Decision Guide to Canopy Management in Cereals
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To achieve the optimum yield for your cereal crop, you need the right amount of leaf area capturing sunlight and feeding the right number of ears.

A thick crop won’t process light or nutrients efficiently and is prone to lodging. A thin crop won’t reach its potential. Your early season management is critical in building a crop canopy that will get the balance just right.

This guide is designed to help you to evaluate the growth development of your crop to help it achieve its optimum yield potential this coming harvest.
A big necessity for PGR's anticipated this spring

When it comes to winter cereals, lodging is not normally a big problem for most growers in the UK.

But early plantings, a mild winter and wet waterlogged soils puts a high proportion of crops at risk of stem or root lodging this spring and these crops will need very careful management to protect both yield and quality.

There are number of actions to be taken as crops come out of winter.

TO DOS!
✓ EVALUATE LODGING RISK FACTORS
✓ MEASURE CANOPY SIZE
✓ ASSESS TILLER NUMBERS
✓ MANAGE CROP DEVELOPMENT
✓ MANAGE LODGING RISK
Lodging risk factors

There are three key factors which impact lodging risk:

• **Crop variety**
• **Yield potential**
• **Spring canopy size** *(which takes into account sowing date, plant establishment, soil N residues and over winter temperatures)*

**Crop variety**

Varieties have different resistance to lodging scores as each variety demonstrates differences in terms of growth habit (height, tillering capacity, stem strength and speed of establishment). Varieties with a score of 7 or less on the Recommended Lists should be considered at risk of lodging. Be sure to check the Recommended Lists on the HGCA website.

**Size of the crop canopy**

Size of the canopy in the spring is a critical indicator regarding crop development and lodging risk. Size of the crop canopy is difficult to estimate but can be measured by its Green Area Index (GAI), the amount of green tissue per m² of ground.

**Yield potential**

Yield potential has a role to play in lodging risk because a higher yielding crop will produce heavier ears. Heavy ears put weight on the stem so the higher the yield potential, the greater the risk. It has been estimated that each tonne per hectare above 9 t/ha reduces the resistance to lodging score by 0.5 points.
The importance of GAI in wheat

Knowing the GAI at growth stage 30 or 31 together with the Lodging Resistance Score of the variety and an estimate of the crop’s yield potential allows the lodging risk to be predicted and key decisions taken regarding PGR's and nitrogen.

GAI measured at GS 30 or 31 correlates with stem failure wind speed and root failure wind speed. The greater the failure wind speed, the greater the resistance to lodging.

At GS 30, each unit (1.0) increase in GAI reduces the varietal lodging resistance score by 2 points so it’s an important parameter to measure. Getting canopy size right will also build yield. The target GAI at growth stage (GS) 30 is 1.0.

Stem lodging

Root lodging
Some typical crop photos and their GAI scores at GS 30 & 31

Table 1 demonstrates how the GAI (a measure of the crop’s canopy size) affects the Resistance to Lodging Score of a variety. The bigger the canopy, the greater the lodging risk.

For every t/ha above 9 t/ha you should reduce the below scores by 0.5, increasing the lodging risk. If the resistance to lodging score results in a final score of 7 or below then the crop will need a PGR to stop it falling over.

Impact of canopy size on variety resistance to lodging score:

<table>
<thead>
<tr>
<th>Variety Resistance to lodging score from RL</th>
<th>GS 30 GAI = 1.0</th>
<th>At GS 30 GAI = 1.5</th>
<th>At GS 30 GAI = 2.0</th>
<th>At GS 30 GAI = 2.5</th>
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<tr>
<td>9</td>
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<td>8</td>
<td>7</td>
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<td>1</td>
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</tr>
</tbody>
</table>
Impact of canopy size on variety resistance to lodging score:

- GAI 0.3 ≈ 10 kg N/ha
- GAI 1.0 ≈ 30 kg N/ha
- GAI 2.0 ≈ 60 kg N/ha
- GAI 3.0 ≈ 90 kg N/ha
How to measure canopy size

A crop’s canopy size can be measured from it’s Green Area Index. GAI in winter wheat and winter barley can be measured using BASF’s Canopy Assessment Tool (CAT) developed in association with ADAS.

