



New SFI options are well worth a look



How to get on top of grassweeds this summer



What do we know about the 'arable wireworm' threat?



High disease pressure tests varieties and fungicides

the Independent Agronomist

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Independent advice for growers to stay ahead of the game

Sarah Cowlrick, Chief Executive

We know, and the farmers and growers that use our services know, how important truly independent agronomy is, but we believe that it is important to get that message out to those unaware of what it really means.

Association of Independent Crop Consultants (AICC) members:

- Are agronomists paid only for their advice
- Have a free hand to recommend any product, based on merit, as proven in comprehensive independent research
- Target advice for the sole benefit of the grower, so they know exactly what they are paying for
- Adhere to the AICC Code of Conduct
- Have the technical expertise to advise on all aspects of successful crop production and land management, including a holistic approach to crop and soil management
- Are available across the UK

Transparent advice

Established in 1981, AICC has a UK arable advice market share of approaching 50% and growers are increasingly turning to agronomists who can provide wholly transparent advice that is not linked to sales, particularly as their business needs become more complex.

The landscape of arable farming is changing dramatically, and growers are finding it a challenge to manage many of the issues they face. Some of these issues are covered in this edition of Independent Agronomist Magazine, with experts discussing potential solutions.

But one thing that has not changed over the 43 years of AICC's journey is its code of conduct and independent ethos.

AICC has developed its

Academy to support members with their chosen trainee on their journey to becoming a fully-fledged agronomist. On page 12 some recent joiners share why they chose the independent route in their own words.

Being the largest group of independent agronomists in Europe, AICC is well placed to undertake market surveys which provide valuable insight into various issues. In a short time, we can establish an agronomic picture across the whole of the UK.

AICC is collaborating with companies to develop digital platforms, with the aim of providing the latest tools to assist members and their growers in an increasingly data-driven age.

One such platform is FIX, which makes it easy for farmers to bring all their data into one place and control who sees it and why.

It supports knowledge exchange, helping businesses navigate complexities arising



from new policies and practices that are key to tackling the climate and biodiversity emergencies, whilst ensuring food and water security.

It also has the potential to enable farmers to accelerate and scale new farmer-led innovations by connecting farmers to other farmers, farmers to scientists and independent advisers, and farmers to markets.

This provides an unprecedented opportunity to discover new and previously unimagined business possibilities.

Examples of businesses supportive of the platform include water companies, banks, processors, and insurers, as they all seek robust data from farmers land managers on biodiversity and financed emissions.

They can share information with context, in an industry neutral way. This is far more valuable to any interfacing business, as well as more efficient, will maximise the value retained by farmers and puts them in full control of their data.

FIX provides a unique opportunity for this and AICC are currently working closely with TeamAg to facilitate its roll-out.

AICC agronomists have also worked closely with Soil Benchmark's founders Tom Scrope and Dr Ben Butler to develop another platform, which simplifies the often-complex





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task of meeting compliance requirements.

The first action Soil Benchmark can help with is the Sustainable Farming Incentive (SFI) SAM1, which requires farmers to assess their soils and produce a soil management plan.

To get started, a farmer or advisor simply needs to enter their Single Business Identifier (SBI) number. The platform then pre-populates maps containing all necessary risk assessments to ensure SAM1 compliance, including for run-off, erosion, and nitrate-leaching risk.

AICC member Tristan Gibbs is one user who has found the platform useful.

He has been using Soil Benchmark to create Soil Management Plan submissions for SFI SAM1, plus manure spreading maps to comply with Nitrate Vulnerable Zone (NVZ) and Farming Rules for Water (FRfW) regulations.

It has helped him save vast amounts of time, but it is the detail that really impresses. Before Soil Benchmark, much of the data had to be inputted manually, as did the

creation of risk maps, making submitting proposals time-consuming but also open to error.

We look forward to seeing its continued development.

A highlight in the calendar for AICC members is our national technical conference, which was back in person this year for the first time since the pandemic.

A total of 136 members attended. In a feedback survey, 99% of the respondents said this year's conference either met or exceeded expectations and 100% of expectations were met for all the first-time attendees.

Nowhere else is there a gathering with the market share and reach of agronomists under one roof and it is firmly in the industry calendar. Next year it runs from 13th-15th January 2025.

The average age of delegates at the AICC Conference in 2024 was 48 years, with 31% of those being under 40 years of age, which illustrates beyond doubt that the future of independent agronomy is in safe hands.

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All-round knowledge boosts arable businesses

Andrew Blazey, Chairman

It's hard to believe that it's nearly 18 months since I took over as AICC Chairman. I find the role thoroughly enjoyable, mostly due to the AICC management team I am lucky enough to work with, and the fantastic membership we have.

Their enthusiasm knows no bounds and their all-round technical knowledge of arable farming is, in my opinion, second to none.

At times this season, chairman's duties have been a welcome diversion from treading the fields.

If you are involved in agronomy or farming in general, one thing is for certain, you will not forget harvest year 2023-24 in a hurry.

After nearly three decades in the job, the past 12 months has to have been one of the most challenging I have experienced, and we have not quite made it to harvest yet.

As independent advisors, it's our job – as part of the client's team – to advise on how to meet challenges in any given season.

This year, as if the unprecedented levels of rainfall and volatile weather patterns weren't enough, growers are having to adapt to new legislation and falling support payments.

All this against a backdrop of increasing demand for greener, more sustainable food production from the Government and markets, whilst also delivering value.

The spotlight is being shone on the farmer to lead the way on this and it is very much within the remit of AICC advisors to help.

As farm businesses adapt, we are there to signpost them to new opportunities and to steer them away from risk, making sure they remain profitable and sustainable.

With change comes the opportunity for farms to access new financial opportunities, but with those are opportunities for third party businesses looking to sell.

Whether it be adoption of SFI options, carbon farming or growing for new markets demanding a more "regenerative approach", different products and services will be on

offer, and we are here to give impartial advice on them.

During periods of significant change, it is very much our role as independent advisors to help our farms through the journey.

Are they looking for a wholesale change of farming policy as they move to a regenerative approach, or simply wanting to cherry pick aspects that can be inserted into their current farming system?

The same is true for SFI, as farms look to make up loss of income from the Basic Payment Scheme (BPS).

Do they want to do a full application to maximise the financial return or select certain options that are financially viable for them without impacting other aspects of the business?

Whether it be a system change, adopting new practices or an SFI application, the role of an AICC advisor is the same as it has

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always been – we are there to impartially evaluate the risks and rewards on our client's behalf.

We will discuss what the implications of these changes are, assess if they are achievable, and consider the long-term impact for the farm. Most of all – are they sustainable?

Once it has been decided what changes are to be introduced, we are there to advise on their adoption.

This could be evaluating the merit of a crop input, as we would in a traditional system. What seed should be used? What are its nutritional requirements? What crop protection is required?

