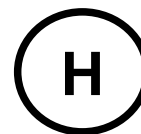


**(Label main area front panel)**



**RATIO® SX**  
**MAPP 12601**

A soluble granule formulation containing 400 g/kg thifensulfuron methyl and 100 g/kg tribenuron methyl, sulfonylureas, for spring weed control in wheat, barley and winter oats.

**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 gloves when handling the product

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

When using do not eat, drink or smoke

**ENVIRONMENTAL PROTECTION**



Do not contaminate water with the product or its container.

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

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. The statutory buffer zone must be maintained and the distance recorded in the LERAP record form. The results of the LERAP record form must be kept available for three years.

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

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyard and roads.

**STORAGE AND DISPOSAL**

Keep out of reach of children

Do not re-use container for any purpose and dispose of safely

Keep away from food, drink and animal feeding stuffs

Du Pont (UK) Limited, Crop Protection Products  
4thFloor, Kings Court, London Road, Stevenage,  
Herts. SG1 2NG  
Tel: 00 441438 734450 or enquiry.agproducts@dupont.com  
Emergency Tel: 0870 820 0418  
National Poisons service: telephone 111 (England and Wales) or 08454 24 24 24  
(Scotland)

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Contents: XXX grams  
Manufactured in the E.U.



This label is compliant with the CPA Voluntary Initiative Guidance

## **Risk and Safety Information**

### **RATIO® SX**

#### **Herbicide**

Containing 400 g/kg thifensulfuron methyl and 100 g/kg tribenuron methyl  
Contains Tribenuron methyl. May produce an allergic reaction

#### **WARNING**



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

Collect spillage.

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

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

**IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops:	wheat, barley and winter oats
Maximum individual dose:	100g product/ha
Maximum number of treatments:	1 per crop
Latest time of application:	Before the flag leaf ligule just visible (GS39)
Other Specific restrictions:	This product must only be applied from 1 <sup>st</sup> February in the year of harvest until the specified latest time of application. 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**

-----(*Start of label leaflet*)-----

## **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.**

### **Restrictions**

- RATIO SX should not be applied to any crop suffering from stress as a result of drought, waterlogging, low temperatures, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth.
- Do not use RATIO SX on cereal crops undersown with grasses, clover or other legumes or any other broad-leaved crop.
- Due to the high level of activity of the herbicide, special care must be taken to avoid damage by drift onto broad-leaved plants outside the target area, or onto ponds, waterways or ditches. Thorough cleansing of equipment is also very important - see below.
- Contract agents should be consulted before using on crops grown for seed.
- RATIO SX should not be applied within 7 days of rolling the crop.
- Do not apply RATIO SX more than once to any cereal crop.
- Do not tank mix on oats
- All requirements or restrictions on other product labels must be adhered to when applied to the same crop as RATIO SX. Contact your DuPont distributor for further information.
- Refer to 'Compatibility' for details on use of RATIO SX with other 'ALS inhibiting' herbicides

## Weed control

RATIO SX contains thifensulfuron-methyl and tribenuron-methyl, sulfonylurea (ALS inhibitor) herbicides which work mainly by contact action and is most effective if applied when the weeds are small and actively growing. Good spray cover of the weeds must be obtained for best results. Susceptible plants cease growth almost immediately after application and symptoms can be seen about two weeks after application. Weed control may be reduced when soil conditions are very dry. Rain within four hours of application may reduce the effectiveness of the product.

The susceptibility rating of weeds in the following table refer to good spray cover and good growing conditions.

Weed Species	Plants up to		
	2 expanded true leaves	6 expanded true leaves	15 cm across/ high
Charlock	S	S	S
Chickweed, Common	S	S	S
Cleavers	MS	MS	MR
Mayweed	S	S	S
Poppy, Common	S	S	S
Red Dead-nettle	S	MS	MS
Redshank	S	S	S
Shepherd's-purse	S	S	MS

S = Susceptible MS= Moderately Susceptible MR = Moderately Resistant

## Resistance

This product contains tribenuron-methyl and thifensulfuron-methyl, which are ALS inhibitors, also classified by the Herbicide Resistance Action Committee as 'Group B'. When herbicides with the same mode of action are used repeatedly over several years in the same field, selection of resistant biotypes can take place. These can propagate and may become dominating. A weed species is considered resistant to a herbicide if it survives a correctly applied treatment at the recommended dose. Development of resistance with a weed species can be avoided or delayed by alternating (or tank mixing) with suitable products having a different mode of action.

A strategy for preventing and managing resistance should be adopted. The Weed Resistance Action Group has produced guidelines and copies are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

## Crops

RATIO SX can be used on all varieties of winter wheat, spring wheat, winter barley, and spring barley, winter oats between the growth stages given below.

