

Experience over the past few years has shown that the only way to prevent blackgrass building up in fields is to use a full programme of cultural and chemical controls starting with a stale seedbed after harvest.

Dow AgroSciences' cross-rotational trial, based at our R&D facility at Wellesbourne, has been running since autumn 2011. The trial is a great tool from which we can establish the best on-farm methods to minimise the grassweed burden, and maximise the control achieved using a fully inclusive herbicide programme.

Cultural Control Considerations

Rotation

Having a varied rotation on farm is not only good agricultural practice, but also can reduce the grassweed burden. Break crops, such as oilseed rape, provide a good opportunity to use alternate classes of chemistry, thus reducing the risk of resistance build up. Spring cropping also provides the chance to make use of a stale seedbed approach.

Cultivation Type

The type of cultivation used will have an impact on the grassweed burden. In the cross-rotational trial, we found that ploughing before cereal crops consistently provided the highest level of blackgrass control, in some cases reducing the population by as much as 70%, when compared with shallow cultivation practices. In order to see the benefits of ploughing, it is essential that care is taken to ensure the land is ploughed well, with a complete inversion of the soil. Much of the blackgrass buried under the soil will not stay viable for longer than a year, and as such the population should still be lower in following years.

Maximising Herbicide Efficacy

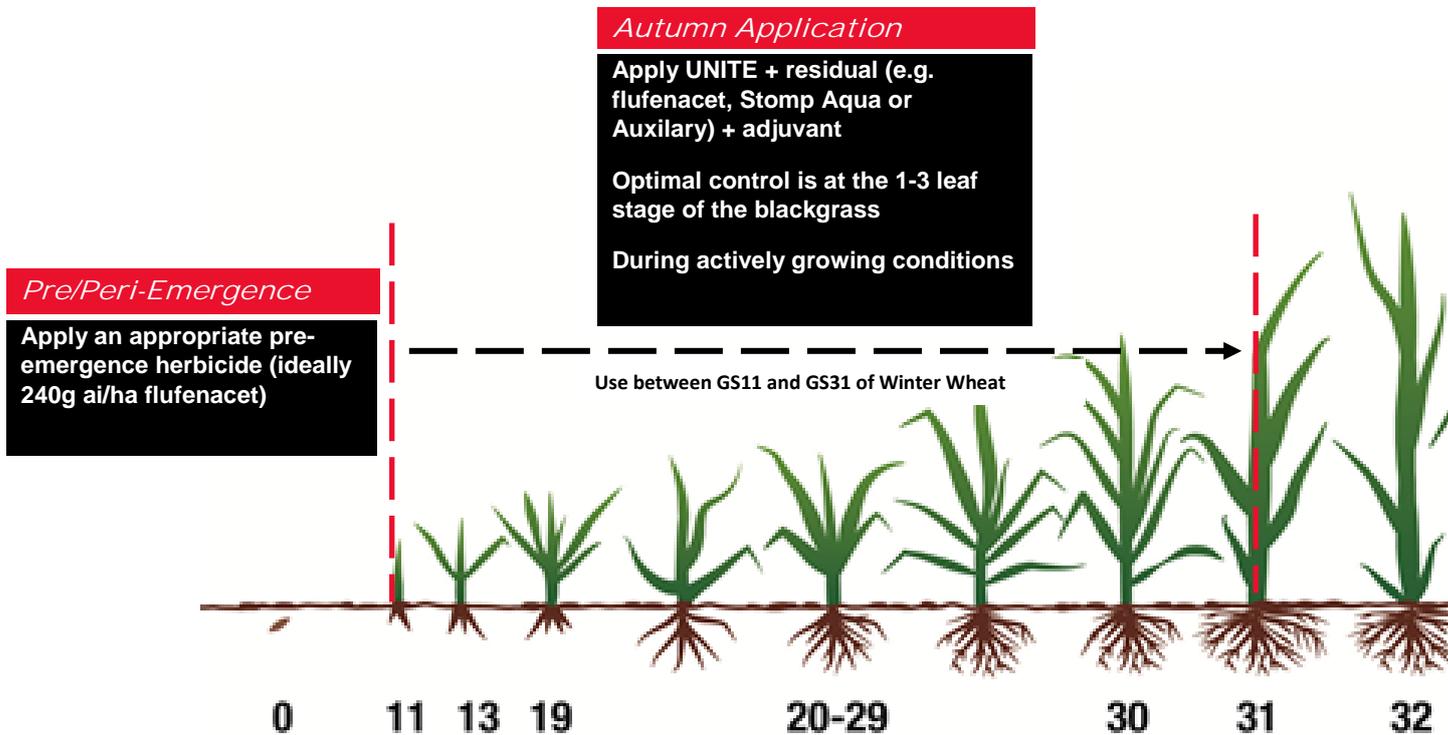
The cultivation type will have an effect on the efficacy of the herbicide programme. Ensuring a good, even seedbed enables the best application of your pre-emergence programme.

In fields with a high population of blackgrass acceptable levels of control are difficult to achieve. Ensure all possible cultural techniques are employed and a comprehensive herbicide programme, utilising different modes of action is undertaken.

Our Top Tips for Beating Blackgrass with UNITE

- Must be used as part of a programme and follow WRAG guidelines
- Apply following a pre-emergence herbicide – minimum 240g ai/ha flufenacet base. Additional actives can be added to the pre-em stack depending on seedbed conditions, soil moisture and blackgrass pressure.
- Apply when weeds are actively growing.
 - Optimal blackgrass control is best achieved in the autumn at the 1-3 leaf stage
 - If conditions prevent an autumn application, treatment may be applied in the spring up to GS24 of blackgrass
- Apply UNITE at 0.27 kg/ha with a Dow AgroSciences supported adjuvant. See <http://uk.dowagro.com/wp-content/uploads/UNITE-Tank-Mix.pdf>
- For all grassweed situations apply UNITE + adjuvant with a suitable residual partner. See <http://uk.dowagro.com/wp-content/uploads/UNITE-Tank-Mix.pdf>

Application advice



Pre/Peri-Emergence
 Apply an appropriate pre-emergence herbicide (ideally 240g ai/ha flufenacet)

Autumn Application
 Apply UNITE + residual (e.g. flufenacet, Stomp Aqua or Auxiliary) + adjuvant
 Optimal control is at the 1-3 leaf stage of the blackgrass
 During actively growing conditions

- Nozzles:
 - Pre-tillering : Flat-fan or Defy
 - Tillering: Flat- fan or Twin-fluid
- Water volume:
 - 100-200 L/ha (optimally 130-150 L/ha)
- FINE – MEDIUM spray quality

Grassweed control with UNITE

WEED	SIZE CONTROLLED	WEED	SIZE CONTROLLED
Annual meadow grass	Up to before tillering	Loose silky bent	GS30
Blackgrass	GS24	Ryegrass	GS29
Bromes - Sterile & Great spp. *	GS24	Wild oats	Optimal up to GS29
Bromes – Meadow, Rye, Soft spp.	GS24	Volunteer tame oats**	GS24

Key: **Bold - label weeds.**

Non-label weeds listed as an indication of the effect that would be expected to be achieved based on limited data.

*Sterile and great bromes are optimally controlled in the autumn.

** Volunteer tame oats optimally controlled prior to tillering, mid-tillering at latest. Varietal differences in sensitivity exist. Consult Dow AgroSciences.