Is there merit in using new technologies and solutions that perhaps were not used in a conventional system?

All of this is underpinned by AICC's core belief in integrated pest management (IPM), something the organisation has been proud of since its inception.

Of course, it would be remiss of me to think that we have a full knowledge of all





solutions and techniques required to make these new farming systems work, and nobody has years of experience of them either.

However, what AICC does have is one of the broadest knowledge bases within agriculture, and a very large membership who are willing to share knowledge and experience with each other for the benefit of the farms they advise.

I am very proud that everything you will read in this magazine is written by or in collaboration with our members. Hopefully it showcases the knowledge held within our organisation.

Also, as you may have already read, there are many young members joining AICC with an enthusiasm for the new farming systems I have talked about.

If we partner that enthusiasm with the expertise and experience mentioned, I believe we have a perfect balance to offer the best advice to farmers as we move forwards.

The way we farm is changing at the fastest rate for generations, so the advice given to farmers has to change and adapt with it.

Reassuringly though, the ethos of an AICC advisor will not. We offer truly independent, unbiased advice to clients, ensuring any problems that lay ahead are solved effectively.

ABOUT THE AICC

HOW IS AICC GOVERNED?

The AICC is governed by a Council of Management who are Directors of AICC managed by the CEO. There is a separate trials team with representation from each trials region.

TRAINING AND SUPPORT

Training is staged in seven regions by coordinators which provides members with comprehensive technical and industry updates. Training is also staged nationally as required with industry partners such as BBRO, Rothamsted Research, NIAB, as well as the Academy modules. AICC members gain discounts on industry schemes and professional indemnity insurance. They also receive help and support with business and industry issues.

MARKET INTELLIGENCE

AICC's reach across the UK enables us to provide quantified information to facilitate market intelligence contracts. AICC has a proven track record having been facilitators in various projects in the past. Most recently via an ADAS led project with other industry partners, delivering the FarmPEP (Farm Performance Enhancement Project), supported by Innovate UK. Since the project's launch in 2021, AICC members have been working with their farming clients to explore novel ways of conducting on farm trials and helping to meet the goals of the project to collaborate, learn and share knowledge in the farming community with the aim of increasing farm performance. No other group within the UK agronomy advice sector has both the number of independent agronomists and advisory market share to be able to respond effectively to requests for market intelligence.

AICC TRIALS

AICC has had a long history of running in-house trials for the benefit of its members. The portfolio of projects undertaken and regional extent of these member trials has been significantly increased in the last nine years.

The AICC Trials team comprise a committee of highly proficient and technically driven, established

agronomists from the South, West, East, Central and Northern regions of England along with Scotland.

AICC Trials run a national series of independent field trials that are principally involved in testing and comparing the performance of current and near market agrochemicals. Our trials also focus on specific agronomic issues such as nitrogen response, the role of micronutrients, and the use of adjuvants.

In addition, we also run a number of regional variety trials looking to compare the performance of new and established varieties – currently the main focus of these trials are early drilled winter wheat varieties and the tolerance of winter oilseed rape varieties to Verticillium wilt.

AICC Trials data is turned around quickly to maximise the benefit to members, and external manufacturers have praised the efficiency and professional way we handle trials. AICC Members are able to attend a detailed results session at our Annual Conference each year as well as inspecting trials sites during the season.

This resource is one of the many pools of information that AICC members use (see infographic on back page). But there is no doubt that access to these extensive, independent trials results and innovative technology keeps members at the forefront of delivering technical excellence and provides them with the tools to deliver the most cost effective advice to growers.

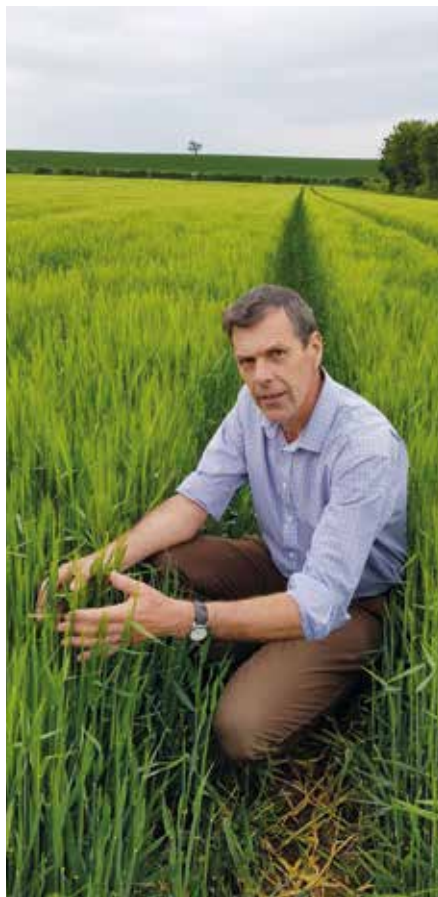
THE FUTURE

AICC takes the view that it is healthy to have a near 50:50 split of the advisory market and expects to see the independent share increase. The current climate is enhancing this independent thought process. Independent in thought, why wouldn't a grower wish to have an independent advisor?



New SFI options are well worth a look

The latest Sustainable Farming Incentive (SFI) has something for everyone. Arable Alliance and AICC member **Andrew Wells** takes a closer look.



1 FAMILIARISE YOURSELF WITH NEW AND UPDATED OPTIONS

The 2024 SFI scheme offers a lot of new choices – these will quadruple the current number – and there will be many existing ones that are updated.

Many of the new options aren't applicable to arable farms, but plenty are, and it is important to study these and see which might be appropriate to your business.

It is also advisable to study the updates to existing options, as there has been a loophole closing exercise to ensure that the scheme is delivering as intended.

One example is herbal leys (SAM3). A quarter of the SFI budget is currently being spent on SAM3 and a proportion of farmers still apply a significant amount of nitrogen to those areas.

Whilst this is well within the current rules, it means by the end of year one the multispecies characteristic is gone, and it is back to being a ryegrass ley.

This defeats the intended objectives and loopholes like this are being weeded out.

DEFRA have tried to be less prescriptive with implementation of different options, leaving it up to farmers to implement them as they see fit and many of us are enjoying that flexibility.

However, the industry needs to respect it by adopting SFI in a balanced way which does not forget the core aims of each option.

This will ensure it is delivering value for taxpayers' money, or it may revert back to a more rigid approach.

2 CAREFULLY CONSIDER CROPPING PLANS

Many farm businesses have entered into unplanned SFI agreements due to the very wet winter and spring, almost as a "get out of jail free" card.

Key questions now are: how much of the chosen rotational options will be retained, and where? You can reduce the area of many of the rotational options by up to 50% in years two and three.

SFI areas must be carefully assessed. Look at how well they have established and whether they are delivering the intended aims. It is also important to consider weed burden, particularly on land where there are known grassweed issues.

If blackgrass, ryegrass, bromes, or wild oat seed return is going to be high, it might be sensible to spray off affected areas,

accepting that you will be paid for a smaller parcel of land.

