

## Wash out for wheat rooting

Agronomy Issues

20.01.2021



**Wheat crops have faced challenging conditions for rooting this season, following wet weather after establishment in the autumn, compounded by widespread waterlogging and flooding this spring.**

Heavy rain as Storm Christoph (below) wreaked havoc across the UK in January and left many already wet fields once again severely waterlogged.



Growers are advised early season T0 applications of Moddus in the growth regulator programme could enhance rooting and improve plants' ability to scavenge for nutrients and moisture through late spring and into summer, advocates Syngenta Technical Manager, Georgina Wood.

Field conditions in 2020, where wet overwinter conditions were followed by an exceptionally dry and hot spring, impacted on rooting of what winter cereals were in the ground. "It has been an increasing trend over recent years, for prolonged wet periods, followed by protracted hot, dry conditions.



“Utilising agronomic tools earlier in the season, including nutrition, biostimulants and PGR timing, is key to promote rooting and crop resilience to counter severe stress effects,” she advised. Improved rooting makes more efficient use of available nutrients and moisture.

Split-field trials in crop moisture stress conditions, in a dry spring with low water availability, produced a 1.7 t/ha yield benefit from the addition of an early T0 Moddus application, compared to a single application combined with chlomequat at the T1 timing.

“Extra emphasis should be put on the initial T0 application on lighter soils and fields susceptible to moisture limitation,” she urged. Later drilled crops benefit especially for rooting, whilst large GAI crops gain from enhanced canopy and lodging management, particularly for varieties with known anchorage weakness, she advised.



# InSpire

## Spring Decision Tool

### STANDING POWER FOR YOUR CROPS

USE THE BELOW TOOL TO CALCULATE THE LODGING RISK FOR YOUR CROPS AND THE OPTIMUM PGR PROGRAMME FOR STANDING POWER THROUGH TO HARVEST.

#### ASSESSING YOUR RISK FACTORS

Field Location	Cambridgeshire	3
Soil Type	Clay loam	2
Yield Pote	9	7
Your lodging risk score so far		12
Current Growth Stage	29	T0
PGR Already Applied?	No	

#### INFORMATION

Multiple risk factors influence spring PGR decision making - to use or not - and rate recommendations at T0 and/or T1 timings:

Areas prone to wet weather and high winds are more susceptible to lodging, particularly in the west and north. For more drought susceptible eastern and southern counties root development is a greater priority

Heavy high-clay content soils are more susceptible to waterlogging effects and quickly lose stability for root holding if they get wet approaching harvest. Light fluffy soils can fail to provide necessary anchorage and support, and are also more susceptible to drought. Loam soils have a lower risk factor for lodging.

Assessing the Green Area Index at GS25 can predict likely biomass of the crop. Alternatively use the expected yield. High biomass and high yield crops are more susceptible to stem and root lodging, and benefit from greater root mass for support

Variety	JB Diego	6
Drilling Date	16 to 30 September	2

Is your crop...

Waterlogged

Drought-stressed

Under other, non water-related stress

Don't apply any crop protection products if the field is waterlogged. However, crops will continue to grow once things start to dry and will need growth regulation so please apply PGR's once you can travel on the fields.

#### VARIETY INFORMATION

Resistance to lodging - with PGR	8
Resistance to lodging - without PGR	7
Height without PGR (cm)	87
Centre of gravity (cm)	**
Basal stem strength (Nm)	**
Anchorage (Nm)	**

YOUR FIELD SCORE		YOUR RECOMMENDATION	
Score at T0	20	Medium-High	MODDUS 0.15 l/ha
Score at T1	26	Medium-High	MODDUS 0.15 l/ha + CCC 750 1.0 l/ha

\*These recommendations are a guide only - Lodging risk should always be assessed in the field before PGR application. Always apply to actively growing crops.

The Syngenta [InSpire on-line spring PGR decision tool for winter wheat](#) can help growers and agronomists identify varieties that have low anchorage strength and would benefit most from the focus on Moddus at T0. However, varieties such as SY Inceptor, added to the tool this year, has naturally stronger anchorage that should be a priority for a timely T1 application, at GS31-32.

“The full programmed approach delivered the best height reduction for taller varieties, initiating a greater response than seen with naturally shorter varieties,” reported Miss Wood.

“That can really help to manage lodging, as well as late season leaning and brackling, to protect yields and ensure an easier harvest.”

[Click here to try out the Inspire tool for your crops](#)

**Products:**

MODDUS