



Drilling spring oats into a cover crop with 4m Claydon Hybrid drill.

## Switch to strip seeding has been life changing for Norfolk farming family.

"Had we not moved away from using the traditional plough-power harrow-drill approach to establishing crops in favour of direct strip seeding then we definitely would not be in the position that we are today," Norfolk farmer David Cooper states.

"The Claydon OptiTill® System reduced our costs by at least £40 per acre and without it the margins would not have been there to purchase a neighbouring farm which came up for sale in 2016. That made a massive difference to the business, so we are always pleased to talk about our experiences. Most farmers in this area who now use OptiTill® visited us at one time or another to see the benefits before changing the way that they do things."

The Coopers' history with the brand goes back to January 2006 when they saw a prototype 3m SR drill, an evolution of the original V-Drill which Jeff Claydon had designed in 2002, on the company's stand at the LAMMA Show. Two days later, after visiting the Claydon family's arable farm and factory in Suffolk, they purchased the drill which had been on display.

Their SR became the first Claydon SR to be sold in Norfolk and the Coopers drilled

their first crop with it a month later. Ever since then the Claydon OptiTill® System of crop establishment has been a cornerstone of the farming and agricultural contracting business which D. B. & A. Cooper operate from Rickwood Farm, Hockering.



David and Andrew Cooper in a crop of LG Spotlight winter wheat which was drilled on some of the heaviest ground on 23 September.



### FOCUS NORFOLK

#### FARM FACTS

**Farmer:** David and Andrew Cooper

**Location:** Hockering, Norfolk

**Area farmed:** 300 acres + 300 contract

**Soil:** Mostly medium loam, but including sand and heavy clay

**Cropping:** 6-row winter barley, winter wheat, oilseed rape, naked oats, beans, spring barley, kale, cover crops

#### STARTING FROM SCRATCH

Since David began farming in 1977, initially with a small pig unit on a two-acre green field site, the business has expanded progressively.



By 1990 he was farming 130 acres of his own land and the pig herd had grown to 70 sows, but that year David was asked to look after another 130 acres on a neighbouring farm. What was initially to be a one-year contract has continued ever since, 2020 being his 30th year there.

1990 was also when David took on another 200 acres, so it was a time of massive change for the business. Working alongside son Andrew, David now farms 600 acres, including 300 acres which is owned, another 300 acres which is contract farmed, together with an expanding contracting business.

“Grain prices were terrible at the time we bought the SR,” David recalls. “By then we

had already moved away from a plough, power harrow/drill system that was once used to establish crops to discing and drilling simply to cut costs. There was a lot of interest in direct drilling at that time for the same reason, and while it can work in ideal conditions, we felt that its performance would be too variable and pose too much of a risk over the longer term.

“We saw strip seeding as being the next step on from what we were doing and liked the concept behind the Claydon SR, which used a leading tine to remove compaction, create a drainage channel and shatter the soil. At the time, most farmers in this area were still ploughing, then using a power harrow/drill combination, which was the

traditional approach in Norfolk. Many were preparing land way ahead of drilling, so if the weather turned wet then they were in trouble. The other drawback was that in dry conditions the system produced ‘cobbly’ seedbeds, providing ideal conditions for slugs, which could be a significant problem.

“Our agronomist, Darren Hooker of Agrii, was a bit wary when we introduced Opti-Till® but is now very much in favour of it, having seen the significant benefits.”

### COPING WITH EXPANSION

After five and a half years of operating the SR very successfully the drill was changed in September 2011 to cope with an additional 400 acres which the business had taken on, but the Coopers remained loyal to the Opti-Till® System, purchasing one of the then-new 4m Claydon Hybrid models.

“Our own land had improved dramatically since we stopped ploughing in 2004, but despite the obvious benefits many people were still reluctant to change. I think part of the reason was that they were used to seeing brown soil and could not quite get their heads around the idea of stubble showing through in fields which had been drilled with the next crop.

“With contracting work, we now drill over 1000 acres a year. The only area not drilled directly with the Claydon is where, one year in seven, muck from Andrew’s 12,000-bird outdoor turkey unit is spread, ploughed and then we go in with the Hybrid.”

The land which the Coopers farm is mostly medium loam but includes everything from sand to heavy clay. Cropping currently includes 6-row winter barley, winter wheat, oilseed rape, naked oats, beans, and some spring barley.

