

DIRECT DRILL GUIDE

2022



DRILL MANUFACTURERS IN FOCUS...

AMAZONE MATCHING YOUR DRILL TO THE SEASON

Dry growing seasons put the relationship between soil movement, seed placement and reconsolidation under scrutiny. Choosing a drill that makes good use of available moisture can also help you reduce the work and cost involved in getting crops established.

A field can be fit to travel on and still be too dry to establish a crop well. The Met Office recorded the UK's driest spring since 1974 in 2025, bringing a reminder of how quickly the seedbed can dry out. In those conditions, a drilling window can close even when there is no rain forecast to interrupt fieldwork.

This has a bearing on how you assess a drill. Working width and hopper capacity tell you something about potential output, but the amount of soil moved and the way it is firmed around the seed influence whether that output produces an even crop. An extra cultivation may improve the appearance of the seedbed while exposing more moist soil to drying. It needs to achieve something that justifies the moisture loss as well as the fuel and time involved.

There is plenty of choice in the drill and implement market to address this. Narrow tine openers, cutting discs that work only ahead of the seed row, and separate metering of



The Cayena 6001-C working in stubble, with the rear Matrix tyre packer reconsolidating only the seed rows after placement

seed and other materials allow establishment to be tailored more closely to the job. The useful comparison is how these arrangements work in your soils and rotation.

Soil movement and seed placement

On the 6m Cayena, the narrow TineTeC coulter opens a seed furrow with relatively little soil movement. Its positive penetrating action helps it enter hard ground, while sowing depth is adjusted mechanically using two turnbuckles. This gives you a straightforward arrangement for placing seed into moisture without cultivating the full soil surface.

The coulters are staggered across three rows to provide clearance for soil and crop residues, despite the relatively close 16.6 cm row spacing. Optional front cutting discs cut through residues ahead of the tines. Their purpose is to improve residue throughput and pre-cut the soil, reducing the disturbance needed as the coulter follows through.

What happens behind the coulter is equally relevant. The Exact harrow covers the seed furrow before the wedge ring roller, with its Matrix tyre profile, firms the soil in line with the seed rows. That targeted reconsolidation brings soil into contact with the seed. A seed sitting among loose clods can struggle to take up water even where moisture is present further down the profile.

Dig across the drill width, including behind the tractor wheels, to check seed depth, coverage and soil contact. Repeat these checks when soil conditions change. Good penetration alone does not tell you whether it is covered



Optional cutting discs ahead of the Cayena's tine coulters help manage surface residue and improve passage through the drill

The power of versatility

The Cayena tine coulters seed drill



AMAZONE Cayena 6001

Hopper capacities of
3,600l or 4,000l split tank

The Amazone Cayena trailed tine coulters seed drill delivers reliable sowing across a wide range of conditions – from direct drilling to cultivated seedbeds. With a generous hopper and narrow TineTeC coulters, it maintains high work rates while minimising water loss, helping operators cover more ground efficiently.

- ✓ **Fast operation** - Up to 15 km/h for high daily output.
- ✓ **Accurate placement** - TineTeC coulters ensure consistent seed depth with minimal soil disturbance.
- ✓ **Versatile** - Optional front cutting discs for excellent residue handling.
- ✓ **Flexible sowing** - Multi-chamber hopper handles different seeds or seed and fertiliser together.





A Cirrus working in green cover illustrates the range of establishment conditions a drill may encounter across the rotation

and consolidated adequately. Neither can greater drilling depth solve every moisture shortage; the seed still has to emerge successfully, particularly with small-seeded crops.

Residue management also affects the result. Straw and chaff need spreading evenly at harvest so that the drill is not continually moving between clear ground and concentrated bands of material. Where a cover crop precedes spring drilling, the timing of its destruction needs to take account of its continued water use. A growing cover uses water, which can help in a wet spring but leave less for the following crop in a dry one. Its residue can also reduce surface evaporation, so check soil moisture beneath the canopy.

The dry-season assessment should also extend below sowing depth. If roots meet a compacted layer later in the spring, moisture deeper in the profile may be difficult to reach. A drill cannot put that right simply by producing an even surface finish. Any remedial work needs to follow a soil profile inspection and be carried out in suitable conditions.

