



“ I required a drill which was versatile and would operate reliably in any situation. ”

On Farm Opinion

Increasing awareness surrounding soil health has meant many farmers and contractors have taken the decision to change their drill. CPM hears how tine drills have made soils more workable in the South West.

By Rob Jones and Melanie Jenkins

The rising popularity of direct strip seeding has allowed one farmer and contractor in the South West to improve both his own soils and those of the farmers he does contract work for. Having started out with a Claydon V-Drill to benefit soil structure and increase drainage, Brian Adams now runs two Hybrid drills and is looking to expand his offering to cultivation work.

As both a farmer and contractor, the importance of soil health can't be understated for Brian. Based at Church Town Farm, Fairy Cross near Bideford, he feels that profound economic and staffing changes taking place in the farming

First time

industry, combined with a growing awareness of soil health, are driving more widespread adoption of this innovative technique.

Soil degradation

“Over the years I became very aware that the plough and power harrow are terrible for the structure and health of soils, which often become completely anaerobic and lifeless, while erosion following heavy rain was an increasing concern,” he explains. “The problem was compounded by the fact that most cereal straw in this area is baled for bedding or feed, so not enough organic matter was returned to the land. The issue was evident throughout this area and even on Exmoor's light soils.”

So when he began developing his contracting business in 2005, he started by looking for an alternative method of establishing crops. “The average annual rainfall in this area is 1220mm, which ruled out disc-type drills because in wet conditions, seed would simply become waterlogged and rot in the row, so whatever I purchased had to be tine-based. The one which caught my eye early on was the Claydon V-Drill, which had been launched a couple of years earlier and I just happened to come across a farmer who suggested the firm,” he says.

Following a conversation with the drill's

designer, Jeff Claydon, Brian and his agronomist visited the Claydon family's farm in Suffolk to find out more. There he learned about the Opti-Till System, and was drawn in by the idea of taking a holistic approach to crop establishment that could deliver consistent, high yielding crops at a low cost to help maximise profitability.

“Jeff took me on a tour of his farm, and I was impressed by just how well-structured and free-draining the soils were; that sold me on the Opti-Till System. Even at that time, Jeff had done a tremendous amount to promote soil health and it made me realise how beneficial that approach could be to improve the structure of soils, reduce erosion and increase worm populations on farms in Devon.”

The V-Drill, which Brian subsequently purchased, was the first example that Claydon sold in the South West and for seven years he used it to establish thousands of acres of game cover crops on farms throughout the area.

Brian's traditional customers were small-scale dairy farms, but subsequently his client base expanded to larger livestock enterprises and arable units throughout North and mid-Devon. To cope with the growing scale and diversity of the business, in 2012 he traded the V-Drill in against one of Claydon's latest Hybrid



unnecessarily complex, heavy and wouldn't reliably cope with the wide range of soils and conditions found in this region."

Leading the design

The Hybrid stood out to Brian because of its leading tine design which helps to eliminate compaction and promotes good drainage. He also liked the absence of press wheels, and felt the drill was simple with a practical configuration. Although designed to drill direct into stubble, it can also be used in plough and min-till scenarios, working equally well on heavy clay and light sandy soils, and in baked out ground or wetter areas.

He was able to go straight into using the drill without feeling he had to transition the soils. "So long as organic matter was

being incorporated to the systems — be it chopped straw or farm yard manure — then the system with the drill works really well because this'll feed the worm population and the drill won't destroy them."

Changes in the condition of the soils quickly became apparent. "It was obvious because of how friable the soils became and how it was to pull the drill through much healthier soils, it just flowed."

Brian's original 4.8m mounted Hybrid drill proved ideal for operating in the often small, steeply sloping fields which are characteristic of the area, and for coping with the heavy land situations. In 2021, with work increasing and a wider range of clients coming on board, he invested in a second drill of the same make and type. Purchased through the Torrington branch of Claydon dealer Hamblys, it ▶

models which had been launched in 2009.

"I required a drill which was versatile and would operate reliably in any situation. Although others worked well in certain locations or conditions, many were



Farmer and contractor, Brian Adams, runs two Claydon Hybrid drills which he feels has helped significantly improve the structure of the soils he works on.



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A 4.8m Claydon Hybrid operating on one of Brian Adams' customers' farms in the South West.

► had one key difference: the Twin Tine kit.

“Grassland farmers were asking me to do their reseeding work, but my existing Hybrid wasn't suitable because of its leading tine configuration. The new one has Claydon's Twin Tine kit, which is ideal for drilling into grass leys with minimal disturbance as well as stubbles, cover crops and cultivated land.”

Low disturbance

One of several options available to extend the versatility of the Hybrid mounted and trailed drills, the 'LD' lower disturbance set-up, can be specified on new machines or ordered as a

retrofit. Replacing the standard seeding tine, it can be used either with the firm's standard leading tine or in combination with double cutting discs which minimise soil disturbance and reduce the power requirement.

According to Jeff, the two 44mm x 12mm hardened steel tines in the twin-tine unit are four times stronger than regular 30mm x 10mm tines. “These are fitted with 15mm points and feature unique double-leaf helper springs which are designed to maintain a consistent seeding depth even in dry, hard, heavy soil conditions, yet permit enough lateral movement to displace surface trash and prevent blockages.”



