

➡ OPEN HERE

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops	Maximum individual dose (g product/ha)	Maximum number of treatments	Latest time of application
Winter wheat Winter rye Winter triticale Winter spelt	100	1	Before third node detectable stage (GS 32) or 1 st May, whichever comes first

Other specific restrictions:

To avoid the build-up of resistance do not apply this or any other product containing an ALS inhibitor herbicide with claims for control of grass weeds more than once to any crop.

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 any applications involving halauxifen-methyl made between 1st January and flag leaf swollen (GS 45) 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.

The total amount of florasulam applied to a cereal crop must not exceed 7.5 g.

This product must not be applied before 1st February.

Do not apply by hand-held equipment.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

MANHATTAN

UFI: 758A-20NP-Y00U-JNS5



Warning

May cause an allergic skin reaction • Causes serious eye irritation • Very toxic to aquatic life with long lasting effects • Avoid breathing dust. • Wear protective gloves / protective clothing / eye protection / face protection. • IF ON SKIN: Wash with plenty of water. • **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE / doctor. • If skin irritation or rash occurs: Get medical advice / attention. • Dispose of contents / container to a licensed hazardous-waste disposal contractor or collection site **except** for empty clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.



Manhattan[®]

HERBICIDE

* TM [®] Trademarks of Corteva Agriscience and its affiliated companies.

GROUP 2 | 4 HERBICIDES

Product Registration Number: MAPP No. 21091

A water dispersible granule (WG) formulation containing 52.1 g/kg of halauxifen-methyl, 37.5 g/kg of florasulam, 187.5 g/kg of pyroxsulam and 266 g/kg of cloquintocet acid (safener).

ArylexTM is the adopted trademark of halauxifen-methyl active substance.

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.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET
PROTECT FROM FROST**

Authorisation Holder:

Corteva Agriscience UK Limited

Unit H4, Building H, Melbourn Science Park,
Cambridge Road, Melbourn, SG8 6HB.

24 Hour Emergency Telephone Number: +44 (0) 161 884 1235

Technical Hotline number: 0800 689 8899, email: ukhotline@corteva.com
National Poisons Information Service: 111

SAFETY PRECAUTIONS

Operator protection:

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking, and after work.

AVOID EYE AND SKIN CONTACT.

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the product.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

Environmental protection:

DO NOT CONTAMINATE WATER with the product or its container. (Do not clean application equipment near surface water / Avoid contamination via drains from farmyards and roads.)

To protect aquatic organisms, respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal:

KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose.

Collect spillage.

This label is compliant with
the CPA Voluntary Initiative Guidance



297645 2511 - UNITED KINGDOM

50X20MM MINIMUM
NO TEXT NO COLOR ON THIS ZONE
(THIS SQUARE MUST BE DELETED BEFORE PRINTING)

NET CONTENTS : 500 G e

DIRECTIONS FOR USE

IMPORTANT: This information is authorised as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

RESTRICTIONS / WARNINGS

Spray preferably in calm weather with no wind or only if the wind speed is less than or equal to 3 on the Beaufort scale (i.e. a maximum of 19 km/hour) and temperature is not exceeding 25 °C in the shade.

Extreme care must be taken to avoid spray drift onto non crop-crop plants outside of the target area.

DO NOT treat crops under stress. Stress can be caused by many factors including frost, drought, water logging, trace element deficiency, disease and pest attack etc. MANHATTAN can sometimes induce slight and transient (2-3 weeks) crop yellowing. This has no impact on yield.

DO NOT apply to crops under sown with any legume crop (clover etc...) and crops under sown with grass.

MANHATTAN should be applied with any authorised 95 % w/w oil (rapeseed fatty acid esters) adjuvants for the control of meadow, sterile and rye brome, ryegrass, wild oats, common poppy and speedwells.

WEEDS CONTROLLED

MANHATTAN is a post-emergence systemic herbicide for the control of a range of annual grass and broad-leaved weed of winter cereals (wheat, rye, triticale & spelt only).

