

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hussar[®] OD

SELECTIVE HERBICIDE

Active Constituent: 100 g/L IODOSULFURON-METHYL SODIUM
Crop Safener: 300 g/L MEFENPYR-DIETHYL
Solvent: 364 g/L HYDROCARBON LIQUID

GROUP B HERBICIDE

For the post-emergent control of annual ryegrass, wild oats and annual phalaris in wheat and barley* and certain broadleaf weeds in wheat as specified in the DIRECTIONS FOR USE table (*refer to Critical Comments)

GENERAL INSTRUCTIONS

Hussar OD is a selective sulfonylurea herbicide. It is predominantly a foliar herbicide with less activity via the soil. Hussar OD will not reliably control weeds that emerge after spraying. Results are best under good growing conditions and application to weeds or crop under stress should be avoided.

Use of Surfactant / Wetting Agent

Wheat

It is recommended that Hussar OD be applied with the addition of BS1000 bio-degradable surfactant at 0.25% v/v, even when tank mixing with other products. The suitability of other non-ionic wetting agents or oil based adjuvants should be confirmed with Bayer CropScience prior to mixing with Hussar OD.

Barley

Damage to barley (including reduced growth and yield reductions) from Hussar OD is reduced if no additional adjuvant is added to the spray solution. Weed control however may be reduced if no additional adjuvant is used.

In situations where optimum weed control is required it is recommended that Hussar OD be applied with the addition of BS1000 bio-degradable surfactant at 0.25% v/v.

Where improved crop tolerance is required and some reduced reliability on control of weeds is accepted then do not add any additional adjuvant when applying Hussar OD.

The suitability of other non-ionic wetting agents or oil based adjuvants should be confirmed with Bayer CropScience prior to mixing with Hussar OD.

Crop Safety

General

Do not apply Hussar OD if a previous application of a Group B herbicide has been made to the current crop.

- Some crop yellowing and growth retardation may occur within 5 weeks after application. Growth retardation will be increased if the crop is affected by root disease, (e.g. cereal cyst nematode, rhizoctonia, take-all (haydie)), nutritional stress, waterlogging, drought stress, excessively cold conditions or previous herbicide treatment.
- Application to very dry sandy soils followed by soaking rainfall may cause significant crop effects.
- Crop damage will be increased in highly alkaline soils (soil pH > 8.5 as determined by soil in water suspension).
- Do not apply to crops not actively growing due to cold and wet conditions or drought stress.
- Do not overlap when spraying or double spray corners.

Wheat

• Wheat should be between the 3 leaf stage (Z13 growth stage), and the 5 tiller stage (Z25 growth stage) before application of Hussar OD.

Barley

Crop damage, ranging from transient to severe, should always be expected when applying Hussar OD to barley. DO NOT apply Hussar OD to barley unless no other weed control option is viable.

Crop damage in barley will generally be reduced if:

- Crop is past the early tillering stage at spraying (Z21 or greater)
- Warmer conditions prevail at the time of spraying
- Good growing conditions follow application, including adequate nutrition, control of foliar disease, minimal frosts and a cool finish to the growing season with adequate soil moisture.
- A wetting agent is not added to the spray solution (see **Surfactant/Wetting Agent** section for advice on use of wetters).

DO NOT apply Hussar OD to late sown barley crops, i.e. barley sown after the end of June.

Note: Crop effects in barley, including reduced growth can persist for the length of the season. In the absence of weed competition significant yield reductions (generally no greater than 30%) have been measured. The extent of damage from Hussar OD may vary between different varieties.

Crop Rotation Recommendations

Minimum re-cropping intervals apply for all crops following Hussar OD application.

The application of a Group B herbicide in the crop following Hussar OD use may result in increased crop effects.

Consult the manufacturer of Hussar OD for advice in these situations.

Rainfall of less than **250 mm** following Hussar OD use may result in extended re-cropping intervals for **winter crops sown the following season**. Patchy rain, with extended dry periods may also result in extended recropping intervals, even when rainfall exceeds 250 mm. If in doubt, seek specialist advice.

Rainfall of less than **500 mm** following Hussar OD use may result in extended re-cropping intervals for **summer crops sown in the following year**.

Use on soils with a pH greater than 8.5 (soil in water) has not been extensively tested and is not recommended.

For advice on crops not listed below, contact the manufacturer, Bayer CropScience Pty. Ltd.