The CAT calculates the GAI from a digital photograph of the crop. The CAT is available as the CAT app for iPhone available to download FREE from the App Store or as an online tool (CAT online) on the website: you can upload your photograph on our website at: www.agricentre.basf.co.uk.

A GAI of 1 = 30kgN/ha so you can use the CAT to assess crop nitrogen (kg/ha) between crop GS 12-32. You can also use the CAT to assess lodging risk in wheat and barley at GS30/31 by measuring the size of the crop canopy (GAI).
Get your GAI score using the CAT

Step 1 – Take a crop photo.

At crop growth stage 30-31 take a 1m x 1m digital photograph of the crop which is representative of the field. Take the photo directly above the crop looking straight down as shown below.

Step 2 – Process the photo using the CAT

Upload the photo to CAT online at: www.agricentre.basf.co.uk for a measure of GAI

OR

Process the photo using the CAT app.

For more information on the CAT and to view the training video on the CAT, please visit our website.
You need the right size canopy for the crop to reach its full yield potential so when measuring canopy size for lodging risk you are also making sure the canopy is big enough to reach its yield potential and this can be done by determining the number of tillers/m².

To optimise yield, you also need the right number of ears/m² by the time the crop reaches GS 61 (flowering). For a high yielding wheat crop the aim is to reach 460-600 ears. In barley it is 775. In fact, in barley, yield strongly correlates with ear number, so you want as many ears as possible to maximise yield. You can check your crop is on the right course by assessing tillers/m² at the end of tillering (coming out of winter) and at GS 30. See table 2 for crop benchmarks.
### Table 2 - Crop / plant growth benchmarks:

<table>
<thead>
<tr>
<th>Crop/Plant</th>
<th>Winter Barley</th>
<th>Winter Wheat</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre GS 30 target no tillers/m²</td>
<td>1180</td>
<td>1020</td>
<td>In barley aim for as many tillers as possible at this GS as this is directly linked to yield</td>
</tr>
<tr>
<td>By GS 30 tiller survival/m²</td>
<td>775 (65%)</td>
<td>460 (45%)</td>
<td>By GS 30 tiller death will have occurred. So aim for this number of tillers/m²</td>
</tr>
<tr>
<td>Yield components:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS 61- Ears/m²</td>
<td>775</td>
<td>460</td>
<td>Barley yield is strongly dependent on grain number rather than size. It has less ability to recover from early disease effects on tillering.</td>
</tr>
<tr>
<td>Grain/ear</td>
<td>24</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Grain weight</td>
<td>46mg</td>
<td>50mg</td>
<td></td>
</tr>
<tr>
<td>No.s grain/m²</td>
<td>18.6k</td>
<td>22k</td>
<td></td>
</tr>
<tr>
<td>Yield benchmark</td>
<td>8.8t/ha</td>
<td>11.0t/ha</td>
<td></td>
</tr>
</tbody>
</table>
Manage crop development

By the time you get to tillering or GS 30, the only way you can manipulate the development of the canopy to boost it (backward crop) or moderate it (forward lush crop) is by:

- Adjusting the amount and timing of nitrogen fertiliser applied
- Disease control measures to prevent tiller death
- Using plant growth regulators (PGR’s)
Impact of nitrogen fertiliser

Nitrogen availability will have the biggest influence on canopy development. This is important for both enhancing canopy size in backward crops and checking canopy size where crops are forward and at risk of lodging.

Total crop uptake can be estimated by multiplying yield by 23 for feed wheat, or 25 for bread wheat. So a 10 t/ha milling crop would need about 250 kg/ha N. It takes up 30 kg/ha N for each unit of GAI, and recovers about 60% of fertiliser and 100% of soil mineral N during canopy expansion.

