

Autumn weed control in cereals

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Winter cereal farmers have seen a significant change in their weed control strategies in 2018. With the popular Isoproturon (IPU) herbicide no longer available, many growers were left scratching their heads wondering which approach is best.

While there are plenty of alternatives still available, the flexibility which IPU offered is no longer there when trying to control grass weeds.

The debate that has raged over the last 12 months is whether to go pre-emergence or wait and go post-emergence.

The products, in most cases, are the same, but the efficacy, especially on grass weeds, in many cases is better pre-emergence.

Key to using pre-emergence herbicides is knowledge of the field and the predominant weeds that need to be controlled; some weeds are more damaging to the crop than others, so these need to be targeted.

Integrated pest management (IPM) tools, such as stale seedbed techniques, reduced cultivation systems and crop rotation, etc, can also be used to control certain weeds.

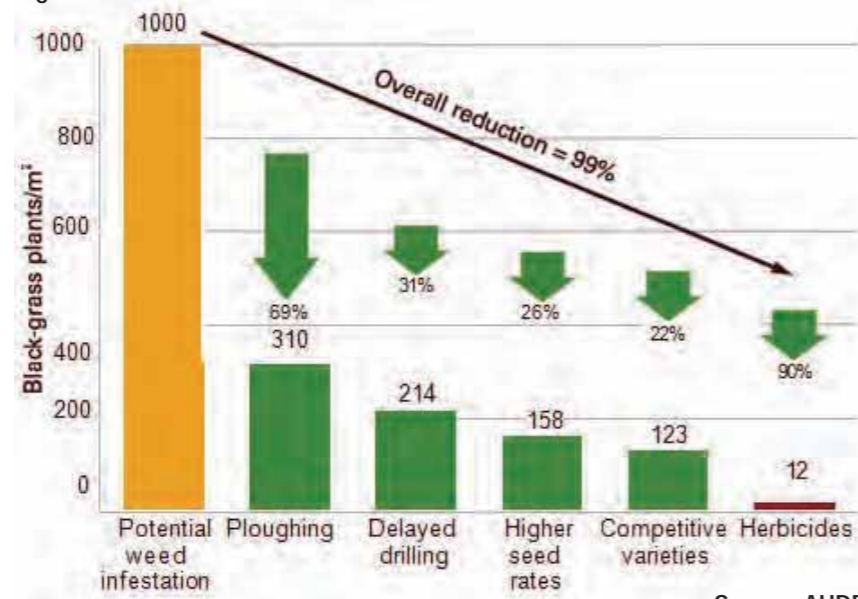
Indeed, more use of these cultural techniques may have to be implemented in the future, as issues such as resistance and availability of herbicides, etc, become more common. For some weeds, especially troublesome grass weeds, the herbicide should be the smallest part of the measures used for control.

Figure 1 shows the AHDB estimate of the control levels achieved by using different measures, including herbicides for controlling black-grass.

For many farmers, moving from a post-emergence application to a pre-emergence application represents a fundamental change in their winter cereal strategy, from a weed control point of view, but also from a workload and aphid control point of view.

The post-emergence herbicide application was usually timed with an aphicide and it was generally applied after all the autumn planting was complete. Switching to a pre-emergence herbicide application can increase workload in late September

Figure 1



Source: AHDB

or early October at a time when it is already very busy.

Pre-emergence – key points

Pre-emergence application can be useful, but a follow-up treatment is often necessary.

Consider the following points before applying herbicides pre-emergence:

- Field records (weeds) will help herbicide selection.
- Match known weeds in the field to the herbicide.
- Active ingredients such as pendimethalin, diflufenican, flufenacet or prosulfocarb are all recommended at the pre-emergence timing. These are the main active ingredients contained in the most popular brand names.
- Even where Redigo Deter seed dressing has been used, a standard aphicide application is often necessary in early November.

One of the main reasons why growers don't apply pre-emergence herbicides is accuracy, as there are no visible tramlines to follow. Pre-emergence markers on drills and GPS technology are becoming more popular and relatively less expensive than before and will solve this problem. Many growers have already invested in GPS technology through the TAMS scheme which makes it even more affordable.

Post-emergence key points

Post-emergence applications are still the most popular for a number of

reasons, but mainly because of workload. Most growers, when sowing, don't have the time to switch jobs and start spraying, especially in difficult seasons.

In many cases, this means switching machines on the tractor multiple times, which simply isn't practical. When applying post-emergence applications, the following points need to be considered:

- Select products based on the target weeds.
- Grass weeds need to be a priority, as early control is vital, ideally at the two- to four-leaf stage.
- A mix of active ingredients will be required to give the most broad spectrum weed control.
- A follow-up application in the spring may be needed for difficult weeds.
- Time the applications to coincide with trace elements and/or aphicide applications.
- Apply to dry crops for best control.
- Avoid applying herbicides at pre-emergence to avoid bleaching of the crop.

