

## SAFETY PRECAUTIONS

### Operator protection:

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 concentrate.

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

DO NOT BREATHE SPRAY.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin and eyes immediately.

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

### 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.

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

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

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres 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 HSE'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 OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

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.

This label is compliant with the CPA Voluntary Initiative Guidance.



 **CORTEVA**  
agriscience



# Starane<sup>®</sup> XL

## HERBICIDE

<sup>TM</sup> Trademarks of Corteva Agriscience and its affiliated companies.

GROUP 4 2 HERBICIDES

Product Registration Number: MAPP No.19775

A suspension emulsion formulation containing 2.5 g/litre florasulam and 100 g/litre fluroxypyr.

A post-emergence herbicide for use on all varieties of WINTER AND SPRING WHEAT, BARLEY AND OATS for the control of a 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**  
**SHAKE WELL BEFORE USE**

### Authorisation Holder:

**Corteva Agriscience UK Limited**

CPC2 Capital Park, Fulbourn, Cambridge, CB21 5XE

Telephone: (01462) 457272

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

For Technical Enquiries call: 0800 689 8899 or e-mail: [ukhotline@corteva.com](mailto:ukhotline@corteva.com)

National Poisons Information Service (UK): 111

**NET CONTENTS : 5 LITRES e**

STARANE<sup>®</sup> XL

UFI code : JTGO-Q0F3-900N-DC14

Contains 1,2-benzisothiazolin-3-one, Hydrocarbons, C9, aromatics.



### WARNING

**Causes skin irritation**

**May cause an allergic skin reaction**

**Causes serious eye irritation**

**May cause respiratory irritation**

**May cause drowsiness or dizziness**

**Very toxic to aquatic life with long lasting effects**

**Wear protective gloves / clothing / eye / face protection.**

**IF ON SKIN:** Wash with plenty of soap and water.

**IF INHALED:** Remove to fresh air and keep at rest in a position comfortable for breathing.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. DO NOT induce vomiting.

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.

### IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops	Maximum Individual Dose	Maximum Total Dose	Latest Time of Application
Winter wheat, winter barley	1.5 litres product per hectare	1.5 litres product per hectare per crop – See OSR1	Before flag leaf sheath opening stage (up to Zadoks 45 inclusive)
Winter oats	1.5 litres product per hectare	1.5 litres product per hectare per crop – See OSR1	Before second node detectable stage (up to Zadoks 31 inclusive)
Spring wheat, spring barley	1.5 litres product per hectare	1.5 litres product per hectare per crop	Before flag leaf sheath extended stage (up to Zadoks 39 inclusive)
Spring oats	1.5 litres product per hectare	1.5 litres product per hectare per crop	Before second node detectable stage (up to Zadoks 31 inclusive)

### Other Specific Restrictions:

- 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 1<sup>st</sup> in the year of harvest.
- The total amount of florasulam applied to a cereal crop must not exceed 7.5 g.
- This product must not be applied via 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.**

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## DIRECTIONS FOR USE

**IMPORTANT: This information is approved 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.**

### GENERAL INFORMATION

STARANE XL is mainly absorbed through the foliage of weeds. The ideal timing for application is when the weeds are small and actively growing.

### NOTES

Do not spray when crops are under stress from cold, drought, pest damage, nutrient deficiency etc.

Do not roll or harrow 7 days before or after application.

Take extreme care to avoid drift onto crops and non-target plants outside the target area.

### WEED SUSCEPTIBILITY AND MAXIMUM SIZE CONTROLLED

Weed	Size Controlled
Cleavers*	Flowering
Chickweed	Flowering
Mayweed species	200mm

\*Cleavers which germinate after application will not be controlled

### RESISTANCE

STARANE XL contains two active ingredients with different modes of action and therefore the risk of resistance building up is reduced. STARANE XL contains florasulam which acts by inhibition of acetolactate synthase (ALS) and is classified as a group 2-Herbicide by the Herbicide Resistance Action Committee (HRAC) and fluroxypyr-meptyl classified as a synthetic auxin and acts like indoleacetic acid within the plants. This is classified as HRAC group 4 (Synthetic Auxins).

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Repeated use of herbicides with the same mode of action can increase the risk of strains of weeds developing resistance to these compounds, leading to poor control. In order to minimise the risk, a strategy for preventing and managing such resistance should be adopted.

Growers are advised to apply products containing herbicides with different modes of action in sequence or tank mix where two or more components are active against the target weeds. Use herbicides in conjunction with effective cropping rotation and cultivation techniques e.g. stale seedbed, cultivation and use of non-selective herbicides prior to drilling.

Further guidance on weed resistance management is available from the Herbicide Resistance Action Committee (HRAC) and Weed Resistance Action Group (WRAG). Follow WRAG Guidelines.

Control of common poppy by STARANE XL is largely due to the florasulam component. Avoid using ALS inhibitors every year in the same field and use in mixtures or sequences with herbicides with a different mode of action which are effective against common poppy.

### CROPS

STARANE XL can be used on all varieties of winter and spring wheat, barley and oats.

### SOIL

STARANE XL may be used on all soil types.

### TIMING

#### Winter wheat, winter barley

STARANE XL should be applied from 3 leaves (Zadoks 13) up to before flag leaf sheath opening stage (Zadoks 45).

