Agrii Journal

Summer 2025

Agri intelligence

We're exhibiting at Cereals and Groundswell this year - turn to the back page to find out more!

AGRII'S KATHRYN STYAN WINS AGRONOMIST OF THE YEAR!

What's inside?

NEW!

Want to receive the journal via email?
Sign up for the Journal Microsite today!
Responsive. Interactive. Access anywhere

AHDB YELLOW RUST WATCH LIST ENDORSES VALUE OF AGRII ADVISORY LIST

John Miles, Agrii seed technical manager, tells you what the AHDB's yellow rust watch list really means

Not all wheat is created equal; unfortunately, some are more unequal than others. At the end of February, the AHDB updated its yellow rust watch list. This basic document lists the winter wheat varieties on the Recommended List (RL) and their yellow rust resistance score. It categorises the varieties into three groups according to their deemed resistance status: high, medium and low, although it is difficult to determine where one group ends and another starts. Nor are you told that the list is, in actuality, a ranking that negates the need for the corresponding RL score.

Assuming you were able to discern this vital detail for yourself, you might ask why varieties with a high score are ranked towards the bottom of the list alongside those widely acknowledged to have poor yellow rust resistance.

The changes owe much to the intense disease pressure of the 2024 season which exposed those varieties with truly poor resistance. It also highlights a failure of official trials, namely that averaging performance across five seasons is not an appropriate basis for describing a variety's yellow rust (or brown rust) resistance.

The varieties most heavily affected by the latest assessment are recent additions to the RL – and all have respectable yellow rust ratings. The highest yielding hard feed, KWS Scope, which was added to the RL with a yellow rust score of 6.8, now sits just above the low resistance group of Skyfall, SY Insitor and KWS Zyatt – all of which have a score of 3 and might otherwise be described as 'dirty'.

Other new varieties are similarly affected. The biscuit wheats KWS Solitaire and KWS Flute, with official scores of 8 and 6 respectively, sit immediately above KWS Scope towards the bottom of the medium category. The significance of this fall should not be overlooked.

In what could be seen as kudos for Agrii, the new rankings reflect the yellow rust scores given on the Agrii advisory list – Agrii has scored KWS Scope's yellow rust resistance at 2.7. This is an endorsement of our methodology and the value our trials provide to growers.

The publication of the watch list will not result in the 2025 Recommended List being reissued, but just as rivers don't flow uphill, the scores for these varieties will not improve. Growers and advisers can expect to see changes to the official scores when the 2026 list is published in December.

To some observers, the new rankings might appear to be unreflective of a variety's true disease resistance, but in reality, some varieties were never as strong as official trials suggested, especially in the north and east.

Agrii is fortunate to have a network of national trials, which means we see how varieties perform over seasons, across the regions and under commercial agronomy regimes. The insight these trials provide means we and our growers avoid nasty surprises in a difficult season. Others are less fortunate.

Agrii's new varieties to watch out for this autumn

The new recommended list has seen a raft of new varieties, and with older farm-favourites due to leave the next RL, Agrii's technical manager, David Leaper, shares his top picks with The Journal.

Make sure you get to an iFarm demo (see page 23) or the Agrii Cereals stand to take a look first-hand and hear from Agrii's variety experts.

Winter Wheat
KWS VIBE – *Group 1 milling*
RGT GOLDFINCH – *Group 2 milling with BYDV resistance*
KWS ARNIE – *Group 2 milling*
KWS SOLITAIRE – *Group 3 Biscuit and distilling*
RGT HEXTON – *Soft feed and distilling*
Winter barley
RUSSO – *2-row feed*
KITTY – *2-row feed*
BUCCANNEER – *2-row malting*
INYS – *6-row hybrid*
QUANTOCK – *6-row hybrid*
SY KESTREL – *6-row hybrid with BYDV tolerance*
Winter Oilseed Rape
DK EXEDGE* – *TuYV resistant hybrid*
LG ADAPT – *TuYV resistant hybrid*
MAVERICK – *TuYV resistant hybrid*
CRUSOE – *Clubroot and TuYV resistant hybrid*
*Not National Listed at time of printing

BEAT THE HARVEST RUSH: ESTABLISHING COVER CROPS EFFECTIVELY BEFORE COMBINING

Fitting cover crop establishment into the busy harvest window can be a major challenge for farmers, often compromising the timing needed for optimal results.

Ideally planted from mid-July to mid- August to benefit from the longer days and warmer temperatures, cover crop sowing frequently gets delayed until late August or early September because of harvest timing, particularly in more northern areas of the UK.

To overcome this hurdle, Agrii and Cérience have developed an innovative approach: the PHAB mix, a broadcasting seed mixture designed to be sown up to three weeks before the main crop harvest.

A key element is Cérience's SAS fly seed coating technology. Applied to smaller seeds in the mix, it balances the Thousand Grain Weight (TGW), ensuring even distribution up to 30 metres with a standard spinning disc fertiliser spreader. Calibration settings are available for major spreader brands, including: Amazone, Kverneland, Kuhn, KRM Bogballe, Sulky/Sky, and Lemken.

This dust-free hygroscopic coating also attracts moisture and contains the OSYR organic bio-stimulant to boost establishment.

The PHAB mix itself combines two vetch and two radish species providing a diverse rooting structure, nitrogen fixation potential and improved biomass production. The mix complies with the requirements of the SFI options SOH3 Summer catch crop and SAM2 Winter cover crop.

Advantages of the pre-harvest broadcasting system:

- **Spreads workload:** establishes cover crops up to 3 weeks before harvest, easing time pressures.
- **Optimal timing:** capitalises on better growing conditions for improved results.
- **Timely establishment:** offers a viable solution for later harvest areas.
- **Utilises existing equipment:** works with standard farm fertiliser spreaders.
- **Efficiency:** provides a faster establishment method.
- **Cost savings:** estimated savings around £50/ha compared to post-harvest drilling (NAAC figures).

PHAB S.A.S FLY mix

PHAB: PRE-HARVEST AGRII BROADCASTING MIX WITH SAS FLY TECHNOLOGY

	%	Kgs/ha	Seeds/m²
Hairy vetch	30	6	21
Purple vetch	25	5	12
Oil radish – coated	25	5	18
Daikon radish – coated	20	4	16
	100	**20**	**67**
Seed rate: 20 kg/ha			

Farmer experience: a "game changer" in Cirencester

Austin Russell from J Russell & Son, Church Farm near Cirencester, found the system highly effective on his dairy farm.

"Our dairy farm near Cirencester traditionally drills 70-120ha of cover crops after harvest, often in early September, missing valuable August growth.

"Last year, trialling broadcast seeding Agrii PHAB mix with our own spinner on August 10th proved significantly better. The earlier planting drastically improved winter growth and coverage, distributed evenly across 30m tramlines, and was much faster and easier to fit around dairy work, especially reacting to weather.

"We'll broadcast Agrii PHAB this year for all post-wheat/spring barley cover crops. Though seed cost is higher, broadcasting is quicker and cheaper, offering greater ground cover and nitrogen capture. It feels like a game changer for us."

This pre-harvest broadcasting system offers farmers a practical and efficient solution to establish valuable cover crops reliably, mitigating the traditional bottleneck caused by harvest operations and delivering tangible agronomic benefits.

REASONS TO CONSIDER WINTER BEANS IN YOUR ROTATION THIS AUTUMN

Winter beans are an excellent break crop, if you're looking for alternative options this autumn.

It's no secret that all pulses are hugely beneficial to crop rotations and have excellent environmental benefits both to the soil and pollinators. The most popular pulse options in the UK are winter beans, spring beans or peas. Field beans are usually the more favourable option on heavier land, and combining peas suit lighter land.

Peas bring opportunities to grow for more specific markets on contracts, but they may require more agronomic inputs than beans.

There are more niche, innovative options, such as lupins, which are being explored in the UK too.

Winter beans, typically sown late September into early October, can be a profitable crop for growers, especially if the quality for human consumption markets can be achieved. They provide a sufficient break in a cereal rotation whilst setting up conditions for the following cereal crop, either by improving soil conditions or the residual nitrogen they leave behind that is available to the next crop.

