

# Looking out for lodging

## Spring agronomy

As the wet weather continues well into the spring, experts say managing lodging in spring barley should be a priority this season. *CPM* found out more in a recent webinar.

By Charlotte Cunningham

**In what has been a difficult season, squeezing every bit of yield potential out of crops will be vital to compensate for some of the losses which will have undoubtedly occurred.**

For spring barley in particular, planted area is likely to be down, with some of the key challenges for the crop the topic of discussion in a recent webinar hosted by BASF.

"We're all well aware of the unprecedented situation we find ourselves in this year. As of the end of April, wherever you are in the country, there's very little spring barley in the ground," says David Leahy, business development manager at BASF.

As such, David says that during the coming weeks it'll be vital for growers and agronomists to home in on what can be done to maximise yields in what's turning

out to be a more condensed season than anyone envisaged.

### Back to basics

He believes this can be done by getting the basics right. This includes variety selection and management; establishment technique; drilling date and seeding rates; crop nutrition and nitrogen timings; crop protection and spray timings; and PGR choice and timing.

Looking specifically at PGRs, late applications can predispose crops to ramularia, but getting on early can suppress apical dominance allowing crops to maximise tiller numbers which will be vital for yield this spring," says David.

"From a winter barley perspective, PGR applications have proved difficult to say the least during the past few weeks. A lot of those earlier applications were missed and now we're looking at applications to winter barley not going on until GS33 onwards, purely due to the fact growers haven't had the opportunity to travel."

So why is this a concern? David says rooting and shooting could become an issue in winter barley — particularly if a drought period sets in, as seen in previous seasons.

But for the spring barley that has been established, lodging should be a primary concern, explains ADAS' Pete Berry.

"My observation in recent years is that ▶

“Spring barley is one of the worst culprits for lodging”



Getting the basis right is the best way to get the most out of barley this spring, says David Leahy.



# MIRAVIS<sup>®</sup>

ADEPIDYN<sup>®</sup> technology



The new  
**SUPERPOWER**  
for wheat and barley  
disease control  
has arrived.

**Power up your yields!**

**THE POWER OF CERTAINTY**

---

Read what industry professionals say about  
**ADEPIDYN® technology**



**Dr Aoife O' Driscoll**

Senior Specialist, NAB

"It's shown very good activity against *Septoria*. There can be a big gap between T2 and T3 or between T2 and harvest. If you've got an eight week gap you need a lot of protection. ADEPIDYN® technology at T2 fits that well. But it's also got other useful properties. A T2 application has given around a 50% decrease in *Fusarium* on the ear."



**Adam Christie**

Managing Director,  
Scottish Agronomy Ltd

"We've been testing ADEPIDYN® technology for at least six years. Its efficacy has been consistent. It's the consistency that's the key. On *Ramularia* and *Rhynchosporium* it's outstanding. In barley, we've seen yield increases in the absence of disease."



**Jonathan Blake**

Technical Director,  
Crop Protection, ADAS

"In a high pressure trial in Herefordshire in 2019, when we flew a drone in mid-July, the only green plots were ADEPIDYN® technology. It was a clear step change in activity. The total fungicide yield response over the untreated was 3.75 t/ha, and the ADEPIDYN® technology based treatments outyielded competitor programmes by over 1.0 t/ha."

 **Miravis Plus**  
ADEPIDYN® technology

**syngenta.**

Syngenta UK Ltd. Registered in England No. 849037, CPC4, Capital Park, Fulbourn, Cambridge CB21 6XE.

Tel: 01223 880400 Web: [www.syngenta.co.uk](http://www.syngenta.co.uk)

MIRAVIS® and MIRAVIS® Plus are trademarks of a Syngenta Group Company. MIRAVIS® Plus contains ADEPIDYN® (active ingredient pydiflumetofen). Use plant protection products safely. Always read the label and product information before use. For further product information including warning phrases and symbols refer to [www.syngenta.co.uk](http://www.syngenta.co.uk) © Syngenta AG April 2024.





*For the spring barley that has been established this season, lodging should be a primary concern, explains Pete Berry.*

► spring barley is one of the worst culprits for lodging. I think there's lots of attention put on winter wheat and winter barley. But spring barley often gets forgotten about and it's had a lot of lodging in recent years."

Pete believes that one of the key reasons for this is varietal weaknesses, with 12 out of the 18 spring barley varieties on the Recommended List scoring 7 or less.

As well as this, he says lodging has increased as a result of trying to increase barley yields. "For example, increasing the seed rate, earlier and greater amounts of nitrogen applied — they're all pushing up the lodging risk as well as increasing yield. The challenge with this is that lodging is often not fully recognised for the severity of yield losses that could occur as a result."

Looking at the figures, Pete says severe lodging which occurs early on — around flowering — has the potential to reduce yields by up to 50%. At the other end of the timescale, later occurring brackling has shown to reduce yields by as much as 1.4t/ha in ADAS trials. "Lodging is also likely to mean a greater drying requirement, so you then have the costs associated with that."

To tackle lodging effectively, it's firstly important to understand how it occurs, continues Pete. "There are two main types of lodging — root and stem. It's often perceived that for barley, stem lodging is the bigger issue, but that's not really the case.

"If you go out and look at lodged crops, particularly crops that lodge early, then root lodging is often the main cause and you only require several millimetres of rain to wet up the soil enough to weaken it so that this occurs."