“We use our Hybrid to drill all sorts of crops, from cereals to kale directly into grass stubbles with the Claydon LD Low Disturbance points. It also establishes cover crops of phacelia, oil radish and berseem clover or vetch, which are drilled in August at 5kg/ha, left to grow over winter, then sprayed off in January or February ahead of drilling spring crops,” David states.

“This year, as an experiment for one of our customers, we even drilled beans 150mm deep with the narrow 3” points on the seeding tines, then drilled the field again with wheat using the standard 7” A-shares. The theory is that the beans will fix nitrogen which can then be utilised by the wheat, so it will be interesting to see how that works out.



**Cover crops are drilled in August, left to grow over winter, then sprayed off in January or February ahead of drilling spring crops.**



**Spring oats that were drilled into a cover crop using the 4m Claydon Hybrid.**



**The Coopers’ 4m Hybrid drilling spring oats directly into the previous cover crop.**

“Opti-Till® has made our heavy land much easier to work because the structure and worm counts have improved so greatly over time. In fact, I would say that the heavy land has become as easy to work as the light land. The benefits of using this approach are also noticeable on the lighter soils, which dry out very quickly if inverted. It does an excellent job of retaining moisture and because much of the land is left uncultivated the stubble and root structures are retained, this helps to prevent soil blows which are common in Norfolk where light soils are over-worked.

“One of the key benefits of Opti-Till® is that it allows us to farm more land with less labour and machinery. Recently, we cut costs even more by reducing the number of tractors from three to two. The existing 135hp and 160hp models were replaced by a new 170hp Valtra, which is fitted with a front loader to avoid the additional expense of operating a telescopic handler.

“We bale the barley straw and some of the wheat, but the rest is chopped by our

7.7m CLAAS Tucano 570 combine. The stubble is normally 100 - 150mm high and immediately after harvest we go in with our 7.5m Straw Harrow just to move a shallow layer of soil and encourage any weeds or volunteers to chit.

“The Hybrid will operate without any problems and we have even used it to drill directly into knee-high volunteer rape. It works well behind our 252hp MF 7626, which is much more powerful than Claydon suggest but we are often called on to





operate in difficult conditions where farms have been unable to establish crops with their own drill, so we would rather have power to spare than struggle. The normal operating speed is a comfortable 10km/h and on our own land we use higher seed rates to encourage the crop to smother out any weeds.

"Four years ago, our winter wheats yielded 11.4t/ha, but the current five-year average is just under 10t/ha, lower than it would normally be because of the very dry spring weather during the last two years. Winter barley yields 8t/ha to 9t/ha, and the naked oats we grow on contract to GB Seeds normally average 6t/ha, but can produce up to 7t/ha, equivalent to about 9t/ha of conventional oats.

"The same 24m tramlines are used all the time because we see no sense in ripping them up each year. The only reason for that would be to take out deep ruts, but you don't get those with OptiTill® because the soils are so supportive. That also allows us to begin spraying and applying fertiliser with our Sands 2000-litre self-propelled well before other farms where conventional cultivations are used.

"Just as we once were, some farmers are still in a cycle of ploughing and pulling up land just because that is the way it has always been done, but that mindset is beginning to change. More people are now looking at and appreciating the considerable benefits of the OptiTill® System, which has become a talking point for numerous reasons.



**Drilling spring oats with a 4m Claydon Hybrid.**

"Many are considering it purely for the potential cost savings, others for the huge benefits in terms of improvements to soil structure and health. Reducing labour and machinery, improving timeliness, reducing weather-related risks, and cutting down on the amount of diesel used are other priorities which I have heard mentioned.

"In our experience, OptiTill® offers something for everyone, regardless of their crops, soil types and conditions, but it is important to understand that the full benefits will not be apparent in the first year. You will see cost savings, certainly, but

it is really in the second and third years that they really start to become obvious. It takes a while for soils to change, but there is a continual improvement, and it is obvious where land has been Claydon drilled.

"There's no way that we would want to farm without OptiTill® because it has so many benefits. The next step could be to add a Claydon TerraBlade inter-row hoe, as the 4m version we had on demonstration last year worked well. Using a combination of mechanical and chemical methods to control weeds is a logical step forward."



**The Coopers' 4m Claydon Hybrid drill operates behind their 252hp Massey Ferguson 7626 tractor.**