

AGRONOMY

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New kids on the block for autumn drilling

As harvest approaches, thoughts start to turn to autumn crop selection. Variety choice can, however, seem overwhelming at times, with winter wheat alone offering more than 50 different options for sowing in 2020.

Despite the limited opportunities to visit open days and inspect variety trial plots in person this year, the Frontier agronomists and technical team have been receiving regular updates from the 3DThinking sites. This information has been relayed digitally to growers, including through virtual plot tours.

Often though, to understand the best variety options for individual circumstances, the most valuable resource is local knowledge. With 130 agronomists walking fields throughout the UK, Frontier can provide first-hand experience of what is performing well and where.

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Image: Neil Leech, Frontier agronomist in Norfolk and Suffolk

Top picks for the South East

"There are the well-known, tried and tested varieties, but we're always looking for the new kid on the block," says Neil Leech, Frontier agronomist in Norfolk and Suffolk.

"New Group 4 hard feed wheat variety SY Insitor looks a very good contender as the highest-yielding option on the Recommended List. It's grown well in every trial plot, even on light land, so would definitely be one to consider."

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KWS Firefly ticks all the boxes

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Another variety which has performed well this season is Group 3 biscuit wheat, KWS Firefly.

"I picked it out when looking at our eastern trials last year and it has performed well throughout this season. Despite the dry spring conditions, it hasn't suffered from drought or heat stress as much as other varieties and has excellent disease resistance.

"KWS Firefly ticks all the boxes and could be a variety that remains popular for a few years."

For more insight into seed varieties for this autumn, follow [@frontierag](#) on Twitter, head to www.youtube.com/frontieragriculture and subscribe to our blog at www.frontierag.co.uk/blog/subscribe



Image: Andrew Roy, north of England Frontier Crop Protection Team Leader

In the field with Andrew Roy, Crop Protection Team Leader in the north of England

"I agree with Neil on KWS Firefly. It's the standout variety of the Group 3 varieties with good disease and lodging resistant properties.

"Another variety with similar characteristics is new soft feed wheat RGT Saki, which has looked particularly clean at Frontier's 3DThinking sites this year. Its slow-maturing properties make it an ideal candidate for early drilling - an important feature for some growers in the north.

"Looking further ahead, we're excited by RGT Wolverine; the first wheat with resistance to barley yellow dwarf virus (BYDV). We've seen evidence of BYDV in crops this year across the UK, so building genetic resistance into rotations makes perfect sense. This could be a really important technology for us in the future."



Stop black-grass in its tracks

It's fully accepted that there is no silver bullet when it comes to managing black-grass. Frontier Crop Production Technical Lead, Paul Fogg, explains that stacking a range of measures is fundamental, with ten key areas to focus on.

1. Understand the problem through acknowledging the current resistance status and soil conditions of each field.
2. Maximise the use of stale seedbeds to reduce the weed pressure in the following crop. When using glyphosate, be sure to adhere to the stewardship guidelines.
3. Use rotational ploughing where appropriate and ensure seeds are buried. Full inversion is a good way of resetting the black-grass status of the field. Consider soil conditions at the time and be prepared to change strategy.
4. Delay drilling until after mid-October – I appreciate 2019's autumn conditions may make it tempting to drill as soon as possible, but don't forget the basics and undo all the good work from previous years.
5. Increase seed rates and select competitive varieties. Vigorous spring growth competes with black-grass, reducing seed return. Hybrid barley has proven to be very effective, as it can be drilled later than conventional varieties.
6. Look to incorporate spring cropping into the rotation, but don't drill too early.
7. Create the best seedbeds possible and consolidate the soil to enable a successful crop establishment, therefore giving it the best chance at out-competing black-grass.
8. At establishment, move as little soil as possible.
9. Apply robust pre and early post-residual herbicide programmes.
10. Ensure accurate application of all chemicals and make best use of adjuvants where appropriate.



Image: Black-grass control requires stacking a range of measures



Image: Alistair McKenzie, Frontier agronomist

In the field with Alistair McKenzie, Frontier agronomist

"For one grower in Yorkshire, we decided to explore the use of hybrid barley to overhaul the increasing black-grass burden (1,200 heads/m² in patches).

"While the competitive nature of hybrid barley is well understood, we were keen to see if high seed rates and sequential cropping would bring additional benefits.

"In terms of black-grass seed return, there was a benefit from using seeds rates above the standard 200 seeds/m². With sequential cropping, a two-year scenario of 200 seeds/m² followed by 300 seeds/m², gave a 75% reduction in black-grass heads relative to a 'spring wheat followed by hybrid barley' scenario."

Life without Diquat – what are the options?

With Diquat no longer available, potato growers need to consider alternative approaches for destroying potato haulm.



Image: Growers look to other methods for destroying potato haulm. Photo courtesy of FMC

Frontier agronomist in the South West, Fergus Hawkins, says all is not lost, with several viable chemical options available.

“Growers can still use protoporphyrinogen oxidase (PPO) inhibitor herbicides, such as Gozai/Albis or Spotlight Plus,” says Fergus.

