

# AGRONOMY

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## All is not lost with late autumn drilled crops

Autumn drilled cereal crops still have the potential to perform this spring, despite concerns that conditions weren't favourable when crops went in the ground.

Jon Yeoman, Frontier Regional Agronomy Manager, says there are three key areas of focus to maximise yields and achieve a return on investment.

### One:

Delayed drilling means delayed plant and root development.

Consequently, phosphate will be vital to crops this spring. Additional applications

will be needed, as leaching from excess rainfall has depleted soil reserves. I would recommend applications of DAP to aid root growth during the early stages of plant development, phosphite to trigger the plant to build root biomass and manganese to support rooting.

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### Two:

Plants have undergone huge stress since drilling and are more susceptible to disease and pest pressures. Be sure to check the recommended herbicides and fungicides have been applied. Later drilled crops may have missed early applications; consult your agronomist to re-adjust your agronomy programmes.

### Three:

Many crops have no or limited tillers as well as poorly developed root systems. PGRs and trace elements may play an important role for plant vigour and promoting tiller development. This may not be in your current agronomy plan; field by field assessment will help with a targeted approach based on crop need.

## Innovation focus: Revysol®



**The first azole fungicide to be released in 15 years promises protective and curative action on disease.**

Revysol®, a new triazole fungicide from BASF which hits the market in 2020, is the first Isopropanol Azole and contains unique chemical properties

which enable the fungicide to deliver maximum efficacy to combat disease pressure.

With the loss of CTL this new fungicide's arrival is timely and is very welcome but must be part of an integrated approach to disease management.

### Top tips for integrated control

Dr Paul Fogg, Crop Production Technical Lead says that an integrated approach to disease is vital:

- Use varieties with good genetic tolerance as the first line of defence
- Review key risk factors when planning disease control strategy e.g. sowing date, geography and weather
- Manage the crop's nutritional requirements closely to build in resilience against disease and environmental stress
- Use the best chemistry available to maximise disease control and yield – employ robust resistance management strategies



# Maximise nitrogen use efficiency this spring

Nitrogen will be key to maximise crop performance this spring and optimising plants' uptake is vital. Edward Downing, Frontier National Crop Nutrition Technical Manager, outlines how this can be achieved.

## Soil structure

As we exit winter, many soils are in the worst condition they have been in for years with large areas still sitting fallow. Weather permitting, it may still be possible to get a winter or, more likely, a spring crop established. If this looks unlikely, plan now to ensure soils are in the best condition possible before autumn 2020.

## The three R's

### **Right rate. Right time. Right place.**

These are three core principles which need to be adhered to when applying nitrogen this spring.

Deep core nitrogen sampling conducted on Frontier 3D Thinking agronomy trial sites across the UK have indicated that, due to excess rainfall, soil nitrogen levels may be 1 to 2 indexes lower than the normal levels quoted in RB209. Clearly this needs to be taken into account with this year's nitrogen rates. Crop potential and previous performance, including grain protein levels, should also be reviewed with your advisor.

**"In-season monitoring of the crop by SOYL will deliver continued assessment of crop growth to enable application of variable rates of nitrogen and other key nutrients to maximise crop performance."**

## Minimising nitrogen losses

Most importantly, any nitrogen applied needs to be utilised efficiently by the plant.

If using liquid fertiliser, there is a risk of ammonia volatilisation from the soil especially later in spring when soils are warm and potentially dry. Previously there has not been a solution to prevent this, but the introduction of Limus® Clear means there is now a way to protect the urea component and allow maximum nitrogen efficiency from fertiliser applications.

## Limus® Clear in action

"When there is high risk of ammonia losses from volatilisation, Limus® Clear can be tank mixed with the liquid fertiliser to minimise this loss. The decision to use Limus® Clear is made on the day, so it needs to be on-site and ready to use.

If you are working with chalky soils for example, these are at higher risk of volatilisation from higher pH levels. I would recommend talking to your agronomist about the merits of including Limus® Clear in your liquid fertiliser programme."



**Nick Peters,**  
**Frontier Agronomist**



**In the field with  
Steve Wood, Frontier  
Agronomist, Hampshire**

"For growers in my region, spring barley is the crop of choice, and malting barley the end market. I'm predicting that RGT Planet will be the most popular variety, with LG Diablo and Propino following suit.

"My advice this season to all growers, regardless of location, is to be patient. There's an urgency to get on the fields, but if they haven't recovered and are too saturated, this won't help crop performance. If drilling is delayed until the end of March into April, I would recommend increasing the seed rate to 375 to 400 seeds/m<sup>2</sup> to help uplift in yield."



# How to ensure spring crops meet end market specifications

2020 is set to be a competitive year for the spring crop market. Frontier Agronomist and Regional Agronomy Manager, Jon Allard, says it will therefore be vital to ensure crops are meeting the requirements set out by the end users.

"Meeting market specification should always be front of mind, particularly this year as there will be more crops to choose from, so the end markets can afford to be more choosy," explains Jon.

"Nitrogen content required for malting barley, and the protein percentage for milling wheat and feed beans should be known and referred to when creating crop nutrition plans, so you don't miss out.

"Ensure the right variety with the right characteristics is chosen. If spring crops haven't been a part of the rotation previously, it's worth consulting your farm trader about which varieties are sought by local end markets."