Winter beans cannot be underestimated as a source of nectar for pollinators during the spring flowering period.

The winter bean varieties Agrii offers for drilling this autumn are Vespa and Tundra. Tundra, although now 11 years old and lagging behind higher-yielding varieties, consistently performs on farm and is earlier to mature than other varieties. Vespa is the most widely grown variety in the market and for good reason. It is high-yielding and offers a strong agronomic package, with good disease resistance.

Please speak to your Agrii contact if you want further information on winter or spring pulse options.

agrii.co.uk/contact

SIMPLIFYING SEED TREATMENT DECISIONS

David Leaper, Agrii seed treatment technical specialist, explains the considerations that lead to an informed decision when making a seed treatment choice.

Seed treatments fulfil a range of requirements, but their primary role is to reduce the incidence of seed-borne disease, such as seedling blights, loose smut and bunt. The UK operates a strict seed certification system, which does much to ensure that some important diseases are held at a low level, but it is not possible to eliminate the risk completely.

The use of base-fungicidal treatments, such as Beret Gold (fludioxonil), Redigo Pro (prothioconazole + tebuconazole) and Rancona iMix (ipconazole + imazalil) has done much to reduce the risk even further. For this reason, 99% of certified seed and more than 90% of farm-saved seed receive a single-purpose treatment.

There are some, however, to whom the use of fungicide treatments seems at odds with the desire to promote soil microflora, although the data suggests such concerns are unfounded. The seed industry has done much work to evaluate their effects on non-target species and compatibility in growing systems. Those growers intent on sowing untreated seed, should at least have it tested beforehand to ensure seed-borne diseases are below threshold levels.

Since its launch in 2017, Vibrance Duo (fludioxonil + sedexane) has become a popular seed treatment, mainly in wheat, accounting for one-sixth of Agrii's treated tonnage. It has found favour with growers for its excellent disease control and growth-promoting benefits. It increases crop establishment, reduces black-grass competitiveness and mitigates against cold, wet and spring and summer drought due to its rooting benefits.

Latitude (silthiofam) has been sold for the past 25 years and remains the only product with direct activity against the damaging take-all disease. The take-all fungus is endemic in second and third wheats across the UK. Each year, about 10% of Agrii wheat seed receives Latitude, which is reflective of the second wheat area.

While single-purpose treatments are the minimum course of action recommended in other situations, the data supporting the inclusion of high-load micro-nutrient treatment, such as i-Man (manganese), is indisputable. These products represent a targeted means of delivering nutrients to the young plant and an efficient way of helping it through the 'hunger gap'.

Manganese has been used in spring barley for several decades. Agrii trials data is overwhelming and shows a strong case for applying it to all winter and spring cereals, regardless of the crop, drilling date, or situation. It is especially worthwhile in challenging conditions, such as when sowing is delayed or where soils are wet and cold.

The average yield response for all seed treatments is relatively small, but this masks much higher yield losses in many individual situations. Most importantly, they more than cover their cost with a positive return on investment; this has been confirmed in Agrii trials over the past 10 years.

+ Take-all control (e.g. Latitude): 0.6 t/ha (3:1)
+ Targeted crop nutrition (e.g. i-Man): 0.2 t/ha (3:1)
+ Chemical stimulants (e.g. Vibrance Duo): 0.2 t/ha (3:1)
+ Bio-stimulants (e.g. Nuello iN): 0.1-0.2 t/ha (2:1)

There is increasing interest in non-chemical, biological solutions driven by regulatory pressure and interest in regenerative farming. In basic terms, these fall into two categories:

Bio-control agents: Bacteria-based bio-pesticides have been used by farmers for several decades across the world and, in oilseed rape, we now have an example, Integral Pro. Indeed, it provides better disease control than Thiram, the conventional treatment it replaced. Unfortunately, there are few other products in development as seed-borne diseases remain a difficult target to treat, while regulatory thresholds and product development costs can be prohibitive.

Bio-stimulants: There are many forms of bio-stimulants, from non-microbial products, such as those containing seaweed extracts or peptides, to those containing live cultures, such as endophytes. Their field performance depends more on the crop growing well, and application responses are variable and often dependent on wider environmental conditions. Their benefits can be attributed to improved nutrient use efficiency, improved natural plant defences and greater tolerance of environmental stresses.

Agrii will continue to trial new treatments as they come to market and, where they demonstrate a reliable return to the grower, we will offer them in our seed treatment portfolio.

For further information contact David Leaper, Agrii seed technical agronomist: 07972 188228 / david.leaper@agrii.co.uk

ESTABLISHMENT SCHEME TIPS THE SCALES AS OSR HANGS IN THE BALANCE

It is the second week in April and Charles and Philip Roberts' DK Exsteel looks superb in the spring sunshine.

After a good start, the farm's 85 acres of oilseed rape appear to have plenty of potential, the cousins agree.

Yet OSR is in the last chance saloon at Riggall's Farm, following two years of heavy crop losses as a result of cabbage stem flea beetle damage.

"We'd been growing oilseed rape pretty successfully for a number of years with the (DEKALB) Ex hybrid varieties.

"We liked them because they were pod shatter resistant, they were relatively compact and they were consistent," says Charles.

"But as soon as the neonic seed treatments were banned, we started to struggle with cabbage stem flea beetle. We had a year or two where we had maybe not too bad a crop but the last couple of years have been a complete disaster."

However, oilseed rape is an important break crop on the 550-acre farm at Frithville near Boston in the Lincolnshire fens.

"This is a heavy land farm. Wheat is our number one crop and oilseed rape has been our number one break crop, but it's got a question mark over it," says Philip.

"We are very limited for break crops; in the last 25 years oilseed rape has become very important for us and if we lose it, it will leave a massive hole."

Late last summer the brothers agreed to give oilseed rape one 'last roll of the dice', drilling what might potentially be their last crop between 6th-10th September.

The deciding factor was Agrii's establishment support scheme, under which DK Exsteel is among the varieties supported, with backing from Bayer.

"There's a fine margin between winning and losing. The establishment scheme made the difference this season, because if the rape had failed, we knew we could recoup the cost of the seed," says Charles.

The establishment scheme gives growers more confidence to drill oilseed rape in the face of ongoing issues with cabbage stem flea beetle and challenging weather conditions, adds Agrii seed technical specialist David Leaper.

"Over the past five years, we have run a number of successful establishment schemes to offset the risks of growing oilseed rape," he says.

The combine will be the final judge of the 2025 oilseed rape crop and there is a way to go until harvest, but this season Charles and Philip's DK Exsteel looks to be in with a fighting chance of success.

Host Jim Smith, with winner Kathryn Ann Styan and Richard Lawrence, editor of Agronomist and Arable Farmer

KATHRYN STYAN WINS AGRONOMIST OF THE YEAR

On 13th February, the industry came together to celebrate the very best working in agriculture at the National Arable and Grassland Awards (NAGA).

The event was held at the Hilton London Bankside Hotel, where hundreds of guests enjoyed a three-course meal and entertainment from farmer and comedian Jim Smith. It was then time to celebrate the work of the farmers, contractors and agronomists who have excelled in their fields.

NAGA is organised by Farm Contractor & Large Scale Farmer and Agronomist & Arable Farmer, in association with the National Association of Agricultural Contractors (NAAC) and BASIS. The awards are in their third year and are sponsored by key companies within the industry.

Kathryn Ann Styan, of Agrii, was named Agronomist of the Year. Kathryn describes agriculture as a "turbulent" sector; much of her focus has been protecting her clients from volatility.

She makes good use of the technical advances in agriculture, with the most recent tool in her armoury being a drone. This is used to scout fields at varying levels, from checking stubble for spraying off to detecting early disease outbreaks in salad onion crops.

Salad crops are a speciality. Kathryn is a technical adviser to her colleagues, and she is also working with the R&D department further to develop the use of drones in vegetable crops. She actively develops new recruits, guiding six candidates through their BASIS exams on their first attempt last year.

Kathryn manages an area of 7,000ha, which also includes a broad range of arable and forage crops, and that area is growing as more farmers hear positive reviews of her work.