You might even need to spray it off completely and move that option to another part of the farm completely.

There is a danger, particularly if there is a significant area down to SFI, that if people aren't at least looking for issues and acting where necessary, there will be long-term consequences for the productivity of that land.

There were a lot of options for 2023, so people will be "blown away" by the new list of options for 2024.

It is probably going to be simpler to retain any existing SFI agreements and then start a new SFI agreement containing the appropriate new options, as you can run new agreements alongside existing ones and reap the economic benefits.

For mixed farms, or those with a forage requirement, there are some clever combinations you can put together and one interesting new option for 2024 is whole crop spring cereals followed by overwinter fallow (AHW8).

The spring cereal crop can be undersown with grass, which can then be utilised at the end of the following fallow period.

This could be a really attractive option to clean up weeds such as docks on fields prior to establishing herbal leys in which weed control is almost impossible apart from spot spraying.

An alternative entry for herbal leys could be a Westerwold ryegrass crop in which good broad-leaved weed control is possible.

It can be cut a couple of times before it is left to seed to deliver the winter bird food option on improved grassland (IGL2).

3 APPLY FOR OPTIONS CARRYING THE LEAST RISK

I have been steering my clients towards options that are straightforward to establish and deliver the aims, and also pay the best money. This reduces risk.

If you look at the uptake figures so far, many have opted for legume fallow (NUM3), pollen and nectar mix (AHL1) and winter bird food (ALH2) options, as they are the most straightforward to deliver by some distance.

However, flower rich grass margins, blocks, and strips to encourage natural predators (IPM2) can deliver a lot of benefit but is often very challenging to establish on many farms.

The NUM3, AHL1 and ALH2 options can provide a varied habitat adjacent to arable land, there are no pesticides applied in



those areas, so you are building corridors and havens where beneficial insects should thrive anyway.

Oilseed rape has become too risky in many situations and is unable to provide a positive margin consistently.

Legume fallow is a good option to replace it, but not the only option and we will probably see more cereals grown over the rotation, whether that's wheat, barley or oats.

A key consideration if considering entering a significant area into SFI, replacing something like OSR, is the impact on labour and machinery economics.

If you're not careful, your rotation might not provide enough output to cover the replacement costs of a prime mover, sprayer and combine, or cover labour costs, if everything is done in-house.

Good labour is not easy to find, so we don't want to be losing it lightly and it will be even tougher where it's a family-run business. Where using contractors, it might be easier to justify.

4 ASSESS HOW NO INSECTICIDE OPTION HAS PERFORMED

In June, it is important to assess cereal crops entered into the insecticide free option for barley yellow dwarf virus (BYDV) infection.

As farms applied for SFI in 2023, no insecticides had been applied and many decided there would be no need before winter, so it was a straightforward decision.

So far, there has not been a lot of BYDV showing in crops, but this will need quantifying before deciding what proportion of the harvest 2025 crop will go into IPM4.

Growers will be keen to drill early, which will increase BYDV risk. That makes site selection for insecticide free crops important.

On higher risk sites – where there is lots of grassland or fields with sheltered spots – consider drilling later and in any IPM4 crop, the use of resistant or tolerant varieties of winter wheat and winter barley is advisable.

I think farmers will gradually become

more confident about using less insecticides, which is a key aim of SFI.

5 ESTABLISH MULTISPECIES COVER CROPS EARLY

Multi-species winter cover crops (SAM2) is a popular rotational SFI option, and it is important to get these established in August, rather than September or October.

Work at the Catchment Sensitive Farming demonstration site in Nottinghamshire has shown that these early drilled covers establish and perform much better, so get these areas drilled post-harvest with some urgency.

Many of the small seeds in SAM2 mixtures, or other SFI options, require warm soil temperatures and should not be drilled too deep.

Seed-to-soil contact is also key and a fast roll after drilling can be useful in achieving that.

How to get on top of grassweeds this summer

The threat of grassweed seed return looms large following a challenging season, writes **Adam Clarke**. Matthew Paterson of Apex Agronomy and a Director of AICC outlines his best practice approach.

Grassweeds continue to weigh heavy on crop management decisions, particularly on heavy land in Eastern England where herbicide-resistant blackgrass and ryegrass are endemic.

From Matthew Paterson (*pictured right*), who advises across Hertfordshire, Essex and South Cambridgeshire, an interesting observation comes from where mixed populations of blackgrass and Italian ryegrass have evolved.

Italian ryegrass has been described as "blackgrass on steroids", with its greater ability to develop resistance to herbicides and genetic diversity making populations respond differently to cultural controls.

With ryegrass's prolonged and sometimes year-round germination, delayed drilling and spring cropping do not always achieve the results that they can against blackgrass.

Matthew says ryegrass is so much harder to get on top of, growers that have developed a problem have sharpened their approach to control.

"You must be so much more stringent, mixing up all cultural controls and there needs to be a willingness to invest in residual herbicides and urgency to get them on at the right time.

"Any farm with a blackgrass population is doing these things to varying degrees, but more so where there's a mixed population, because ryegrass is such a threat."

As a result, some of his growers have almost eliminated blackgrass from a previously mixed population.

Matthew says this shows the differences between the two species' response to an integrated weed control approach.

Red flags

As thoughts turn to autumn 2024, red flags are already being raised, so a robust combination of cultural and chemical

methods will be as important as ever.

Reflecting on experiences in autumn 2023 he says earlier sown crops went into good conditions followed swiftly by pre-emergence herbicides.

"When the rain did arrive in October, those pre-em stacks were activated and worked really well. You can see how well by the level of grassweeds in any spray misses."

In later sown crops, if pre-ems were applied before the rains, good control was achieved, but in many cases the chance to apply residual herbicides was missed and high levels of blackgrass and/or ryegrass resulted.

With widespread resistance to post-emergence herbicides, largely based on ALS-inhibitor active substances, there is often little that can be done thereafter.

Matthew says that applying post-emergence mixtures often makes matters



I'd rather have the dilemma of a thick crop to manage with PGR and adjusted nitrogen rates, than an uncompetitive thin crop that will give blackgrass and ryegrass a head start.

worse, knocking crop competitiveness and allowing weeds to establish well and tiller vigorously.

"You see it often in residual herbicide trials where some untreated plots are over sprayed with a post-em and numbers are higher than in untreated plots.

"There is only one shot now with herbicides and that is with your residuals: apply as soon after drilling as possible."

System flexibility

On the whole, his clients got the majority of their planned wheat area in this autumn, by tweaking site selection away from wetter



soils and flexing establishment systems.

Some of those using disc drills now have a backup tine drill, like a Weaving Sabre Tine, which can work in more marginal conditions later in the autumn.

However, Matthew says where growers did have problems getting seed in the ground or failed to get residual herbicides on soon after drilling, poor drainage and soil structure were key factors.

