

Technical Information Sheet

Manhattan® is a post-emergent herbicide for use on winter cereals (wheat, rye, triticale and spelt) for the control of grass weeds and a wide range of broad-leaved weeds

Key facts

Product Registration Number:	MAPP No. 21091
Active Ingredient:	52.1 g/kg halauxifen-methyl, 37.5 g/kg florasulam, 187.5 g/kg pyroxsulam and 266g/kg cloquintocet acid (safener) (HRAC Group 4 & 2 Herbicides)
Pack Size:	500 g (treats 5 ha)
Formulation:	Water Dispersible Granule (WDG)
Crops:	Winter wheat, winter rye, winter triticale and winter spelt
Maximum Individual Dose:	100 g/ha & adjuvant
Maximum No. of Applications:	1 per crop
Application Timing:	Spring: GS12–32 (1 st Feb-1 st May)
Water Volumes:	150-400 l/ha. Higher volumes recommended when the crop is dense
Spray Quality:	Medium as defined by BCPC
Nozzles:	Standard and low drift nozzles
Buffer zones:	5 m reducible buffer zone
Rainfastness:	1 hour

Best use advice

- Apply Manhattan at 100 g/ha with a supported adjuvant (95% w/w oil, rapeseed fatty acid):
 - (Actirob B, Phase II, Intracrop Rigger, Spraymate, Super Rapeeze & Toil)
- Brome control is best achieved from GS11-GS24 (optimum being 1-3 leaves).
- Ryegrass and wild oat control is best achieved from GS11-GS29 (optimum being 1-3 leaves).
- Ensure Manhattan is applied during periods of active growth and do not apply to crops or weeds under stress.
- Manhattan can sometimes induce slight transient crop yellowing; this has no impact on yield.
- To avoid subsequent injury to crops (other than winter wheat, spelt, rye and triticale), immediately after spraying Manhattan all spraying equipment must be thoroughly cleaned both inside and out using a proprietary tank cleaner such as All Clear Extra spray cleaner at 0.5% v/v.

Key benefits

- Excellent broad-spectrum grass weed control, including brome, ryegrass, wild oats and loose silky-bent.
- Controls a range of difficult broad-leaved weeds, including cleavers, poppy, speedwells, mayweeds, chickweed, fumitory, cranesbill and umbellifer species e.g. bur chervil.
- Can be used in joint application with a wide range of ALS-inhibitor broad-leaved weed herbicide products.
- Physically compatible with a wide range of herbicides, insecticides and trace elements making it an excellent tank mix partner.
- Refer to <https://www.corteva.co.uk/tools-and-advice/tank-mix.html> for further information on compatibilities and ALS joint applications.

Following crops/Crop failure

- No following crop restrictions.
- In the event of crop failure, the following crops can be drilled after a minimum interval of 4 weeks: cereals, maize or sunflower. Cultivation to 10-15 cm is recommended before sowing following crops. It is important to consider all herbicides used on the treated field before deciding which new crop to sow.

Joint applications

Joint applications should only be made within the label recommendation of every product in the application.

Only one other product with an ALS inhibitor mode of action may be applied to a cereal crop with Manhattan.

Manhattan may be applied in joint application to the same cereal crop with one of the following ALS products:

Accurate	Concert SX	Flame	Leystar ¹	Provalia LQM	Spitfire ¹
Accurate Extra	Cleancrop Mondial	Gartrel ¹	Lorate	Quantum SX	Starane XL ¹
Alias SX	Cameo SX	GF-184 ¹	Mattera ¹	Racing TF	Sumir
Ally Max SX	Connex	Gropper SX	Mozaic SX	Ratio SX	Suprime
Ally SX	Counter SX	Harmony M SX	Nautius	Refine Max SX	Taxi
Answer SX	Dakota ¹	Harmony SX	Nevada ¹	Renitar ^{1,2}	Traton SX
Avro SX	Daytona	Hiatus	Nuance	Recurso Premium	Triad
Barton WG ¹	Dingo ¹	Hunter ¹	Omnera LQM	Savvy Premium	Upton
Biplay SX	DP911 SX	Inka SX	Paramount	Seduce	Zypar ¹
Boudha	Equator SX	Jubilee SX	Parana	Simba SX	
Boxer	Ergon	Laya	Pennant	Slalom ¹	
Calibre SX	Finish SX	Lector	Pinnacle	Snicket	
Chimera SX	Finy	Lens	Presite SX	Solstice	

¹ The maximum total dose of florasulam applied to the crop must not exceed 7.5 g. For autumn planted crops a maximum total dose of 3.75 g of florasulam, must be observed for applications made between crop emergence in the year of planting and 15th February in the year of harvest.

² The total amount of halauxifen-methyl applied to a winter cereal crop must not exceed 14.04 g/ha (13.5 g a.e/ha of halauxifen-methyl). For autumn sown crops the maximum total must not exceed 7.8 g/ha (7.5 g a.e/ha of halauxifen-methyl) between first leaf unfolded (GS11) and 31st December. For any applications involving halauxifen-methyl made between 1st January and flag leaf swollen (GS45), the maximum total dose of halauxifen-methyl applied must not exceed 6.24 g/ha (6 g a.e/ha). A minimum interval of 3 months between applications of products which contain halauxifen-methyl must be respected.

Weed spectrum

- Always use Manhattan in combination with an approved adjuvant

Weeds	100 g/ha + adjuvant	Weeds	100 g/ha + adjuvant	Weeds	100 g/ha + adjuvants
Brome spp.	S up to GS24	Fool's parsley	S up to 4TL	Redshank	S up to 4TL
Bindweed, black	MS up to 4TL	Fumitory	S up to B4 flowering	Ryegrass (seed)	S up to GS29
Black nightshade	S up to 4TL	Groundsel	S up to flowering	Shepherd's purse	S up to 6TL
Bur chervil	S up to 8TL	Hedge mustard	S up to 4TL	Shepherd's needle	S up to 8TL
Charlock	S up to 6TL	Hemp nettle	S up to 4TL	Speedwell (Common field)	S up to B4 flowering
Chickweed	S up to 10 cm	Knotgrass	S up to 2TL	Speedwell (Ivy-leaved)	S up to B4 flowering
Cleavers	S up to 15 cm	Loose silky bent	S up to GS29	Small nettle	S up to 4TL
Cranesbill	S up to 8TL	Mayweed	S up to 12 cm	Vol beans	S up to BFBV
Docks (seedling)	S up to 15 cm	Pale persicaria	S up to 4TL	Vol sugar beet	S up to 4TL
Fat hen	S up to 10 cm	Parsley piert	S up to 4TL	Wild oats	S up to GS29
Field pansy	S up to 4TL	Poppy	S up to 8TL (10 cm)	Wild radish (runch)	S up to 6TL
Forget-me-not	S up to 6TL	Red dead nettle	S up to full flowering (18 cm)	Willow Herb	S up to 6TL
	Susceptible		Moderately susceptible		

Key: Label weeds in bold, TL – True leaves, B4 – before flowering, BFBV – before flower buds visible.

Non-label weed information based on anecdotal or limited data and is only indicative and should not be considered as a recommendation for use on the part of Corteva Agriscience. The user assumes full responsibility for use on the weeds.