#### Spring wheat, spring barley

STARANE XL should be applied from 3 leaves (Zadoks 13) up to and including before flag leaf sheath extending stage (Zadoks 39).

#### Winter oats, spring oats

STARANE XL should be applied from 3 leaves (Zadoks 13) up to and including the before second node detectable stage (Zadoks 31).

### RATES OF USE

One application of up to 1.5 litres/ha in winter and spring cereals will control all susceptible emerged weeds. Applications to winter crops made between 1<sup>st</sup> September and 31<sup>st</sup> December can be made up to a maximum individual dose of 1.5 litres/ha. A split application may be applied up to a maximum total dose of 1.5 litres/ha where weed germination takes place over an extended period.

## APPLICATION

STARANE XL may be applied through tractor-mounted hydraulic sprayers providing they are in good working order and have been calibrated according to the manufacturer's recommendations. Do not apply through CDA applicators.

## WATER VOLUME

Apply STARANE XL in 80 to 250 litres of water per hectare. The efficacy and crop safety at water volumes of 80-100 l/ha have not been evaluated. The lower volume must only be used in open crops on small weeds.

## FOLLOWING CROPS

Crops that can be sown in the year of treatment with STARANE XL:

Cereals, oilseed rape<sup>1</sup>, field beans, vegetable brassicas as transplants, grass.

<sup>1</sup>Vigour reductions may be seen in following crops of oilseed rape after a dry summer. This will be outgrown and will not result in yield loss.

Crops that can be sown the calendar year following treatment with STARANE XL:

Cereals, oilseed rape, field beans, carrots, vegetable brassicas as transplants, grass, linseed, peas, sugar beet, potatoes, maize, clover (for use in grass/clover mixtures).

## 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 STARANE XL. A further application of STARANE XL or another product containing florasulam may also be made **providing the maximum total dose of florasulam is not exceeded**<sup>1</sup>.

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

Alias SX	Jubilee SX
Ally Max SX	Lorate
Answer SX	Iodosulfuron-methyl sodium + mesosulfuron-methyl (MAPP 18100, 16190, 16216, 18127)

Avocet	Diflufenican + iodosulfuron-methyl sodium + mesosulfuron-methyl (MAPP 16149, 17370, 17733)
Avro SX	Mozaic SX
Barton WG <sup>1</sup>	Nevada
Biplay SX	Palio
Boxer <sup>1</sup>	Parana
Broadway Star <sup>1</sup>	Pennant
Calibre SX	Pinnacle
Chimera SX	Presite SX
Concert SX	Quantum
Cleancrop Mondial	Quantum SX
Dakota <sup>1</sup>	Ratio SX
Finish SX	Refine Max SX
Galaxy <sup>1</sup>	Seduce
GF-184 <sup>1</sup>	Simba SX
Gropper SX	Slalom <sup>1</sup>
Harmony M SX	Spitfire <sup>1</sup>
Harmony SX	Starane XL <sup>1</sup>
Hatra	Taxi
Horus	Traton SX
Hunter <sup>1</sup>	Triad
Inka SX	

<sup>1</sup> 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 1<sup>st</sup> in the year of harvest.

Apart from these specific joint applications STARANE XL must NOT be applied with any other product containing an ALS-inhibitor, for example amidosulfuron.

## CROP FAILURE

In the event of a crop failure in the spring with STARANE XL, only the following crops may be planted: spring wheat, spring barley, spring oats, maize or ryegrass.

## MIXING

Half fill the spray tank with water and add the required amount of STARANE XL. Fill up the spray tank, agitating continuously to ensure thorough mixing, and maintain agitation until spraying is complete. Use only clean water for mixing.

## SPRAY QUALITY

Apply STARANE XL as a MEDIUM spray as defined by the BCPC system.

## TANK MIXTURES

Where tank mixes are used, and unless directed otherwise, the preferred order of addition of products to the spray tank is as follows: water dispersible granules, wettable powders, suspension concentrates (flowables), emulsifiable concentrates, solution concentrates. Each product should be added to the half-full sprayer and be fully dispersed before the addition of the next product.

## TANK CLEANING

To avoid subsequent injury to crops other than cereals, all spraying equipment must be thoroughly cleaned both inside and out, using All Clear Extra spray cleaner 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 hoses using at least one tenth of the spray tank volume. Drain tank completely.
3. Half fill tank with clean water and add All Clear Extra 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 All Clear Extra solution containing 50 ml of All Clear Extra per 10 litres of water.
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.

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

## COMPANY ADVISORY INFORMATION

The following information does not form part of the product label under the UK Plant Protection Products Regulations and provides additional advice on product use at the discretion of Corteva Agriscience.

## TRADEMARK ACKNOWLEDGEMENTS

STARANE, Barton, Broadway, Boxer, Galaxy, Hunter and Spitfire, are trademarks of Corteva Agriscience.

All other brand names used in this document are trademarks of other manufacturers in which proprietary rights may exist.

## 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.

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



<https://www.corteva.co.uk/content/dam/dpagco/corteva/eu/gb/en/files/sds/STARANE-XL-SDS.pdf>

Alternatively contact your supplier

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NET CONTENTS : 5 LITRES e