Using ever-evolving agricultural technology allows her to direct inputs where needed, including variable seed rates, fertiliser applications, and remote weather station data to advise on optimal spray timings, especially in the vegetable and potato sector. Despite the weather volatility, most of Kathryn's clients have seen upturns in their profitability in recent years.

Thank you to Agronomist and Arable Farmer magazine for allowing us to use their story from the March edition as the basis for our Journal report.

DON'T BE TEMPTED TO TAKE SHORTCUTS WITH HERBAL LEYS

Thinking more about the role of SAM3 or CSAM3 herbal leys and choosing the best option for your own individual farming set-up could deliver benefits far beyond those resulting from the SFI payment alone.

Not all SAM3 and CSAM3 herbal leys are the same, and producers choosing the least cost seed simply to tick the SFI box required for the payment could be losing out on many of the real benefits associated with them, says Agrii national grass, roots and environmental seeds manager Adam Simper.

Make the right choices, and not only will you be adding highly valuable diversity to forage security throughout the year, but you'll also see improvements in soil health, organic matter content and soil structure, as well as long-term productivity gains.

But for many tempted to start using them, it's a completely new area of management and one which is further confused by an ever-growing range of mixes on offer together with a variety of claims made for these.

It's far from a 'one size fits all' situation. While there are significant opportunities for improving livestock health and performance alongside soil health, carbon capture and biodiversity benefits, this does depend on their successful integration into existing grassland management systems.

Understanding the different options

The starting point for this is to ensure you understand the different options and the merits of the various approaches available. Herbal leys can be made up of a wide mixture of grasses, legumes and herbs, with their strength lying in this diversity.

The right mixture of species can create a varied and nutrient-rich diet for livestock due to deep-rooted species mining minerals from the soil's depth and making them available via the forage.

Furthermore, this can be used for grazing or as a silage fed to livestock year-round.

When it comes to soil improvement, a carefully prepared mixture of species can ensure roots penetrate to different levels, dramatically improving soil structure and helping prevent leaching while increasing moisture and nutrient retention.

This, in turn, helps capture carbon, improves organic matter content and boosts the health of your soil. The legumes in herbal leys also fix nitrogen, which increases the nutrient value of the soil, helping to reduce costly fertiliser applications.

If this is not enough, the correctly specified herbal ley mixture can increase biodiversity, support a wide range of beneficial insects and wildlife, and improve the whole farm's ecosystem. The diversity of swards from multiple plant species can bring strength and improve pest resistance by disrupting pest life cycles.

But to enjoy all these benefits, you must make sure the mixture you choose suits your livestock, soil type and grassland management. To get

the widest range of benefits, producers should make sure they select something with a diverse mix of grasses, legumes, and herbs that is suited to your whole farm enterprise.

Common species in herbal leys include Ryegrass, Timothy, Fescues, Cocksfoot, Festulolium, Red and White clover, Birdsfoot Trefoil, Chicory, Plantain, Sheeps Burnet, Sheeps Parsley, and Yarrow.

A wide range of options

Agrii has a range of mixes designed to fit in with SFI requirements, ranging from those aimed at delivering maximum forage production for livestock to others specifically created for overseeding to increase the diversity of an existing sward.

Each farm's management regime will be different, so it's a good idea to speak to an Agrii specialist who can advise you on which mix best suits your specific needs. For example, Agrii SFI SAM3 & CSAM3 Grazing has been designed to produce high yields of good quality grazing forage for all livestock. Then there's the Agrii SFI SAM3 & CSAM3 Cutting, which produces large cuts of quality silage and provides a highly palatable forage with variety when fed.

When Chicory is left to mature, it can become woody and cause fermentation issues when baled and wrapped, as the woody stems can easily pierce the film, so this cutting-based mix does not include Chicory.

Agrii SFI SAM3 & CSAM3 No Red Clover has been formulated for livestock grazing to avoid potential bloat in cattle when grazed and fertility issues in breeding ewes resulting from the inclusion of red clover.

Similarly, Agrii SFI SAM3 & CSAM3 No Red Clover & No Chicory has been designed to prevent the issues that Chicory and Red Clover may bring in both cutting and grazing scenarios, making this an ideal dual-purpose mixture.

In particular, the varied species within the formulation provide a resilient, valuable, and nutrient-rich forage during dry weather.

Adam Simper, Agrii national grass, roots and environmental seeds manager

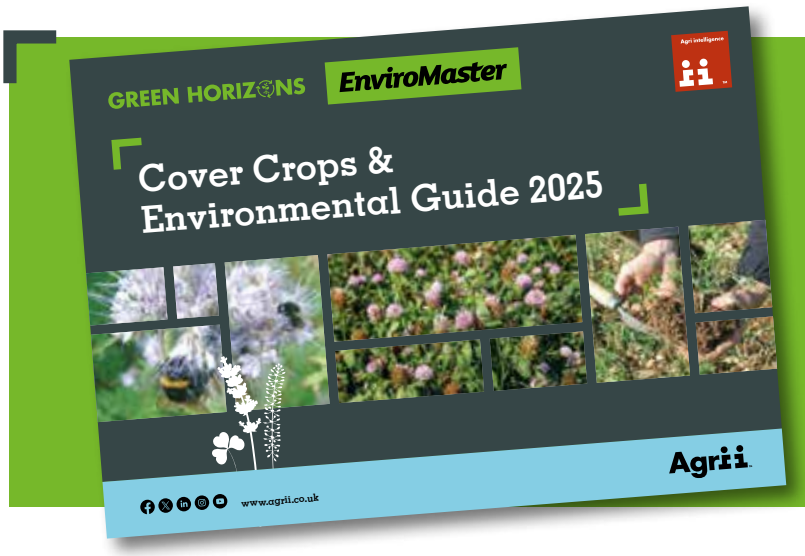
The Agrii SFI SAM3 & CSAM3 Overseeding mixtures options can be drilled into existing pastures where the objective is to increase the population of grass, legumes, and herb species within the sward.

As with all overseeding, any thatch in the base of the existing sward should be removed to allow good seed to soil contact and to enhance light penetration to the young emerging seedlings. The Agrii Legume and Herb Overseeding mixture options will also increase the legume and herb content in any existing sward.

Again, all thatch should be removed with any overseeding to allow good seed to soil contact and light penetration to the emerging seedlings. Nitrogen is not advised to be applied until the newly sown species are established, as this will only increase competition from the existing grasses.

Even outside of SFI, herbal leys are becoming more popular due to the benefits they bring to help produce sustainable, diverse forage in our challenging climate, along with many other environmental benefits.

> *"Make the right choices, and not only will you be adding highly valuable diversity to forage security throughout the year, but you'll also see improvements in soil health, organic matter content and soil structure, as well as long-term productivity gains.*



Scan to read our latest cover crops brochure.

HOW A REGENERATIVE APPROACH IS REVIVING OILSEED RAPE ON A COTSWOLD FARM

It is the million-dollar question on farms up and down the country: how do you get oilseed rape through the dangers of cabbage stem flea beetle (CSFB) to set it up for a profitable return? The struggle to answer this has caused many farmers to move away from the crop, leading to harvest 2025 being the lowest OSR acreage for 40 years.

But for some farmers, piece by piece, the jigsaw is coming together. They are discovering it is a case of marginal gains and a switch to a more sustainable farming system, which benefits every crop in the rotation. "It's like the Dave Brailsford method," says Ben Wilson, Farm Manager at Glympton Farms, on the edge of the Cotswolds in Oxfordshire. They have gone from OSR being on the verge of leaving the rotation to a consistent performer.

Until a shift in strategy in 2019, the farm had a three-year rotation of milling wheat, spring barley and OSR. Like many other farmers, Ben established OSR using an auto-cast system mounted to a min-till cultivator.

Peter Carr (left) and Ben Wilson (right)

In the ten years before the 2013 ban on neonicotinoids in OSR, Glympton Farms averaged 3.27 t/ha, a respectable return on their drought-prone soils. However, since the ban, this dropped to 2.57 t/ha, leading to a review of OSR's place in the rotation.

