

# POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**FMC**

# Haloxypop

## 520 HERBICIDE

ACTIVE CONSTITUENT: 520 g/L HALOXYFOP  
present as the haloxypop-R-methyl ester

**GROUP A HERBICIDE**



For the post-emergent control of a wide range of annual and perennial grass weeds in grain legume and oilseed crops, lucerne, medic and clover pasture and seed crops, forestry, bananas, citrus, grapes, pineapples, pome and stone fruit, pyrethrum, tropical fruit and nut crops as specified in the DIRECTIONS FOR USE table.

IMPORTANT: READ THIS LEAFLET BEFORE USE

**FMC**

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## DIRECTIONS FOR USE

### RESTRAINTS:

**DO NOT** apply to weeds which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (waterlogged or drought affected), poor nutrition or previous herbicide treatment as reduced levels of control may result.

**DO NOT** spray if rain is likely to occur within one hour.

**Table 1a. Winter crops – Canola, Chickpeas, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Lucerne, Vetch, Medic and Clover pastures or seed crops**

Weeds Controlled	Weed Growth Stage	Rate (mL/ha)		Critical Comments
		With Uptake 1 Spraying Oil	With non-ionic wetter 2	
				<sup>1,2</sup> See <b>GENERAL INSTRUCTIONS</b> , Spraying oils/wetters section.
Annual Ryegrass	2 to 4 leaf	75	100	<b>FIELD PEAS AND CANOLA:</b> The only oil recommended for use with FMC Haloxypop 520 is Uptake* Spraying Oil. FMC Haloxypop 520 + Lontrel 750 SG + Uptake* Spraying Oil are compatible and selective to canola. This tank-mix is also compatible with atrazine and selective to triazine tolerant canola.
	early tillering	100	100	
Barley Grass Brome grass Paradoxa grass Volunteer cereals	2 to 4 leaf	50	75	<b>LUPINS AND FIELD PEAS:</b> Mixtures with Brodal or simazine may cause crop yellowing and separate applications are recommended.  <b>CHICKPEAS, FABA BEANS, LENTILS AND VETCH, LINOLA, LINSEED:</b> Broadleaf herbicides should not be added to FMC Haloxypop 520. Apply FMC Haloxypop 520 and broadleaf herbicides at least a week apart.
	early tillering	75	100	
Wild Oats WA, SA, Vic, Tas, southern & central NSW	2 to 4 leaf	37.5	50	<b>LUCERNE, CLOVER OR MEDIC PASTURES:</b> If grazed or cut for hay immediately prior to treatment delay application until all grasses have fully expanded leaves. Use 75 mL + spraying oil or 100 mL + wetter/ha. (See <b>GENERAL INSTRUCTIONS</b> , Spraying Oils/wetters section). If silver grass ( <i>Vulpia</i> spp.) is present in pasture, simazine should be tank mixed with the higher rate of FMC Haloxypop 520 plus a non-ionic wetter.
	early tillering	50	75	
Wild Oats northern NSW & Qld	2 to 4 leaf	50	75	
	early tillering	75	100	

**Table 1b. Winter crop growth stage application windows**

Crop	Crop Growth Stage
Lucerne, Medic and Clover pastures or seed crops.	Apply from 2 <sup>nd</sup> trifoliate leaf onwards. For <i>Erodium</i> spp spraying, apply from cotyledon crop stage onwards.
Canola	Apply from 2 <sup>nd</sup> leaf and prior to bud formation and stem elongation.
Linola, Linseed	Apply from 5cm to flowering.
Chickpeas, Faba beans, Field peas, Lentils, Lupins, Vetch	Apply from 2 <sup>nd</sup> leaf, 2 <sup>nd</sup> node or 2 <sup>nd</sup> branch prior to flowering.

**Table 2a. Lucerne, Medic and Clover seed crops and pastures. See table 1b for crop stages.**

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake 1 Spraying Oil	Critical Comments
Prairie grass ( <i>Bromus catharticus</i> )	Up to early tillering	100	<sup>1</sup> See <b>GENERAL INSTRUCTIONS</b> , Spraying oils/wetters section.
Musky or ferny leaf Storksbill: ( <i>Erodium moschatum</i> ) Common Crowsfoot or Common Storksbill ( <i>Erodium cicutarium</i> )	Up to 6 leaf or 5cm diameter	50 – 75 3	<sup>3</sup> Use lower when growing conditions and crop or pastures competition are good and when weed populations are below 100 plants/m <sup>2</sup> . Use the higher rate when weed population re above 100 plants/m <sup>2</sup> or when crop or pasture competition is poor.  <b>NOTE:</b> Storksbill may not be controlled if simazine or Broadstrike are tank-mixed with FMC Haloxypop 520 Herbicide.
Long or shiny leaf Storksbill ( <i>E. botrys</i> )	Up to 8 leaf or 5cm diameter	75 - 100	<b>LUCERNE, CLOVER OR MEDIC PASTURES</b> If grazed or cut for hay immediately prior to treatment delay application until all grasses have fully expanded leaves. Use 75mL + spraying oil or 100mL + wetter/ ha. (See <b>GENERAL INSTRUCTIONS</b> , Spraying oils/wetter section). If Silver grass ( <i>Vulpia</i> spp.) is presented in pasture, simazine should be tank mixed with the higher rate of FMC Haloxypop 520 Herbicide plus a no-ionic wetter.