CROP: Winter crops	MINIMUM RECROPPING INTERVAL
wheat	1 day
barley, canola, chickpeas, faba beans, lupins, oats, peas, triticale, vetch	9 months
lucerne, clover and subclover	9 months NOTE/COMMENTS: in higher pH soils and at lower limit rainfall some discolouration may occur.
lentils, medic	21 months
CROP: Summer crops	MINIMUM RECROPPING INTERVAL
cotton, mungbeans, sorghum, soybeans, sunflower	12 months

Resistant Weeds Warning

Hussar OD Selective Herbicide is a member of the sulfonylurea group of herbicides and has the inhibitor of acetolactate synthase (ALS) mode of action. For weed resistance management Hussar OD is a Group **B** herbicide. Some naturally-occurring weed biotypes resistant to Hussar OD, and other Group **B** herbicides, may exist through normal genetic variability in any weed population.

These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Hussar OD or other Group **B** herbicides.

Do not rely exclusively on Hussar OD for weed control. Use as part of an integrated weed management program involving herbicides with other modes of action and non-chemical methods of control. CropLife Australia resistance management strategies are available from your local agricultural chemical supplier. Refer to these strategies for details of how to manage the build up of resistant weeds on your farm.

Since occurrence of resistant weeds is difficult to detect prior to use Bayer CropScience Pty. Ltd. accepts no liability for any losses that may result from the failure of Hussar OD to control resistant weeds.

Mixing

Half fill the spray tank with water, then with agitators in motion, add the correct amount of Hussar OD directly into the spray tank. Add other relevant compatible herbicides, then wetting agent or crop oil as recommended. Complete filling the tank with agitators in motion. Agitation must continue before and during spraying.

Application

Ensure that complete and even spray coverage of all weeds is achieved.

Equipment

Ground Sprayers – Standard boom sprayers only are recommended and must be fitted with by-pass or mechanical agitation. It is recommended that a minimum of 50 to 80 L water/ha is used.

Please refer to specific **Restraints** relating to downwind no-spray zones. USE ONLY a medium spray droplet classification according to ASAE S572 definition for standard nozzles. Refer to the nozzle manufacturer's specification for information on the spray droplet classification associated with your spray nozzles.

Aircraft – Do not apply Hussar OD by aircraft.

Sprayer Clean Up

The sprayer must be thoroughly decontaminated before being used again to spray crops. Ensure that the following operation is carried out in an area that is clear of waterways, desirable vegetation and tree roots, and preferably in an area where drainings can be contained.

1. Drain sprayer completely and wash tank, boom and hoses with clean water.
2. Drain again.
3. Fill the tank with clean water and add 300 mL of chlorine bleach (containing 4% chlorine) per 100 L of water with agitation running.
4. Flush some bleach solution through the entire machine (including end hoses, by pass, filters, filler equipment etc) and allow remainder to agitate in tank for 10 minutes.

5. Remove nozzles and filters and leave to soak in a bleach solution of 500 mL per 10 L of water while tank cleaning is in progress.
Remove any fixed deposits with a soft brush.
Clean outside of nozzle bodies.
6. Briefly run the pump at periodic intervals to refresh chlorine solution in spray lines.
7. Drain tank and repeat the procedure of flushing with bleach solution.
8. Flush the tank, boom and hoses with clean water.

Compatibility

Wheat

Compatible products	Lontrel [®] , Starane [®]
Non-compatible products* *do not use in mixture with Hussar OD as decreased efficacy on weeds and/or adverse crop injury may occur	Mixing with zinc-based foliar fertilisers may result in loss of efficacy. Bromoxynil MCPA (e.g. Bromicide [®] MA, Bucril [®] MA), Tigrex [®] , Giant [®] , Igran [®] , other sulfonylurea herbicides, chlorpyrifos-based formulations
Contact Bayer CropScience for advice on use with Hussar OD	Insecticidal products other than chlorpyrifos, LVE MCPA

Barley

Do not mix Hussar OD with any other product, with the exception of BS1000, when applying to barley.

PRECAUTION

Re-entry Period

Do not allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic plants and certain algae. DO NOT contaminate streams, rivers or waterways with this product or used containers.

DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent areas, particularly wetlands, waterbodies or water courses.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

Undersown Clovers and Medics

DO NOT apply to crops undersown with legumes.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace caps and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. DO NOT burn empty containers or product. DO NOT re-use empty containers for any other purpose.

SAFETY DIRECTIONS

Will irritate the eyes. Avoid contact with eyes and skin. When opening the container, mixing and loading and preparing spray, wear cotton overalls, over normal clothing, buttoned to the neck and the wrist and a washable hat and elbow-length chemical resistant gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash gloves and face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre (telephone 13 11 26).

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which can be obtained from www.bayercropscience.com.au.

EXCLUSION OF LIABILITY

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

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APVMA Approval No.: 61992/0410

FOR 24 HOUR SPECIALIST ADVICE
IN EMERGENCY ONLY
PHONE 1800 033 111

DIRECTIONS FOR USE

Restrains

DO NOT use if rainfall or irrigation is to occur within 8 hours of application.