"At that point, I came up with some cultural control measures, which I wanted Ben to implement," says Peter Carr, Agrii agronomist. "The first year, we didn't quite get things as we wanted them to. Last year, we successfully lined up everything, and this crop yielded 3.43 t/ha, which is back up to where we expected yields to be before the (neonicotinoid) ban."

Their first step was to extend OSR in the rotation to one in five.

"We've gone into fifths," explains Ben. "There is two-fifths wheat, one-fifth barley, one-fifth OSR and one-fifth beans. This autumn, we have changed it further to split the barley and beans into spring and winter sown options depending on how a field scores in our black-grass traffic light system."

Ben is passionate about improving soil organic matter to build fertility over the long term. To this end, they apply chicken litter from a neighbouring farm, compost, and farm yard manure from the farm's pedigree Aberdeen Angus herd. This autumn, five years after they changed the system, Ben and Peter retested the soil and found that soil organic matter had increased by 0.7% on average across the farm.

Comparison of using chopped straw to suppress weeds. Left: chopped straw, Right: bare ground

The new strategy was stitched together by a move to direct drilling using a Horsch Sprinter. Peter says they have found that it allows fast drilling in windows before forecasted rain and conserves soil moisture without stimulating large weed burdens.

Getting through the beetle

"We're cutting stubble long, at 20-30cm, and anything before OSR is chopped. This means that the burden of straw on the soil surface is about 15mm, so you don't get a thick 50mm mat of straw, which is associated with high slug pressure.

"The long stubble acts as a physical and visual barrier to CSFB. You can't tell there's OSR being grown on the farm until October because the plants are so well hidden in the stubbles," says Peter.

With 500 acres of woodland on the farm, pigeons are a big problem, but Ben says the long stubbles and companion crops have helped to stop them from landing in crops as easily.

"The most impressive thing with the chopped straw layer is how it has helped with weed seed suppression; it's led to a 40% reduction in herbicide use," adds Peter.

An application of poultry manure balances the carbon-to-nitrogen ratio of the chopped straw and provides some available nitrogen in the autumn to build biomass ahead of winter, explains Peter.

"Agrii has looked extensively at the effect of urea volatilisation on CSFB in trials. Adult CSFB are attracted to brassicas through their specific exudates, especially when stressed. In our case, ammonia and sulphur volatilisation from the poultry manure is masking the brassica pheromones from CSFB."

The drilling date for Ben's OSR is dependent on moisture not fixed to a specific calendar date. "You have to have the seed-to-soil moisture contact. If you can time it before a rainstorm, then that's ideal."

They opt for a vigorous conventional variety with strong spring growth to get the growing point away in mid-February, in this case, Amarone. "It's a steady grower through the autumn and then really moves as soon as the soil warms up in the spring," explains Ben.

The drill is slightly offset against the previous wheat crop to plant between the rows of stubble, keeping it intact and allowing the OSR roots to utilise the old root system of the wheat crop.

8 kg/ha of buckwheat and 4 kg/ha of purple vetch are used as companion crops. The buckwheat provides a canopy over the OSR, and its roots mine phosphate, which is released to the crop roots later when the frost kills it. By leaving the vetch in the crop for as long into the spring as possible, it can fix 30 - 50kg N/ha.

Micronutrition is applied much earlier than usual, at two to four true leaves. Ben got the idea after listening to an entomologist on a podcast discuss how plant nutrition can deter pests on broad-acre crops.

"I did some more research on it and discovered evidence to show that molybdenum, magnesium and boron help at an early stage," says Peter. They say it returns to the principle of not letting the OSR be stressed and, therefore, more attractive to any CSFB in the area.

Their measures have paid off again this year, with Glympton Farms OSR coming through the risky autumn period full of promise in the spring. Peter and Ben hope it will at least match last year's output.

A team effort

It is apparent that successfully assembling a complex series of agronomic measures can only be achieved with Ben and Peter working closely together. They see it as a partnership where Ben brings outside-the-box thinking, and Peter references it to the available scientific data to support their decisions.

"Peter brings the science, but for me, there's more of a gut feeling about. If it feels like the right thing to do and it makes logical sense, then that's the direction we are heading, which seems to be what we were doing 50, 80 or 100 years ago," says Ben.

Glympton Farms OSR: August 2024 to February 2025

The "Dave Brailsford" steps undertaken on Glympton Farms

1. Extended rotation:
Moving to one year in five for OSR.

2. Direct drilling:
To conserve moisture and not stimulate large weed burdens.

3. Long stubble:
Physical and visual barrier to CSFB and pigeons.

4. Chopped straw:
Retains moisture and provides a weed barrier without causing a slug problem.

5. Poultry manure:
Balances the carbon-nitrogen ratio of the chopped straw, provides some available nitrogen and masks the brassica pheromone, which attracts CSFB.

6. Companion crops:
Hides the OSR, hosts CSFB predators and provides additional phosphate and nitrogen to the crop.

7. Early micronutrition:
Improves plant health and reduces stress.

8. Variety choice:
A vigorous variety with strong spring growth is crucial for getting the growing point away in mid-February.

9. Inter-row planting:
Keeps the stubble intact and helps rooting.

10. Livestock integration post-harvest:
Reduces larvae carry over to the next crop.

NEW AGRII TRIALS PUT THE FOCUS ON DRILLING AND CULTIVATION CHOICES TO MANAGE BLACKGRASS EFFICIENTLY

A comprehensive Agrii on-farm demonstration focusing on different combinations of drilling date, cultivation technique, and drill options delivers vital insight into the best management strategies for achieving the most effective blackgrass control while encouraging strong early crop growth.

Delaying drilling to give the best options for blackgrass control or simply because of challenging autumn conditions has a bigger effect on crop establishment and subsequent plant health than many realise, says Agrii agronomist Jamie Lyttle.

Field-scale trials are being carried out by him and Agrii area business manager Greg Taylor near Brackley, Northamptonshire, exploring the benefits of a ploughing reset in direct drill systems and cultivations to force an early flush of weeds.

"It all came about when we were walking some spring bean crops a few years ago," Jamie explains. "We were very concerned about the level of blackgrass germination taking place and why this was occurring following the adoption of a new drill.

"This was also very much against the backdrop of the last three to four years' weather and its effect on cultivations and drilling. Whereas before we would always have said growers should be prioritising delayed drilling, we now believe a more flexible mindset is required.

"We seem to be increasingly coming out of the winter with late drilled crops that are very much under stress and not able to grow well the following spring, and are increasingly susceptible to disease and pest attack.

"We've looked at drilling dates ranging from 15th September to 22nd November and can see the earlier drilling plots are especially clean where we have carried out a 'ploughing reset', but without this, they quickly get out of control with regard to blackgrass.

"As we move into the later drilling timings, we see crops getting cleaner, even when direct drilled, but they are much further behind. So, you have cleaner crops but ones under pressure from day one."

Forcing the flush

According to Greg Taylor, these regionally based trials have also looked at the practicalities and benefits of forcing a flush of blackgrass earlier in the autumn in a direct drill scenario where they would naturally come too late if left alone.

"The idea is that if you can get an earlier flush, get it out of the way quicker, you can move on to getting a successful, earlier drilled crop, but with fewer blackgrass problems.

"What we have found is that if you can get that flush, you can then go drilling with minimum disturbance.

"We're not doing true direct drilling at that point because we've already been through with some sort of cultivation, even though it could have been incredibly light.

"But we have effectively used the flush to then be able to use the direct drill as a minimum disturbance tool at the point of drilling and some of those plots were incredibly successful in having the least amount of blackgrass."

Important learnings

The trials will provide significant insight and knowledge around keeping blackgrass under control without reducing the ability of the crop to thrive subsequently, he believes.