**Table 2b. Lucerne, Medic and Clover seed crops only – not to be used for stockfeed. See table 1b for crop stages**

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake 1 Spraying Oil	Critical Comments
Couch grass (suppression), Rhodes grass (control)	Tillering seedlings	150 + 150 <sup>4</sup>	<sup>4</sup> For best suppression of couch or control of Rhodes grass, make 2 applications of FMC Haloxyfop 520 Herbicide 2-4 weeks apart. Time second application to coincide with tillering stage of weeds and just after irrigation or significant rain. Only treat actively growing weeds, which are not moisture stressed. Use these rates for control of couch and Rhodes grass.
Couch grass (control), Rhodes grass (control)	Established stands	400 – 800	

**Table 3a. Summer Crops – Cotton, Cowpea, Lucerne, Mung bean, Navy beans, Peanuts, Soybeans, Sunflowers**

Weeds Controlled	Weed Growth Stage	Rate (mL/ha) with Uptake 1 Spraying Oil	Critical Comments
Australian millet	2 leaf to tillering up to 15cm	150	<sup>1</sup> See <b>GENERAL INSTRUCTIONS</b> , Spraying oils/wetters section.
Barnyard grass	2 to 5 leaf tillering up to 15cm	100	
Crowsfoot grass Green Panic grass Johnson grass (Rhizome)	2 leaf to tillering up to 15cm	150	<b>NAVY BEAN, PEANUTS, SOYBEANS</b> For broadleaf weed control, FMC Haloxyfop 520 Herbicide at 150ml/ha plus wetter may be tank mixed with Blazer® (except on Navy beans) or Basagran. Tank mixes may cause transient leaf spotting on the crop but do not normally affect yield.
Johnson grass (seedling) Liverseed grass (seedling) Mossman River grass	2 to 5 leaf tillering up to 15cm	100 150	
Summer grass	2 leaf to tillering up to 15cm	150	<b>DO NOT</b> add Uptake Spraying Oil with Blazer or Basagran.
Volunteer cereals	2 to 4 leaf tillering up to 15cm	100 150	<b>DO NOT</b> use Blazer or Basagran tank-mixes on Cowpeas.

**Table 3b. Summer crop growth stage application windows**

Crop	Crop Growth Stage
Lucerne	Apply from 2 <sup>nd</sup> trifoliolate leaf onwards
Cowpea, Mung beans, Navy beans, Soybeans	Apply from 2 <sup>nd</sup> leaf to flowering
Peanuts	Apply from 5cm to pegging
Cotton	Apply from 2 <sup>nd</sup> leaf to before the onset of flowering
Sunflowers	Apply from 2 <sup>nd</sup> leaf to head initiation

**Table 4. Annual and Perennial grasses and *Erodium spp.* In Orchard, Vine, and Plantation crops, Forestry and Pyrethrum**

Crop	Crop Growth Stage	Weeds Controlled	Weed Stage	Rate (mL/ha) with Uptake 1 Spraying Oil	Critical Comments
Orchard, Vine and plantation  Crops including: Apples, Avocado, Banana, Blueberry, Citrus, Custard apple, Feijoa, Grapevines, Guava, Kiwifruit, Litchi (Lychee), Longan, Mango, Nashi, Nut trees, Passionfruit, Paw paw, Pear, Persimmon, Pineapple, Rambutan, Stone Fruit	All growth stages	Perennial grasses, Couch, Rhodes grass, Slender Rats Tail grass	Established stands	400 - 800	<sup>1</sup> See <b>GENERAL INSTRUCTIONS</b> , Spraying oils/wetters section.
		Buffel grass, Green panic, Johnson grass, Kikuyu, Paspalum spp, Setaria spp	Vegetative to early tillering	200	Spray should be directed to the base of the tree or vine avoiding contact with frit and foliage.
			Late tillering	400	
		<b>Annual grasses;</b> Annual ryegrass, Barley grass, Barnyard grass, Brome grass, Crowsfoot grass, Lesser Canary grass, Liverseed grass, Mossman river grass, Paradoxa grass, Summer grass, Volunteer cereals, Wild Oats	2 leaf to tillering	200	<b>Spot spray:</b> Use 25mL to 50mL/100L of water. Use higher rate on late tillering mature grasses.
<b>Forestry:</b> <i>Pinus radiata</i> , <i>Eucalyptus spp.</i>	Annual grasses as above	Vegetative to tillering	125 - 250	<b>Annual Grasses:</b> Where treated in association with perennial grasses, these annual grasses will be controlled	
<b>Forestry:</b> <i>Pinus pineaster</i>					
<b>Pyrethrum</b>		Barley grass, Brome grass, rope Twitch, barnyard grass, <i>Erodium spp.</i> , Volunteer cereals	Vegetative to tillering	100 - 250	<b>Pyrethrum (Tasmania only)</b> For <i>Erodium spp</i> apply 75-100 mL/ha if the main weed is <i>E. botrys</i> . Use 50-75 mL/ha if either <i>E. cicutarium</i> or <i>E. moschatum</i> are the main weeds.

