frontier

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AGRONOMY

News and agronomy advice for arable farmers

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Warburtons Growers Group will help shape milling wheat supply chain

Frontier is now responsible for sourcing all of Warburtons' UK milling wheat via its farmer customers. The partnership has led to the formation of the Warburtons Growers Group where growers can directly contribute to developments and advice across the supply chain.


Stuart Jones

Warburtons' wheat controller, Stuart Jones, explains that the focus is knowledge exchange and creating a shared learning platform for growers, in conjunction with Frontier and Warburtons.

"Quality is key to everything we do, and consistency is vital to producing quality bread," says Stuart. "As a family business, a close working relationship with our farmers is important and something we have always strived to achieve. The Growers Group will help further enhance two-way communication and promote an open dialogue and debate in the supply chain.

"By working with Frontier, we can provide these members with end-to-end production expertise right from seed supply through to agronomy and nutrition advice as well as precision management and digital solutions.

"It's about listening to our growers. We need to understand all issues from the farm level up, working together and designing trials which contribute to creating the highest-quality products.

"We don't know what information will come out of this work, but by openly sharing the results with the group we hope to grow together and learn from our farmers."

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Family Bakers Warburtons GROWERS group

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With support from Frontier agronomists and its seed and technical experts, members of the Warburtons Growers Group are evaluating varieties and varietal characteristics; grain protein content and how it varies; nitrogen use efficiency; and sustainable approaches to growing quality wheat.

"We need to consider the interactions between soil health, nutrients, sustainability and the quality of the end product."

"We need to consider the interactions between soil health, nutrients, sustainability and the quality of the end product. Climate change and extreme weather patterns mean that crop resilience is increasingly important, and there may be opportunities to improve this using biostimulants, precision approaches and looking at wider rotational factors.

Warburtons and Frontier are working together to support growers

"Something else we want to explore with the group is growing quality milling wheat in non-traditional areas and assessing different varieties in different locations," Stuart adds.

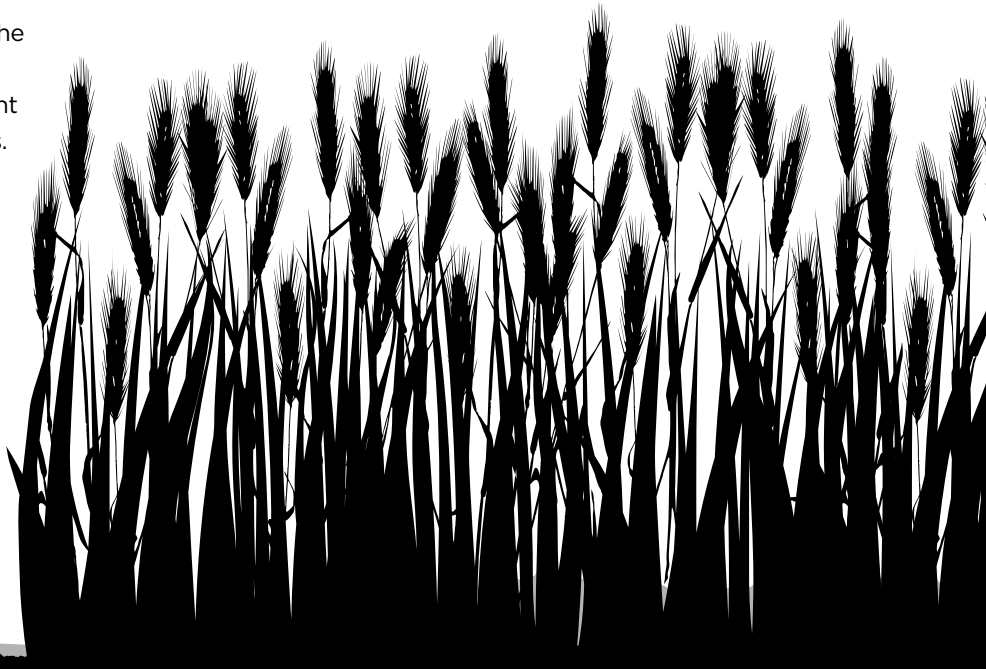
There are around 250 growers in the group, and Frontier and Warburtons hope to meet its members at trial sites and events through the season. Warburtons already hosts some trials with wheat breeders but more will be conducted at Frontier's own 3D Thinking sites at Revesby in Lincolnshire and Abbots Ripton in Cambridgeshire.


Growers are able to see their crops as the end product

"We're also looking forward to hosting visits at some of our bakeries and mills. It's great for growers to be able to see their own wheat being turned into flour and bread, creating a relationship not just with Warburtons, but with the individual bakery."

The ability for farmers to see their own crops being processed is not always possible, so such visits are anticipated to be popular. "Ultimately, we're very excited to work with farmers in the group to test new concepts and principles, and in turn, help share findings with each other," Stuart concludes.

More information about Frontier's partnership with Warburtons can be found at www.frontierag.co.uk/warburtons



Don’t forget Stewardship as SFI approaches


Hannah Clarke

As the specifics of the Environmental Land Management (ELM) schemes are announced, particularly the Sustainable Farming Incentive (SFI), we are starting to get an understanding of what is available this year. Kings technical advisor, Hannah Clarke advocates taking a look at both Countryside Stewardship and SFI opportunities.

“Countryside Stewardship is available this year and next. If you haven’t already looked at it, it’s worth considering. The application process is open now; it’s entirely online and the payment rates have gone up. There’s a strong fit with most farm businesses and there’s a five-year outlook,” says Hannah.

> **“Countryside Stewardship is available this year and next. If you haven’t already looked at it, it’s worth considering.”**

“There are options which fit in with agronomic objectives such as legume and herb-rich swards, two-year legume fallows and cover cropping. These options can be integrated into the arable rotation, delivering for both the farm business and the environment.

Sustainable Farming Incentive

The SFI is the first of the three initiatives within the ELM scheme which rewards environmental land management; it will start to be rolled out in spring 2022.

It includes three standards plus a review:

- Arable and horticultural soils
- Moorland and rough grazing
- Improved grassland soils
- Annual health and welfare review.

One of the key elements for arable farmers is likely to be the arable and horticultural soils standard.

For more information on this, and how the SFI and Countryside Stewardship schemes fit together, visit www.frontierag.co.uk/blog/kings

Precision approaches to grassland


Ian Evans

The use of precision monitoring and analysis could allow farmers to reduce the costs of nitrogen applied to grass this spring, while maintaining silage quality across multiple cuts.

Frontier agronomist, Ian Evans, notes a precision approach can help improve the efficiency of fertiliser use.

“If you’re on a multi-cut system, you can use precision technology to track sward growth using biomass imagery from SOYL,” says Ian. “This information can improve the accuracy of granular applications of ammonium nitrate to produce an even crop.

“Using slurry analysis and soil maps permits pinpointing applications of slurry for best results,” he adds. “While many nitrogen plans are based on standard figures, everybody’s slurry is different. Analysis will show what’s available and how much to apply; after which you can top up with nitrogen fertiliser where required later on.”

> **“Information from SOYL can improve the accuracy of granular applications of ammonium nitrate to produce an even crop.”**

SOYL soil sampling data, coupled with the previous season’s knowledge and deciding on first cut target date, e.g. 20-25 April, can be used to work out nutrient plans for the season. This could save nitrogen while preserving grass quality.

“If you know what’s in your slurry, you can tweak the rate depending on the application system you are using, and it might be more about managing P or K, as well as N,” stresses Ian.

“If you can use more slurry overall and reduce the amount of top-up nitrogen, then that’s great, but don’t forget there is a limit to how much slurry you can use. Even if nitrogen prices come back down, there is still pressure to optimise nitrogen use.”

Beet growers' options for management of virus yellows


Dr Reuben Morris

Details of 2022 sugar beet seed treatment options were published relatively late in January and contain some changes that growers will need to consider carefully.

"This year we have lost Vibrance SB as a seed treatment, as it contains metalaxyl-M," says crop production specialist, Dr Reuben Morris.

"While the rate of use for Tachigaren (hymexazol) has been increased, and elicitors provide additional disease protection, it remains to be seen whether we'll see more plant loss at establishment.

"In addition, Force (tefluthrin) seed treatment, which is active against a complex of soil pests, has been made more widely available. This should improve establishment."

Reuben notes Defra has granted an emergency authorisation for Cruiser SB, the thiamethoxam-based neonicotinoid insecticide for protection against virus yellows.

"Its use was subject to the results of Rothamsted Research's virus yellows model, which is based on the weather in January and February 2022.

"Now we know the threshold prediction of 19% virus yellows in the crop has been exceeded, growers that choose to treat will be using Cruiser. However, some of the additional restrictions mean not everyone will adopt this strategy.

"Where you use Cruiser-treated seed, flowering crops that attract bees cannot be grown within the next 32-months, including key break crops such as oilseed rape or beans," he explains.

"Also, the maximum seed rate for Cruiser-treated seed is 115,000/ha. This may be less than optimum for yield. Undoubtedly, the delay in delivery of Cruiser-treated seed will also have reduced the number of growers who choose to use it."