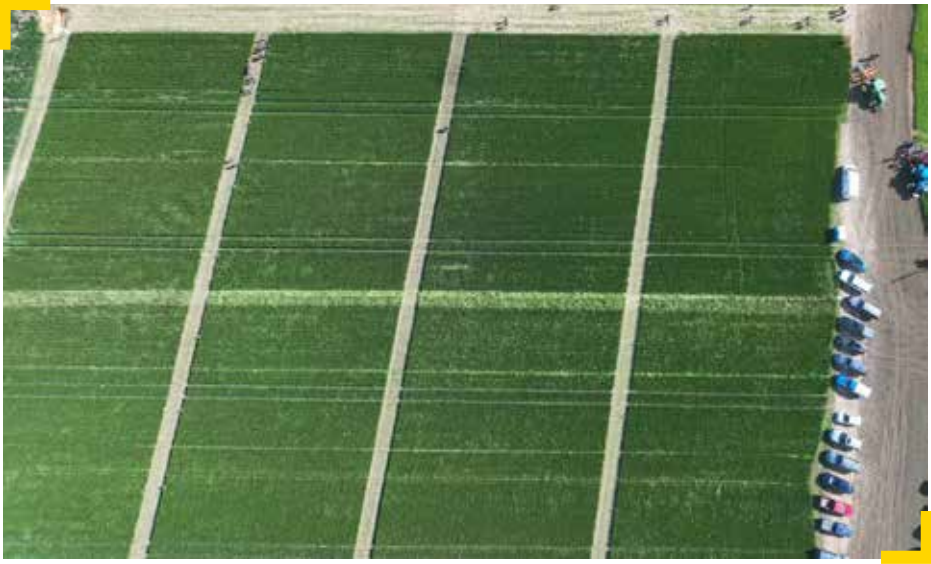
"That's an incredibly important aim for all Agrii customers. We've hit the reset button in some cases and done a lot of ploughing, but there's only so many times you can do that before you start bringing up last year's blackgrass. It's all about that zero seed return policy.

"So, we have to look at all the options and put the points of the sequence together as best we can and see how we can manage the processes better. For example, how do we change a drill and ensure we manage the the system around it to best effect?

"Or should we change the system but keep the same drill. Do we need to invest in a drill that could cost a hundred thousand pounds, or do we stick with what we already have and just do things better?"

Jamie Lyttle points out that last year's first trial focused on four drills, but things have grown significantly since then.

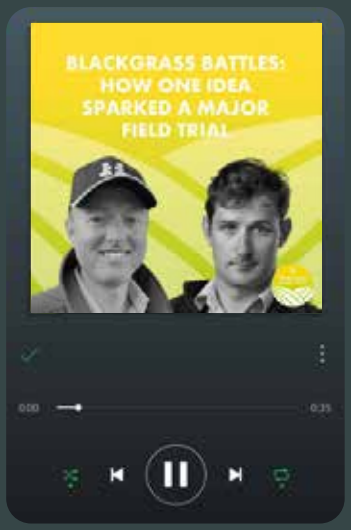
"We've now gone to eight drills, six different cultivation techniques, three drill timings and three separate seed rates, and we're starting to see some truly thought-provoking results. It's going to be really interesting after harvest when we can process all the data."



Listen again

Blackgrass Battles: How One Idea Sparked a Major Field Trial

In this episode, our focus is tackling a real challenge - blackgrass - and how, through identifying the problem, field-scale trials were able to find real solutions.



RHIZA EXPANDS NATIONAL SOIL ANALYSIS TEAM

Farmer interest in soil analysis has led to RHIZA being the only digital services provider with a dedicated sampling team with national reach explains Nathan Lewis, national operations manager.

For many growers, the electro conductivity (EC) scanning performed by RHIZA has provided the foundations for their move into precision farming. The soil texture and indices maps we produce enable the adoption of variable rate seed, fertiliser and, in some cases, irrigation applications. In turn, these zonal maps are supported by detailed soil analysis to highlight variations in nutrient reserves and differences in pH. The data can be used to ensure targeted applications of both organic and inorganic fertilisers and lime. The consequence of this is more efficient use of resources, reduced risk of environmental pollution, savings in input costs and, potentially, improved yields.

The introduction of the Sustainable Farming Incentive (SFI) has driven new interest. While zonal analysis is best for precision farming activities, whole-field analysis is used to demonstrate compliance with the SFI and its actions. A basic soil analysis for phosphate (P), potash (K), magnesium (Mg), organic matter content and pH can be used for the soil action, SAM1, and the nutrient management action NUM1. Other analysis can be included at the customer's request.

EC scanning holds several advantages over other forms of analysis. First, it is a proven technology having been introduced more than 25 years ago. By using specialised equipment that is in permanent contact with the soil, the data captured is more consistent and accurate than analysis derived from theoretical models. As a result, EC has become the tried and trusted method for producing accurate soil variation maps across the world. Second, the methodology is easily explained and the results easily understood, which is to the benefit of all involved including the grower and agronomist.

Developing the capability to deliver a comprehensive soil analysis service across England, Scotland and Wales has involved considerable investment. RHIZA has a dedicated sampling team of 16 operators and a fleet of modern equipment including GPS-fitted, hydraulicly operated soil sampler that removes the same volume of soil to the same depth each time. This is more efficient and consistent then the old practice of using a hand spear, not to mention less strenuous for the operator.

There is also more to scanning and testing than the soil texture maps and nutrient analysis with which most are familiar. We run two machines capable of collecting soil samples specifically for the purposes of testing for potato cyst nematodes (PCN) and other soil-borne organisms. In Scotland we are currently supporting a national infrastructure project, whereby the analyses we provide will be used to ensure the soil returned once the job is complete is of comparable quality to that removed during excavations.

Each year RHIZA scans and samples about 115,000 hectares. In most cases, the field maps generated are presented in the RHIZA Contour program but can just as easily be imported into other systems should the customer prefer. We have worked hard to build this national capability and are developing it further with the addition of new systems and services that benefit customers.

To find out more about RHIZA, head to rhizadigital.co.uk

GROWING EXPERTISE: TEN AGRONOMISTS PASS BASIS ADVANCED POTATOES

Managing resistant late blight strains, potato cyst nematode, effective storage and weed control, all with the backdrop of the loss of plant protection products and challenging market demands, there is a considerable amount to contend with as a potato agronomist.

To build the skills required to meet the challenge, ten Agrii agronomists achieved the BASIS Advanced Potatoes qualification this winter. The module is only available to candidates with the BASIS Certificate in Crop Protection, and at least a few years of practical experience are recommended.

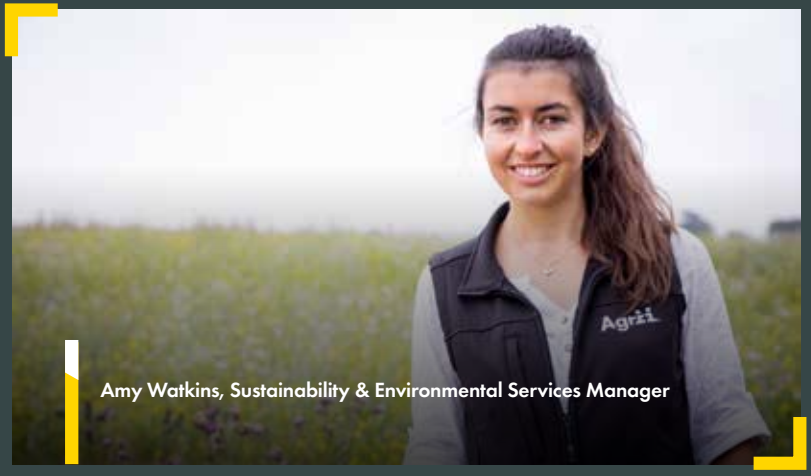
Agronomist Ed Maule was one of the trainers for the course.

He says: "The course covers the whole crop. There's an element still focused on ag chem, but it covers more in-depth agronomy, like potato cyst nematode control and free-living nematode. We very much focus on cultural controls first within integrated crop management, only using plant protection products where required.

"It prepares agronomists to advise specialist potato growers to confidently give advice and aid growers to produce the best marketable yield."

Congratulations to the newly qualified agronomists:

Charles Elvidge
Dan Goodall
Adam Mann
Paul Dunham
Miles Doncaster
Richard Haacker
Colin Mitchell
Neil Drummond
Tom Kirby
David Barclay



Amy Watkins, Sustainability & Environmental Services Manager

Winner of the Barrie Orme Shield

Big congratulations to Agrii's Sustainability & Environmental Services Manager Amy Watkins on winning the Barrie Orme Shield – a prestigious BASIS award for outstanding work in crop production.

"I've always believed it's not food or the environment – it's both."

With a strong foundation in Geography and Environmental Management, and a passion for sustainable agriculture, Amy Watkins is leading the way in demonstrating how farming and environmental stewardship can work hand in hand.

BUILD RESILIENT SYSTEMS TO COUNTER CLIMATE CHANGE

A changing climate brings opportunities and risks for fruit growers. Resilience will be central to managing both, explains Matt Greep, Agrii horticulture agronomist.

Exploiting the opportunities brought on by a changing climate while mitigating the production risks that will inevitably come with it was the theme for the NextGen fruit conference on 27th March. How as growers and advisers we respond to these changes will shape the future of our industry.

At the headline level, an increase in average temperatures of 1-1.5C over the next 21 years seems less than significant. But stop to consider the opportunities this presents and there is an undeniable sense of excitement. This is especially evident in the viticulture sector. The UK is well-placed both geographically and economically to capitalise on this opportunity. Our annual rainfall is expected to remain broadly consistent with that of today although we are warned that more of it is likely to come in intense downpours that result in flash flooding, especially in low-lying and urban areas.

Warmer temperatures will enable the sector to expand further north and look beyond the sparkling varieties that dominate to more 'still' wines. Other sectors too will benefit from this positive outlook. Only about 40% of the apples consumed in the UK are grown here. There is scope to increase this although any expansion will be market dependent. This presents opportunities for soft fruit too. The UK already meets 100% of demand for strawberries from home-grown product during the domestic season but this season is expected to expand which will result in a larger market for UK growers. A warming climate will also create more opportunities for home-grown blueberries, raspberries, blackberries, cherries and table grapes.

There are, of course, challenges to overcome, notably water and how as a country we balance the competing demands of water for food production, industry and households. It is estimated that for every 1C increase in temperatures, water demand increases by 7%.

Managing the impact of a warmer climate will involve long-term planning. It may be necessary to relocate some of the more vulnerable activities while investment in hardier varieties and more efficient irrigation systems are perhaps inevitable. There will also be the need for innovative solutions to issues we are yet to fully understand, such as managing the micro-climate crops under cover without increasing the pest or disease pressure.

Facing up to the effects of climate change, both the positive and the potentially negative, will involve resilience. What this means beyond the obvious components such as people, capital, land and water warrants further consideration. There are also market requirements and regulatory changes to consider too.

Consumers are generally unwilling to pay more for sustainability, but they expect it, nonetheless.

Integrating practices considered more sustainable is not without its complexities but if we are to capitalise on these opportunities, growers must show a willingness to support and educate consumers, adopt innovative practices, and demonstrate efficient supply chain management. Many already are but we cannot rest on past successes.

Agrii is a long-standing sponsor of the NextGen Fruit Group and Agrii horticulture Agronomist Jason Steels currently sits on the committee: **nextgenfruitgroup.co.uk**

Contact our fruit agronomists for more information: **jason.steels@agrii.co.uk** **matt.greep@agrii.co.uk**

IMPROVING NUE AND CROP PERFORMANCE WITH LIQUID FERTILISER

Agronomic benefits

- **Three forms of nitrogen** in one product for fast uptake, even in dry conditions
- **Even application to field margins** improves crop uniformity and reduces weed pressure
- **Precision placement** and edge-to-edge coverage protects your soils and margins
- **Reduced overlap** with sprayer tech means no lodging or waste

Environmental edge

- Lower **plastic waste** – no bags, no hassle
- **Tank scheme** removes the need for bag disposal
- Agrii offers a **full environmental impact assessment** available with every tank installation, including **nationwide delivery**

Performance that pays

- Works with **variable rate systems**
- **Wider application windows** and flexibility in unpredictable seasons
- Accurate across **all tramline widths**

Economic advantages

- **Frees up valuable storage space** and cuts back on labour
- **Flexible purchasing** tied to cashflow
- Higher yield potential from more even application

Listen again: Fuelling growth with liquid fertiliser Tramlines Podcast

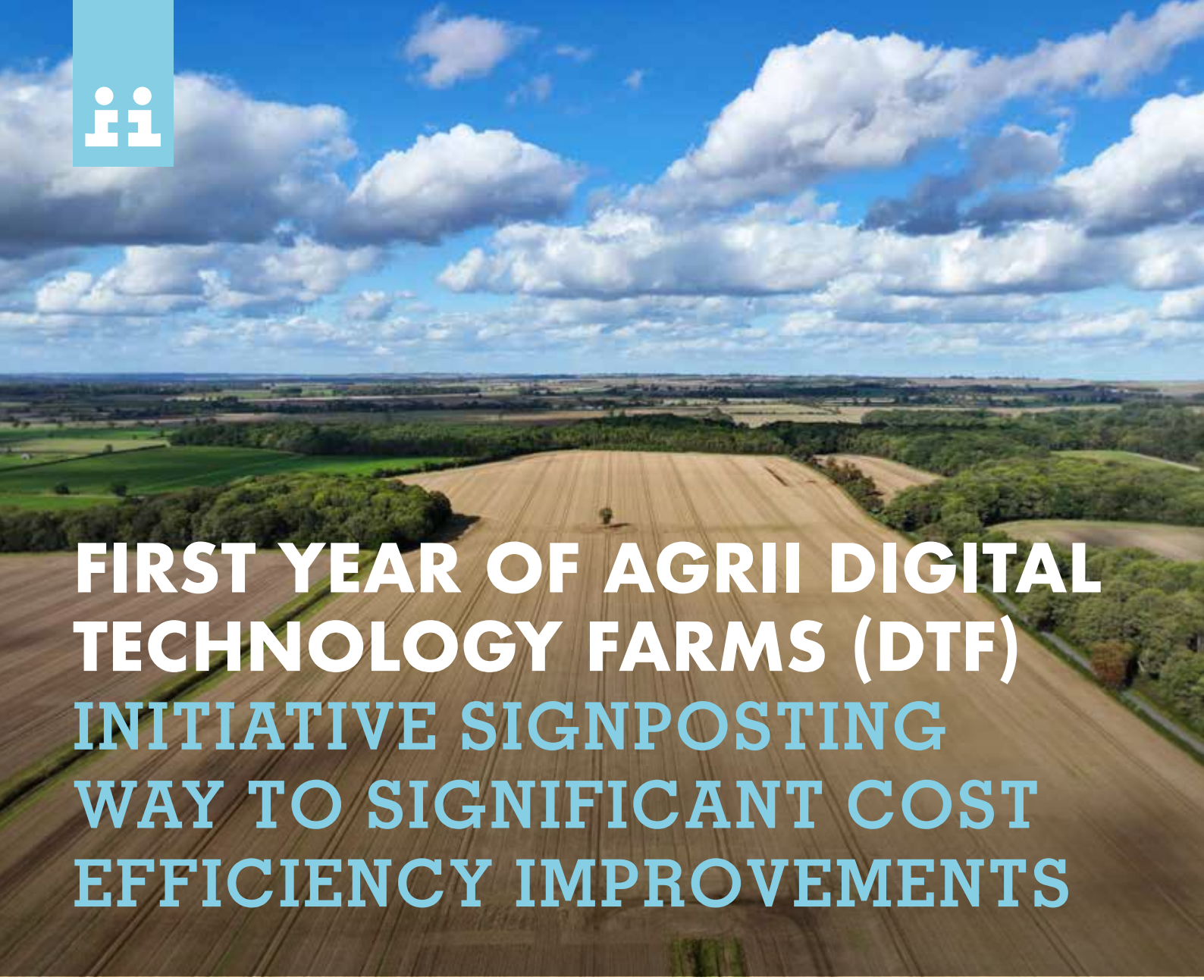
In this episode, we discuss how liquid fertilisers can improve crop performance, protect the environment, and benefit the overall farm business.

Listen now:

Interested in going liquid?

Email **info@agrii.co.uk** or call **01480 418333** to book your environmental tank assessment.

