to complement the standard 50kph set-up of wheels, tyres and axles.

The model currently on show might only be a prototype, but it has stood up well to tests, as the Hybrid system has now been proven on every soil type and climate Europe has to offer. After two years of development the Hybrid T is finally ready to go out and prove it. All the factory needs now is to develop more of its old sheds to meet demand. Double or treble production, maybe? Easy, according to Jeff...

FMJ

Below: At least 300hp is needed for 6m drill

Below centre left: Hybrid T comes with drawbar but linkage mount is optional

Below centre right: A-share gives best seed coverage in dry soil conditions

Bottom: Four wheels support the drill while in transport