Flexibility across the rotation

The same farm may need several approaches to establishment. Cayena can work directly into stubble or follow cultivation, giving you scope to vary cultivation across the rotation. Its narrow tines keep the pulling requirement relatively low, although the tractor needed will depend on soil conditions, terrain and the load being carried.

For farms using a cultivator drill, the Cirrus with Minimum TillDisc offers another way of reducing soil movement. The cutting discs work strips ahead of the sowing coulters, replacing the more intensive action of the conventional cultivation disc unit. Where a wider tine drill is required, the Condor 02 combines ConTeC pro coulters with 8m or 9m working widths and a compact chassis.

Flexibility also extends to what goes through the drill. Cayena 6001 has a 3,600-litre hopper, whereas the 6001-C has a 4,000-litre hopper divided 60:40, with separate metering for each chamber. This allows two materials, such as seed and fertiliser or different seeds, to be metered

independently and delivered together into the seed furrow. Independent metering gives you control of each rate, but a shared outlet means the materials must be suitable for placement together at the same depth. This is where machines such as the double-shoot Cirrus or Cirrus Grand with either baffle plate seed delivery or secondary FerTeC disc coulters allow two different placement depths.

Keeping the drill working

Easy filling and well-planned seed deliveries help you make the most of a drilling window. A 6m drill at 10km/h has a theoretical output of 6ha/hour. Six hours of uninterrupted full-width drilling gives 36ha; another hour gives 42ha at the same speed. Having seed and loading equipment ready can make that difference without asking the coulters to work faster. With the Cayena 6001-C, the 4,000-litre hopper minimises the number of refills per day.

Changing crops or seed lots also brings calibration into the day's work. Cayena's optional TwinTerminal is positioned at the machine, allowing you to carry out calibration without repeated trips to the cab. Accessible metering equipment makes it easier to check the rate properly when seed size or flow characteristics change.

Recent developments in distribution systems address a different source of waste. MultiSwitch on the Condor 02 and Cirrus 04 series controls individual rows. With compatible GPS section control, rows shut off progressively at angled headlands, reducing overlap to below 1 per cent. This makes seed requirements easier to plan; using the field area and chosen seed rate, you can fill the hopper with almost exactly the quantity needed for the job. As well as saving seed, this reduces the amount left to empty out before changing crops or varieties.

When you return after emergence, plant counts and the evenness of the crop will help you judge the result. Keep those observations alongside your drilling conditions, machine settings and establishment costs, including any preceding cultivations. You then have something useful to compare next season: the full cost of establishing the field and the crop that followed.



The Condor 9002-2TC working in stubble, with its individually guided coulters following the soil surface



FAN JET

“Spinning disc spreader”

- Multi-purpose and cost-effective
- Broadcasts slug pellets, small seeds and granules
- 65 or 130L hopper capacity
- Up to 36m working width



SCAN ME

STOCKS HAVE IT COVERED

Scan from your mobile to find out more
www.stocks-ag.co.uk



TURBO JET

“Precisely metered & accurately spread”

- Up to 15m working width
- 240 or 400L hopper capacity
- 8 or 10 outlets, can be doubled
- Precisely metered, even distribution of grass, slug pellets, cover crops, Avadex and OSR
- Variable rate options available

APPLICATORS & SEEDERS WHEELS & TYRES APPLICATORS & SEEDERS WHEELS & TYRES

StocksAG

Stocks Ag Limited, Cromwell Road, Wisbech, Cambridgeshire, PE14 0SD, UK
+44 (0)1945 464909 sales@stocks-ag.co.uk www.stocks-ag.co.uk



DRILL MANUFACTURERS IN FOCUS...



**NOW IS A GOOD TIME TO PLAN YOUR FUTURE
FARMING STRATEGY**



The Claydon farm's 6m Evolution one-pass drill and double front hopper combination establishing a cover crop.

The question most farming businesses are asking right now is how they can remain viable in an extremely challenging environment. In his latest article for Direct Driller farmer and agricultural engineer Jeff Claydon reflects on the 2026 harvest and outlines the measures he has been taking to set the family arable farm in Suffolk on sound financial and agronomic footings for the future.

14 September 2026

Are we now seeing the green shoots of recovery in the farming sector? I do hope so, because when I drafted my last article for Direct Driller back in May there was nothing for the industry to be positive about.