DO NOT apply to crops undersown with legumes.

DO NOT apply to wheat before the 3-leaf stage (Z13), or to barley before the 4-leaf stage (Z13, 21).

DO NOT apply to wheat or barley that is physically damaged (e.g. by hail, wind, insect attack).

DO NOT apply to wheat without surfactant/wetting agent. See '**Use of Surfactant/Wetting Agent**' under 'General Instructions'.

DO NOT apply to paddocks where there is a high risk of weeds resistant to Group B herbicides.

DO NOT make more than one application of a Group B herbicide per season.

Spray Drift Restraints

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

Mandatory No-spray Zones

DO NOT apply when there are non-target plants or aquatic or wetland areas including aquacultural ponds or surface streams and rivers within 15 metres downwind from the application area.

Note

Hussar OD is a sulfonylurea herbicide. Hussar OD will substantially reduce the growth of many weeds rather than give complete plant kill. Refer to the Critical Comments in the Directions for Use Table below, for directions on specific weeds.

CROP	WEED	STATE	WEED STAGE	RATE mL/ha	CRITICAL COMMENTS	
Grass Weeds						
Wheat ≥ 3 leaf (Z13) and ≤ 5 tillers (Z25)	Annual ryegrass (<i>Lolium rigidum</i>)	NSW, ACT, Vic, SA, WA only	1 to 3 leaf (Z11 to Z13)	75	Apply generally within 4 to 7 weeks after sowing, but only to wheat with at least 3 leaves (Z13) and not more than 5 tillers (Z25). Do not use for control of dense ryegrass populations (>300 plants/m ²). Do not use on weeds resistant to Group B herbicides.	
			Early tillering (Z13, 21 to Z13, 22)	100		
	Wild oats (<i>Avena</i> spp.)	All States	1 to 3 leaf (Z11 to Z13)	100		Apply generally within 4 to 7 weeks after sowing, but only to wheat with at least 3 leaves (Z13) and not more than 5 tillers (Z25). Do not use for control of dense wild oat populations (>150 plants/m ²).
				75		Suppression of wild oats. Will substantially reduce the growth of wild oats and their ability to compete with the crop and will reduce seed set of wild oats but may not give a significant reduction in plant numbers. Critical comments above for wild oat control (100 mL/ha rate) also apply.
	Annual phalaris, paradoxa grass (<i>Phalaris paradoxa</i> only)		1 to 3 leaf (Z11 to Z13)	100		Apply generally within 4 to 7 weeks after sowing, but only to wheat with at least 3 leaves (Z13) and not more than 5 tillers (Z25). Do not use for control of dense phalaris populations (>300 plants/m ²). Other phalaris species may not be adequately controlled with Hussar.
				75		Suppression of phalaris. Will substantially reduce the growth of phalaris and its ability to compete with the crop and will reduce seed set of phalaris but may not give a significant reduction in plant numbers. Critical comments above for phalaris control (100 mL/ha rate) also apply.