MANHATTAN applied at the recommended rate of 100 g pr/ha with any authorised 95 % w/w oil (rapeseed fatty acid esters) adjuvants at 1.0 L/ha or the recommended label rate offers the following level of control:

g pr/ha	Weed Species	Maximum growth stage	Susceptibility
100	Meadow brome	Apply to actively growing plants up to 4 tillers	S
100	Rye Brome	Apply to actively growing plants up to 4 tillers	S
100	Sterile Brome	Apply to actively growing plants up to 4 tillers	S
100	Wild Oats	Apply to actively growing plants up to end of tillering	S
100	Ryegrasses (from seed)	Apply to actively growing plants up to end of tillering	S
100	Common Poppy	10 cm diameter	S
100	Speedwells	Apply to actively growing plants up to 6 true leaves	S

Key: S= Susceptible

*Note MANHATTAN + adjuvant will only control ALS susceptible grass weed species

MANHATTAN applied at the recommended rate of 80-100 g pr/ha alone without an adjuvant offers the following level of control:

g pr/ha	Weed Species	Maximum growth stage	Susceptibility
100	Loose Silky-bent	Apply to actively growing plants up to end of tillering	S
80	Common chickweed	Apply to actively growing plants up to 100mm	S
80	Red Dead-nettle	Full flowering 5-18 cm height	S
80	Mayweeds	Apply to actively growing plants up to 8 true leaves	S

RESISTANCE MANAGEMENT

Product	Type	Active	HRAC code	Risk of resistance developing	Resistance action committee
MANHATTAN	Herbicide	florasulam	2	High	HRAC
	Herbicide	halauxifen-methyl	4	Low	HRAC
	Herbicide	pyroxsulam	2	High	HRAC

MANHATTAN contains three active ingredients: halauxifen-methyl, florasulam and pyroxsulam. Halauxifen-methyl is an arylpicolinate, and the risk of resistance developing to this active is considered to be low. Florasulam and pyroxsulam are triazolopyrimidine sulfonamides and as ALS inhibitors there is a risk of resistance building to these active ingredients and so precautions must be taken to minimise the risk.

ALWAYS monitor weed control effectiveness and investigate any odd patches of poor grass or broad-leaved weed control. If unexplained contact your agronomist who may consider a resistance test appropriate.

Resistance management for grass weeds species.

1. Do not apply this product to grass weed species with known or suspected resistance to the ALS herbicides
2. To avoid the build-up of resistance do not apply this or any other product containing an ALS inhibitor herbicide with claims for control of grass weeds more than once to any crop.
3. Good cultural techniques such as ploughing, delayed autumn drilling, use of higher seed rates and competitive cultivars, should be adopted. See local resistance guidelines.
4. Use mixtures of herbicides with different modes of action at full-recommended dose rates.
5. Apply herbicides at optimum timing and environmental conditions.

Strains of some annual grasses, e.g. wild oats and Italian rye-grass, have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the AHDB, CropLife UK, your distributor, crop adviser or product manufacturer. The presence of enhanced metabolism or target site resistant populations may lead to unacceptable levels of control.

Resistance management for broad leaved weed species.

1. Use recommended label rates to maximise control and minimise seed return
2. In areas where resistance to ALS herbicides has developed to the target species apply MANHATTAN in sequence or mixtures with herbicides with a non-ALS mode of action.
3. Apply herbicides at optimum timing and environmental conditions.

Use MANHATTAN as part of an Integrated Crop Management Strategy (ICM) strategy incorporating other methods of control, including where appropriate other herbicides with a different mode of action. For further advice on resistance management contact your agronomist or advisor and consult the WRAG-UK website.

CROP SPECIFIC INFORMATION

Crops

MANHATTAN may be used on all commercial varieties of winter wheat, winter rye, winter triticale and winter spelt between the growth stages given below.

Time of application

Apply MANHATTAN in the spring from 1st February. A maximum of 1 application can be made up to and including GS 32 (before third node detectable stage) or 1st May, whichever comes first. Best results will be achieved when target weeds are small and actively growing.

Rate of use

Apply 80-100 grams of MANHATTAN in 150 to 400 litres of water per hectare, using spray equipment to give good even coverage of the crop. The higher volumes are recommended when the crop is dense. Care should be taken not to overlap spray swaths. MANHATTAN should be applied with any authorised 95 % w/w oil (rapeseed fatty acid esters) adjuvants at the recommended label rate for the control of meadow, sterile and rye brome, ryegrass, wild oats, common poppy and speedwells.