"Direct drilled soils can be extremely tight and fared much worse, as water sat on top around the seed, and you can see a lot of bare areas and thinner crops following high plant losses.

"Where the plough was used, water was able to get through the soil and where cultivations were carried out early in dry conditions, crops have fared much better, too."



Autumn plans

In any patchy, thin crops, grassweed levels are high due to poor crop competition, so cultivation and cropping plans will require careful consideration ahead of autumn 2024.

Targeted subsoiling and mole ploughing will be key to alleviating compaction and improving drainage, alongside maintenance of ditches and underdrainage systems, where present.

There are also likely to be some significant spots of grassweed seed return, which weren't sprayed off with glyphosate, that may push many into ploughing after harvest to bury weed seeds.

"The best way to deal with massive seed return is to plough, as long as you can fully invert. If you cannot do that and sods tend to stand on end, or your skimmers can't be set properly to throw trash into the furrow, then you could make things worse."

Whatever cultivation or establishment method is chosen, pre-drilling glyphosate should be applied well and at an appropriate rate for good control.

The ideal is at 1-2-leaf of the weed at a minimum of 720g of active substance/ha, increasing the rate if the target is established and tillering, with a water softener used where supplies are hard.

"Use of lower rates is where we might come unstuck with resistance and it allows

weeds to get to a size where pre-em's won't kill them, as their root systems are below the residual layer.

"With pre-drilling treatments and residuals, you also need to ensure complete coverage of the field, as spray misses leave plenty of survivors and you have to live with those all year."

Drilling date

Matthew acknowledges that growers will want to drill earlier this autumn, worried about the risk of the drilling window being slammed shut early, as it was last year.

However, where there is a significant weed seed bank in the soil the difference between acceptable control and a significant problem in the crop rests on a knife edge.

"If we change strategy because of the season before, we'll end up in a mess, so it is still advisable to delay drilling as much as possible: my view on that won't change.

"There's also the option of more spring cropping if things do turn wet, although adding diversity into a rotation is more difficult on stronger land."

At drilling Matthew has historically advocated slightly higher seed rates on heavy land, to compensate for plant losses due to suboptimal seedbeds and heightened slug risk.

In grassweed situations seed rates may need to be higher still, as hefty residual

herbicide stacks can exacerbate plant losses and slow the crop down early on.

For a 10 October drill date, he recommends starting at 325-350 seeds/sq m and increasing it over time, aiming for an optimum 800 ears/m sq for optimal yield.

"I'd rather have the dilemma of a thick crop to manage with PGR and adjusted nitrogen rates, than an uncompetitive thin crop that will give blackgrass and ryegrass a head start."

Herbicide options

The final consideration is herbicide choice and Matthew has been running his own grassweed control trials to provide information relevant to his client base.

He blends this with information from regional AICC grassweed trials, which test commercially available mixtures and pre-commercial products on high pressure sites.

For several years, growers have been heavily reliant on flufenacet-based mixtures like Crystal (flufenacet + pendimethalin) and Liberator (flufenacet + diflufenican), with mixing partners added to boost activity.

When the new option of cinmethylin became available in a co-pack with pendimethalin in autumn 2022, Matthew says it brought some welcome improvement in control of blackgrass and ryegrass.

This year differences are much more pronounced, and it's showed itself to be particularly strong on ryegrass, so it will be the cornerstone of his pre-emergence stack going forward.

Adding partners like tri-allate (Avadex) and prosulfocarb (Defy) boost efficacy against the two key grassweeds and there is the option of a residual top-up with flufenacet-based products at peri- or early post-emergence.

"Trials are achieving in the region of 87% control of blackgrass and a similar figure for ryegrass, with cinmethylin doing most of the heavy lifting.

"The fact that we achieve 87% with the best herbicides, and not the 95% control to stand still in terms of population, hammers home the importance of using all the cultural tools possible before any sprays are applied."

There has been discussion about crop effect when using herbicide stacks containing cinmethylin, particularly in direct drilled crops, but Matthew says that is more down to drilling operations than the herbicides themselves.

"Seed needs to be drilled deep enough and have at least 32mm of settled soil over the top. Where using a direct disc drill, you need to ensure the slot is closed to avoid any crop effect."

Monitoring is key to fend off pests and get most from crops

With a new online tool to combat BYDV, better understanding of virus strains across the UK and a previously undetected disease in peas, there was plenty of interest in the AICC conference pest session. **Adam Clarke** reports.

Speaking before chairing a session which brought together leading experts in pest management at this year's technical conference, AICC member Marion Self said it is critical advisers and growers embrace the output of their work and apply it in the field.

"Monitoring and understanding pest populations and behaviours helps assess and manage risk, and along with decision support systems (DSS) will help choose the right management to improve crop profitability with reduced environmental impact," she said.

Marion added that this is the definition of integrated pest management (IPM), which is now core to Government policy aimed at reducing pesticide use and farming's carbon footprint.

"As independent agronomists, we have no agenda other than enabling profitable and sustainable farms and IPM has long been part of what we do.

"We have to keep adapting our IPM strategies to a changing climate and pest populations, and that's why discussing the latest work is so important," she added.

Key combinable crop pests like cereal aphids, which spread barley yellow dwarf virus (BYDV), and cabbage stem flea beetle (CSFB) in oilseed rape, have been impacted by pesticide losses and will be exacerbated by climate change.

ADAS principal research entomologist Dr Sacha White said this is driving a research focus on IPM, with new DSS very close to coming online for both threats.

Aphid resistance

Since the withdrawal of neonicotinoid seed treatments, cereal growers have relied on pyrethroid insecticides to control the two main BYDV vectors, the grain aphid and bird cherry-oat aphid.

From Rothamsted's tracking of insecticide resistance the grain aphid is now known to be partially resistant to insecticides, and insensitivity has been found outside the UK in bird cherry-oat aphid.

Although field rates of pyrethroids are still effective at limiting the spread of BYDV, overuse must be avoided to reduce selection pressure and impact on beneficial insects.

This has led to the development of the ADAS Crop BYDV Assessment Tool (ACroBAT), which accounts for factors including winged aphid numbers, daily temperature data, crop sowing date, and BYDV infectivity of aphids.

It then quantifies risk between no risk and high risk and offers a spray recommendation, based on cost benefit analysis incorporating expected yield and grain price.

Sacha said that the system is accurate over two years of validation work, performing as well as the existing T-Sum system based on cumulative day degrees, and recommending fewer pyrethroid sprays.

ACroBAT can be used live throughout the season and has a cultural control element for use in pre-season planning with incorporation of various non-chemical approaches.

ADAS is currently working with AHDB, who part funded the project with



commercial partners, to make the model available soon.