Wider preventative strategy

For 2022, more attention will be paid to other preventative methods to reduce the amount of virus in sugar beet, including variety tolerance, barley cover crops and foliar insecticides.

"It's important the industry considers using varietal tolerance in response to the loss of insecticides," stresses Reuben. "KWS Maruscha has been added to the 2022 Recommended List as a variety with tolerance to beet mild yellowing virus (BMYV).

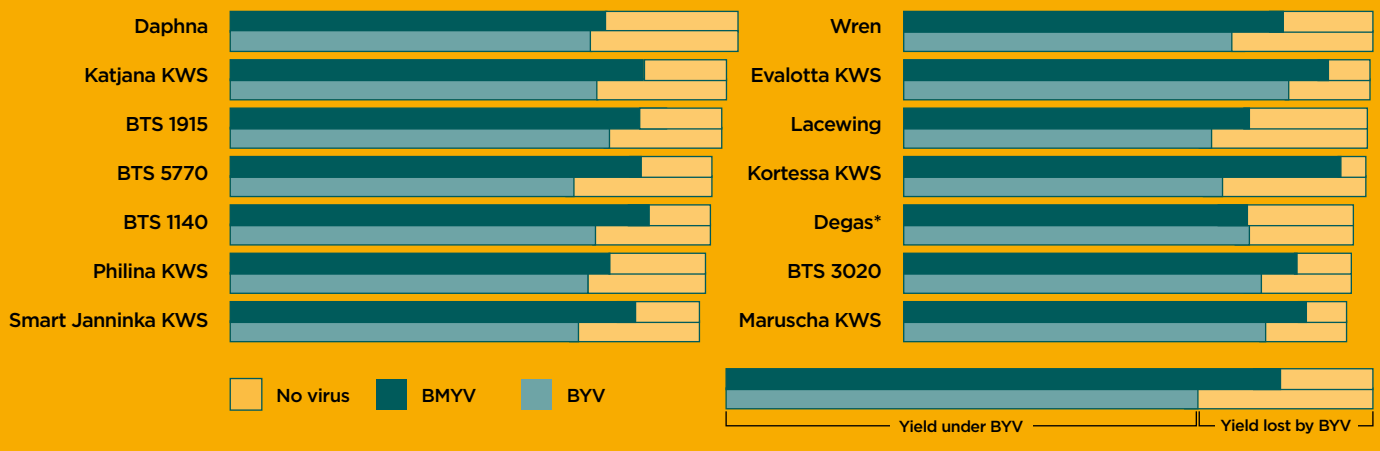
"In addition, the BBRO has published the results of its one-year trial on virus yellows which covers all the varieties that can be grown this year, except Smart Rixta KWS. It shows which varieties have some tolerance to BMYV, which is information that we didn't have last season." See graph below.

Alongside varietal differences, he notes some growers may want to investigate the use of barley cover crops.

"This is a good IPM option for later-planted crops that have peach-potato aphid migrating into them, when beet is still in the region of 2 to 4 leaves.

"This season we also have on-label approval for Insyst® (acetamiprid), offering a better fit into programmes with Teppeki (flonicamid)," he adds. "We can build an IPM programme utilising varietal tolerance, barley cover crops, and foliar insecticides where necessary."

Project Verde field experiment, BBRO 2021
Smart Rixta KWS not included. *Degas included as a control



Getting the most from every kilo of N


Finley Hawkins

Making every kilo of nitrogen count is important in any season, but particularly this year where many growers are facing significantly higher prices and limited availability, says Frontier's Finley Hawkins, fertiliser business manager for the South.

"There are a wide range of crops in the ground at varying growth stages," says Finley. "From early sown autumn cereals and OSR which emerged quickly, to late-sown crops which only started to appear in January.

"It's important to assess your crops and adjust remaining fertiliser applications according to yield potential.

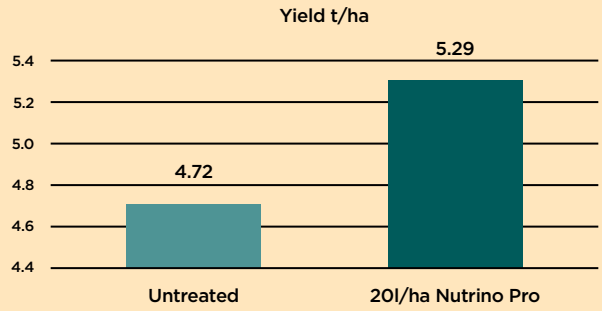
"It's important to assess your crops and adjust remaining fertiliser applications according to yield potential."