**Table 5. FMC Haloxypop 520 Herbicide and Select Herbicide tank mixes – Canola, Chickpeas, Faba beans, Field peas, Lupins, Lentils**

Weeds Controlled	Weed Growth Stage	Rate (mL/ha)		Critical Comments
		FMC Haloxypop	Select Herbicide	
FOP/DIM susceptible Annual ryegrass + Volunteer barley, Volunteer wheat, Brome grass, Wild Oats, Barley grass, Phalaris	2 to 4 leaf	25	150	<sup>1</sup> See <b>GENERAL INSTRUCTIONS</b> , <b>Spraying oils/wetters section</b> . Use Uptake Spraying Oil at 500mL/100L or Hasten at 1L/100L.
	Early tillering	38	150	
FOP resistant Annual ryegrass + Volunteer barley, Volunteer wheat, Brome grass, Wild Oats, Barley grass, Phalaris	2 to 4 leaf	25	200	Apply at the same crop growth stages as those in Table 1b Winter Crops. <b>Lentils:</b> Apply up to 7 node-early branching crop growth stage. <b>Lupins:</b> Not for Qld.
	Early tillering	38	250	

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

**HARVESTING WITHHOLDING PERIODS**

**NOT REQUIRED WHEN USED AS DIRECTED FOR:**

Canola, Chickpeas, Cotton, Cowpea, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Mung beans, Navy beans, Peanuts, Soybeans, Sunflowers and Vetch

**DO NOT HARVEST FOR:**

Medic and Clover seed crops

**7 DAYS AFTER APPLICATION**

## **STOCK FOOD WITHHOLDING PERIODS**

### **DO NOT GRAZE OR CUT FOR STOCK FOR:**

Canola, Chickpeas, Cotton, Cowpea, Faba beans, Field peas, Lentils, Linola, Linseed, Lupins, Mung beans, Navy beans, Peanuts, Soybeans, Sunflowers and Vetch

**28 DAYS AFTER APPLICATION**

Lucerne

**21 DAYS AFTER APPLICATION**

Medic and Clover pasture

**7 DAYS AFTER APPLICATION**

## **COTTON GIN TRASH MUST NOT BE FED TO ANIMALS**

### **GENERAL INSTRUCTIONS**

#### **MIXING**

- Add water to the spray tank to 10cm above the level of agitation and ensure the agitation device is working vigorously (There must be a minimum of 100L of water in the tank before any pesticide is added).
- If tank mixing, firstly add any soluble liquid formulations (e.g. Lontrel Herbicide) and allow agitation for approximately 1 minute
- Then add FMC Haloxyfop 520 Herbicide at the pot where the agitation is the strongest (do not add FMC Haloxyfop 520 Herbicide through a strainer or sieve). Allow further agitation for 1 minute.
- Half fill spray tank.
- If using wettable powder or water dispersible granules, or other emulsifiable concentration formulations (e.g. Lorsban 750 WG or Le-Mat), these should be added after the FMC Haloxyfop 520 Herbicide to the half full spray tank to ensure vigorous agitation.
- Finally add Uptake Spraying Oil or approved alternate spraying oil/wetter (see section on spraying oils/wetters) and continue filling the tank to the required volume maintaining agitation at all times
- Only mix sufficient solution for immediate use. FMC Haloxyfop 520 Herbicide and any other tank mixes should be applied immediately for best results.

## **Spraying Oils/Wetters**

\* **Spraying Oils:** It is essential to add an adjuvant to FMC Haloxyfop 520 Herbicide. Best results will be achieved with Uptake Spraying Oil at 0.5L/100L of spray solution. Alternatively, other oils plus non-ionic wetter may be used. When other crop spraying oils are used, mix at 1.0L/100L and add a non-ionic wetter (surfactant) at 200mL/100L of spray solution. Use of an oil is not always recommended. See Critical Comments for specific situation recommendations.