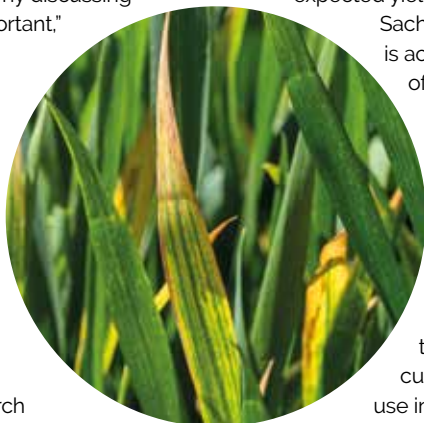
BYDV strains

As some BYDV strains are spread more readily by certain aphid vectors, or a wider range, Rothamsted Research plant virologist/entomologist Dr Lawrence Bramham has been working to improve understanding of strain variation across the UK.

By analysing suction trap samples of grain and bird cherry-oat aphids for presence of BYDV genetic material, he found presence of established BYDV-PAV and BYDV-MAV strains, as expected, but also BYDV-PAS, which had never been reported in the UK until now.

Over the three years of monitoring, he also found that the strains present in each location varied from year to year, meaning a variety's performance could vary between seasons and locations if not resistant to all strains.

He said this has big implications for plant





breeders and how growers choose varieties.

Now there is the genetic sequence data for strains, and an established baseline for strain distribution in the UK, new diagnostics will allow in-season understanding of which strains are causing problems and on which varieties, making BYDV epidemics more predictable.

With the no insecticide SFI action, resistant or tolerant varieties have become a key part of BYDV management and knowing how strains interact with these traits will also help develop future germplasm.

Warmer winters

As with cereal aphids, CSFB control has suffered since the withdrawal of neonicotinoid seed treatments and the rapid development of pyrethroid insensitivity. This has been compounded by warmer winters.

Sacha said that there has been a big increase in larval pressure over the past 20 years and modelling work has shown autumn pressure is associated with an

increase in sum of day degrees above 3.2C in October.

It also found that spring larval pressure is higher when there is ≥ 129 cumulative day degrees above 3.2C in January and average temperature in January is above 3.4C.

"Where conditions are warming in the winter, we are seeing increased rates of egg laying, egg hatch and larval survival.

"However, it isn't all bad, because we found that high rainfall events can reduce larval pressure and we've had some of those in recent years," he said.

Sacha added that a suite of IPM tools offering a cumulative effect on CSFB is now key to oilseed rape success, with sowing date particularly important in influencing risk.

Drill date dilemma

It is now established that early drilling, from late July to mid-August, helps establish plants before peak adult activity, but larval pressure is likely to be worse. From mid-September sowing onwards the risk of both declines markedly.

Of importance in the future will be a DSS to show when and where CSFB risk might be, and how much beneficials and other IPM actions might help in real time.

There is also work on varietal resistance, and some biopesticides have shown promise, although transferring that from the lab to the field is proving a challenge.

"We have huge populations of CSFB and still, every year, don't know what's going to happen, so there could be a need for more drastic measures.

"Do we need to do things that really throttle the population of the pest like regional restrictions on the cultivation of oilseed rape to break its lifecycle?"

Previously undetected virus

A recent research project has found asymptomatic infection of peas by a virus previously not associated with the crop causing heavy yield losses.

The project carried out by FERA, PGRO and AHDB tested a new methodology of

continued on p12

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high-throughput DNA sequencing to review the viruses affecting UK arable crops and update knowledge of them, crop by crop, starting with peas.

The virus that has always caused most concern is pea enation mosaic virus 1 (PEMV-1), and it is thought to be aphid transmitted along with PEMV-2. There is also pea seed-borne mosaic virus (PSbMV).

The project team, led by FERA's senior plant virologist Adrian Fox, wanted to find out if there were other viruses being harboured by pea crops and to do so, PGRO sampled 20 pea fields across the UK each year for the duration of the three-year project.

As might be expected, the analysis found PEMV-1, PEMV-2 and PSbMV in several crops across the UK at varying levels.

But the surprising discovery was that turnip yellows virus (TuYV), which previously had never been documented in peas in the UK, was the most common virus found.

The disease it causes is asymptomatic in pea leaves so until the adoption of the latest high-throughput analysis techniques, no one had looked for it.

Along with the discovery in UK crops, it has also now been reported in peas in Australia and Germany.

Significant yield loss

When Adrian's team investigated the impact of TuYV in peas they found that losses are much more severe than from

PEMV-1 infection, potentially hitting yield by 40%.

He said the good news is that treatment with an insecticide can reduce that by about half although 20% of yield is still a significant and uneconomic loss to bear.

"It leads to the question: what do you treat with and when? The answer is that we haven't got to the that part of the research yet.

"But from work in carrots and knowing what we know about plant physiology, plants become much more resistant, or tolerate virus better, later on. So, if you treat early, you're more likely to protect yield."

He added that more needs to be done to quantify over-winter reservoirs of infection in cover crops and wildflower and stewardship margins, with known TuYV host species commonly found in seed mixtures increasing virus transmission risk in the spring.

Marion concluded the session by noting that pea yields have been depressed over recent seasons and performance isn't jumping forward as many would hope.

The levels of TuYV found in peas could be part of the reason why there has not been progression, with a reduction in insecticide use potentially playing a role.

"Now we know more about its prevalence, the industry can develop new and improved integrated crop management (IPM) measures to tackle the problem.

"It's very important we safeguard the future of peas and beans, as other true break crop options are so limited."

Academy strengthens the case for independent agronomy

The AICC Academy scheme has gone from strength to strength since it was launched in 2015 to help members grow their business and future-proof the continued growth of independent agronomy. It is enhancing the skills of more than 50 new agronomists who have completed their BASIS and FACTS qualifications – or are in the process of gaining them and provides a sound technical platform to prepare for a career in independent agronomy. Here we feature six current Academy members:

Harriet Bateman

Prime Agriculture, Eastern Region

The independent agronomy sector is something I have always been inspired by and was motivated to join. I wanted the freedom to explore my own ideas, work with likeminded individuals and grow into a role where I ultimately have a positive impact on the agricultural industry and do the best by farmers and their businesses.

Agriculture has an exciting future. With a new generation of individuals coming in, bigger legislative changes than ever seen before and advances in technology in many aspects, I feel we are about to enter a new era and I am proud to be part of it.





Clockwise from top left: Harriet Bateman; Hamish Dunbar-Nasmith; Charlotte White; Harry Molton; Will Spurdens and Jamie Armstrong.

Hamish Dunbar-Nasmith *Strutt & Parker, Scotland*

I am a farming consultant working for Strutt & Parker in their Banchory office, Aberdeenshire. I chose the independent route after my colleague Mary Munro recommended it as the best route to take to become a respected and capable agronomist.

Since becoming an AICC member I have achieved both the FACTS and the BASIS foundation awards in agronomy. I am now looking to work towards the BASIS certificate in Crop Protection (Agriculture).

