RECOMMENDEDLISTS

AHDB Recommended Lists (RL) for cereals and oilseeds:

Cereal Trials PGR protocol.

This protocol was believed to comply with relevant agrochemical, environmental and other regulations at the time of writing but it is the responsibility of the contractor to ensure that it continues to comply. In the event of non-compliance, the protocol should not be followed but the Field Trials Manager should be notified at once of how the protocol requirements would breach regulations.

Any deviation from this protocol other than under the circumstances described above may result in a breach of contract and should be agreed in advance.

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AHDB Cereals & Oilseeds is a part of the Agriculture and Horticulture Development Board (AHDB).

Appendix 2 - Plant Growth Regulator Protocol

Recommendations by Paul Gosling, BASIS registration number R/E/8107/IFM.

RL Trials Co-ordinator: Sean Burns 07773 639936
VL Co-ordinator: Jeremy Widdowson 01353 653846

The following notes are given for guidance in the use of plant growth regulators (PGRs) on Recommended List trials (there is a separate protocol for VCU trials). The full manufacturer instructions should be consulted prior to the storage, handling, or use of any agrochemical product. The instructions and advice given on product labels should be followed at all times. There should be no conflicting advice between that given in this protocol and on the product label. If there appears to be any conflict, inform the Trials Co-ordinators before the application is made.

Table 1: Summary of Plant Growth Regulator applications for RL trials

Crop	Fungicide treated plots	Plots or DOP's without fungicide	Lodging trials
Winter wheat	Yes	Yes	No
Spring wheat (late autumn or spring sown)	Yes	Yes	N/A
Winter barley	Yes, unless the crop is stressed, and the risk of lodging is negligible.	Yes, unless the crop is stressed, and the risk of lodging is negligible.	No
Spring barley	Only if a high risk of lodging	No	No
Winter oats	Yes, +F/+PGR plots only.	Yes	No
Spring oats	Yes, +F/+PGR plots only.	No	N/A
Winter rye	Yes	Yes	N/A
Winter triticale	Yes	Yes	N/A

Plant growth regulators should not be applied to trials grown specifically for the assessment of lodging. There are important restrictions relating to the use of plant growth regulators.
Crop damage can occur if manufacturers' guidelines are not followed.

Common restrictions are those relating to crops that:

- are sited on soils of low fertility
- are suffering from herbicide damage
- are under stress from drought, waterlogging or any other cause
- were sown in the very late spring

Trial managers should consult the manufacturer's instructions to see if any of these restrictions apply.

In all cases, Plant Growth Regulators should be applied to designated plots only as specified in the AHDB Recommended List cereal trials protocol

Products should be used according to current manufacturers' instructions. It is the responsibility of the Trial Manager to ensure that the growth stages of all of the varieties in the trial are within the manufacturer's guidelines for use. The following notes are intended to highlight matters of particular relevance to the use of PGR products on variety trials and timings are relevant to earliest varieties.

The **Terpal** doses in this protocol are below full rate (**2.0 l/ha**).

Consult the Trials Co-ordinators if you feel that a higher dose is needed e.g. if there is a risk of severe lodging. However, be aware that late applications of **Terpal** (e.g. at around the flag leaf emergence stage) at higher doses can lead to crop damage or stimulate the production of secondary tillers.

General guidance and notes specific to the use of PGRs on variety trials

Products should be used according to current manufacturers' instructions. It is the responsibility of the Trial Manager to ensure that the growth stages of all of the varieties in the trial are within the manufacturer's guidelines for use. The following notes are intended to highlight matters of particular relevance to the use of PGR products on variety trials and timings are relevant to earliest varieties.

The **Terpal** doses in this protocol are below full rate (**2.0 l/ha**).

Consult the Trials Co-ordinators if you feel that a higher dose is needed e.g. if there is a risk of severe lodging. However, be aware that late applications of **Terpal** (e.g. at around the flag leaf emergence stage) at higher doses can lead to crop damage or stimulate the production of secondary tillers.

Changes from previous version

Below is a summary of product changes from the previous protocol, please ensure that whoever is applying products has the up-to-date version of the protocol and understands which products and the rates to be applied at each timing for respective crops.

Page	Crop/Timing	Details of change
	WO & SO GS. 30	Moddus optional application for high risk removed.