CROP	WEED	STATE	WEED STAGE	RATE mL/ha	CRITICAL COMMENTS
Broadleaf weeds					
WEEDS CONTROLLED					
Wheat ≥ 3 leaf (Z13) and ≤ 5 tillers (Z25)	Charlock (<i>Sinapis arvensis</i>)	All States	cotyledon to 8 leaf	75	Will not control weeds resistant to Group B herbicides.
	Clover (<i>Trifolium</i> spp.)		cotyledon to 6 leaf		-
	Deadnettle (<i>Lamium amplexicaule</i>)		cotyledon to 4 leaf		-
	Doublegee, spiny emex, three corner jack (<i>Emex australis</i>)		cotyledon to 4 leaf	100	-
	Fumitory, denseflower (<i>Fumaria densiflora</i>), Fumitory, wall (<i>Fumaria muralis</i>)		cotyledon to 4 leaf	75	Not all fumitory species are adequately controlled with Hussar. Ensure species identification is correct before applying Hussar.
	Indian hedge mustard (<i>Sisymbrium orientale</i>)		2 to 6 leaf		Will not control weeds resistant to Group B herbicides.
	Lupins (volunteer) (<i>Lupinus angustifolius</i>)		cotyledon to 4 leaf	-	Lupins that emerge after application will not be controlled.
	Medic (<i>Medicago</i> spp.)		cotyledon to 4 leaf		-
	Paterson's curse, Riverina bluebell, Salvation Jane (<i>Echium plantagineum</i>)		2 to 6 leaf	100	-
	Shepherd's purse (<i>Capsella bursa-pastoris</i>)		2 to 8 leaf	75	-
	Turnip weed (<i>Rapistrum rugosum</i>)		cotyledon to 6 leaf	100	Will not control weeds resistant to Group B herbicides.
	Wild radish (<i>Raphanus raphanistrum</i>)		cotyledon to 4 leaf		Heavy populations (>50 plants/m ²) or those suffering moisture stress may not be adequately controlled. A follow-up application of a suitable herbicide may be required to control remaining plants or plants that emerge after application. Will not control weeds resistant to Group B herbicides.
	Wire weed, hogweed (<i>Polygonum aviculare</i>), tree hogweed (<i>Polygonum patulum</i>)		cotyledon to 4 leaf	75	-
	Broadleaf weeds				
WEEDS SUPPRESSED					
Wheat ≥ 3 leaf (Z13) and ≤ 5 tillers (Z25)	Bedstraw (<i>Galium tricornutum</i>)	All States	cotyledon to 4 whorls	100	Suppression only.
	Black bindweed (<i>Fallopia convolvulus</i>)		2 to 6 leaf	75	Suppression only. Will not control weeds resistant to Group B herbicides.
	Peas (volunteer) (<i>Pisum sativum</i>)		3 to 4 node	-	Suppression only. Peas that emerge after application will not be controlled.
	Sheepweed, white ironweed, corn gromwell (<i>Buglossoides arvensis</i>)		cotyledon to 4 leaf		Suppression only.
	Sowthistle (<i>Sonchus oleraceus</i>)		2 to 4 leaf	100	Suppression only. Remaining plants will be stunted and chlorotic after treatment. Will not control weeds resistant to Group B herbicides.
	Stonecrop (<i>Crassula sieberana</i>)		2 to 4 leaf	75	Suppression only.
	Tares, wild vetch (<i>Vicia sativa</i>)		2 to 4 leaf		Suppression only.
	Toadrush (<i>Juncus bufonius</i>)		up to 2 leaf	-	Suppression only.

CROP	WEED	STATE	WEED STAGE	RATE mL/ha	CRITICAL COMMENTS
Grass weeds					
Barley* ≥ 4 leaf (Z13,21) and ≤ 5 tillers (Z25) (*refer to Critical Comments)	Annual ryegrass (<i>Lolium rigidum</i>)	NSW, ACT, Vic, SA, WA only	1 to 3 leaf (Z11 to Z13)	75	<p>General note for tolerance in barley: Barley has limited tolerance to Hussar OD and may be substantially damaged.</p> <p>DO NOT use Hussar OD on barley prior to reading the Crop Safety section of the label.</p> <p>Apply generally within 5 to 7 weeks after sowing, but only to barley with at least 4 leaves (Z13,21) and not more than 5 tillers (Z25). Do not use for control of dense ryegrass populations (>300 plants/m²). Do not use on weeds resistant to Group B herbicides.</p>
			Early tillering (Z13, 21 to Z13, 22)	100	
	Wild oats (<i>Avena</i> spp.)	All States	1 to 3 leaf (Z11 to Z13)	100	<p>See “General note for tolerance in barley” above and Crop Safety section of this label.</p> <p>Apply generally within 5 to 7 weeks after sowing, but only to barley with at least 4 leaves (Z13,21) and not more than 5 tillers (Z25). Do not use for control of dense wild oat populations (>150 plants/m²).</p>
				75	<p>Suppression of wild oats.</p> <p>See “General note for tolerance in barley” above and Crop Safety section of this label. Will substantially reduce the growth of wild oats and their ability to compete with the crop and will reduce seed set of wild oats but may not give a significant reduction in plant numbers.</p> <p>Critical comments above for wild oat control (100 mL/ha rate) also apply.</p>
	Annual phalaris, paradoxa grass (<i>Phalaris paradoxa</i> only)		1 to 3 leaf (Z11 to Z13)	100	<p>See “General note for tolerance in barley” above and Crop Safety section of this label.</p> <p>Apply generally within 5 to 7 weeks after sowing, but only to barley with at least 4 leaves (Z13,21) and not more than 5 tillers (Z25). Do not use for control of dense phalaris populations (>300 plants/m²). Other phalaris species may not be adequately controlled with Hussar.</p>
				75	<p>Suppression of phalaris.</p> <p>See “General note for tolerance in barley” above and Crop Safety section of this label. Will substantially reduce the growth of phalaris and its ability to compete with the crop and will reduce seed set of phalaris but may not give a significant reduction in plant numbers.</p> <p>Critical comments above for phalaris control (100 mL/ha rate) also apply.</p>

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIODS

Harvest NOT REQUIRED WHEN USED AS DIRECTED

Grazing/Stockfood DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION