

RATE CARD

AUTUMN 2022



ADAMA

SHOGUN®

MAPP 16527

Grass weed	Optimum (weed) growth stage	Latest (weed) growth stage	Rate (L/ha)
Volunteer wheat	2 leaves unfolded	Stem erect	0.5 - 0.7
Volunteer barley	2 leaves unfolded	Stem erect	0.3 - 0.7
Volunteer hybrid barley	2 leaves unfolded	Stem erect	0.7 - 1.0
Barley cover crop*	2 leaves unfolded	2nd node detectable	0.7 - 1.0
Sterile brome	2 expanded leaves	Fully tillered	0.5 - 0.75
Wild oat	2 leaves unfolded	Stem erect	0.5 - 0.7
Common couch	3 leaves unfolded	Stem erect	1.0 - 1.5
Ryegrass (from seed)	2 leaves unfolded	Before stem erect	1.2
Black-grass**	2 leaves unfolded	Booting	0.7 - 1.0
Annual meadow grass***	1 leaf unfolded	3 leaves unfolded	1.5

Note: 1.5 L/ha SHOGUN® (Common couch and AMG rate) must not be applied to crops of winter and spring oilseed rape before the 5 leaf stage of the crop.

- *Barley cover crops: spray when risk of wind blow has passed and before there is serious competition with the crop. Use the higher dose of 1.2L/ha if spraying is late.
- **SHOGUN® can contribute to the control of black-grass as part of a herbicide resistance management strategy, involving mixtures and sequences with herbicides of alternative modes of action. Where ACCase resistant biotypes are present control from SHOGUN® will be unacceptable.
- ***Growth will be checked at doses of 0.7-1.0L/ha and severely checked at 1.5L/ha. These effects will be reduced if annual meadow grass is beyond 3 leaves unfolded stage at spraying.
- To avoid the build-up of resistance, do not apply products containing ACCase inhibitor herbicide more than twice to any crop.
- Speed of kill will be more rapid when weeds are actively growing under warm conditions with adequate moisture.

Timing is everything!

Recently emerged weeds with less biomass have fewer target sites, are less well established to endure the blocking of key pathways and typically require a lower dose of herbicide to kill them. Delayed applications to volunteer cereals allow them to grow bigger (more biomass), produce more target site enzymes and thus under similar conditions they are typically harder to kill and require more herbicide active ingredient.

While late intervention on volunteer cereals allows the whole weed population to emerge, it's the weeds emerging with the crop that have the most impact reducing light, water and nutrient availability for the crop. Research on the impact of volunteer cereals found them to be more problematic in OSR (Lutman, 1991) and particularly so "when **oilseed rape establishment is delayed; their large seed size means they can quickly establish in late drilling situations or drier autumns**. There is a clear linear relationship of increasing yield loss with increasing volunteer numbers. This relationship is exacerbated by a delay in sowing and by thin or less vigorous crops. For a crop sown on **26 August, 100 volunteers/m²** can give a **5% yield loss** but for crops sown on **9 September** this is reduced to only **10 volunteers/m²**" (Lutman, 1991).

Lutman P (1991) Weeds in oilseed crops. Oilseeds research review OS2, HGCA, London; summarised in the 2015 AHDB report. Project Report No. 530. New approaches to weed control in oilseed rape.