You should measure the soil mineral N during late winter, assessing N in the crop at the same time – a crop with a GAI of 1 has 30 kgN/ha.

Taking into account the percentage recovery, you can calculate the fertiliser N needed for the target yield.

For backward crops (<1000 tillers/m² pre GS 30)

Applications made before GS 30 will boost tiller numbers or maintain tiller survival. These will also encourage rooting, where take-all or compaction is a problem.

During stem extension (GS 30 onwards), nitrogen applications will encourage shoot survival and increase leaf size. N uptake will be greatest during this period of rapid growth, so it should be applied before the crop pales, unless the canopy is excessive. After stem extension, the N will prolong the survival of yield-forming leaves.

For forward crops (>1000 tillers/m² pre GS 30)

Delaying the first N split of 40kg/ha will moderate canopy size.

Disease control measures at T0

Where foliar disease is evident a T0 application of an appropriate fungicide mix can reduce the inoculum carried over to T1 and ‘buy time’ to ensure that the T1 is applied at the correct timing. This is particularly important if rust is present.

Using plant growth regulators (PGR’s)

Certain PGR’s like Canopy can be used on backward crops to enhance tiller survival at pre-stem extension (pre-GS 30). Read more about Canopy on the following pages.

On forward crops PGR’s should be an important consideration as there is a higher risk of lodging. With more tillers the crop stems will be weaker and longer increasing leverage on the roots. In this situation it is important to make sure the rooting system develops sufficiently and the crop is well anchored to prevent root lodging.
Plant growth regulators. Key application timings and objectives

T0 (Pre GS 30)
- Enhance tiller survival
- Enhance rooting of the crop

T1 (GS 31-32)
- Continue to promote rooting and tillering effects
- Shorten and thicken lower internodes, reduce straw length and lodging risk

T2 (GS 37-39)
- Shorten upper internodes, reduce stem leverage and lodging risk
Once you have assessed lodging risk, the next job is to develop a management strategy if you need one.

It’s really important to monitor the crop throughout its development and to re-assess your plan as the season progresses. PGR’s should be applied where the crop is at a high risk of lodging. Applied before GS 33 these act by inhibiting cell growth making the plant shorter. PGR’s work best when the crop is actively growing, although Canopy (prohexadione-calcium + mepiquat chloride) is particularly useful at low temperatures and is not reliant on the plant’s metabolism for its PGR effect, unlike Moddus or Optimus (trinexapac-ethyl). A split dose up to GS 30 and GS 31-32 will bring better results and if there is a high lodging risk, any applications may have to be followed up at GS 37-39.
## Input Decision Guide – Winter Wheat

<table>
<thead>
<tr>
<th>Timing</th>
<th>Backward crops (Tillers/m²) &lt;1000 pre GS 30</th>
<th>Forward crops (Tillers/m²) &gt;1000 pre GS 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Up to GS 30 (T0)</strong></td>
<td><strong>Enhance viable tillers:</strong> Apply first N fertiliser split</td>
<td><strong>Excessive tillering:</strong> Delay first N fertiliser split</td>
</tr>
<tr>
<td></td>
<td><strong>PGR:</strong> Canopy 0.3 l/ha</td>
<td><strong>Enhance rooting:</strong> Consider spring rolling</td>
</tr>
<tr>
<td></td>
<td><strong>PGR:</strong> Canopy 0.3 l/ha</td>
<td><strong>PGR:</strong> Canopy 0.3 l/ha</td>
</tr>
<tr>
<td><strong>GS 31-32 (T1)</strong></td>
<td><strong>PGR second split:</strong> Canopy 0.3 l/ha + Chlormequat 1.0-1.2 l/ha</td>
<td><strong>PGR second split:</strong> Canopy 0.3-0.5 l/ha + Chlormequat 1.0-1.2 l/ha</td>
</tr>
<tr>
<td></td>
<td><strong>OR if no T0 PGR:</strong> Canopy 0.4-0.6 l/ha + Chlormequat 1.0-1.2 l/ha</td>
<td><strong>OR if no T0 PGR &amp; high lodging risk:</strong> Canopy 0.6-0.8 l/ha + Chlormequat 1.0-1.2 l/ha</td>
</tr>
<tr>
<td><strong>GS 37-39 (T2)</strong></td>
<td><strong>Low lodging risk:</strong> May not be necessary – assess stem strength &amp; internode length</td>
<td><strong>Medium to high lodging risk following T1:</strong> <strong>PGR:</strong> Canopy 0.6-0.8 l/ha OR Terpal 1.0 l/ha</td>
</tr>
</tbody>
</table>