I am fortunate to have a support network of experienced AICC Scotland agronomists. Producing enough food in an environmentally sustainable manner is critical for the future of agriculture and AICC has a major role in ensuring it happens.

Charlotte White *GCS Grays, Northern Region*

I've always been interested in arable cropping. I firmly believe that agronomy advice should be focused on the needs of the individual farmer and their specific

circumstances. This is why I chose to become an independent agronomist.

Agriculture is going through the biggest change for generations. Agronomy is changing too – taking an integrated approach to crop management and using schemes such as the Sustainable Farming Incentive (SFI) to manage risk within arable businesses.

Ultimately, success is about ensuring a farm business is profitable while balancing food production with environmental outcomes.

Being an independent agronomist with an unbiased approach, means I can put the client's needs foremost while helping them navigate the changes they face.

Harry Molton *Indigro, Central Region*

Our small family farm in Cambridgeshire has employed an independent agronomist for as long as I can remember – when becoming an agronomist, I only wanted to work in the independent sector.

Treating crops on a case-by-case, field-by-field basis using independent trials data to make the most informed decisions can help make farming more sustainable.

Sustainability must be a major consideration for farmers and agronomists as we experience more extreme weather patterns and high input costs.

I have a background in field trials and data interpretation following employment at a large seed breeding company and NIAB prior to becoming an independent agronomist. Looking forward, I hope to use my knowledge and experience in the agricultural trials sector to contribute to the fantastic work already undertaken by the AICC trials committee and its members.

Will Spurdens *Ceres Rural, Western Region*

Being an independent agronomist gives me the freedom to give the best advice I can by choosing the most suitable method or product for each on-farm situation.

We are in an ever-changing industry. Change is all around us – be it mechanical, technological, political and climatic to name just a few. We are already adapting the way we farm to accommodate these changes.

As we have seen this season, being proactive and adaptable is vital. We need to harness new technology. And we need to be sensible where we take land out of production for government-funded schemes while maintaining food productivity.

It is an exciting time to be in this industry and we should not overlook that.

Jamie Armstrong *Wessex Agronomy, South West Region*

My practical farming background and a keen interest in progressive agriculture puts me in a prime position as an agronomist.

I grew up on a mixed farm in Hampshire and was then employed as a farm foreman on a 200ha estate where we worked with independent agronomists, so it was natural for me to choose that route when settling into agronomy myself.

What do we know about the 'arable wireworm' threat?



AICC member **Martyn Cox** has made it his mission to protect potato crops from wireworm – boosting returns in the process. Now a leading UK expert on the pest, he shares some thoughts on an increasing problem across arable rotations.

In pre-pack potatoes, it's well-known how economically damaging wireworm – the larvae of click beetles – can be, with entire lorry loads rejected at the slightest sign of damage.

Advising over a significant area of pre-pack across East Anglia, we started to see a steady increase in damage 20 years ago.

Once Mocap (ethoprophos) was lost in 2020, losses increased rapidly, and it was important to start asking some questions so I could help my clients and the wider industry manage the issue.

Historically, it's only been considered a major problem for potato growers in rotations containing rotational grass, but increasingly, there are reports of damage in several other crops, particularly in southern England.

These include cereals, maize, and vegetable crops like lettuce, onion, and brassica transplants, leading to "arable wireworm" being used as a descriptor.

It isn't just in the UK – countries across

Europe are seeing an increase in wireworm damage and researchers here are now linking up with European experts to share intelligence.

What have we learnt?

Initially through my own work, then as part of collaborative projects with Cambridge University Potato Growers Research Association (CUPGRA), FERA, Innovative Farmers and others, there has been an effort to improve knowledge of several key aspects, including:

- Species and lifecycle
- Detection and risk assessment
- Integrated pest management (IPM) strategies

It was important to challenge previous knowledge on which click beetle larvae species are causing the problems – had the species in the UK changed? The last survey was carried out 1938-42.

There are some 70 species of click beetle present in the UK, but few of their larvae can be found in arable soils. Of the ones that are, even fewer cause crop damage.

In the past, wireworms have been wrongly treated as a collective, so where they were being found, you might not have planted a potato crop, or you'd have used an insecticide treatment like Mocap to control them when maybe you didn't need to.

Moving forward this makes knowing what species you have critically important in risk assessments.

Although there is still a lot to learn, bait trapping larvae and DNA barcoding of catches has confirmed that *Agriotes* spp. remains the most important and economically damaging click beetle genus.

There are three key species within that genus, including *A. lineatus*, *A. obscurus* and *A. sputator*, that are present in UK arable soils, although their distribution does vary. Where there is damage it's almost always attributed to some of these.

There are some isolated pockets of *Athous* spp. which cause damage to crops in Kent, but we are unsure why at present. It is



likely down to local climate and soil type.

As part of the Enigma 1 project, FERA have DNA barcoded 10 UK species and can use the barcoding to identify larvae, so in the future, laboratory testing could help distinguish between damaging and non-damaging species and improve decision making.

Landscape changes

To help improve risk assessments, we set out to better understand the effect of changing farm practices on wireworm activity.

When you consider the range of insecticides used 20 years ago and today, there is a huge shift. Older broad-spectrum groups like organochlorines and organophosphates have gone and neonicotinoids like clothianidin are no longer used in cereals.

These substances would have kept a lid



However, a low soil disturbance, cereal-based rotation with cover crops, on moisture retentive soils, creates a very favourable scenario for wireworm – cereals are grasses after all.

Adults have an opportunity to safely lay eggs in May/June in these rotations and juveniles have an abundant food source through until autumn, when cash crops are planted again.

That said, we have found significant damage in plough-based cereal rotations with no cover crops, and a common factor in these situations is weedy stubbles left undisturbed until the following crop is drilled.



harvest is recommended, and a plant-free period from harvest to autumn will limit the pest's food sources and larvae survival.

Cultivations ahead of late-sown spring crops can disturb the pest at a sensitive stage and inter-row cultivations in crops like maize can be useful, but timing is critical.

We know there are differences in crop susceptibility to damage, with spring wheat more prone than spring barley. Linseed and spring beans are rarely – if ever – badly damaged.

Less susceptible crops could be useful where there is a risk and in the case of spring beans, control measures targeted at

pea and bean weevil may give some incidental control of adult click beetles.

In terms of conventional inputs, Signal 300 ES (cypermethrin) seed treatment may help reduce feeding damage in cereals and an approval for an in-furrow pyrethroid treatment is in the pipeline for potatoes.

Biocontrols that kill larvae have showed promise, including entomopathogenic fungi and entomopathogenic nematodes. Applying the fungi in cover crops has shown promise in Austria, and work is ongoing here in the UK.

Buckwheat as a cover crop has been shown to have some impact on wireworm juveniles in Canadian work, but data is limited.

This means there is no silver bullet, so where arable wireworm is becoming a problem, an integrated pest management (IPM) strategy is the only way to avoid significant losses.

on populations by disrupting juvenile feeding and to the same degree, widespread non-inversion tillage would have helped, too.

Although damaging populations are still found where soil is intensively cultivated, when carried out at the right time, cultivation can hit juveniles and adults at their most vulnerable stage.

This puts pressure on the overall lifecycle, likened to a "death by 1,000 cuts", but increasingly farms are moving less soil and creating a permaculture with cover crops between cash crops.

This approach does not guarantee a problem. Planting after grass or long-term stewardship is considered very high risk, but if the soil type is not favourable, sometimes we find few larvae.

Our most damaging wireworms favour bodied, moisture retentive soils, rather than drought-prone sandy soils.

Management strategies

So, what does all this mean for management strategies?

Monitoring is key and late-sown spring crops like vining peas and maize offer a good point in the rotation to catch adults with pheromone traps. Adult catches can give a good indication of their activity periods on your farm.

There have been significant improvements to larvae bait trapping methods. Trapping in the autumn when soils are warm and moist gives growers time to change plans if damaging species are found.

Click beetle have a complex lifecycle and there is still much to learn, but if you are seeing a build-up of numbers year on year, we know enough to be able to disrupt it and reverse the trend.

Targeted inversion cultivation – ideally with discs and not tines – soon after cereal

High disease pressure tests varieties and fungicides

Conditions during the 2023-24 growing season saw a range of foliar disease in wheat crops. **Adam Clarke** looks at what lessons can be learnt from a high-pressure year.

With a wide range of diseases affecting winter wheat crops in 2024, growers are urged to carefully consider variety choices ahead of the autumn, particularly where drilling early.

There are not many seasons that throw up a full house of foliar diseases, but 2023-24 is close, with both yellow and brown rust, septoria and eyespot all posing problems across a range of varieties and sites.

At the time of writing, it was too early to say if crops will be affected by ear blight – caused by fusarium and microdochium pathogens – but with showery weather forecast for June, the set could well be complete.

Chloe Morgan (*pictured*) of ADAS, who is on the AICC Trials Committee, says it has been a good season for plant pathologists, providing a stern test of varieties and fungicides in trials. This generates strong data that teases out differences and improves decision-making.

Rust alert

She says yellow rust was easy to find in early spring, and some in the East were forced into a pre-To spray to clean up any infection. At the more typical To timing in late-March, susceptible crops were prioritised as wet weather limited application opportunities.

Yellow rust even showed up in what are considered robust varieties, such as Crusoe with a resistance score of 8, although several of these varieties have juvenile susceptibility.

Similarly, brown rust also popped up early and in unexpected places, both varietal and geographical. Its largely a problem for growers south of the M4 motorway but has been seen more widely this year.

"We don't tend to see brown rust until T2 (flag leaf emergence) or later in most years. The winter was just so mild, and rust has been able to cycle a bit quicker and appear in crops much earlier.

"The average winter temperature was



about 7°C and identical to 2006-2007. That was the last bad brown rust year, when the disease was very difficult to control," says Chloe.

She stresses that there is currently no suspicion of a population shift in either rust pathogen, with the high levels more a result of the mild and wet winter.

Another biotrophic fungi, powdery mildew, has also been present in susceptible varieties and combined with the threat from rusts, has meant fungicide strategy at T1 and T2 has been adapted to cover off the

seasonal threats.

For rusts, the addition of tebuconazole and strobilurin active substances has been key, whilst specific mildewicides like cyflufenamid or sulphur formulations have helped stem mildew infections.

Septoria threat

However, the main threat for many has been septoria, with the wet autumn and winter helping the disease get a strong foothold in crops across the UK. Regular downpours have then provided the conditions for

Dan Matthews, Ceres Rural, West Midlands

We've had two difficult and diverse seasons for wheat disease and these challenging conditions will help us continue to improve risk assessments, variety choice and fungicide choice next season.

Septoria is the main issue here in the West. Drilling later obviously helps, but practically it's difficult to strike a balance between reducing septoria pressure and starting early enough to ensure all seed gets planted. A significant area didn't last autumn.

There's much thought being put into variety choice now, utilising the genetic resistance as a cultural control for septoria. I think it's a mindset that is much more advanced in this region than elsewhere, as we face high risk on a consistent basis.

We don't take a chance on a variety unless it has a septoria score of 6.5 or above

and against the backdrop of some recent wet autumns, we are also being brave with sensible but practical drilling dates. We then know what to expect and can manage crops accordingly.

As many have taken these steps already, a consideration for next year is the importance of monitoring and adjusting plans based on conditions and what you are seeing in the field, which was needed this year.

We've seen some yellow rust on susceptible varieties, but we were prepared for that. The surprise has been early brown rust and it's important to react to these problems as soon as you can.

Overall, though, I think we are now much better than ever at assessing risk and judging fungicide input based on variety, season, and vital information such as AICC fungicide trials.



infection to move up the plant.

At the time of writing (late May), septoria symptoms could be found on the flag leaf in untreated ADAS trial plots in Wales, albeit in highly susceptible variety Gravity.

"It started off as a similar septoria year to 2023, with very high pressure early on. The difference is that last year, it dried up between T1 and T2 and that stopped disease in its tracks. We haven't had that elsewhere this time around.

"Even in late drilled crops where rusts and mildew are usually the main issue, septoria pressure is building now," says Chloe.

ADAS technical director of crop protection and AICC specialist member Jonathan Blake says it is too early to see differences and make any judgements on fungicide products or programmes severely tested by the season, but differences between varieties have become evident.

"Susceptible ones really are in trouble in trials, and we've seen plenty of septoria in earlier sown resistant varieties like Extase (7.4) and more than expected in Champion (7.9).

"I think it tells us that we need to be using both variety and chemistry to manage septoria, both for yield and management of resistance," notes Jonathan.

Variety choice

Chloe says that variety choice will be as crucial as ever going into the autumn, particularly as many growers will be compelled to drill slightly earlier this year after the difficulties faced in autumn 2023.

More resistant varieties should be drilled



first and the most susceptible last, as drilling date has such a significant impact on septoria disease pressure.

However, disease resistance scores are not the only agronomic consideration when choosing varieties – they must be suited to the respective drilling slot, too. Typhoon is one example of a wheat that can be sown early.

"It's then a case of being aware of the risks in each situation when thinking about disease control next spring," says Chloe.

The good news is that growers have a good selection of fungicide products active against the main diseases, with a recent spate of product launches. These include azole mefentrifluconazole (in Revystar XE) in 2020 and fungicide Qi fenpicoxamid (in Univoq) in 2022 boosting septoria control.

These are now complemented by new generation SDHI fungicide isoflucypram (in

Vimoy), launched in the UK last year. This was swiftly followed by SDH pydiflumetofen (in Miravis Plus) in recent months, with the latter very strong on septoria.

Older chemistry still has a place in lower pressure seasons, or where significant spend simply cannot be justified.