“These are highly effective stem desiccants; however, this means they take longer to kill the crop than Diquat, which tackled the leaf.

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Alterations may be needed to your usual programme

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“Therefore, alterations may be needed to your usual programme, including building a nutrition plan to suit and not over-applying fertiliser so the crop is ready to ‘die’, rather than being too green.

“I would also recommend using a flail topper as part of the programme, alongside chemicals, to have the most effective results in the autumn. These conversations need to happen now - if it becomes too wet later in the year, you will then have to rely on chemicals alone for crop desiccation.”

Gozai/Albis + Ranman Top is now authorised for use in a three-way tank mix with adjuvant oil, providing improved activity of the PPO inhibitor.

Innovation focus: shining the spotlight on detail

Crop production requires a continual calendar of monitoring, with plans for autumn drilling taking place before this season's crop is harvested. The MySOYL tool, which is available as part of Frontier's MyFarm platform, allows for a forward-thinking approach, taking note of lessons learnt before tackling the next season.

Prior to 2020 crops being harvested, the data captured in MySOYL, such as using soil conductivity maps to create variable rate seed programmes, can be used to get plans in motion for 2021. This information means seed can be ordered ahead of drilling, using precise forecasting to calculate exact quantities, rather than 'ballpark' figures.

Yield mapping can also be used to identify areas for more detailed management alterations, including soil structure and cultivation. This precise analysis enables the grower to be specific with which areas of the field require further investigation, resulting in higher land productivity.

Using this data also means information, such as patches of black-grass, can be fed into the variable seed rate map to create more competition to battle the weed next year.

As we look ahead to drilling, the iSOYLscout app can be a useful tool. It enables the grower to pre-determine and manage any problems directly from the field, such as logging poor drainage areas, sections which pose establishment issues and areas of note for high levels of black-grass burden.

Year-on-year, this data can enable small tweaks to be made which result in big gains – it's being gathered; it just needs to be used.

Assess, plan and act on soils this autumn

The Frontier Soil Life service will play a key role for growers come autumn, helping prevent any long-term impact from 2020's mixed weather.



Image: Reviewing soils now will help mitigate long-term impact from the 2020 season

“Growers need to assess, plan and act now to mitigate further damage to soils and prevent this year impacting future yields,” says Jamie Stotzka, Frontier Soil and Plant Health Specialist.

“Start by yield mapping and using the data available from the MyFarm platform to review soil conditions over the past year, which will give an overview of field performance.”

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Start by yield mapping and using the data available from the MyFarm platform

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“From here, walk the fields and take a spade to dig and observe current soil conditions. This will give an understanding of how the soil ‘feels’, indicating whether there are compaction issues in underperforming areas.”

Jamie also recommends conducting Soil Life tests, VESS scores and worm counts to help create a benchmark of current soil health to compare to previous years, as well as being able to do direct comparisons between ‘good’ and ‘poor’ fields.



Image: Conducting Soil Life tests can help observe current soil conditions

Kings Crops Sales Manager, Richard Barnes, says an appropriate plan of attack can then be created to improve soil structure.

“You need to know what you want out of the solution and how long you need it to work. For short-term soil structure support, catch or cover crops would be appropriate to help open up soil structure, whereas more damaged soils may benefit from longer-term grass/legume/herb leys.

“The latter can also mean financial benefits, with stewardship payment support which would enable fields to remain ‘unproductive’ while soils recover for future crops.”



Expert focus: Dr. Reuben Morris, Crop Production Specialist



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For over 25 years, I've advised growers and agronomists on crop protection programmes and the best agronomy strategies and products to use, while specialising in potatoes and sugar beet.

My day job revolves around the gathering and relaying of information to the Frontier team and our growers. One aspect is updating the relevant Frontier managers on the latest regulatory issues regarding crop protection, fertiliser and ELMS changes in payment schemes.

On another day, I could be advising our agronomy team on programmes for potatoes and sugar beet, along with various minor crops Frontier agronomists advise on, including brassicas, carrots, onions, herbs and increasingly, pumpkins.

I also represent Frontier on several committees discussing topics which will influence future seasons' decisions. This includes over 15 years as part of the AIC Technical Committee, attending the CRD Grower Liaison Group and representing AIC as a member of the BASIS Education and Training Committee, along with being part of the Insecticide Resistance Action Group.

Along the way, I became a BASIS examiner after qualifying for the BASIS Diploma in Agronomy. Ultimately, my job is to support our growers – giving them the tools and techniques to best support their business.

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An 'office in your pocket' this harvest

Breaking off from combining to check grain sample results, market prices, or your account admin in the office is the last thing you want to do, particularly if rain is forecast! MyFarm works on mobile devices as well as desktop. It gives Frontier customers free on-the-go access to a huge range of information. Keep an eye on grain markets, your account, lab sample results, and more with MyFarm this harvest.

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Frontier has a UK-wide team of 130 BASIS qualified agronomists, including 44 Diploma holders, working with growers to deliver fully integrated agronomy advice on all aspects of profitable and sustainable crop production. To find out more about Frontier's agronomy services in your area email agronomy@frontier.co.uk, call 0800 227 445 or visit www.frontierag.co.uk

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