The poor harvest in 2025 was compounded by a long period when the wheat price remained stagnant at around £170/t. Then the potential of crops that was evident this spring failed to fully materialise due to the extended drought from then on, increasing concerns going into harvest as it remained dry.

On the Claydon farm we had just 3mm of rain from March until the first week of June when 50mm fell, then nothing through to the end of July. Fortunately, after 23 years' of using the Opti-Till® System, our clay soils are in excellent

condition, with no signs of compaction (even in the absence of a subsoiler) so crops could get their roots down to find moisture at depth. They remained healthy and grew happily to maturity.

Combined with our low-cost method of establishing crops,



This 15m Straw Harrow is at the heart of the Claydon farm's stubble management approach. It evenly distributes/breaks down chopped straw and creates a 2cm to 3cm micro-tilth which encourages weeds seeds and volunteers to germinate so that they can be raked out later with another pass. In a normal season worms would quickly rise to the surface after harvest and take almost all the straw down, but this year they remained underground until the first rains.

MULTICAST

Multi use air seeder



A seeder that applies numerous products and suits a wide variety of implements.

- ▶ Powerful hydraulic fan ▶ Garmin GPS control system
- ▶ Cartridges available - SFI mixes, Avadex granules, slug pellets & small seeds
- ▶ 200L or 400L hopper ▶ 12m/15m boom options



Techneat

Email: info@techneat.co.uk | Tel: 01353 862 044 | www.techneat.co.uk



**VIEW OUR
WEBSITE**

using Opti-Till® put us in a good position going into harvest, which was early, easy and inexpensive. We could harvest at will, often starting early in the morning when the moisture meter showed 12% and stopping as the grain became too dry to measure.

There wasn't quite as much to gather in as I'd hoped for back in the spring and ultimately our average wheat yield came in below the farm's long-term average, at between 7.5-9t/ha. Nevertheless, that was a pleasant surprise given the complete lack of moisture and highlighted the benefits of ongoing work to improve our soils.

Considering that our spring oats had no rain from the time they were drilled in March, then in the first week of June 50mm I was pleased with 5t/ha. Unfortunately, as many experienced, a lot of spring crops drilled into cultivated soil never really got out of the starting blocks and some were a write-off.

Reading and listening to the rubbish that passes for journalism in the mainstream media you would think that food is no longer needed and farming has ended. In a country which is only 60% self-sufficient in food and where consumers have become used to seeing shelves laden with cheap food that's just crazy. Yet the fear and very real danger of a complete meltdown of the farming industry and countryside is a situation which I have not seen in my 60-plus years in this sector.

In the strange world and strange times that we are all experiencing at present it would be easy to become depressed and demotivated by serious declines in crop yields, massive increases in input costs, low commodity prices, complicated support grants and the removal of IACS payments, compounded by extreme weather.

The risk to survival has become intense and very real for many farmers at all levels. We have even seen very large farm management operations restructuring and many small units which individually are unviable continue by farming collectively or leaving the industry altogether, taking valuable skills with them.

The passion of farmers to farm is unrivalled and so important to the UK's food security that one wonders why



With just 20mm of rain in August and 8mm in September the soil was still rock hard below 30mm on 9 September

our industry is so undervalued. The challenge we all face is how to remain profitable so that we can continue to operate in the future. Notably, it's not only farms that are being squeezed financially but also the support industries which work to help us produce food to the high standards that the public expects in today's world.

Looking Forward

Finishing harvest so early could have presented a wonderful opportunity to establish cover crops during the first week of August to secure SFI payments. But with continuing high temperatures and only 1mm of rain on 1 August our Hanslope Series soil was still bone dry, so we held back.

As farmers it is in our nature to always be 'doing something'; 'doing nothing' after such an early harvest was difficult. Patience is key and the time could be better spent undertaking infrastructure projects around the farm than engaging in unnecessary and expensive 'recreational tillage', largely for cosmetic reasons.

Cultivating dry soil will only make it drier. There is the danger that instead of weed seeds/volunteers germinating so that they can then be taken out by mechanical and/or chemical means they will be buried, preserved and emerge in the growing crop, making control more expensive and difficult.