"With crops chosen, an appropriate nitrogen fertiliser programme can then be generated, which should consider drilling date, soil type for each field, current and previous rainfall and any organic manure which has been used."

Jon explains that Frontier can help create this plan using SOYL's precision farming service.

"We can look at plant nutrition, such as adjusting the rates of P, K and Mg where appropriate, and consider variable seed rates



depending on the soil type to provide the optimum plant population. This will ultimately optimise yield and ensure crops are meeting the target specifications."

For farmers growing spring barley on land not known for producing malting quality, or those without an end market in place, Jon recommends aiming for yield.

"With a large crop of spring barley predicted, my advice is to increase nitrogen and sulphur levels to drive yield. You may still hit spec for malting, but if you don't you will maximise the return on a feed crop."

# Give your soils some TLC ahead of drilling

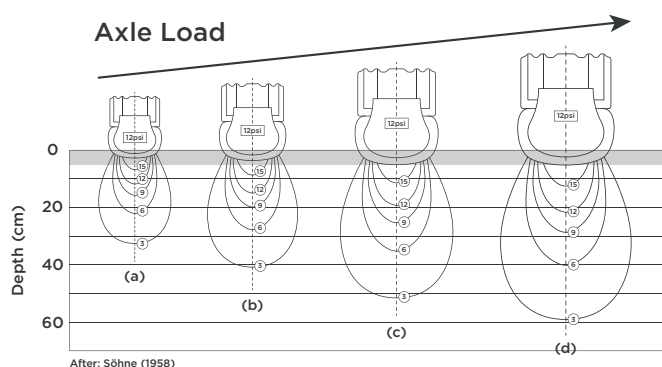
The theme of the 2019/2020 growing season has been rain, rain and more rain, leaving soils damaged. To maximise spring crop performance, Frontier Fertiliser Technical Development Manager, Mike Slater, says extra care and attention needs to be paid in soil preparation this spring.

“Each scenario needs to be dealt with on a field-by-field basis,” says Mike. “The best tool in the box will be a spade.”

He recommends doing a soil assessment in each field using the VESS system – the Visual Evaluation of Soil Structure – to compare soils across the farm and plan immediate actions.

“If there’s evidence of compaction at the soil surface and into sub-soil levels, conditions may be too wet for effective remediation this spring. But these can be noted to keep at front of mind for next autumn.”

Currently, Mike explains there will be three field scenarios that growers will be faced with.



Soil structure trafficking effects (image courtesy of Philip Wright of Wright Solutions)

Whatever the scenario, Mike advises using the lowest appropriate tyre pressure, as compaction is accentuated by tyres which are too hard and have a high axle weight.



## Scenario 1: Land which has been damaged by a late harvest, especially with maize and potatoes

Here, the best situation is to leave the field until it has dried out, or potentially pull a tine across the surface to help with drainage. But patience is key as tackling too early will only make the ground worse

## Scenario 2: Land where cultivation happened for autumn drilling, but fields were then too wet to sow

These fields will be extremely vulnerable to compaction, but there will be an urgency to get the fields back into action as soon as possible. When doing so, use the lightest tyre weights possible.

## Scenario 3: Land that has not been touched since harvest

These fields have the potential to be the first fit for travel, but don't rush – plan for when weather and soil conditions allow and crops will have a greater chance of success.



## EXPERT FOCUS: JAMIE STOTZKA



### Q: What is your role at Frontier?

I'm the Frontier Soil and Plant Health Specialist, which is a new role that's been developed to support Frontier's on-going agronomic focus on soil health and our commitment to developing practical solutions for farmers.

### Q: What does your job entail?

There are two strands to my job. I'm responsible for supporting the Frontier agronomy and technical teams through further development of our plant health strategy, Frontier's Soil Life initiative and our six farm-scale Soil Life demo sites, all of which help inform the detailed advice we give our customers.

I also look after the biostimulant product portfolio, searching the market for the most innovative solutions to improve plant health.

### Q: How are you supporting growers?

In common with the agronomy team and technical teams at Frontier I'm passionate about developing and sharing new approaches for sustainable crop production that allow our customers to take advantage of the latest innovations. We ensure this information is shared on farm today, helping farmers create a more sustainable farm business.

### Q: What's the best part of your job?

With the increasing loss of actives and challenges such as resistance, I find the part of my job that explores the positive, interactive relationship between plants and beneficial microorganisms, and how that can help deliver innovative solutions on farm, really exciting.

### Have you logged into MyFarm?

MyFarm is a comprehensive farm management platform which all Frontier customers have access to free of charge. MyFarm is intuitive and fully interactive, working as well on a desktop as it does mobile. Through MyFarm farmers can view and manage crop records, recommendations, invoices, payments, grain movements, sampling results, live markets, precision data and more.

Find out more by asking your Frontier advisor, calling **03330 141 141**, or visiting [www.frontierag.co.uk/myfarminfo](http://www.frontierag.co.uk/myfarminfo)



To find out more about Frontier's agronomy services in your area email [agronomy@frontierag.co.uk](mailto:agronomy@frontierag.co.uk), call 0800 227 445 or visit [www.frontierag.co.uk](http://www.frontierag.co.uk).

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