Find out more on our webpage:



FIRST YEAR OF AGRII DIGITAL TECHNOLOGY FARMS (DTF) INITIATIVE SIGNPOSTING WAY TO SIGNIFICANT COST EFFICIENCY IMPROVEMENTS

Agrii trials designed to identify how new technologies can be combined to best effect are giving one Lincolnshire farming business a vital insight into how to make better use of crop inputs and maximise nitrogen use efficiency (NUE).

Year one of the trial suggests margin improvements of £24,000 can be made across its winter wheat area, with changes planned for year two at Revesby Estate, near Boston, promising even greater gains.

"These are early days for the work," explains Agrii technology trials manager Jonathan Trotter. "But we are already identifying where improvements can be made across the farm with particular relevance to nitrogen and fertiliser use.

"As a result, the business has decided to move its fertiliser strategy towards a variable rate system and we're seeing many other areas where improvements can be made.

"That's against the backdrop of an exceptionally well-managed farm already run to a very high level of efficiency, and we're hoping many of our findings can be taken on by other growers regardless of the system they use."

Evaluating new technology

A key objective of Agrii's Digital Technology Farm (DTF) initiative is to bring together a range of new technologies and data collection systems to see how they can enhance decision making compared to a traditional agronomic approach, he says.

"We've got four DTF farm trial initiatives now set up across the country using a range of technologies with a wide variety of potential applications.

"At Revesby, for example, the Skippy Scout drone system we are using can monitor above ground crop growth and information from this could be enhanced by data on below-ground nitrogen levels from Plentysense nitrogen blades in the soil.

"These sense N-availability at three different levels – 10, 20 and 40cm – and there is a telemetry head that sits on top of them that tells us in real time what N the soil has.

> *"Nitrogen use is definitely a main element of our carbon footprint and we're keen to find the best way of managing it more effectively."*


Jonathan Trotter,
Technology Trials Manager


Lucy Cottingham,
UK Digital Agronomy
Development Manager


Peter Cartwright,
Revesby Estate Farm Manager

"We can then understand how the N is moving through the soil profile to help improve decision making around nitrogen management.

"This data can then be combined with that from Soiltech Wireless soil moisture and temperature sensors, and all the information we are collecting can then eventually link into Agrii's Rhiza online Contour platform.

"We are also starting to use hyperlocal disease prediction models based on key risk factors and data."

Nitrogen use benefits

At Revesby, a 40ha site with 10 different soil zones was used for the trial with half the field managed by estate farm manager Peter Cartwright and the other by Jonathan and Agrii digital agronomy development manager Lucy Cottingham using the technology.

In terms of NUE, both halves achieved an average of 48%, with parts of the DTF side reaching 58%, Lucy explains.

"Overall, the same average level of NUE was achieved on the DTF side using variable rates based on information from the technology, as that seen from the farm's flat rate approach.

"But there was a saving of between 6% to 24% on nitrogen spend, depending on the zones, making the DTF nitrogen approach more effective to the tune of £33.91/ha as well as being more sustainable in the long-term.

"Yield is a key metric for the NUE calculation so to achieve the same NUE with a lower yield shows how much more effective the DTF strategy for N has been.

"When multiplied across the 400ha of wheat on the farm, this results in a saving of £13,564, which increases to a benefit of over £24,000 when the SFI payment for using variable rate nutrition of £10,500 is added in. So that's a sizeable advantage."

Reduced input costs

Benefits of the technology with regard to fungicide use and disease control are less clear cut when looking at the first year results, she points out.

"The DTF side did achieve an overall £8.65/ha reduction in input costs compared to standard farm practice, but yields were down by 1t/ha, which obviously hit margins.

"It's very much a learning exercise, though, and we know where changes in fungicide choice for the DTF side could have improved things considerably. Disease control was effective, but we missed out on some greening and other physiological benefits.

"Farm standard practice, for example, included Syngenta's new fungicide pydilflumetofen (Miravis Plus), where this was not included in the DTF programme.

"Agrii trials have shown a clear 1t/ha yield advantage from this active, so that would go a long way to explaining the lower yields.

"It's something we will be considering for the second year of trials, along with some changes to the technology used, including verification of disease presence in leaves using Bayer's CropCheck system alongside Agrii's disease risk ratings on Contour.

"We're also planning to use live spore trapping and AI disease identification technology.

"The DTF initiative is something we have a long-term commitment to, so we'll also be moving the trials in to some other crops including oilseed rape and sugar beet at Revesby."

Important project

Revesby Estate Farm Manager Peter Cartwright says NUE is a key focus for the business with the DTF initiative helping them better understand how to improve it and where new technologies can contribute.

"Nitrogen use is definitely a main element of our carbon footprint and we're keen to find the best way of managing it more effectively.

"You can't ignore the cost benefits of variable rate N that the DTF work has shown, so we're now going to be using Skippy Scout drone AI software, Contour and variable rate nutrition across the estate.

"We've also signed up for the SFI variable rate application of nutrients (PRF1) and this combined with no till farming (SOH1) adds up to £100/ha.

"We'll also be working with Agrii to see if we can get disease risk forecasting working more efficiently for us and see if we can respond better to the alerts when they arise.

"Our own trials have shown the benefits of using Agri-Start Liqui-Safe, a urease and nitrification inhibitor which holds nitrogen in the soil, with some trials pointing to a 50% reduction in yield without the technology, so we'll be trying that approach again.

"We've also seen good results from using biologicals in the early stages of crop growth to promote plant health and build green area, so we want to look into this more, too.

"We've learned a lot from being part of the DTF network already and are sure this will continue in the future. It's very exciting to be part of such an important and forward-thinking project."

The work conducted as part of the Digital Technology Farm Trials and subsequent article written above was done whilst SFI was still open for applications.

CUTTING CARBON, NOT PERFORMANCE: THE FUTURE OF FERTILISERS ON YOUR FARM

Nitrogen fertilisers have long been the cornerstone of modern crop production. They're essential for delivering the yields we depend on. The process by which nitrogen fertilisers are made hasn't changed over the years. Technologies have improved efficiencies and helped to reduce the emissions associated with nitrogen manufacturing.

Currently, fertilisers and manures account for around 2.6 gigatonnes of CO_2 emissions globally each year. Of this, nitrogen fertilisers contribute more than half the carbon footprint of cereal crops. Roughly 28% of these emissions come from how we apply fertiliser in the field, while the other 28% comes from manufacturing.

The key process behind nitrogen fertiliser production – the Haber-Bosch process, developed in the early 1900s – hasn't changed much in over a century. It creates ammonia from nitrogen in the air, natural gas (methane), and water (steam). While efficient for producing fertiliser, it uses a lot of energy and generates large volumes of carbon dioxide.

But new technologies are offering farmers more sustainable options:

+ Grey ammonia, the most common type, is produced using fossil fuels.
+ Blue ammonia uses the same process but captures and stores the CO_2 produced. This method uses carbon capture and storage (CCS), sequesting CO_2 produced during the manufacturing process.
+ Green ammonia is the cleanest option. It uses renewable electricity (solar or wind)

> *"These newer fertiliser types don't compromise on crop performance. You'll still get the same nitrogen content and uptake, but with a much lower environmental footprint."*

to split water and create hydrogen through a process called electrolysis, which is then combined with nitrogen from the air to make ammonia – all without relying on fossil fuels.

These latest technologies don't compromise on crop performance. You'll still get the same nitrogen content and uptake, but with a much lower environmental footprint. For example, switching from standard ammonium nitrate (which produces around 3.4 kg CO_2e per kg of N) to green ammonia-based products can cut emissions by up to 50%.

Agrii is actively investing in research and partnerships to improve Nitrogen Use Efficiency (NUE) and support growers with more sustainable fertiliser solutions. The goal is to reduce in-field losses and support practices that help meet emerging carbon standards.

There's a growing market interest in low-carbon farming. Using these new fertiliser types can help farms access carbon credit schemes, reduce exposure to future carbon taxes, and meet buyer requirements for greener produce.

Change is coming – and it's a chance to improve both the farm's environmental impact and long-term profitability. The fertiliser industry across Europe has committed to becoming carbon neutral by 2050. With the right tools and choices today, UK growers can stay ahead and benefit from that transition.