Within a week of finishing harvest, we had covered all the land with our Claydon Straw Harrow, on a diagonal to the direction of combining. The ground was so dry that this often-underestimated implement created what looked like a Sahara Desert dust storm moving across the fields, but it did a wonderful job. The 2cm to 3cm of fine tilth which it created, combined with levelling chopped straw to act as an insulation blanket, helped absorb heat, prevent sunlight baking the soil out and minimise evaporation losses.

On a small area of contract-farmed land not under SFI we also had the opportunity to carry out a second pass with the Straw Harrow to break off the growing shoots of volunteers / weeds, further reducing their numbers.



This cover crop, established after winter wheat, was showing through nicely in mid-September

VIRKAR

Dynamic C Tine Drill



Introducing the New Dynamic C Tine drill Available in 4-7 meters with 19-25cm row spacings. Designed for ultimate versatility, with ultra precise contour following coulters. On the move Coulter pressure control up to 270kg of pressure per coulter, 35cm of coulter travel, Industry leading coulter stagger and under beam clearance.

Low disturbance tungsten seeding points.

Maintenance free coulters.

Designed around the Award winning Dynamic Chassis.



VIRKAR

Redesigning The Way We Go Seeding !

Innovation Knows No Boundaries !

*Available for demonstration
this spring*



To ensure that cover crops would germinate quickly when rain did arrive, we one-pass drilled half our planned area, running the leading tines on our 6m Claydon Evolution much shallower than normal to avoid bringing up clods. As a trial we broadcast seed on the remaining area with a Kuhn Aero pneumatic spreader.

Both areas were Straw Harrowed again to evenly distribute the straw and cover the seed, then we used our 15m Claydon Cambridge Rolls to break down any surface clods and consolidate the soil. The seed sat there for a few days until the first measurable rain in months fell in the last week of August to start the germination process and these cover crops will be sprayed off, providing a clean base point for drilling the winter wheat in mid-October. The spring cropping area will be drilled with winter cover crops which come free of volunteers and weeds and will provide an ideal entry for spring oats.

For Harvest 2027 two thirds of the farm will be winter wheat, mainly Elsoms Bamford which has served us well for several years, with small areas of three new soft wheat varieties as a trial to see how they compare. The remainder will go into spring oats.

I have never seen our soil this dry in September. The 20mm of rain in the last half of August was followed by 8mm at the start of September, much of which evaporated quickly because of the high temperatures. The original plan was to spray off our summer cover crops and volunteers/weeds during the third week of September and direct drill winter wheat before mid-October with the 6m Claydon Evolution.

The hardest thing now is to be patient and leave the dry soil, which suffered no damage from harvest traffic and will be in perfect condition when the time is right to drill it. As I write this in the second week of September our cover crops are at the cotyledon stage and volunteers/weeds are germinating strongly, but with little rain forecast everything could be delayed.

Recently I have seen numerous posts on social media by those who are trying to bully their soils into a seedbed but obviously struggling using conventional methods. I wonder why they are doing so when you can achieve excellent results



After spring oats had been harvested a cover crop was established and emerged strongly despite dry conditions



Straw Harrow created 2cm to 3cm of tilth

in much less time, with minimal diesel use, no breakages and very little wear and tear on machinery. Keeping our bank balance intact is much better than being busy!

Rather than 'chasing clods' I have been watching the markets and sold half of our wheat for pre-Christmas delivery, at an average of £200/t. This is pleasing after seeing the price stuck at £170/t for so long, but I'm still hoping that prices will increase further post-Christmas and prove that I was wrong to sell at that level!

Reducing Risk

Farming is all about managing risk, making judgements and not over-committing by stretching labour and machinery too thinly. Conditions this year were so dry that given the very high output of our machinery we could have coped with three times our farmed area, but in a wet year taking that approach could be disastrous. Many people remember that 1976 was another exceptionally dry year but most forget that it began raining in October and didn't stop until the following spring. We don't want to fall into that trap.

I see numerous farming business who are looking to expand paying high rents in the quest to achieve economies of scale, but one must ask why. Bigger doesn't always mean better and expansion brings greater risk, be it from increasing geopolitical threats, rising interest rates, unforeseen upward moves in input costs, greater depreciation, adverse weather, or any number of other factors. Ultimately, the best way forward could be to operate more efficiently, at lower cost and reduce risk.