Soil type

MANHATTAN can be used to all soil types.

Rainfastness

MANHATTAN is rainfast 60 minutes after application, providing good drying conditions.

JOINT APPLICATION

A joint application is the use of a product in tank mixture or sequence with another product.

IMPORTANT NOTE: Joint applications should only be made within the label recommendations of every product in the application.

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

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

Accurate	Lector
Accurate Extra	Lens
Alias SX	Leystar ¹
Ally Max SX	Lorate
Ally SX	Mattera ^{1,2}
Answer SX	Mozaic SX
Avro SX	Nautius
Barton WG ¹	Nevada ¹

Biplay SX	Nuance
Boudha	Omnera LQM
Boxer ¹	Paramount
Calibre SX	Parana
Chimera SX	Pennant
Concert SX	Pinnacle
Cleancrop Mondial	Presite SX
Cameo SX	Provalia LQM
Connex	Quantum SX
Counter SX	Racing TF
Dakota ¹	Ratio SX
Daytona	Refine Max SX
Dingo ¹	Renitar ^{1,2}
DP 911 SX	Ricorso Premium
Equator SX	Savvy Premium
Ergon	Seduce
Finish SX	Simba SX
Finy	Slalom ¹
Flame	Snicket
Galaxy ¹	Solstice
Gartrel ¹	Spitfire ¹
GF-184 ¹	Starane XL ¹
Gropper SX	Sumir
Harmony M SX	Suprime
Harmony SX	Taxi
Hiatus	Traton SX
Hunter ¹	Triad
Inka SX	Upton
Jubilee SX	Zypar ^{1,2}
Laya	

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 February 15th 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 (GS 11) and 31st December. For any applications involving halauxifen-methyl made between January 1st and flag leaf swollen (GS 45) 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.

Following a sequence of MANHATTAN and metsulfuron-methyl, treated ground should be ploughed to a depth of 15 cm before establishing winter oilseed rape.

Apart from these specific joint applications MANHATTAN must NOT be applied with any other product containing an ALS inhibitor and these sequences must only be used with a robust non- ALS inhibitor autumn herbicide programme. This is especially important where both products are applied in the spring.

FOLLOWING CROPS

After an application of MANHATTAN at 80-100 g pr/ha up to GS 32 there are no restrictions for sowing any succeeding crops.

Vigour reductions may be seen in following crops of oilseed rape and other brassicas after a dry summer.

Crop failure

In the event of a cereal crop failure after the crop has been treated with MANHATTAN, the following crops: cereals, maize or sunflower can be drilled after a minimum interval of 4 weeks. Cultivation to 10-15cm 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.

MIXING AND SPRAYING

Mixing

Half fill the spray tank with clean water and start the agitation. Pour in the required amount of product. Rinse any empty containers thoroughly and add rinsings to the spray tank. Add the remainder of the water and continue agitation until spraying is completed. Spray solution MUST be used on the day of mixing and must NOT be left overnight.

Application method

Apply MANHATTAN only with a boom sprayer. Use a spray pressure as low as possible and a boom height adapted to the nozzle type and the sprayed vegetation, while ensuring the good spray distribution. Use nozzles suitable for herbicide applications. Limited evidence suggests that nozzle type does not influence the efficacy of MANHATTAN and it can be applied using standard and low drift nozzles. Boom height should be adjusted to ensure even coverage of the crop, particularly at later growth stages. The correct height is one at which the spray from alternate nozzles meets just above the crop.

Spray quality

Apply MANHATTAN as a MEDIUM spray as defined by the BCPC system.

Tank cleaning

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 at 0.5 % v/v as follows:

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside of tank with clean water and flush through booms and in-line strainers using at least one tenth of the spray tank volume. Drain tank completely.
3. Half fill tank with clean water and add tank cleaner at the recommended rate. Agitate and then briefly flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Flush the boom and hoses and drain tank completely.

4. Nozzles and filters should be removed and cleaned separately with a tank cleaner at the recommended rate.
5. Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume. Drain tank completely.
6. For disposal of washings, follow Code of Practice for Using Plant Protection Products. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

1. **Note:** If it is not possible to drain the tank completely, step 3 must be repeated before going onto step 4.

COMPATIBILITY

When tank mixes are to be used, each product should be added separately to the spray tank, taking due note of any instructions given as to the order of mixing.