PLANT HEALTH AND VIRUS TRIALS YIELD POSITIVE LEARNINGS

Don Pendergrast, Agrii technical manager for non-combinable crops, highlights the positive findings from the 2024 Potato Partnership trials.

The importance of plant health in promoting yield accumulation and novel methods of protecting crops from virus were areas of focus for the Potato Partnership in 2024.

Better nutrition has long been hailed as a means of improving plant health as have bio-stimulants, especially those that combine growth stimulants with micronutrients. The challenge has been to identify the best means of delivering these to support plant development.

To investigate both aspects, Innocul8, which contains a health-promoting peptide, manganese (Mn) and zinc (Zn) in combination with other micronutrients was applied with and without Crusade, a drift retardant, as a standalone application from full emergence and as part of a blight programme.

Earlier trials have indicated that more targeted use of zinc in combination with other micro-nutrients is beneficial to both yield accumulation through reduced abiotic stress and improved crop health. This was our observation. As a standalone treatment every 10 days post full emergence, Innocul8 slowed the onset of late blight up until mid-season. Although not sufficient to be considered comparable with the standard programme, it is a partial validation of the hypothesis that reduced abiotic stress can help support resistance.

Applying three applications of Innocul8 on a 10-day cycle ahead of the standard programme proved far more worthwhile. This resulted in the lowest overall blight incidence of any programme in trial and the highest marketable yield fraction too. At 70.22 t/ha, the marketable yield was ahead of the 67.92 t/ha delivered by the standard programme.

Similarly, the standard programme, plus four applications of Zynergy, a liquid complex of copper (Cu) and zinc (Zn) applied during stable canopy, also performed strongly. At 69.99 t/ha the marketable yield fraction was close to that achieved in the Innocul8 programme and ahead of the standard programme.

Although both results were within the least significant difference the results are positive. We can build on these. There is a multitude of research to show that disease thrives in situations where the crop is under stress. Making the most of biostimulants and targeted nutrition products to reduce abiotic stress has the potential to contribute to support performance while the adoption of varieties known to have strong resistance has an equally valid role.

Aphids and virus

In 2023, TPP virus trials found that the use of companion crops and straw mulches are useful measures in protecting potato crops, especially against PVY and its variants. Similarly, mineral oil applied at seven-day intervals proved to be effective in slowing the spread of PVY and similar in performance to that of an oat companion crop.

The 2024 trials sought to build on these results while adding credence to the observation that aphid invasions were disrupted by the colour of the soil.

A low virus season, perhaps because of the emergency authorisation granted to British Sugar that permitted the application of a neonicotinoid seed treatment to sugar beet seed, meant there was little statistical differences across treatments.

Although no significant differences were observed, the trial indicated, in a repeat of 2023, that mineral oil treatments resulted in the lowest incidence of PVY transmission.

The use of insecticides able to target aphids or nymphs on the underside of leaves, i.e. those with translaminar activity, delivered a smaller reduction in PVY transmission rates. This was improved on when a mineral oil was added to the spray mix.

In contrast to 2023, neither companion crops nor soil dyes had a meaningful effect on virus transmission rates.

THE POTATO PARTNERSHIP
www.thepotatopartnership.co.uk

The Potato Partnership is a collaborative project that has grown from the five founding partners to 18 organisations and institutions. In the three years since its inception, the partners have invested roughly £300,000 in a network of trials and events to share the findings with interested parties. The work continues with more trials – and investment – planned for 2025.

Visit the dedicated TPP website at thepotatopartnership.co.uk to read more about the collaboration and how you can become involved. Sign up and become a member to view trial summary documents and be among the first to hear about any upcoming events.

BOOSTING BEET PERFORMANCE: FUNGICIDE + BIOSTIMULANT COMBINATION SHOWS PROMISE IN TRIALS

Field trials suggest that integrating the biostimulant Innocul8 with fungicide programmes can enhance disease resilience and deliver yield gains in sugar and fodder beet crops.

With foliar diseases like Cercospora leaf spot becoming more problematic in beet crops, growers are increasingly looking for new ways to strengthen their spray programmes. Recent UK trials are shining a spotlight on the potential of biostimulants – specifically, Innocul8 – as a valuable partner to fungicides.

Trial highlights: sugar beet in Norfolk

At Stow Bedon in Norfolk, a sugar beet trial (variety BTS 1915 Ultra Pro) tested ten different fungicide-based treatments across four replicates. Fungicides were applied at the first sign of disease, followed by a second spray three weeks later. Disease assessments and yield measurements revealed that:

+ Standard fungicides did the job on common foliar diseases.

+ There was also a noticeable reduction in Cercospora expression where Innocul8 was used to support the fungicides programme, hinting at its ability to improve plant resilience.

Fodder beet in Somerset: a closer look at Cercospora

Further south, in Somerset, two fodder beet trials looked at 17 treatment combinations. The same A/B fungicide timing was used, and Cercospora was again the main disease target, with rust also monitored.

+ Some fungicide mixes held up better than others over time.

+ Treatments including Innocul8 once again showed reduced disease expression, particularly in the later stages of the season.

What does this mean for growers?

Across both sugar and fodder beet trials, Innocul8 consistently helped boost performance through yield uplift, better sugar content, or improved plant health. It's thought to work by activating the plant's natural defences, adding an extra layer of support to fungicides like Angle (azoxystrobin + difenoconazole).

The bottom line

Biostimulants are often met with mixed results, but in these trials, Innocul8 stood out. It is a strong candidate for inclusion in integrated spray strategies, to boost yield and quality and support plant health.

As production challenges continue to evolve, tools like Innocul8 could help growers get more from their crops, both above and below the ground.

Untreated

Treated with Angle fungicide only

Treated with Angle fungicide plus Innocul8

WHERE TO FIND US THIS SUMMER

Cereals
THE ARABLE EVENT

11th & 12th June

Join us at Cereals 2025 – 11th & 12th June, Heath Farm, Lincolnshire, stand 1130

Come and catch up with us at Cereals 2025, where we'll showcase our latest cereal varieties – including winter and spring barley, hybrid rye, winter wheat, naked oats, and environmental mixes.

Our RHIZA digital team will also be on stand, highlighting key topics such as:

+ VRN & future planning, including the impact of the upcoming carbon tax

+ TELUS Agriculture integration, showing how Contour and RHIZA will work together on the new TELUS platform

+ Precision farming: back to basics, focusing on soil type, seed rates, and balancing emerging tech with core agronomy

You'll also find Skippy Scout, Viterra, and one of our Farm Saved-Seed mobile seed treaters in attendance.

Grab your copy of our Master Seeds Autumn Yearbook and let our seed specialists walk you through the demonstration plots. We look forward to seeing you there!

Groundswell

2nd & 3rd July

Join us at Groundswell 2025 – 2nd & 3rd July, Lannock Farm, Hertfordshire, stand DN2A

Like last year, we're teaming up with Weaving Machinery on a shared, interactive stand at Groundswell 2025, bringing together over a decade of collaboration.

We'll showcase three carefully selected cover crop mixes across our demo plot, chosen by Agrii's agronomy team to spark conversations around practical, agronomic, and financial performance. Pop-up marquees will host focused discussions throughout the day, paired with low-disturbance machinery from Weaving – including their range of direct drills and cultivators.

Expect sessions on hot topics like the tine vs disc debate, plus a live soil pit to explore how different kit and crop choices influence soil structure and health.

It's a great chance to dive into real-world regen ag with hands-on demos and honest conversations – we'd love to see you there.

AGRII iFARMS

This summer, Agrii will continue to showcase extensive R&D and agronomic knowledge and advice across the length of the UK. Find your local event and sign up to attend now:

4th June – Stow Longa
9th June – Holderness
10th June – Throws Farm
10th June – Ludlow
13th June – Stow Longa – Anglia Region Growers

Watch out for your invite by email or you can sign up via agrii.co.uk/events

16th June – Lenham (Kent)
19th June – Saltash (South West)
23rd June – Bishop Burton (Market Weighton)
24th June – Eyemouth
25th June – Kinross
25th June – Tusmore Blackgrass Demo
26th June – Dunecht
26th June – Brackley
30th June – Revesby
2nd July – Stow Longa
3rd July – AgriiFocus
4th July – South Wales