More than ever farming businesses need to look at where money is being spent, what benefits it brings and where they can risk not spending. In my experience unnecessary operations to establish crops are one area to target and I hope that what I have said about the benefits of the Opti-Till® System will resonate. When planning for next season perhaps take a look at our online cost calculator at <https://claydondrill.com/calculator/> to research how much time and money you could save by changing your approach to establishing crops, with the bonus of higher yields, improved timeliness, much-reduced risk and far less stress.

Turn your ideas into action

ADOPT grant funding gives farmers, growers and foresters the opportunity and confidence to test practical ideas on farm.

- Grant-funded projects with total costs of £50,000-£200,000
- Free help right from the start from the ADOPT Support Hub
- Projects covering agriculture, horticulture and agroforestry
- Rolling programme of funding application windows every 8-9 weeks

Join the growing community of innovators running ADOPT projects, led by farmers tackling real-world challenges. Generate evidence, demonstrate what works and help drive the future of productive, sustainable farming.



Find out more



“What appealed to me about ADOPT was that it recognised farmers as innovators. ADOPT created the space to take an idea from the farm gate and test it properly, while keeping the work grounded in real farming conditions.”

Will Barnard, Keward Farm, Somerset



HORIZON

Introducing the new 7.5m, 8m and 9m MDSX.

The MDSX no-till disc drill offers all the advantages of our market-leading DSX row unit in a lightweight, mounted format. Our new 7.5m, 8m and 9m MDSX platform is designed with high-acreage farmers in mind, offering wide working widths whilst maintaining a transport width of 3m wide and 4m tall.



7.5, 8 and 9m working widths.



25hp required per meter.



22cm and 25cm row spacings.



MDSX 3-4m

Mounted 3m and 4m rigid frame



MDSX 4-6m

Mounted 4m, 5m and 6m folding frame.



MDSX 7.5-9m

Mounted 7.5m, 8m and 9m folding frame.

LEARN MORE



HORIZON

t: +44 (0) 1945 440 999 | w: horizonagriculture.com

DRILLS ON THE FARM

WHAT MAKERS HAVE BEEN UP TO

Written by Mark Hatton and Chris Fellows

We've been through the launches and the show stands of the drill makers in this issue to see what's new for autumn 2026. Here's what we found, from show launches, product news and what they've been posting from the field, so you know what's worth going to look at.



Weaving Machinery

Weaving had the biggest drill of the year at Cereals: a 12m-trailed Sabre, two years in development and the first 12m machine the Evesham firm has built. It runs 48 tine coulters at 250mm (or 60 at 200mm), a 6,200-litre pressurised steel hopper split three ways, and metering units Weaving now makes itself from stainless plate. It's £148,800, and Simon Weaving says a 12m GD disc drill follows in 2027. The first one has been out drilling in South Warwickshire this month.

Further down the range there's a trailing kit for the Fenix disc drill so a 100hp tractor can run it, a grain-and-fert Fenix that mixes both through one head, and an updated 3m Lynx entry-level direct drill in 32-row or 24-row form. Weaving was also on the demo field at Agrii's Appleton Roebuck direct drilling day on 30 September, and the home farm at Chadbury, back in hand after 15 years of veg and biogas cropping, is putting the Sabre and GD through a remedial rotation of wheat and double cover crops, with open days to follow.

OPICO

OPICO's drill line-up has changed shape. Sky went back to its French owner at the end of 2024, and in its place OPICO took on the Simtech range late last year, building the T-slot coulters to order and putting spares on its MyOPICO web shop. At Groundswell, it showed the 3m TJG300 with a 1,000-litre Stocks steel hopper, which also carries it over the line for FETF funding, and Glenn Bootman had the 4.8m TS-480AP pneumatic drill

working at Agrii's Appleton Roebuck day near York in September.

For grassland and cover crops, there's the HE-VA G-Drill, a disc drill for stitching grass, cereals and pulses into leys and stubbles on 400mm Vector discs with hydraulic weight transfer. It had its first working demo at ScotGrass in May, now with a 1,000-litre hopper option and twin electric fans good for 300kg/ha, and OPICO's been out this autumn putting a herbal mix straight into permanent pasture with it. It qualified for the last FETF round at up to £15,067.

