



Horus[®]

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GROUP 2 HERBICIDE

A highly active herbicide (a combination of two sulfonyleurea herbicides) with foliar and some root activity against black-grass, wild oats, rye-grasses, meadow-grasses, common chickweed and mayweeds in winter wheat.

MAPP 16216

An oil dispersion formulation containing 10 g/L mesosulfuron-methyl and 2 g/L iodosulfuron-methyl-sodium

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

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contact Bayer CropScience Limited**
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**Invert pack
repeatedly and
shake before use!**

HORUS

UFI: GSN0-N0T3-R00S-WH30

An oil dispersion formulation containing 10 g/L mesosulfuron-methyl and 2 g/L iodosulfuron-methyl-sodium. Also contains mefenpyr-diethyl, solvent naphtha (petroleum), heavy aromatic, <1% naphthalene and solvent naphtha (petroleum), light aromatic.



Warning

Causes serious eye irritation.
Repeated exposure may cause skin dryness or cracking.

Very toxic to aquatic life with long lasting effects.

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

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.

Contains fatty alcohol ethoxylate alkyl ether.
May produce an allergic reaction.

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

IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops:	Winter wheat
Maximum individual dose:	1.2 L product/ha
Maximum number of treatments:	One per crop
Latest time of application:	Flag leaf ligule just visible (GS 39) of the crop

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.



horussds

To access the **Safety Data Sheet** for this product scan the code or use the link below:

www.cropscience.bayer.co.uk/horussds

or alternatively contact your supplier

PROTECT FROM FROST.

Bayer

SAFETY PRECAUTIONS

Operator Protection

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

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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) during application.

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.

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

Environmental Protection

Do not contaminate water with the product or its container.

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

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 waterbody, unless a Local Environmental 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 and broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years to any person

entitled to exercise enforcement powers under or in connection with the Food and Environment Protection Act (as amended). (An electronic record will satisfy the requirement for a written record, providing it is similarly available for inspection and can be copied).

Storage and Disposal

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

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

WASH OUT CONTAINER THOROUGHLY and dispose of safely.

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

DO NOT use Horus on crops undersown with grasses, clover or other legumes or any other broad-leaved crop.

Only one “ALS inhibiting” herbicide can be applied to the same crop in sequence or in tank mixture with Horus. Refer to the table under SEQUENCES & TANK MIXTURES for details.

Horus must not be applied to any crop suffering from stress as a result of drought, water-logging, pest or disease attack, nutrient deficiency, soil compaction or other factors reducing crop growth.

Because some non-target crops are sensitive to Horus, extreme care is required to avoid drift onto plants outside the target area, or onto ponds, waterways or ditches.

Do not apply Horus when rain is imminent.

Do not apply during periods of frosty weather.

Store in a safe dry place designated as an agrochemical store.

WEEDS CONTROLLED

This product contains mesosulfuron-methyl and iodosulfuron-methyl which are ALS inhibitors, also classified by the Herbicide Resistance Action Committee as ‘Group B’. Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of grass-weed control. Strains of some annual grasses (e.g. black-grass, wild-oats and Italian rye-grass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

Weed	Susceptibility
Black-grass (sensitive)	Post-emergence to GS 39
Black-grass (Resistant* – EMR)	Post-emergence to GS 29
Wild oats	Post-emergence to GS 29
Annual meadow-grass	Post-emergence to GS 31
Rough-stalked meadow grass	Post-emergence to GS 31
Perennial rye-grass (from seed)	Post-emergence to GS 31
Italian rye-grass	Post-emergence to GS 30

Weed	Susceptibility
Common chickweed	Post-emergence to GS 18 (8 expanded true leaves)
Mayweeds	Post-emergence to GS 18 (8 expanded true leaves)

* Situations where Enhanced Metabolism Resistance (EMR) has been confirmed as RR or RRR by a resistance test or where a significant reduction in performance of other herbicides has been noted previously.

Horus is readily translocated within the target weed, inhibiting growth within hours of application. The actual time taken for herbicidal symptoms to appear and death varies between weed species, timing of application and weather conditions. In some cases symptoms may not be apparent for up to 4 weeks. Optimum grass weed control will be obtained when all grass weeds are emerged at spraying. Weeds germinating after application will not be controlled.

Due to the potential for yield loss without prior signs of crop phytotoxicity, avoid use of Horus to control light infestations of grass weeds.

As Horus is active primarily via foliar uptake good spray coverage of the target weed is essential for optimal efficacy. For optimal activity, apply when weather conditions promote active weed growth. Horus controls emerged weeds on all soil types.

Horus has a moderate residual life in soil under normal conditions. As residual activity is important for optimal activity, avoid application under very dry conditions on to very dry soil. Residual efficacy will be enhanced where seedbeds are fine and moist. High soil temperatures and cloddy seedbeds may reduce the residual efficacy of Horus.

The presence of enhanced metabolism herbicide resistant populations of Italian rye-grass may lead to unacceptable levels of control. To reduce the risk of developing resistance or where resistance to sulfonyleurea herbicides is suspected, applications should be made to young, actively growing weeds.

Key aspects of the Horus resistance management strategy are:

- ALWAYS follow WRAG guidelines for preventing and managing herbicide resistant grass and broad-leaved weeds.
- DO NOT use Horus as a stand-alone treatment for black-grass, rye-grass or common chickweed. Use only in tank mixture or in sequence with herbicides with non-ALS modes of action.
- IDEALLY apply Horus as early as possible and before GS 31 of grass weeds.
- DO NOT use Horus as the sole means of grass weed or broad-leaved weed control in successive crops.
- ALWAYS use grass and broad-leaved weed herbicides with non-ALS modes of action throughout the cropping rotation.
- 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.

CROP SPECIFIC INFORMATION

Winter Wheat

Apply via a horizontal boom sprayer at a rate of 1.2 L/ha. Apply in 100-300 L/ha as a **FINE to MEDIUM** spray (BCPC category). Use application techniques which ensure good weed coverage and crop penetration, using flat fan nozzles. Ensure that spray swaths do not overlap. Always use Horus in mixture with authorised adjuvant Biopower (ADJ: 0617) at a rate of 1.0 L/ha.

Only one application of Horus should be made to the crop.

For use on all varieties of winter wheat. Apply from the 2 leaf stage (GS 12) of the crop up to flag leaf ligule just visible (GS 39).

SEQUENCES & TANK MIXTURES

Only one “ALS inhibiting” herbicide can be applied to the same crop in sequence or in tank mixture with Horus.

Horus may be applied to the same crop in sequence or in tank mixture with one of the following “ALS inhibiting” herbicides:

Alias SX	DP911 SX	Omnera LQM
Ally Max SX	Eagle	Presite SX
Answer SX	Finish SX	Provalia LQM
Avro SX	Galaxy	Quantum SX
Barton WG	Gartrel	Ratio SX
Biplay SX	GF-184	Refine Max SX
Boxer	Gropper SX	Sekator OD
Calibre SX	Harmony M SX	Simba SX
Chekker	Hunter	Slalom
Chimera SX	Inka SX	Spitfire
Cleancrop Mondial	Jubilee SX	Starane XL
Concert SX	Lorate	Traton SX
Dakota	Mozaic SX	

These sequences and tank mixtures must only be applied in accordance with label recommendations for every product in the sequence or tank mixture and only if used in conjunction with a robust non-ALS inhibitor autumn herbicide programme. This is particularly important where both components are applied in the spring. Aside from those listed above, do not use in sequence or tank mixture with any other ALS inhibitors, such as sulfonylureas, unless specifically permitted on the label for either product.

As part of the Herbicide Resistance Management Strategy for Horus, do not apply Chekker or Sekator OD in sequence with Horus for the control of common chickweed in order to avoid increased selection for herbicide resistant individuals.

FOLLOWING CROPS and CROP FAILURE

Only winter wheat, winter barley or winter oilseed rape may be sown in the year of harvest to succeed a winter wheat crop treated with Horus. Spring wheat, spring barley, spring oilseed rape and sugar beet may be drilled in the spring following harvest of the Horus treated winter wheat crop. Plough prior to planting crops of oilseed rape, otherwise crop damage may occur. In the event of crop failure for any reason, sow only winter wheat in the same cropping season as an application of Horus. Where Horus is applied in sequence or tank mixture with other permitted “ALS inhibiting” herbicides, always follow the most restrictive label with regard to following crops.

MIXING

Add the recommended quantity of Horus to the spray tank half-filled with the required quantity of clean water. Add the remainder of the water with the sprayer agitation system in operation. Maintain agitation during mixing and loading and until spraying is complete. Do not leave the sprayer standing with chemical in it.

To avoid subsequent damage to crops other than winter wheat it is important that the spray tank, boom, hoses, filters and nozzles are thoroughly washed out to remove all traces of Horus immediately after spraying using a proprietary sprayer cleaner (e.g. All Clear Extra[®]) according to the label instructions for that product.

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