Note: Max total dose of Canopy per crop is 1.5 l/ha
### Input Decision Guide – Winter Barley

<table>
<thead>
<tr>
<th>Timing</th>
<th>Backward crops (Tillers/m²) &lt;1000 pre GS 30</th>
<th>Forward crops (Tillers/m²) &gt;1000 pre GS 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Up to GS 30 (T0)</strong></td>
<td><strong>Enhance viable tillers:</strong> Review N timing and rate to remedy low tiller numbers. <strong>PGR:</strong> Canopy 0.3 l/ha</td>
<td><strong>Excessive tillering:</strong> Reduce spring N if canopy size is excessive <strong>Enhance rooting:</strong> Consider spring rolling <strong>PGR:</strong> Canopy 0.3 l/ha</td>
</tr>
<tr>
<td><strong>GS 31-32 (T1)</strong></td>
<td><strong>PGR second split:</strong> Canopy 0.3 l/ha OR if no T0 PGR: Canopy 0.4-0.6 l/ha</td>
<td><strong>PGR second split:</strong> Canopy 0.4-0.6 l/ha OR if no T0 PGR &amp; high lodging risk: Canopy 0.6-1.0 l/ha</td>
</tr>
<tr>
<td><strong>GS 37-39 (T2)</strong></td>
<td><strong>Low lodging risk:</strong> May not be necessary – assess stem strength &amp; internode length <strong>Medium to high lodging risk following T1:</strong> <strong>PGR:</strong> Canopy 0.3 l/ha OR Terpal 0.7-1.0 l/ha</td>
<td><strong>Medium to high lodging risk following T1:</strong> <strong>PGR:</strong> Terpal 0.7-1.0 l/ha</td>
</tr>
</tbody>
</table>

Note: Max total dose of Canopy per crop is 1.5 l/ha
Manage lodging risk
Canopy, containing prohexadione-calcium + mepiquat chloride offers the complete package of PGR benefits for winter wheat, winter barley, winter triticale, spring barley, oats and winter rye.

- Proven performance delivering the best lodging prevention of all PGR’s giving you the peace of mind your crop is protected.
- Early applications of Canopy will stimulate rooting and protect against root lodging.
- Early applications of Canopy reduce apical dominance and enhance tiller survival in backward crops, essential to protect yield.
- Canopy is particularly effective at low temperatures giving you the flexibility to spray when you want to.
- As soon as Canopy is applied to the crop, it starts working in the plant independent of weather conditions; rooting, stem height reduction and stem strengthening are triggered and because it is not dependent on temperature or sunlight crops are evenly regulated.
- The even crop height reduction and flowering promotes even ripening facilitating easy harvesting as well as uniform grain quality.
- With its flexible application timing, Canopy can be used throughout T0, T1 & T2.
- Excellent tank mix compatibility and crop safety.
- The one-can PGR solution for your cereal crops.
- Gives your crops the security for yield and quality in any weather.
**Force required for uprooting**
(wheat plants - 10 days after anthesis; loamy sand with - 40% field capacity)

**Untreated: 23N/EBS**
**Canopy: 35 N/EBS**
(2x 0.81/ha)

(N/EBS = Newton per ear bearing stem)

*Under the chosen trial conditions: 1kg = 1kp = 9.81N*

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**The effect of PGR applications on wheat root dry matter**

<table>
<thead>
<tr>
<th>% Root Dry Matter over Untreated</th>
<th>Moddus 0.2 l/ha</th>
<th>Moddus 0.4 l/ha</th>
<th>Canopy 0.6 l/ha</th>
<th>Canopy 1.2 l/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>90</td>
<td>95</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td><strong>Moddus 0.2 l/ha</strong></td>
<td>95</td>
<td>100</td>
<td>115</td>
<td>120</td>
</tr>
<tr>
<td><strong>Moddus 0.4 l/ha</strong></td>
<td>100</td>
<td>105</td>
<td>120</td>
<td>125</td>
</tr>
<tr>
<td><strong>Canopy 0.6 l/ha</strong></td>
<td>110</td>
<td>115</td>
<td>130</td>
<td>135</td>
</tr>
<tr>
<td><strong>Canopy 1.2 l/ha</strong></td>
<td>115</td>
<td>120</td>
<td>135</td>
<td>140</td>
</tr>
</tbody>
</table>
Canopy®: excellent plant height reduction and yield generation compared to Moddus in winter barley at T0, T1 & T2.

Specific weight range 63.1 to 65.2

Yield t/ha  Plant Height cm

Canopy + CCC versus Moddus + CCC in winter wheat. Canopy gives improved yield and crop height reduction.

U/T yield 9.16 t/ha

U/T height 89.8cm

Independent trial 2011: Istabraq, Fife. Dry April followed by more normal season. All rates are l/ha.
Canopy – Protecting yield and quality
Using Canopy on spring barley

Feed barley

In feed crops it’s all about maximising yield and straw quality. Modern varieties have a high yield potential with yields over 8 t/ha being achievable but greater yield potential results in increased lodging risk, particularly for varieties with a Recommended List Lodging Resistance Score of 7 or less. 17 out of 26 varieties on the Recommended List are rated at 7 or less and therefore require careful management to prevent lodging.

Yield potential can be optimised by:

- Maximising the number of shoots/m² by sowing at a reasonably high seed rate.
- Applying N fertiliser as early as possible.

Both increase the risk of lodging especially on high fertility soils so an effective PGR is essential for stem strengthening and lodging prevention.
Malting barley

Quality is essential for malting crops and achieving the correct plant population is crucial for both yield and quality. There is little difference in the speed of development between varieties but there are noticeable differences in tiller development. Low tillering varieties like Optic and Concerto will require relatively high seed rates.

Canopy - A new flexible and safer PGR option for spring barley and oats for spring 2014

Canopy is established in winter wheat and winter barley as a versatile and effective PGR, being more dependable than chlormequat and trinexapac-ethyl, both of which can be harsh on the crop and affected by variable weather conditions. The approval of Canopy on spring barley brings not only a safer PGR option, but reassurance as Canopy works across a range of temperatures and timings, and is effective in improving rooting, lodging prevention and balancing tillering.

Why use Canopy on Spring Barley?

Canopy is ideal for both feed and malting crops

- Reduces apical dominance and enhances tiller survival essential to maximise yield.
- Applied at either pre GS 30 or at GS 31/32, Canopy significantly increases the number of shoots/m² by 20-30% increasing viable ear numbers and yield in the absence of lodging.
- Applied in a programme at GS 31/32 followed by GS 37 Canopy significantly reduces crop height and increases the lodging resistance score by 2 points.
- Canopy exhibits excellent crop safety in spring barley and is much softer to the crop than Moddus.
- Canopy is particularly effective at low temperatures giving the flexibility to spray as soon as required.
- Chlormequat free.
- Approved for use on malting barley before GS 32 (up to 1.0 l/ha).