Väderstad

Väderstad used LAMMA in January to launch the next-generation Spirit 400-900 and the 12m Inspire 1200, both on the new TriForce II coulters suspension that holds coulter pressure over rough ground, with a new following harrow and hydraulic depth adjustment from the cab. Since June, the Generation II row unit for Tempo and Proceed has been available: a narrower furrow, depth and closing-wheel pressure set



Väderstad factory tour



used to pile up in storage. Some of the welding robots have been running for 20 to 25 years and only get replaced when spares run out, not because they're worn. The Tempo hall is building the new Generation II row units, and a 12m Tempo L was going down the line while they watched. Machines leave either tractor-ready or knocked down for a container, and Crister told the group the next push is South America, with Brazil the big one.

The second video is the field day, and it's David Jones, 30 years on Väderstad kit, who does the talking. He's run TopDowns for nearly 25 years, has a 2014 and a 2019 on the farm, and reckons the two of them will clear 250 to 300 acres a day at a steady 10 to 11kph when the season's tight. He runs a 50mm Marathon point with an 80mm shin for mixing chopped straw. The new E-Services version sets discs, tines, levellers and packers independently from the iPad, with four presets and the option to run depth off a prescription map, so headlands and heavy patches get worked deeper without anyone leaving the cab. Also on show was the

from the seat, and it retrofits to existing machines. On the cultivation side, the Carrier XL, XT and 925 gained a third disc axle front tool, putting 50% more discs in the ground for ultra-shallow work.

For a look behind the curtain, Joe Seels of Future Farmers went out to Väderstad in June with a bus of UK farmers and was the first person allowed to film inside the factory, with Crister Stark himself doing the tour. Building started there in 1972, and it's now close to 100,000 square metres under roof, nearly 10ha, with about 1,050 people on site. The thing Crister is proudest of

is the tube line: Väderstad is the biggest user of square tube in Sweden, all of it cut by laser straight from the CAD file, one shift ahead of when it's needed, with two staff per shift keeping three or four lasers fed. The steel isn't Swedish, mind; most of it comes from Finland. "Swedish steel bites," Crister says, but nobody in Sweden makes square tube anymore.

The welding is done by pairs of robots, one holding the part and one welding, which does away with the fixtures that



Scan to watch Joe's videos

Factory tour with Crister Stark



Field day with David Jones



new Tempo T, a six or seven-row planter on a telescopic frame that changes row spacing, with GPS tramlining that lifts the row units instead of marking a line.

Virkar, from Samagri

Virkar, imported by Samagri in Hampshire, has had a busy year back home in Spain. The Dynamic range (4.5 to 7m, 5,300-litre hopper, on-the-move coulter pressure up to 270kg, with tine, disc or disc-and-coulter options) is now joined by the Lite D&C, a lightweight disc-and-coulter drill where the disc row can be lifted out to run the tines alone. It's built to pair with the new Vaken front hopper: 2,300 litres, pressurised, two products, ISOBUS. At FIMA in February, Virkar showed the Tactic, the next step on from the big Ocean drills, and it picked up an innovation award at the Sant Josep fair in March. It's worth asking Samagri which of these are heading for the UK.

Horizon Agriculture

Horizon's Gen 3 DSX row units are 20kg lighter and about 40mm narrower than the old ones, so they'll now go down to 150mm centres where the straw's been baled. The range has filled out at both ends: new 3m and 4m rigid-frame trailed drills for 105 to 140hp tractors, good for up to 2.5ha an hour, and 7.5m, 8m and 9m versions of both the trailed



DSX and mounted MDSX at the top.

At Cereals, the Sutton St James firm showed its RotorFlex peristaltic pump for liquid fertiliser through the drill. A rotor squeezes a hose so the liquid only ever touches the inside of it: no valves, seals or filters, 12 to 24 outlets, up to 240 litres a minute, hoses swapped in the field in minutes, and it retrofits to any make of drill. The business behind it has grown fast: over 400 machines sold, two-thirds of them DSX, turnover heading for £12m, nearly 50 staff, a 26-acre site bought for a new factory by 2028, and sales into more than 35 countries. Closer to home, Russells had a 6m Gen 3 DSX on 18cm rows drilling

winter wheat at 240kg/ha near Lincoln in mid-October.

