



Company Name: CROP CULTURE PTY LTD
Product Name: MONACO HERBICIDE
APVMA Approval No: 68230/104946

Label Name:	MONACO HERBICIDE
Signal Headings:	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	750 g/kg SULFOSULFURON
Mode of Action:	GROUP B HERBICIDE
Statement of Claims:	Selective Herbicide for the Control of Certain Weeds in Wheat and Triticale
Net Contents:	500g to 2.5kg
Restraints:	DO NOT apply more than once per season. DO NOT apply to crops undersown with legumes. DO NOT spray when very dry conditions prevail. DO NOT use on furrow or flood irrigated crops. DO NOT apply to soils with pH over 8.5. Weed control may be reduced if rainfall occurs soon after application.
Directions for Use:	This section contains file attachment. File Name: Monaco Herbicide - DFU.docx File Size: 30427 bytes
Other Limitations:	
Withholding Periods:	NOT REQUIRED WHEN USED AS DIRECTED

Trade Advice:	
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General Instructions:	<p>This section contains file attachment.</p> <p>File Name: Monaco Herbicide - General Instructions.docx</p> <p>File Size: 32880 bytes</p>
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Resistance Warning:	<p>RESISTANCE WARNING GROUP B HERBICIDE</p> <p>Monaco Herbicide is a member of the sulfonyleurea group of herbicides and has the ALS Inhibitor mode of action. For weed resistance management, this product is a Group B herbicide. Some naturally occurring weed biotypes resistant to Monaco Herbicide and other Group B herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Monaco Herbicide or other Group B herbicides.</p> <p>To prevent or at least minimise the risk of resistant weeds occurring, use Monaco Herbicide tank mixes (if appropriate) and/or rotations with herbicides having different modes of action effective on the same weed species.</p> <p>DO NOT make more than 1 application of an ALS inhibitor herbicide to a crop, either pre-sowing incorporated by sowing or post crop and weed emergence. Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Culture Pty Ltd accepts no liability for any losses that may result from the failure of Monaco Herbicide to control the resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local farm chemical supplier, consultant, local Department of Agriculture, Primary Industries Department or a Crop Culture representative.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply or drain or flush equipment on, or near desirable trees or other plants, where their roots may extend or in situations where by movement of soil, or seepage, absorption of the herbicide may occur. 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. Dangerous to plants, including aquatic plants.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate dams, streams, rivers or waterways with the chemical, or used containers.</p>
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Storage and Disposal:	<p>Keep out of reach of children.</p> <p>Store in closed, original containers in a cool, well-ventilated area, away from fertilisers, pesticides and seeds. DO NOT store for prolonged periods in direct sunlight. DO NOT re-use containers.</p> <p>Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.</p> <p>If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.</p>
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Safety Directions:	Will irritate eyes. Avoid contact with eyes. DO NOT inhale dust. Wash hands after use.
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First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.
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First Aid Warnings:	
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DIRECTIONS FOR USE**PRE-EMERGENT APPLICATION**

Crops	Weeds Controlled / Supressed	Rate/ha	Critical Comments
Wheat Triticale (VIC, NSW, WA, SA, TAS only)	Barley grass*, Brome grass*, Wild turnip	25 g	Apply to bare soil prior to sowing or at sowing and incorporate by the sowing operation. Application should not be made to ridged or excessively cloddy soil. In conservation tillage situations where weeds and grasses have emerged apply as a tank mixture with the recommended rate of glyphosate prior to sowing.
	Weeds as above plus the control of Wild oats	25 g plus 1.6 L of tri-allate (500 g/L)	For best results follow the tri-allate (500 g/L) label directions for incorporation.
	Weeds as above plus Annual Ryegrass, Canary grass, Fumitory, Wireweed (Hogweed)	25 g plus 800 mL trifluralin (480 g/L)	For best results follow the trifluralin label directions for incorporation.

* Suppression only

POST-EMERGENT APPLICATION

Apply to wheat and triticale from early crop emergence to the 5 leaf/early tillering growth stage (Z11-15, 22).

Use of surfactant/wetting agent - Post emergent

Always add a paraffinic based oil (i.e. Bonza®) at 1 - 2 L / 100 L (1 - 2% volume/volume) of final spray volume.