Matching spend to potential has been difficult in 2024 – not least because there have been plenty of patchy and thin crops lacking yield potential. Some crops may only achieve 6-7t/ha, explains Jonathan.

"Yield response to fungicides on some more resistant varieties is about 10%, so with a likely 0.6-0.7t/ha benefit there is no point in spending £150/ha in some cases and many have reduced input accordingly.

"However, there are some very good crops out there and I suspect that's where the best chemistry has been used. It has been a season for it," he concludes.

AICC variety trials tease out top winter wheat picks after testing season



Peter Cowrick, AICC Southern Trials co-ordinator and CCC Agronomy Technical Director.

AICC's winter wheat variety trials are intentionally established between late September and early October to expose varietal genetics to an elevated disease loading.

This allows us to evaluate how both established and new varieties perform within a challenging disease context, both untreated, and with a comprehensive fungicide programme applied.

Spring 2023 and 2024 have both been exceptionally wet, providing the first serious septoria test for both varietal genetics and chemistry since the demise of multisite fungicide chlorothalonil in 2020.

It is fair to say that both have been found wanting in some scenarios.

Drill date

This current season is a stark reminder that September drilling, although tempting in favourable conditions, leads to a much higher septoria burden, even in varieties with robust resistance scores.

It is apparent that many of the newer actives do not provide a high degree

of septoria eradication even when well-timed T1 applications are made, particularly in higher disease pressure scenarios.

This has resulted in septoria infection being more evident on leaf 3 and Leaf 2 than expected, reinforcing the need to marry sound genetic resistance with appropriate fungicide programmes.

Mainstream varieties that have best withstood the scrutiny of the past two springs include Champion, Palladium, Typhoon and Mayflower. All have above average septoria resistance, with Extase and Dawsum also holding up well.

It is worth noting that both Champion and Typhoon are now very susceptible to brown rust, which needs factoring into disease management moving forward.

Hard wheats

Of the hard feed wheats, both Champion and Typhoon look to be good options for farms that are direct drilling, with Typhoon the better suited to earlier drilling and on heavier and wetter fields.

A more broadacre choice remains KWS Dawsum, which combines a respectable septoria score of 6.3 with an excellent specific weight of 79.9kg/hl.

In the past three years, it has topped fungicide treated yields in AICC trials, and its slower development is particularly suited to September to late October drilling.

Gleam continues to look well in the field and has been a consistent performer, but septoria control in September



drilling is now more challenging. LG Beowulf looks to be a higher yielding (106% v 103% of controls) and cleaner alternative this autumn.

For committed feed growers, starting drilling plans with either Dawsum or Typhoon, then following with Beowulf or Gleam, and finally Champion would all be sensible choices for this autumn.

Hedging bets

For growers that want to hedge their bets in terms of marketability, Extase remains hard to ignore, with its good grain quality, excellent septoria resistance (7.4) and competitive yield.

However, its earlier development characteristics are unsuitable for September drilling, and it is not a good choice on wet laying land that restricts nitrogen uptake in the spring.

For those wanting to drill a quality wheat in September, slower-developing Palladium is worth consideration, and its septoria resistance has held up well. However, it is unlikely to deliver sufficiently high grain proteins to attain a premium on all but the most fertile sites.

Septoria management in Group 2 Mayflower has been easy, remaining remarkably clean even when relatively early sown, but its yield is around 4-5% below



Award winner shares tips for a successful no-till journey

AICC member **Ben Burrows** was named Agronomist of the Year at the 2024 National Arable and Grassland awards. Here, he talks about working with a client implementing a zero-till arable system.

I've been working with David Miller at Wheatsheaf Farming, near Basingstoke, Hampshire, for the past four years.

When we started working together, he was already many years into his zero-till journey and keen to work alongside an independent agronomist in the next phase of the farm's regenerative transition.

As an independent agronomist, I'm open to ideas on different production methods. I was intrigued by his regenerative farming experience and ready to engage with the growing movement and learn more.



Weigh-up risk

Regenerative agriculture is a relatively new concept to most UK growers. There is little solid trials data available to answer certain questions, so often it requires us to weigh-up the risks involved and give things a go.

This is where a strong relationship between client and advisor is critical – there must be an attitude of risk sharing for it to work well.

Last year, we grew our first fungicide-free winter wheat crop, using a three-way blend of feed varieties with the hope that the genetic diversity would reduce disease pressure.

We decided to try and lower other crop inputs too, with 137kg N/ha applied compared to the 180kg N/ha farm standard. There was also more reliance on foliar nutrition – but nothing excessive.

Humbling experience

This yielded the same as other fields drilled with a single variety – and where a decent fungicide programme and farm standard nitrogen was applied.

David has always been keen to use little or no insecticide, particularly now that he is being paid for it under the Sustainable Farming Incentive (SFI) option IPM4.

I was – and still am – nervous about this, especially as the typical drilling

window at Wheatsheaf Farming is between the third week in September to the first week of October to help crops establish well under zero-till.

Most of the farm is at 400-650ft (120-200m) elevation, which I am sure helps reduce aphid pressure. Despite that, I can usually find a few aphids during my autumn crop inspections – and most fields hit the AHDB Aphid tool treatment threshold.

Despite no insecticide, our winter wheat has seen little to no barley yellow dwarf virus (BYDV) in three years. Perhaps this is an effect of a build-up of beneficial predators over many years within David's zero-till system. Time will tell.

It was an incredibly humbling experience to discover David had nominated me for 2024 Agronomist of the Year and even more so to win it. No one is in agronomy for accolades, but when one comes your way, it makes it even more worthwhile.

Agronomy approach

Ben Burrows is a partner with independent agronomists Crop Management Partners and advises farming clients across the counties of Berkshire, Oxfordshire, Wiltshire, and Hampshire.

Ben's focus is on providing those clients with incremental improvements to their production systems with a proactive and holistic approach to agronomy.

Extase and Palladium.

Mayflower is resistant to soil borne cereal mosaic virus, so it would be an obvious choice where this is an issue.

Milling varieties

Milling wheat picks remain between Crusoe, Skyfall and Zyatt, all of which have an Achilles heel of either brown or yellow rust, but are established preferred varieties with buyers.

Newly recommended SY Cheer offers a good combination of high specific weight, Hagberg and reasonable disease resistance, adding to growers' choice in the Group 1 sector.

A variety generating grower interest, particularly with the introduction of the SFI's no-insecticide payment option is the candidate RGT Goldfinch.

It offers both barley yellow dwarf virus (BYDV) and orange wheat blossom midge (OWBM) resistance and good grain quality and disease resistance, although yields do appear to be around 10% below established quality wheats.

The other variety that has stood out in AICC trials is Bamford, and for those growers with a hankering to return to the Group 3 biscuit wheat market, it looks a very attractive proposition.

It combines yields on par with the highest yielding Group 4s at 106%, with good grain quality and a useful septoria score of 6.7.

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