Dale Drills

Dale Drills took the LAMMA 2026 Arable Establishment Innovation Gold Award for its E Drill-Control system, an electro-hydraulic set-up developed by engineer Tom Crosbie with UK suppliers. It puts every hydraulic function of the Eco drills on a screen and joystick in the cab, so tine down-pressure can be changed on the move as the ground changes across a field, instead of stopping to reset it.

Two more things worth knowing. In June, Dale became the only source of a tine holder for Bourgault's VOS opener range, so an Eco can swap its standard 12mm tungsten tine for 12mm or 19mm narrow points, or 50, 75 and 100mm band openers, mainly for those on 25cm rows who want to band sow. And the Scorpion drilling assembly puts a single narrow tine, a single or double seed boot and twin Güttler closing wheels on 25cm centres for anyone planning to inter-row hoe, factory-fitted or retrofitted.

The pitch behind the advert is horsepower. At 20hp/m, a 6m Eco M runs on 150hp where a strip-till drill wants 300 to 350, and Dale reckons the £169,000 gap between those two tractors costs about £22,300 a year in finance and depreciation before you've drilled an acre. Tom Dale will be talking through 30 years of CTF and soil health at Harper Adams' Soil and Water Conference on 9 December.

Vredo, from Campey

Campey Agriculture brought the new





CULTI 5-row tined drill to Agrii's Appleton Roebuck day with local dealer Peacock & Binnington, so it's been seen working in Yorkshire stubbles this autumn.

On grassland, the 6m GreenMaster 600 Compact, developed with Güttler for the UK, has gained hydraulic adjustment of tine angle and roller from the seat. Geoffrey Wox's case for the SuperMaxx is simple: a 5m machine on a 120hp tractor at around 5 litres/ha of diesel, whether it's cultivating or drilling, for a fraction of the price of a dedicated drill.

Go and kick the tyres

If you're weighing up a change for next autumn, most of these will be in the halls at LAMMA on 20 and 21 January, alongside CropTec at the NEC.

Vredo DZ5 Agri Overseeder to LAMMA and Cereals. It's the first Vredo that does both jobs: 7.5cm rows for overseeding grass, switching hydraulically to 15cm for direct drilling into arable ground or bare land, with three separate metering systems so grass, herbs and legumes go in together in one pass. The DZ5 can also take front tools to scalp or clear residue ahead of the discs.

The 329 Agri now comes with a 1,050-litre hopper as standard, which meets the direct drill grant spec, and Vredo still quotes 96% germination from its double-disc slot.

WOX Agri Services

Wox marked 20 years in business with its first Wox Fest open day at its Northumberland base this year. On the drilling side, the Güttler SuperMaxx tine cultivator now has a proper tine-

drill version using a coulter boot Wox designed itself, fed from any front tank at 12.5cm spacing, with the seeding kit coming off again when it's back to cultivating. Wox took the SuperMaxx



DALE DRILLS
ENGINEERED IN LINCOLNSHIRE
SINCE 1951

**A DRILL FOR THE TRACTOR
YOU ALREADY OWN**

**LOW HP.
BIG
RESULTS.**

Why upsize the tractor? The Eco, MTD & MTD+ require minimum 20 hp/ha — drilling direct, min-till or conventional at 3 – 13.5 m, on as little as 1.5 L of diesel per hectare. Lower fuel, lower finance, same Dale build.

TALK TO US →



FOLLOW US @daledrills

DALEDRILLS.COM
INFO@DALEDRILLS.COM · 01652 653 326

MICRONUTRIENT BOOST TO OSR CANOPIES MAY UNLOCK SPRING NITROGEN SAVINGS

Growers are being urged not to overlook the importance of micronutrients in oilseed rape (OSR) this autumn, to give crops the strongest possible start next spring and potentially unlock nitrogen savings.

With a reported increase in OSR in the ground this season, the focus now should be on getting crops into the best possible condition before winter.

"Growers should be focusing on appropriate micronutrient management this autumn if they want to help build a robust crop which is capable of utilising available nitrogen efficiently," says Agrii's Bios, Micronutrition and Adjuvants Business Manager, Dr Mark Glover.