Crops	Weeds Controlled / Supressed	Stage of Weed Growth	Rate / ha	Critical Comments
Wheat Triticale (VIC, NSW, WA, SA, TAS only)	Amsinkia, Wild mustard* (<i>Sinapsis arvensis</i>)	Apply at the cotyledon to 4 leaf stage	25 g	Optimum results will be obtained if good soil moisture exists at and after application. A follow up spray with a different herbicide may be necessary to control subsequent germinations.
	Barley grass*, Silvergrass (<i>Vulpia bromoides</i>), Wild oats*	Apply at the 1 to 4 leaf stage (Z11-14)	25 g	
	Brome grass* (<i>Bromus diandrus</i> & <i>B. rigidus</i>)	Apply at the 1 to 3 leaf stage. (Z11-13)	pH more than 7.0 - 20 g	When treating dense infestations of Silvergrass use water volumes of at least 70 L/ha and small droplets to improve coverage.
			pH less than 7.0 – 25 g	
	Volunteer canola (except canola tolerant to Group B herbicides), Wild radish, Wild turnip	Apply at the cotyledon to 4 leaf stage	20 g	Monaco Herbicide will provide good control of volunteer field peas. However a small proportion of plants may survive and require a follow up spray with a different herbicide to eliminate the potential for grain contamination.
Volunteer field peas	Apply at the 1 - 3 leaf stage	20 g		

* Suppression only

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

GENERAL INSTRUCTIONS

Monaco Herbicide is a selective herbicide absorbed by foliage and roots. It is rapidly translocated and acts by inhibiting acetolactate synthase (ALS), an enzyme necessary for root and shoot growth in sensitive plants. Monaco Herbicide is a water dispersible granular herbicide for use in wheat and triticale. It can be used as a pre-plant, incorporated by sowing, for the control of Wild turnip, and suppression of Barley grass and Brome grass, or as a post-emergent for the control of Silvergrass, Wild radish and Wild turnip, and suppression of Barley grass, Brome grass, Wild mustard (*Sinapsis arvensis*) and Wild oats.

Pre-emergent: Apply to bare soil prior to sowing or at sowing and incorporate by the sowing operation to give thorough mixing. If applied to dry soil and sowing is to be delayed, incorporate immediately after spraying to prevent loss by wind erosion.

For best results apply to moist soil when follow up rain is likely to occur within 7 - 10 days. Weeds may emerge and will become stunted and uncompetitive soon after application although final results may not show for some weeks.

Post-emergent: Weeds should be young and actively growing. Use the higher rate under heavy weed pressure and for larger weeds. A follow up spray with a suitable herbicide may be necessary to control subsequent germinations. Best weed control is obtained when rainfall wets the soil to a depth of 5 to 7.5 cm within 7 - 10 days of application. Weeds will become stunted and uncompetitive soon after application although final results may not show for some weeks.

When treatment is delayed or where weeds are not actively growing due to adverse conditions, for example, dry, water-logged, frosty or diseased conditions, nutrient deficiency, high insect pressure or previous herbicide treatment, reduced levels of control may result.

Monaco Herbicide will remain in the soil for a period of time. The persistence of Monaco Herbicide in the soil is dependent on various environmental conditions e.g. soil pH, soil moisture, soil temperature and organic matter. Crops other than wheat and triticale can be very sensitive to low soil concentrations of Monaco Herbicide, thus, prior to using the product, careful consideration should be given to crop rotation plans (see Crop Safety and Crop Rotation Guidelines).

CROP ROTATION GUIDELINES

Where Monaco Herbicide is applied at the rate of 20 to 25 g/ha: Wheat and triticale can be planted the following season without restrictions. For other specified crops, the Monaco Herbicide treated area may be replanted after the interval indicated in the table below. These recommendations are made on the assumption that Monaco Herbicide is applied to a wheat or triticale crop that reaches maturity in season of application.

Plant back period: Vic, NSW, WA, SA, Tas only

Soil pH (1:5 soil: water suspension method)	Replant Interval	Minimum rainfall ¹	Crop
6.5 or less	10 months	300 mm	Canola, Chickpeas, Lentils, Lupins, Oats, Peas, Sub-clover*
	12 months	300 mm	Barley, Faba beans
6.5 to 8.5	10 months	300 mm	Cereal rye
	22 months	600 mm	Barley, Canola, Chickpeas, Faba beans, Lentils, Medic*, Oats, Peas, Vetch

¹ Minimum rainfall required between Monaco Herbicide application and the sowing of the plantback crop.