Winter wheat and late autumn sown Spring wheat

Product	Crop	Rate & timing
Either split dose 3C Chlormequat 750+ Moddus	Winter wheat only	3C Chlormequat 750 at 1.0 l/ha at GS25-30 PLUS †Moddus at 0.1 l/ha if applied at the GS30 timing. Followed at GS31–32 by 3C Chlormequat 750 at 1.0 l/ha PLUS †Moddus at 0.1 – 0.2 l/ha. Do not apply if any variety is beyond the GS32 timing.
OR single dose (Winter wheat and late sown autumn sown spring wheat) 3C Chlormequat 750 + Moddus	Winter wheat	3C Chlormequat 750 at 1.5 – 2.0 l/ha at GS30 – 31 (in the North and North-west regions this can be delayed to GS32) PLUS †**Moddus** at 0.1 – 0.2 l/ha. Do not apply if any variety is beyond GS32.
	Spring wheat	3C Chlormequat 750 at 1.25 l/ha at GS30 – 31 (in the North and North-west regions this can be delayed to GS32) PLUS †**Moddus** at 0.1 – 0.2 l/ha. Do not apply if any variety is beyond GS32.
*Optional: Terpal**		*Single-dose of 0.75 – 1.0 l/ha (depending on lodging risk and *condition of the crop) at GS32–37*

***Terpal** should not be applied to any variety in the trial if the leaf sheaths have split and the ears are visible.

- Do not apply **Terpal** if the crop is suffering from herbicide damage or physical stress caused by e.g. waterlogging, drought, take-all.
- Do not apply in temperatures above 21°C. If, in Winter wheat/Spring wheat trials there are large differences in growth stages; contact the RL Trials Co-ordinator.
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† **Moddus** - Apply unless the crop is stressed or the lodging risk is negligible.

Spring sown Spring wheat trials

Product	Rate & timing
Optional: 3C Chlormequat 750	*Single half dose 0.6 – 1.25 l/ha at GS30-31. Consult the Trials Co-ordinator if the crop is late sown and/or under stress. Do not apply if any variety is beyond GS31.*

Terpal and Moddus should not be applied to spring sown Spring Wheat trials.

Winter barley trials

Product	Rate & timing
3C Chlormequat 750 + Moddus	3C Chlormequat 750 at 1.5–2.0 l/ha at GS25–30 PLUS †Moddus at 0.1–0.2 l/ha if applied at the GS30 timing.
Moddus	*Optional: GS31–32 in high fertility situations (0.1-0.2 l/ha)*
Terpal	*0.75 – 1.0 l/ha at GS32–39**

*The preferred option for **Terpal** is for the product to be applied separately from the T2 application. Terpal should not be applied on any variety in the trial if the leaf sheaths have split and the ears are visible.

- Do not apply Terpal if the crop is suffering from herbicide damage or physical stress caused by e.g. waterlogging, drought, take-all.
- Do not apply in temperatures above 21°C.

Spring barley trials

Product	Rate & timing
Moddus	*Optional: Moddus may be applied at 0.1–0.2 l/ha at GS30 for increased rooting and tiller survival and where lodging may be expected*
Terpal	*Optional: Terpal 0.5 l/ha at GS32-37. Apply only if the risk of lodging is high and the crop shows no signs of stress.*

Winter and Spring oat trials

Product	Rate & timing
3C Chlormequat 750. Option for an additional Canopy in high-risk situations	Single dose: 3C Chlormequat 750 1.5 – 2.0 l/ha at GS31 – 32. A non-ionic wetting agent should be used - see product label. In high-risk situations Canopy 0.75 – 1.5 l/ha up to GS41.

Apply routinely as a single application to all appropriate trials unless it is felt that the application is inadvisable, in which case the Trials Co-ordinators should be consulted.

Winter rye trials

Product	Rate & timing
3C Chlormequat 750 + Moddus	Either single dose: 3C Chlormequat 750 at 1.0 l/ha PLUS †Moddus at 0.1 – 0.2 l/ha at GS30
	Or split dose: 3C Chlormequat 750 1.0 l/ha at GS31 – 32 PLUS †Moddus at 0.1 – 0.2 l/ha
Terpal Medax Max	Terpal 1.5 – 2.0l/ha at GS37 Medax Max 0.3 – 0.4 kg/ha should be used if Terpal timing is missed at GS37. This is safe up to GS49 and is safer for use on the ear in comparison to Terpal.

† Moddus. Apply unless the crop is stressed or the lodging risk is negligible.

Spring rye trials

Product	Rate & timing
Medax Max (EAMU	Medax Max 0.3-0.4kg/ha at GS25-30 (at point of breaking dormancy max of 2 applications if required.

Winter triticale trials

Product	Rate & timing
3C Chlormequat 750	Single dose: 3C Chlormequat 750 at 1.0 l/ha PLUS †Moddus at 0.1 – 0.2 l/ha at GS30
Optional Medax Max	Medax Max 0.3 – 0.4 kg/ha

Spring triticale (VL trial)

Product	Rate & timing
3C Chlormequat 750	Single dose: 3C Chlormequat 750 at 2.0 l/ha