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Table 1: Herbicide guide for winter wheat and barley 2018

Name	Active ingredients	Rate/ha	Latest timing	Comments
Alister Flex Wheat only	Diflufenican 120g/l Mesosulfuron-methyl 9.0g/l Iodosulfuron-methyl-sodium 7.5g/l	0.8-1.0 L	Gs 29	Cleaver control up to 4 whorls, good on fumitory, poppy & vol. osr. Good contact effect on grass weeds. Limited residual effect. Use post emergence.
Firebird Navigate Naceto	Flufenacet 400g/l Diflufenican 200g/l	0.3 L (Max total dose 0.6L)	Gs 22 or end of Dec	Good residual control of grass weeds esp. AMG. Use pre-emerge for best effect on BLW. Second application approved for improved sterile brome control. Max single dose 0.3L/ha (Firebird & Navigate) 0.6L/ha Naceto.
Nucleus Wheat & barley	Flufenacet 400g/l Diflufenican 100g/l	0.6 L		
Vigon Wheat & barley	Diflufenican 60g/l Flunafenacet 240g/l Flurtamone 120g/l	0.5 L WB 1.0 L WW	Dec 31st	Pre-emerge herbicide for control of a range of broadleaved weeds and grassweeds. Better than Firebird on Ryegrass. Note Max rate on W Barley is 0.5L/ha
Pontos Wheat & barley	Flufenacet 240g/l Picolinafen 100g/l	1.0 L pre-em 0.5 L post-em	Pre-em Gs 30	Offers excellent grass weed control especially AMG in addition to a range of BLW. Use pre-em for best results or early post-em with PDM.
Broadway star Wheat only	Pyroxsulam 7.08%w/w Florasulam 1.42% w/w	0.265 kg	Gs 32	Strong brome and grass weed product with main BLW. Needs PDM for AMG control & residual activity. Most effective when used post emergence.
Defy Roxy 800EC Wheat & barley	Prosulfocarb 800g/l	2.0 L	Gs 21	Very good option for high AMG situation. Add DFF 0.1l/ha for additional BLW control. Use pre or early post emergence. Avoid use at pre emergence on Winter Barley.
Diflanil 500 Farmco Dazzle Hurricane Stride Sempra/ Solo Wheat & barley	Diflufenican 500g/l	0.25	Gs 29	BLW only. No grass-weed control. Poor on fumitory and poppy.
Most Micro Anthem Sharpen Stomp Aqua Fastnet Wheat & barley	Pendimethalin 365g/l Pendimethalin 400g/l Pendimethalin 400g/l Pendimethalin 455 g/l Pendimethalin 365g/l	3.6 L 3.3 L 3.3 L 2.2-2.9 L 3.6 L	Gs 29 Gs 29 Gs 29 Gs 29 Gs 29	Broad spectrum, good on fumitory and AMG but weak on groundsel. Good residual activity for pre-emergence situations.
Flight Wheat & barley	Pendimethalin 330g/l Picolinafen 7.5g/l	4.0 L	Gs 30	Broad spectrum. Good on cleavers, poppy & fumitory, weak on groundsel. Use pre emerge for best AGM control.
Bulldog Adept Wheat & barley	Pendimethalin 313g/l Diflufenican 15.6g/l	4.2L/ha	Gs 30	For AMG suggested pre emerge use 4.0 plus 0.15L/ha DFF. For post emerge use 3.25L/ha plus Defy 2.0L/ha.
Tower Wheat & barley	Chlorotoluron 250g/l Diflufenican 40g/l Pendimethalin 300g/l	2.0 L	Gs 30	Amg control plus BLW incl. Fumitory, cleavers, poppy, speedwell. Can be applied pre or post emergence.
Gorgon/Fence Wheat & barley	Flufenacet 480g/l	0.5L	Gs 13	Good grass weed control when used early. Tank mix partner for DFF and PDM mixes.
Thor Wheat & barley	Tribenuron-methyl 500g/Kg	10g before end of Feb	Gs 39	Good mixer for BLW control. Will control vol. osr and beans at 10g/ha
Tribe Wheat & barley	750g/kg tribenuron	10g+	Gs 33	Good mixer for BLW control. Will control vol. osr and beans at 10g/ha
Cameo Max Wheat & barley	Tribenuron-methyl 250g/kg Thifensulfuron methyl 250g/kg	Max dose 60g/ha	Gs 39	BLW control. Useful for tidy up. Needs growth for best results.