* Includes natural regeneration of sub-clover and medics.

Do not apply to soils with a pH (water) >8.5.

For all other crops refer to Crop Culture Pty Ltd for further advice.

MIXING

Monaco Herbicide is a water dispersible granular herbicide, which mixes readily with water and is applied as a spray.

1. Partly fill the spray tank with water.
2. Start the agitation.
3. Add the correct amount of product to the spray tank with the agitation system running.
4. Continue agitation while topping up the tank with water and while spraying.
5. In tank mixes Monaco Herbicide must be in suspension before adding the companion product or paraffinic oil.
6. Use the spray mix within 24 hours of preparation.

APPLICATION

Apply by boom spray producing a FINE to MEDIUM spray quality. Ensure good spray coverage is obtained. Apply using 40 to 100 litres of water per hectare. Avoid overlapping of boom runs. Use higher water volumes where crop or weed density is high. DO NOT apply by aircraft.

SPRAYER CLEANUP

Where the sprayer is being used to spray wheat or triticale crops, rinse the sprayer thoroughly with water. Where the sprayer is being used to spray crops other than wheat or triticale:

1. Drain tank and rinse tank and spray boom with clean water for at least 10 minutes.
2. Fill the tank with clean water and add to it 300 mL of household chlorine bleach (containing 4% chlorine) per 100 L of water. Rinse hoses and boom and leave in tank for 15 minutes whilst agitating.
3. Drain through nozzle.
4. Repeat step 2 and then rinse thoroughly with clean water to remove all traces of chlorine bleach.
5. Nozzles and filters should be cleaned separately.
6. Dispose of all water used for cleaning.

Caution: DO NOT use chlorine bleach with ammonia. All traces of liquid fertilizer containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odour which can cause eye, nose and lung irritation. DO NOT clean equipment in an enclosed area.

COMPATIBILITY

Read and follow all label directions, restraints, plant back and withholding periods and safety directions for all tank-mix products. In tank mixes Monaco Herbicide must be in suspension before adding the companion product or surfactant.

Pre emergent: Monaco Herbicide is compatible with tri-allate (500 g/L), glyphosate (both liquid and water dispersible granule formulations), diquat (250 g/L), paraquat & diquat, trifluralin (480 g/L).

Post emergent: For treatment of Brome grass, Wild oats, Wild mustard (*Sinapsis arvensis*), Wild radish and Wild turnip; Monaco Herbicide is compatible as a 2 way mixture with clopyralid (300 g/L) up to 300 mL/ha or clopyralid (750 g/kg) up to 120 g/ha, MCPA LVE up to 350 mL/ha and diflufenican & MCPA (i.e. Tigrex®) up to 750 mL/ha. Always add paraffinic oil at 1 - 2 L / 100 L (1 - 2% volume/volume) of final spray volume. Monaco Herbicide may also be mixed with DC Trate® at 2 L / 100 L (2% volume/volume) of final spray volume. Some increased temporary crop yellowing may occur when Monaco Herbicide is tank mixed with diflufenican & MCPA (i.e. Tigrex®).

Incompatible: The following herbicides and insecticides are incompatible with Monaco Herbicide: tralkoxydim, dicamba, diclofop-methyl, terbutryn, omethoate and dimethoate.

CROP SAFETY

DO NOT use on winter cereals undersown with legume pasture crops e.g. medics, clovers, and lucerne. DO NOT use on barley or oats. Monaco Herbicide is effective on a range of plants, even at low rates of application. Since many rotational crops are sensitive, growers will need to consider the soil carry-over effects on subsequent crops. Below average rainfall, high levels of applied Monaco Herbicide (greater than the recommended rates), pH greater than 6.5 and low soil temperatures and low rainfall all increase the carry-over risk. Where Monaco Herbicide is used on soil types with pH greater than 8 (1:5 soil: water suspension method) and less than 300 mm of rainfall has occurred since application, further advice should be sought from Crop Culture regarding crop rotation, except for wheat and triticale.

Note: Some crop yellowing or crop retardation may occur where a stress factor such as waterlogging, Rhizoctonia, take all, cereal cyst nematode, nutrient deficiency or trace element deficiency is already present. Early season crop retardation may occur where the product is used on soils with a pH greater than 8 and which are prone to zinc deficiency.

See Crop Rotation Guidelines for further information.