Spring Barley Recommendations

<table>
<thead>
<tr>
<th>Timing</th>
<th>Low lodging risk</th>
<th>High lodging risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre T0 (up to GS 30)</td>
<td>PGR single dose: 0.2-0.3 l/ha</td>
<td>PGR first split: Canopy 0.3 l/ha</td>
</tr>
<tr>
<td>T1 (GS 31-32)</td>
<td>Single dose: Canopy 0.3-0.4 l/ha</td>
<td>PGR second split: Canopy 0.3 l/ha</td>
</tr>
<tr>
<td>T2 (GS 37-39)</td>
<td>PGR third split: Canopy 0.6 l/ha OR Terpal 1.0 l/ha</td>
<td></td>
</tr>
</tbody>
</table>

Note: Max total dose of Canopy per crop is 1.5 l/ha
Why use Canopy on oats?

With oats having a tendency to lodge quite easily and being a particularly sensitive crop, Canopy is an ideal alternative to both chlormequat and Moddus at all timings. Canopy provides:

- Excellent crop height reduction, stem strengthening and lodging prevention in both winter and spring oats.
- Excellent crop safety and much kinder to the crop than Moddus.
- Chlormequat free.
- Flexible application timing from T0 to T2.

<table>
<thead>
<tr>
<th>Timing</th>
<th>Spring Oats</th>
<th>Winter Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T0 (GS 30)</strong></td>
<td><strong>PGR first split:</strong> Canopy 0.3l/ha</td>
<td><strong>PGR split:</strong> Canopy 0.3l/ha</td>
</tr>
<tr>
<td><strong>T1 (GS 31-32)</strong></td>
<td><strong>PGR second split Canopy 0.4 l/ha</strong> OR <strong>Medium to high lodging risk situations with no T0:</strong> Canopy 0.4-0.6l/ha</td>
<td><strong>PGR second split Canopy 0.5 l/ha</strong> OR <strong>Medium to high lodging risk situations with no T0:</strong> Canopy 0.6-0.8l/ha</td>
</tr>
<tr>
<td><strong>T2 (GS 37-39)</strong></td>
<td><strong>Canopy 0.6 l/ha</strong> This timing should only be used if weather prevents earlier application</td>
<td></td>
</tr>
</tbody>
</table>

Note: Max total dose of Canopy per crop is 1.5 l/ha
The recent approval of Canopy on spring barley, oats and rye brings not only a safer PGR option, but reassurance to growers as Canopy works across a range of temperatures and timings and is effective in improving rooting, lodging prevention and balancing tillering.

Containing prohexadione-calcium and mepiquat chloride, Canopy is already established in winter wheat and winter barley as a versatile and effective PGR, being more dependable than chloromequat and trinexapac-ethyl (Moddus and Optimus), both of which can be harsh on the crop and affected by variable weather conditions. Canopy is also accepted by the BBPA and BRI for use on malting barley up to growth stage 32.

Mike Barry, a leading agronomist for Frontier has been eagerly awaiting the label extensions for the growth regulator Canopy to include spring barley and oats. Mike warns that oats, in particular, are sensitive to most inputs and are more likely to lodge than any other cereal crop.

“We have had chloromequat and Moddus for oats, but both have their downsides. Moddus can be harsh on oats and has less flexibility for use when temperatures are low. More importantly several processors have a policy of zero tolerance to chloromequat due to its potential residue risk. We have moved away from chloromequat in oats and Canopy will fit very well.”

According to Mike, Canopy is already a valuable weapon in the PGR armoury. “It is efficacious in terms of rooting, lodging prevention and evening out tillering, which is a given, but is also kind to the crop and more flexible in its use across all temperature ranges. Canopy has been our favoured PGR in wheat and barley for these reasons.”
“When we apply PGR’s in the early spring, it is at a time when temperatures can be quite variable and the weather unpredictable. In winter cereals PGR’s are usually applied at T0 to manage root systems and to even up tillering. At T1 they are used for stem strengthening and lodging reduction. We have the reassurance that Canopy will work across a range of temperatures and timings.”

“This spring with early drilling, excellent establishment, an open autumn and a ‘growthy’ season with no checks at all, there will be a high need for PGR’s in wheat and barley as crops are advanced. In fact never have I seen such a good situation for winter cereals – hopefully I won’t be shot down with such an optimistic view as the season progresses!”

“Canopy has been proven to be kind to crops, whereas other growth regulators have been known to scorch. This is particularly important in oats and spring barley. A lot of spring barley in the North and Scotland will be malting barley which has less need for PGR’s, but further north feed barley crops, often grown on high fertility soils, will have a high requirement. We have been using Terpal or Moddus but now we have another option in Canopy which fits nicely into that slot.”

“In Canopy we have a non-chlormequat option which is kinder to the crop and equally good at keeping the crop standing. The new label extensions for spring barley, winter and spring oats and rye to add to winter wheat, winter barley and triticale will be a real welcome addition to the PGR’s that we have available.”
In the North and Scotland Peter Gray, Grain and Crop Protection Buyer for W.N Lindsay notes that winter crops have all got off to a good start and have grown well throughout the autumn and winter for the first time in two years.

“In fact in a few fields wheat is already half way up my wellingtons and is ridiculously forward and thick for the time of year. The wet and mild winter has undoubtedly increased disease risk and increased lodging risk through weakening stems in high plant populations. Hence there will be a definite need for early fungicides and PGR’s this spring.

Last year crops were hardly tillering by this stage and plant populations were low. This year plant populations are high and crops are advanced, so there could be lodging issues that will need managing with a cost-effective PGR.”

Peter says that, in his estimation, winter wheat plantings have recovered following the weather-related dip last year and that spring barleys are likely at a more normal level in terms of acreage after last year boost. “Most spring barleys have reasonably good standing power but some feed crops on fertile ground with high populations may need regulation. Canopy has proven to be a lot kinder to the crop than chloromequat, Terpal or Moddus so it may have a useful place in the market.”

“But in oats it definitely will. Without a shadow of a doubt, Canopy would be a better option in oats than existing chemistry, providing the price is right. Oats lodge very easily, yet you have to be quite careful what you put on as they tend to be rather sensitive.
For example an application of chlormequat can have an adverse reaction on oats, stripping off the wax layers. Canopy tends to be much gentler.”

Peter has seen field trials in oats demonstrating different growth regulators at different timings including Canopy. “The Canopy treatments looked to have worked very well in these oat trials, with no obvious adverse effects. It worked just as well as it does in commercial use on farm on other cereals. The chlormequat treated strip looked to be shorter initially, but at harvest the crop was taller. It seems that the effects of chlormequat had worn off.”

But it is not the efficacy of chlormequat that is being questioned; but the potential risk of residues that concerns millers. “Consequently they would welcome the adoption of an alternative PGR such as Canopy. In this crop sector, Canopy fits technically in that it reduces lodging risk, helps with root strengthening and it is kind to the crop. Its widespread adoption on farm will depend on the commercial package that growers are offered.”

To download the new Canopy label and to find out more about the benefits of Canopy please go to www.agricentre.basf.co.uk.
Do you know your local Agronomy Manager?

Do you know your local BASF contact?

We have a team of Agronomy Managers who are ready to assist you. If you want to discuss your weed, pest or disease challenges on your farm or talk to someone about our crop protection solutions, please don’t hesitate to get in touch. Our team are ready to help you.
Canopy®

Excellent lodging protection

Enhances tiller survival

Excellent crop safety

Flexible timing

Now for use on: Spring Barley, Oats, Rye.

Canopy® - protecting crop yield and quality in any weather. Canopy® is the most versatile and effective PGR available for use on winter wheat, winter barley, winter triticale, spring barley, oats and winter rye.

For further information, please do not hesitate to contact your local BASF Agronomy Manager or the BASF Technical Services Hotline: 0845 602 2553. Or visit www.agricentre.basf.co.uk.

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