Products should only be tank-mixed if each product can be applied with the label recommendations for its use. For further information contact your local Corteva Agriscience distributor or Corteva technical hotline on +44 (0) 800 689 8899 or ukhotline@corteva.com.

When MANHATTAN is used with an adjuvant not all tank-mixture partners are compatible. Please contact Corteva Agriscience for further information on compatible tank-mixtures.

TRADEMARK ACKNOWLEDGEMENTS

MANHATTAN, Boxer, Dingo, Dakota, Galaxy, Gartrel, Hunter, Leystar, Mattera, Nevada, Renitar, Slalom, Spitfire, Starane and Zypar are trademarks of Corteva Agriscience and its affiliated companies.

All other brand names are trademarks of other manufacturers for which proprietary rights may exist.

COMPANY ADVISORY INFORMATION

This section is not part of the Product Label under the Plant Products Regulations 1995 and provides additional advice on product use at the discretion of Corteva Agriscience.

Corteva Agriscience CONDITIONS OF SUPPLY

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

For further information please contact Corteva Agriscience UK Limited

To access the Safety Data Sheet for this product scan the code, visit www.corteva.com/uk



<https://www.corteva.com/content/dam/dpagco/corteva/eu/gb/en/files/sds/Manhattan-SDS.pdf>

or alternatively contact your supplier

**THIS PAGE HAS BEEN LEFT
BLANK INTENTIONALLY**

**THIS PAGE HAS BEEN LEFT
BLANK INTENTIONALLY**

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops	Maximum individual dose (g product/ha)	Maximum number of treatments	Latest time of application
Winter wheat Winter rye Winter triticale Winter spelt	100	1	Before third node detectable stage (GS 32) or 1 st May, whichever comes first

Other specific restrictions:

To avoid the build-up of resistance do not apply this or any other product containing an ALS inhibitor herbicide with claims for control of grass weeds more than once to any crop.

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 any applications involving halauxifen-methyl made between 1st January and flag leaf swollen (GS 45) 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.

The total amount of florasulam applied to a cereal crop must not exceed 7.5 g.

This product must not be applied before 1st February.

Do not apply by hand-held equipment.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

MANHATTAN

UFI: 758A-20NP-Y00U-JNS5

**Warning**

May cause an allergic skin reaction • Causes serious eye irritation • Very toxic to aquatic life with long lasting effects • Avoid breathing dust. • Wear protective gloves / protective clothing / eye protection / face protection. • IF ON SKIN: Wash with plenty of water. • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE / doctor. • If skin irritation or rash occurs: Get medical advice / attention. • Dispose of contents / container to a licensed hazardous-waste disposal contractor or collection site **except** for empty clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

**Manhattan®****HERBICIDE**

* TM ® Trademarks of Corteva Agriscience and its affiliated companies.

GROUP 2 | 4 HERBICIDES**Product Registration Number: MAPP No. 21091**

A water dispersible granule (WG) formulation containing 52.1 g/kg of halauxifen-methyl, 37.5 g/kg of florasulam, 187.5 g/kg of pyroxsulam and 266 g/kg of cloquintocet acid (safener).

Arylex™ is the adopted trademark of halauxifen-methyl active substance.

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.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET
PROTECT FROM FROST**

Authorisation Holder:

Corteva Agriscience UK Limited
Unit H4, Building H, Melbourn Science Park,
Cambridge Road, Melbourn, SG8 6HB.

24 Hour Emergency Telephone Number: +44 (0) 161 884 1235

Technical Hotline number: 0800 689 8899, email: ukhotline@corteva.com
National Poisons Information Service: 111

SAFETY PRECAUTIONS**Operator protection:**

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking, and after work.

AVOID EYE AND SKIN CONTACT.

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the product.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

Environmental protection:

DO NOT CONTAMINATE WATER with the product or its container. (Do not clean application equipment near surface water / Avoid contamination via drains from farmyards and roads.)

To protect aquatic organisms, respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal:

KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose.

Collect spillage.

This label is compliant with
the CPA Voluntary Initiative Guidance



297645 2511 - UNITED KINGDOM

NET CONTENTS : 500 G e

SPECIMEN

NO PRINT – GLUE PAGE