## Dose

Apply RATIO SX at 100g product/ha.

## Timing

RATIO SX must be applied in the spring after 1<sup>st</sup> February from the three-leaf stage (GS 13) up to and including the flag leaf ligule/collar just visible (GS 39).

Safety to crops of oats treated before four tillers (GS 24) has not been assessed.

## Following crops

Only cereals, oilseed rape, field beans or grass may be sown in the same calendar year as harvest of a cereal crop treated with RATIO SX. In case of crop failure for any reason, sow only cereals within three months of application of RATIO SX. Before sowing, soil should be ploughed and cultivated to a depth of at least 15-cm.

## Volume and application

BEFORE USING RATIO SX, SPRAYING EQUIPMENT MUST BE CLEAN AND FREE FROM CONTAMINATION WITH OTHER PESTICIDES.

Application should be made in 100-200 litres of water per hectare, using suitable ground equipment to give good spray cover of the weeds. Use a conventional field crop sprayer at a pressure of 2-3 bars and apply as a MEDIUM spray (as defined by BCPC). When crops are thick or weed growth is dense, use 400 litres of water per hectare. Care should be taken not to overlap spray swaths.

## Mixing

Quarter fill the spray tank with clean water, start the agitation and add the required quantity of RATIO SX directly to the tank without prior creaming. Continue agitation while topping up the tank and while spraying.

## Compatibility

To widen the spectrum of activity and improve the control of some weeds, RATIO SX may be applied with other herbicides, provided each product can be applied within the label recommendations for its use. Always add RATIO SX to the spray tank first when using in tank-mix and ensure it is fully dispersed before adding the partner product.

The following 'joint application' with other sulfonylurea and 'ALS inhibiting' herbicides may be applied to a crop. Requirements and restrictions on other product labels must be adhered to. 'Joint application' is the use of RATIO SX in tank mixture or sequence with one of the products listed below.

Absolute	Excalibur	Image	Slalom
Atlantis WG	Exceed SX	Lexus Class	Spitfire
Barton WG	Gala	Lexus SX	Spitfire Solo
Broadway Star	Galaxy	Octavian	Staka SX
Broadway Sunrise	GF-184	Oklar SX	Starane Gold
Boxer	GF-2070\$	Oriel 50 SX	Starane Vantage
Bullion	Hatra	Othello	Starane XL
Dakota	Hiker	Pacifica	Unite\$
Ductis SX	Horus	Primus 25 SC	
Eagle*	Hunter	Pursuit*	

\* only cereals as following crop

\$ use in sequence only

Additional recommendations may be approved since label printing. Please consult your

DuPont distributor for latest details on compatibilities.

## **SPRAY TANK CLEAN-OUT**

POOR CLEANOUT PRACTICES AND INSUFFICIENT WATER VOLUMES USED FOR THE RINSE PROCEDURE MAY RESULT IN INADEQUATE REMOVAL OF PRODUCT DEPOSITS. SUBSEQUENT USE OF APPLICATION EQUIPMENT IN THESE CIRCUMSTANCES MAY RESULT IN DAMAGE TO NON-CEREAL CROPS.

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN CEREALS, IMMEDIATELY AFTER SPRAYING RATIO SX THOROUGHLY CLEAN ALL SPRAY EQUIPMENT, INCLUDING INSIDE AND OUTSIDE OF LID, USING THE FOLLOWING PROCEDURE:

Always start with a clean tank and spray system. Clean spray equipment thoroughly immediately after use.

1. Thoroughly and completely rinse all interior tank surfaces (including lid) with water (use at least 10% of the tank capacity), taking care to remove any visible deposits. Flush pump, filters and boom after removing in-line strainers, nozzle tips and screens (clean these parts separately). Drain the remainder of the rinsate from the tank.
2. Repeat the rinse, flush and drain.
3. Dispose of washings safely. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

**Note:**

Consult label tank cleanup procedures for all tank mix partners and be sure to use the most rigorous procedure recommended.

## **WARNING**

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT OF SPRAY ONTO BROAD-LEAVED PLANTS OUTSIDE THE TARGET AREA OR ONTO PONDS, WATERWAYS OR DITCHES. SPRAYING EQUIPMENT SHOULD NOT BE DRAINED OR FLUSHED ONTO LAND PLANTED WITH OR INTENDED FOR PLANTING WITH TREES OR CROPS OTHER THAN CEREALS.

## **NOTICE TO BUYER**

All goods supplied by us are of a high grade and we believe them to be suitable for any purpose for which we expressly supply them, but as we cannot exercise control over their mixing or use, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use.

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*All manufacturers trademarks are duly acknowledged.*

<b>SAFETY DATA SHEET</b>
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[ insert QR code and wording]

To access the Safety Data Sheet for this product scan the code