The friable tilth created by the Claydon leading tine allows fast, strong rooting.

Providing a more traditional finish than band seeding, the seeded rows from the twin tine set-up are spaced 150mm apart but the brackets which hold the tines in place can be moved in by 50mm. "This allows the width of the seeded band to be reduced to 100mm, providing more space for a Claydon TerraBlade inter-row hoe to take out any weeds growing between the rows," he says.

For ultra-low-disturbance drilling of soils which are in good condition, the Hybrid's standard leading tine can be replaced with twin 330mm diameter front cutting discs, either a plain design or the 330mm fluted 'Spiradisk', both of which have an integral scraper to keep them running cleanly.

"The 'swap-in, swap-out' design allows for ease and speed of changing from a standard direct strip till set-up to the LD option. The standard A-Share can be replaced with the twin tine set-up by simply undoing three bolts and changing them over, while the standard leading tine can be replaced with the double disc unit by removing one pin," adds Jeff.

"My two Hybrid drills are very versatile



The two 44mm x 12mm hardened steel tines in the twin-tine unit are four times stronger than regular 30mm x 10mm tines.



The Claydon Hybrid features a unique leading tine which is designed to move the optimum amount of soil, but only where required.

and that means we can drill any crop that can be air sown in a wide range of conditions," says Brian. "With leading discs to cut through trash the Twin Tine is ideal for small seeds, while the tines break up any smearing left by the discs and allow water to get away. This is essential because much of the land around here is heavy, and we're in a high rainfall area.

"Last year was our first with the Twin-Tine system, which we used to mostly drill short-term leys after maize, finishing on 4 October. The concept has also become popular for drilling herbal leys into existing pasture and overseeding."

Autumn demand

"We drill a limited amount of spring cereals and once barley has been harvested, move on to establishing stewardship schemes. Autumn is our peak workload, starting with forage oilseed rape and going through until the beginning of November establishing wheat after maize. We drill up to 607ha a year, two-thirds of which is cereals, the remainder is stewardship and reseeding projects."

Another benefit has been an increase in the number of drilling days available with the drill. "It gives you more days to drill because you can go straight into clean stubbles and because it has neither press wheels or discs, this opens up the opportunity to work later in the season and drill into wet conditions with good results. If we had a different drill and things turned wet, we'd have to approach drilling using different methods, such as a power harrow, which we don't want to do."

The two drills are owned by Brian but operated through Cann's Contractors by staff members Tim — who has used Claydon drills since Brian bought his first

V-Drill — and son Will, using a Fendt 724 and a John Deere 6R 215. Forage OSR is drilled at a forward speed of about 15km/h, covering around 4ha per hour, while cereals go in at up to 13km/h, with outputs of 2.75ha-3ha per hour — the exact figures depending on field size and conditions.

"It's not just a case of doing a job then forgetting about it until the next season" states Brian. "We work closely with Oliver Seeds, as they're particularly good when it comes to grass mixtures. We never drill anything that we don't think will emerge and be successful. I monitor the progress of every crop throughout the season to ensure that we achieve the best possible outcomes for our customers.

"Slurry or digestate is hugely beneficial to achieve the best results as the seed germinates best when in close contact with a nutrient-rich growing medium which allows the crop to get away quickly. Last September we drilled 24ha of long-term grass in a field which had been cut for silage and digestate had been applied — the germination was as good as I've ever seen.

"Customers notice a significant and progressive improvement in their soils where crops are established using the Hybrid and they then ask us to come back and do more work for them. It's rewarding to see how this approach benefits them and the difference it makes to their results."

The current season has been variable in the area Brian works across. In November 2022 he recorded 250mm of rain, in March 2023 132mm fell compared with 51mm the previous year. And he's never known it to be so wet at the beginning of May, nor so dry by the end of that same month. From ►



A 3m Claydon M3F with LD options drilling directly into a grass sward.

▶ then until the start of July, just 12mm of rain fell.

"Many farmers had to turn stock out early this year because they were short of forage due to last year's exceptionally dry conditions, but the very wet weather then resulted in grassland becoming

badly poached and many areas have to be reseeded.

"The problem was made worse because many farms are using much larger trailers and slurry tankers which cause significant compaction, but the Claydon's leading tines are ideal for taking that out," he says.

"Being in a livestock area, many farms spread slurry in the spring and the fields we've worked with our drills are much better positioned to support the weight of machinery."

Used to establishing a wide range of crops, from wheat and barley to grass, maize and stewardship schemes, with good results, Brian feels his two Hybrid drills have been very reliable. "The only change to the standard specification has been to foam fill the tyres which were prone to punctures on certain stony soils."

Because the drills are used for a significant area of overseeding and stewardship schemes he fits new wheel bearings at the start of each season to avoid downtime during busy periods.

"Farmers are always looking for ways to operate more efficiently, so I'm not surprised that even traditionalists are coming around to the idea of using strip seeding to reduce their costs and improve soil structure," he adds.

Brian feels that he can offer a versatile system which can be tailored to suit his customers' exact requirements. "And I'm currently considering a Claydon Straw Harrow and Claydon TerraStar light rotary cultivator to provide a complete crop establishment service," he concludes. ■



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