## Stem lodging

As the crop moves through the season and matures, stem lodging becomes more likely because the strength of the stem essentially halves between flowering and harvest. "So while stem lodging becomes more possible, root lodging is the one that's going to cause bigger yield losses."

ADAS has carried out a number of experiments to understand lodging and how crop management factors impact on the different types, specifically seed rate, nitrogen rate and PGR applications.

While decreasing seed rate and nitrogen rate were both proven to increase varietal lodging resistance scores, trials showed a single PGR application had one of the largest impacts. "From what we've seen, it could increase the lodging resistance score by anything between 1 and 2.5 points — for both root and stem lodging."

Alongside this, the timing of nitrogen applications is likely to have an impact. "We've found that if you put on all of the N in the seedbed, and you already have quite high soil residual levels, then that will increase the lodging risk. So shifting some of the nitrogen from the seedbed to a bit later, after the crop has started to emerge and during early tillering, can help to reduce the lodging risk.

"This season, with all of the rain, soil residual N levels are quite low so I think risk is less this year. But it's still something to watch out for."

To get the best effect from PGRs Pete

## Now that's a special combination!



## KWS DAWSUM

Winter Wheat



- Exceptional specific weight (79.9 kg/hl)
- Very high yield potential across all regions of the UK
- Super flexible on farm with a wide sowing window

[www.kws-uk.com](http://www.kws-uk.com)

SEEDING  
THE FUTURE  
SINCE 1856





ADAS trials have found that a single application of PGR can have a significant impact on lodging.

advises mixing actives and splitting applications where possible. “Now clearly for barley, splitting applications is often a challenge and will be even more so this season because the crop is going to race through its growth stages and have a short window for applications.

“In all honesty, it might not be possible to apply more than one PGR this season, so it’s vital to ensure what is applied is done so at the right time.”

Pete says that brackling should also be on growers’ minds, despite it often being overlooked and with a limited amount of work done on the effects it can have on spring barley yields.

However, ADAS has undertaken a number of trials

looking at just this. “We ran a trial in a 2019 crop which had a decent amount of brackling in it, assessing the amount of brackling at the end of July and the end of August.”

### Yield losses

“We found that greater amounts of brackling resulted in bigger yield losses and in fact were able to conclude that for every 10% increase in the area of crop brackled, yield was reduced by between 0.11-0.14t/ha.”

The trial also looked at the best methods of controlling brackling and found that applying BASF’s Medax Max (prohexadione+ trinexapac-ethyl) or Terpal (2-chloroeth/phosphonic acid+ mepiquat chloride) substantially reduced the brackled area and as a result led to yield increases, he adds.

“It’s going to be a challenging season, but I think the key take homes are to recognise the severity of yield loss that can occur if you get early lodging and minimise that risk from the get-go through variety choice.

“Also think about avoiding an excessively high seed rate, and where appropriate, you might consider delaying some of the seed bed N until early tillering.

“PGRs can be maximised by mixing actives and splitting applications if you can, which will also help to improve the efficacy of these tools in what’s looking to be a testing few weeks and months ahead.” ■

## BASF launches new barley agronomy guide

To help growers and agronomists to look at the crop in a more intimate way, BASF has launched a new barley guide. David says it’s been designed to be a one stop shop for information on everything from establishment methods to disease control and PGR choices.

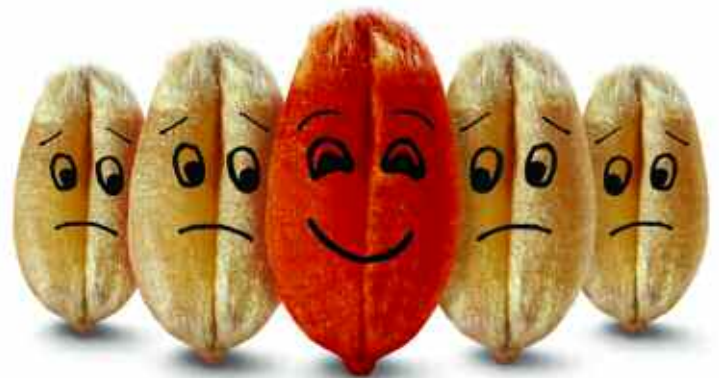
“This isn’t just for the 2024 season, it’s something which is for the future — we’ve covered everything from the day you put the seed in the ground to the day you go to spray that crop.”

To cover all UK perspectives, the *Barley Agronomy Guide* has been written in collaboration with Teagasc, ADAS, SRUC and NIAB, he adds. “It’s something we’re very proud of within BASF; to have so many industry experts contributing to such a valuable publication we’re hopeful the industry will respond well to it over the coming weeks and months.”

The guide is now live and can be accessed online through the BASF website.



# The Original Take-All Seed Treatment



## Protecting Yield, Quality and Profit since 2001

LATITUDE®



[www.certisbelchim.co.uk/latitude](http://www.certisbelchim.co.uk/latitude)

USE PLANT PROTECTION PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE. For further information with regard to the wording please visit [www.certisbelchim.co.uk](http://www.certisbelchim.co.uk). Latitude® contains chlorfenoxim. Latitude® is a Registered Trademark of Mitsui & Co. Ltd. CertisBelchim, Suite 5, 3 Riverside, Granta Park, Granton, Clackmannanshire, C64 9AD. Tel: 0845 379 0369 email: [info.uk@certisbelchim.com](mailto:info.uk@certisbelchim.com) [www.certisbelchim.co.uk/latitude](http://www.certisbelchim.co.uk/latitude) © 2024