That means monitoring crop development through the autumn, using tissue analysis to identify potential deficiencies and paying particular attention to molybdenum and boron, alongside the major nutrients.

Micronutrients can influence how effectively a crop converts applied nitrogen into biomass and, ultimately, yield. As a result, nutrient decisions made during establishment can have a significant bearing on canopy size in February and the amount of nitrogen required to achieve target yields.

Highlighting the potential spring



OSR plants in Autumn

nitrogen savings associated with a larger canopy, Mark explains: "For a 3.5t/ha OSR crop, a GAI of 0.5 can require around 183kg/ha of spring nitrogen, compared with about 100kg/ha where GAI is 1.5."

That represents a difference of more than £100/ha in nitrogen cost (34.5% N @ ~£400/t), with the lower-GAI crop requiring around £249/ha of nitrogen compared with approximately £136/ha for the crop with a GAI of 1.5.

The figures highlight the value of establishing a robust canopy and root structure ahead of spring, rather than trying to bring a weaker crop back later.

"There is nothing worse than getting to February and trying to recover a

crop rather than optimise it," says Mark.

"A GAI of 0.5 is okay and manageable, but the cost of getting a 3.5t/ha yield from that is substantial with bagged nitrogen."

He encourages an integrated approach to nutrition, beginning with soil testing and supported by tissue analysis during the season.

"If we don't measure it, we can't manage it properly," he says.

Molybdenum

Molybdenum is a key nutrient that requires particular attention in autumn and spring, especially when trying to optimise use of applied nitrogen in any form, says Mark.



Dr Mark Glover, Agrii's Bios, Micronutrition and Adjuvants Business Manager

Sulphur is also critical to nitrogen-use efficiency and should not be sacrificed. However, sulphur application has the potential to restrict molybdenum uptake within the plant, even where soil molybdenum levels appear adequate.

"That comes back to tissue analysis," he says.

Low molybdenum can often be easily remedied with a foliar micronutrient application, making it a nutrient worth monitoring as the crop develops.

Rooting

Developing a strong root system is another important part of building a robust OSR crop.

Many studies have highlighted the relationship between rooting and yield, which is particularly relevant in seasons when crops need to use available water and nutrients more efficiently.

Boron is needed for good root development in OSR, making autumn boron status another key

consideration alongside molybdenum.

However, Mark stresses that when it comes to boron, growers should consider the boron formulation when a requirement has been identified.

This is because boron is relatively immobile in OSR as it produces limited quantities of polyols, compounds involved in the movement of certain nutrients within the plant. Mark says boron formulations associated with polyols improve nutrient mobility because they are transported via the phloem rather than remaining in the xylem.

Agrii trials comparing boron formulations found that conventional boron showed limited movement into younger leaves, while its PolyactivB formulation resulted in significantly more boron detected in younger, developing leaves.

Stress

While more applicable in spring and summer, nutrient management also helps OSR cope with environmental

stress, including drought and heat. Mark highlights magnesium and potash as particularly important nutrients in this context.

Potassium plays a major role in water and nutrient regulation and plant respiration, while adequate magnesium is important for maintaining photosynthetic activity.

There are concerns over low potassium carryover from last season, he adds, making K availability something growers should monitor, particularly where straw has been removed.

Finally, growers should also think about the form of nitrogen applied during autumn establishment, particularly where the crop is already under stress.

Mark says: "Be conscious of what form of nitrogen you apply to a crop at that early stage. If we do apply ammonium nitrate to get a crop going, it has to use a lot of its energy to then convert it into something that a plant can utilise."



Designed by **Operators.**
For **Operators.**



Watch this
in ACTION!

The **Güttler** Greenmaster Range

RENEW. RESTORE. REJUVENATE.



Healthier Grassland. Better Returns.

Find out
more NOW!



Greenmaster 250/300

To find out more call **01670 789 020** or
visit **www.woxagriservices.co.uk**



woxagriservices



woxagriservices



woxagri

Next level ultra-shallow tillage performance



50% higher intensity

The new third disc axle front tool adds 50% more tools to the ground, delivering higher intensity, more mixing, and stronger emergence of weeds and leftover seeds. All while preserving soil moisture and structure. The third disc axle is available for Carrier XL 425-725, Carrier XT 425-625 and Carrier 925.



Where farming starts