



Mark Duckitt and his 3m Claydon Hybrid Drill which he has been using since 2014

Establishing crops on heavy clay soils demands a more flexible approach. Being able to farm his very heavy, difficult-to-manage land more efficiently and with more timeliness were the reasons behind Mark Duckitt's decision to switch to the Claydon System of crop establishment in 2014. The change has brought numerous benefits, both financial and agronomic.

Dig down 25 to 30cm into the heavy soils at Duckitt & Sons' Ivy House Farm, Wormley Hill, Sykehouse in East Yorkshire and you'll unearth the sort of stuff that could be used to make bricks. Wet, sticky and prone to compaction, it would be a nightmare if not treated correctly, but having farmed there all his life Mark Duckitt knows the land like the back of his hand. He prides himself on meticulous attention to detail and says the Claydon System of crop establishment ideally fits with his philosophy of how best to farm, being straightforward, efficient and economical.

"Here, the key thing is to work with mother nature, not go against her by thinking that power and technology will give you the upper hand, because in the long term she will always win," Mark states. "Less definitely is more on this land, so the answer is not

to hit it hard with ever larger, heavier, more powerful machinery because that can get you into all kinds of bother. A timely, delicate approach which produces less wheeling over the land works best and that is what the Claydon System provides."

Three years after introducing the Claydon System it's an approach that is working well. Mark has gone beyond 10t/ha, his long-standing winter wheat yield benchmark when traditional methods were used, and by some considerable margin. Wheats now consistently yield around 12t/ha and spring barley 9t/ha, while the spring beans have never looked better than in 2017, so it's all very positive and he is looking for 6t/ha come harvest.

"My agronomist has noticed that the workability of the soil has been vastly improved," Mark adds. "This allows machinery to operate much more easily and efficiently, while the ground is easier to walk on after heavy rain and the farm is generally much cleaner than it was four years ago before we introduced the Claydon System."

FARM DEMANDS RESPECT

Situated just two metres above sea level, the 185-hectare Ivy House Farm has always been difficult to cultivate and demands respect. But get it right, says Mark, and it will deliver the goods. This year, the cropping consisted of 80ha of wheat, 35ha of oilseed rape, 30ha of barley, 30ha of spring beans and 10ha of linseed as a trial.

When it comes to wheat, Mark targets maximum yield, his varieties being the Group 2 KWS Siskin, together with Evolution (LG) and Costello (Senova).



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With winter oilseed rape, he aims for a 5t/ha average, the chosen varieties being Elgar (Elsoms) and the Clearfield variety DSV Veritas which is grown where charlock, cranesbill and runch have been a problem on the heavy land in the past.

Spring barley (RGT Planet) has also been introduced into the rotation to help alleviate issues with blackgrass, a weed which has always been present on the farm and became more prevalent after the wet winter of 2012, but which is now being tackled using the Claydon System.

FARM FACTS

Farmer: Mark Duckitt

Location: East Yorkshire

Area farmed: 185 ha

Soil: Heavy clay

Cropping: winter wheat, oilseed rape, barley, spring beans, linseed, cover crops



Mark Duckitt's winter wheat at Ivy House Farm. Note the wide 9" seed bands, which help to reduce weeds.



Mark's sons are learning about the Claydon System from an early age.

For the coming season a combination of spring oats, vetch and linseed will be used as a cover crop ahead of spring crops, which Mark is growing more of as part his efforts to tackle blackgrass and other weeds. He is also drilling winter cereals later, either during the last week of September or the first week of October.

"Until 2013 I had not ploughed for 10 years and relied on various forms of non-inversion tillage, using subsoiler/disc or cultivator/disc combinations and letting the land green over and weather down before drilling with an adapted Moore Uni-Drill," Mark explains.

"Claydon came onto my radar because I know Phil Redfearn, a farmer near Doncaster who had been using the system with good results. Before investing, I also visited the Claydon family's farm in Suffolk to see how the system worked on their heavy land, although it's nothing like as heavy as we have here. In 2012, before investing, we had Phil drill half our area of OSR to give us a better idea of how the drill would work on our land. Last year Jeff Claydon and Taig Norman (Territory Manager- North & East) visited the farm to see the improvement which the new system has brought about.

"Since buying the Claydon Hybrid we've had two wet years and one dry, so its abilities have been thoroughly tested. When the weather has been fine and dry after harvest we have drilled almost straight away, as we cannot afford to be working when the land is wet. If necessary, we scratch a very shallow tilth, to a maximum of 5cm deep so that we don't disturb any heavy clay, and then drill. We may also run over the headlands with the drill empty just to break up the top 20 cm or so to relieve any surface compaction, then drill the complete field.

"The Claydon Hybrid drill is very well made, very strong and even after three seasons shows few signs of wear, so it is obvious that Jeff Claydon did a lot of work to get it just right. It's a machine that has evidently been made by someone who knows a lot about farming, with practical farmers like myself in mind.

"The land here is so heavy that any implement takes a lot of pulling and the Claydon Hybrid is no exception. The reason for choosing the 3m version was so that our 180hp Valtra tractor could stay on top of it, even on the heaviest land. I use the 9"-wide A shares instead of the 7" ones to get a bit more seed coverage and reduce the distance between the rows, which helps to keep blackgrass at bay.

"With the Claydon Hybrid you can cover the ground very quickly, with only one operation, rather than numerous cultivations as with a traditional establishment system. I drill at 9 km/h, never more than 5cm deep, and cover 17ha to 20ha a day, so timeliness is never an issue. In fact, it has been much improved and because the output is so great I have been able to delay drilling to help with weed control. I'm also saving over 50 per cent on my fuel bill and in the time taken to establish crops because the Claydon System is so efficient.



Digging down into the heavy clay soils reveals the sort of stuff that could be used to make bricks.

"One of the best things about it is the even crop growth. Because you don't dry the ground out by over-cultivating there's always moisture in the seedbed. Crops get off to a good start, keep growing throughout the season and ripen evenly, which makes harvesting easier and produces a higher-quality sample. The straw is also of better quality, which is important because we sell some as there's a good market for bedding straw and current prices are not to be sniffed at.

"Because we are also now making greater use of sewage sludge and gypsum there's always organic matter going back into the soils and the improvement in their condition and structure is evident.

"I do all the combining and don't worry about chopping the straw short because that just takes a lot more power and reduces the combine's output. Straw is never an issue with the Claydon Hybrid in any case because the clearance between the tines is so great that it makes no difference.

"If there is a lot lying on the surface I use the Straw Harrow just to spread it evenly, but it's never a problem. On occasions, I might also run over the land with the Straw Harrow a day or two after drilling just to level the surface and improve the seed to soil contact, then let the soil haze over and roll the following day.

"The Claydon Hybrid is great just the way it is, but if we grow more cover crops I might replace the leading tines with front cutting discs, or even look to trade it in for a slightly larger model and do more contracting."



The true nature of the heavy clay soil can be seen here, underlining the need to work it when conditions are just right.