"Using biomass imagery from SOYL, carefully timed nitrogen and adjusting rates will be all-important this year. Sometimes using variable rates within a field feels alien, but growers are used to tailoring rates between different fields so it is really just the next logical step," he notes.

"It's important to make every kilo of nitrogen count, so look for products that improve nitrogen uptake efficiency and prevent the loss of nitrogen through volatilisation. Foliar applications can play a key role, but they're not a silver bullet and must form part of a structured nutrient plan.

"Even if you have made the decision to apply less nitrogen overall, applying it in smaller doses is generally more efficient but you have to be prepared to change plans in response to weather and season," Finley says.

Agronomist-led split field trial OSR. UK 2020



20l/ha Nutrino Pro applied at 90% petal fall
Data cleaned and analysed by ADAS

Nutrino Pro

Nutrino Pro is a very safe foliar nitrogen product, which also contains magnesium, sulphur and biostimulants to increase the assimilation of nitrogen in the crop. It is suitable for a wide range of crops and is particularly useful in maintaining canopy to increase its duration in crops such as maize, oilseed rape and potatoes.

Nutrino Pro ensures the green canopy functions to the maximum, helping to fill the grains, pods or tubers to increase yield and quality. As such it is ideally suited to final nitrogen applications, for example, post-flowering in OSR.

Meeting market requirements

The key to profitability when growing milling wheat is to maximise gross yield while meeting the market specification for protein content. To achieve this, large rates of nitrogen are required and growers need to protect their investment in fertiliser, for example by using a urease inhibitor such as Limus Clear with liquid fertiliser applications.

Because fertiliser applications to milling wheat can occur quite late in the season, they can be more susceptible to ammonia volatilisation when using solid urea or liquid (UAN). In trials over the last two seasons, Limus Clear has been shown to increase nitrogen use efficiency by 7%, boosting yield and protein levels.

VIEW FROM THE FIELD

Rob Norman, Frontier agronomist


Rob Norman

"We're at the time of year where most crops are established, and we now need to support them in reaching their genetic potential.

Winter wheats came through the winter in their best condition for a number of years, and some thicker crops warranted a pre-T0 spray. It's important to keep timings tight and not extend intervals. Assess each crop on its own merits; T1 should coincide with GS31 and leaf 3.

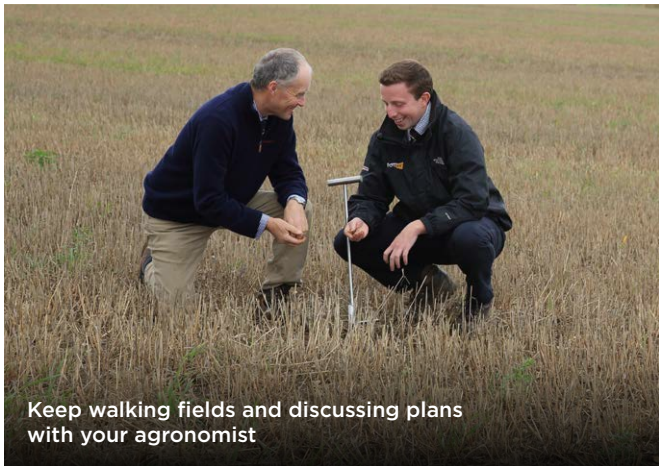
Where there's some disease on the leaf, I'll be looking at newer chemistry such as Myresa and Syrex; although for cleaner varieties and those subject to delayed drilling, we may get away with older products such as PTZ and folpet.


T1 applications are approaching for winter barley

Looking at winter barley, hybrid varieties are approaching T1. Sprays to control wild oats have gone on pre T1 together with manganese and some early PGRs where needed.

Sticking with combinables, winter OSR crops which received a dose of nitrogen in early February have grown away from larvae issues. The earliest crops will soon be flowering and should have had stem extension growth regulator and fungicide applications. It is important to make sure that all boron applications are up to date, with 600g or more required over the season.

For sugar beet, most crops have established well, and early crops have been sprayed with Betanal Tandem, which needs an appropriate rate of vegetable oil to aid activity. Last year we were finding our feet with these applications after the loss of desmedipham, and I think we were too shy with rates, something to bear in mind this year particularly where knotgrass is an issue.


Keep walking fields and discussing plans with your agronomist

I also want to touch on vining peas, which are an important crop in this region and drilling is well underway. It's important that the seed is fully covered before the application of Nirvana pre-emergence herbicide"