

Technical Information Sheet

Whorl delivers robust control of broad-leaved weeds in winter cereals (wheat, durum wheat, spelt, barley, rye, triticale, oats and these crops under sown with grass), and spring cereals (wheat, durum wheat, barley, rye, triticale, spelt and these crops under sown with grass).

Regardless of weather conditions, Whorl sets the industry standard for consistent control of the most competitive weeds, including cleavers, cranes-bill, fumitory, fat-hen, dead nettles and poppies and can be applied as soon as the land is fit to travel.

Key facts

Product Registration Number:	MAPP No. 17819
Active Ingredient:	12.5 g/litre Arylex (halauxifen-methyl) + 280 g/litre fluroxypyr (HRAC Group 4 herbicides)
Pack size:	5.0 L
Formulation:	Emulsifiable Concentrate (Liquid)
Maximum Individual Dose:	0.5 L/ha from 1st February (Winter wheat, durum wheat, barley, rye, triticale, spelt and these crops under sown with grass) 0.5 L/ha from 1st March (Spring wheat, durum wheat, barley, rye, triticale spelt and these crops under sown with grass) 0.25 L/ha from 1 st February winter oats and winter oats under sown with grass.
Maximum Total Dose:	0.5 L/ha cereals, except winter oats 0.25l/ha winter oats
Application Timing:	1st February to 30th June (GS 13 up to and including GS 45) winter cereals except oats 1st March to 30th June (GS 13 up to and including GS 45) spring cereals 1 st February to 31 st May (GS 13 up to and including GS32) winter oats
Following crops	In the autumn following application: White mustard, peas, broad beans, field beans, OSR, phacelia, ryegrass, cereals, vegetable brassicas as transplants. In spring following application: no crop restrictions. Ploughing is recommended prior to drilling maize, alfalfa, soybean and clover.
Water Volumes:	100-400 L/ha. For under-sown cereal crops use a minimum water volume of 150L/ha.
Recommended Adjuvants:	Non-ionic wetters and methylated seed oils
Spray Quality:	Medium as defined by BCPC
Nozzles:	Flat Fan, Variable Pressure Flat Fan, Pre-Orifice, Air Inclusion, Airtec
Buffer Zone:	5m reducible buffer zone (1m dry ditches)

Why use Whorl?

- Provides robust weed control irrespective of the weather or weed growth pattern – if you can travel it will work
- Wide range of following crop options
- No cultivations required before sowing most crops
- Robust weed control: chickweed, cleavers, fumitory, fat hen, dead nettle, poppy and cranesbill
- Excellent multiway compatibility including: ACCase graminicides, ALS graminicides, PGRs, fungicides and trace elements

Winter oats and cereals under-sown with grass

Whorl is approved for use on winter oats and cereals under-sown with grass. Whorl can be used on winter oats at a rate of 0.25 L/ha and can be applied up to the 31st May, up to and including GS32 of the crop.

For cereals under-sown with grass, the use rate is 0.5 L/ha, except for winter oats where the use rate is 0.25 L/ha. Applications should be made when the grasses have 5 leaves unfolded (GS15) and the weeds are actively growing. Whorl must not be applied to crops under sown with clover.

Winter Cereals except oats

Where no residual herbicide has been applied, use Whorl at 0.375 – 0.5 L/ha for robust control of a range of BLW species. Larger weeds will require higher use rates. Please check the label regarding maximum weed size and susceptibility ratings. Some weeds may get too large to be adequately controlled.

To complete the spectrum against difficult species such as the *Umbelliferae*, growers should consider tank-mixing with a sulfonyl-urea herbicide such as Ally Max SX.

Where a residual herbicide has been applied, or you are targeting smaller weeds, Whorl at 0.375 L/ha will be sufficient. Complete the weed spectrum by tank-mixing with a Sulfonyl-urea or phenoxy herbicide, when required.

Spring Cereals

Use Whorl at a minimum of 0.375 L/ha for robust weed control of difficult spring weeds such as fumitory. Activity on Polygonum species may be boosted by tank-mixing with a sulfonyl-urea herbicide such as Harmony M SX.

Whorl may also be tank-mixed with ACCase graminicides for grassweed control.

For late season cleaver control only, the use rate of Whorl may be reduced to 0.25 L/ha.

Adjuvants

If applied alone, and growing conditions are hard and slow the addition of an adjuvant may be beneficial. If applied in tank-mix with products that have a good wetting system and under good growing conditions, then there is no need for additional adjuvant. Recommended adjuvants include non-ionic wetters and methylated seed oils.

More Information:

For product label, tank mix compatibility and more information on Whorl please see:

<https://www.corteva.co.uk/tools-and-advice/tank-mix.html>

Weed Spectrum

Weed	0.375 L/ha	0.5 L/ha
Black Bindweed*	S<10 cm	S<15 cm
Black Nightshade	-	S<4 lf
Burr Chervil	T	T
Charlock	T	T
Chickweed*	S< 25 cm	S<flowering
Cleavers	b4 flowering	b4 flowering
Clover	-	S<4 lf
Cranesbill*	S<5 cm	S<10 cm
Docks, Seedling	-	S<4 lf, up to 5 cm
Fat Hen	S<15 cm	S<25 cm
Forget-me-not	MS<10 cm	S<5 cm
Fool's Parsley	-	S<4 lf
Fumitory*	S<20 cm	b4 flowering
Groundsel	T	MS
Hemp-nettle	S< 10 cm	b4 flowering
Henbit Deadnettle	S<flowering	S<flowering
Knotgrass*	MS	MS
Marigold	MS	MS
Mayweed	T	T
Nettle, Small	S	S
Orache	MS	MS
Pale Persicaria*	MS	MS
Pennycress	S<10 cm	S<10 cm
Pansy	T	T
Poppy*	S<10 cm	S<10cm
Red Dead Nettle	S<18 cm	b4 flowering
Redshank*	S<3 lf	S<3 lf
Scarlet Pimpernel	MS	S<flowering
Shepherds Purse	S<10 cm	b4 flowering
Shepherds Needle	T	T
Speedwell, Common Field	T	S<4 lf, MS>4 lf
Speedwell, Ivy Leaved	MS<2 lf	S<4 lf, MS>4 lf
Spurrey	-	S<2 lf
Weed beet [#]	T	T
Wild carrot	MS<4 lf	S<4 lf
Wild Radish	T	T
Vol Beans	S<8 lf	b4 flowering
Vol Borage		S<2 lf
Vol Linseed		S<10 cm
Vol Oilseed Rape	T	T
Vol Peas	S<8 lf	b4 flowering
Vol Potatoes*	T	MS<20 cm

Key: **bold** – label weeds, S – susceptible, MS – moderately susceptible, T – tolerant, # – <50% control

Non-Label weeds listed as an indication of the effect that would be expected to be achieved based on limited data - these are not recommendations; just an indication of what effects might be achieved.