† **Non-Ionic Wetters:** When Uptake or other oils are not used, a 100% concentrate non-ionic wetting agent such as BS-1000 at 200mL/100L must be used along with the higher rate of FMC Haloxyfop 520 Herbicide as specified in the Directions for Use.

Where water volumes of less 50L/ha are used, DO NOT use less than 250mL/ha of Uptake or 500mL/ha for oils other than Uptake or less than 100mL of wetter.

## **CANOLA, LUCERNE, MEDIC AND CLOVER PASTURES AND SEED CROPS**

When tank mixing FMC Haloxyfop 520 Herbicide with Lontrel herbicides (canola only) or Broadstrike (lucerne, clover and medics), use Uptake Spraying Oil with lower rates of FMC Haloxyfop 520 Herbicide or a wetting agent with the higher rates of FMC Haloxyfop 520 Herbicide unless otherwise specified. When mixing FMC Haloxyfop 520 Herbicide with other broadleaf herbicides on these crops, DO NOT use an oil use a wetter instead.

## **FIELD PEAS AND CANOLA**

The oil recommended is Uptake Spraying Oil. Hasten is also recommended for use with tank-mixtures of FMC Haloxyfop 520 Herbicide and Select Herbicide.

For canola, FMC Haloxyfop 520 Herbicide + Lontrel 750SG + Uptake Spraying Oil are compatible and selective to canola. This tank-mixture is also compatible with atrazine or simazine and selective to triazine tolerant canola.

## **NAVY BEANS, PEANUTS AND SOYBEANS**

When mixing with Blazer or Basagran DO NOT add spraying oil to these mixtures. DO NOT use these tank-mixtures on cowpea.

## COMPATIBILITY - Ground Use Only

**Insecticides:** dimethoate, endosulfan, Lorsban 500EC Insecticide, Lorsban 750WG Insecticide, omethoate

**Herbicides:** atrazine, Basagran, Blazer, Broadstrike Herbicide, Lontrel Herbicide, Lontrel 750SG, MCPA Ester (LVE) – (Do not exceed 700mL/ha of MCPA LVE), oryzalin, Select Herbicide, simazine, Starane 200 Herbicide

**Fungicides:** Dithane DF, Dithane Rainshield Fungicide

**Trace elements:** magnesium sulphate, zinc sulphate

FMC Haloxyfop 520 Herbicide is not compatible with 2,4-D or MPA as sodium or amine salts.

## Aerial Use

No product other than a recommended crop oil or wetter should be mixed with FMC Haloxyfop 520 Herbicide when applied by air except for the addition of Lontrel Forestry Herbicide for use in forestry and Lontrel 750SG for use in canola only.

## APPLICATION

Apply FMC Haloxyfop 520 Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft delivering droplets with a VMD of 200-300 microns.

The following spray volumes are recommended;

**Ground Application:** 50-150 L/ha

**Aerial application:** 30 L/ha minimum

Use higher water volumes in orchards and in dense crops where the weeds may be shielded by the crop canopy.

## CLEANING SPRAY EQUIPMENT

### Before using FMC Haloxyfop 520 Herbicide

If broadleaf herbicides, particularly sulfonylureas, have been used in the spray equipment at any time prior to the use of FMC Haloxyfop 520 Herbicide. Particular care should be taken to follow the directions on the relevant broadleaf herbicide label for equipment cleaning, or damage to susceptible crops may occur.

## After using FMC Haloxyfop 520 Herbicide

Empty the tank and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean filters in the tank, pump line and nozzles.

**To rinse:** After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines hoses and nozzles. Drain and repeat the rinsing procedure twice.

**To decontaminate:** Before spraying cereals, maize, sorghum or other sensitive crops, wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (e.g. SURF, Cold Water SURF Concentrate, DynamoMatic Concentrate, OMO or Drive) at 500mL/100L of water or the powder equivalent at 500g/100L of water, and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean separately. Finally flush the system with clean water and allow to drain. Chlorine based cleaners are not recommended.

Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.

## RESISTANT WEEDS WARNING

<b>GROUP</b>	<b>A</b>	<b>HERBICIDE</b>
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FMC Haloxyfop 520 Herbicide is a member of the cyclohexanedione group of herbicides. FMC Haloxyfop 520 Herbicide has the inhibition of acetyl CoA carboxylase mode of action. For weed resistance management, FMC Haloxyfop 520 Herbicide is a Group A herbicide. Some naturally occurring weed biotypes resistant to FMC Haloxyfop 520 Herbicide and other Group A 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 FMC Haloxyfop 520 Herbicide or other Group A herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, FMC Crop Protection Pty Ltd accepts no liability for any losses that may result from the failure of FMC Haloxyfop 520 Herbicide to control resistant weeds.

## PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

FMC Haloxyfop 520 Herbicide damages cereals and grasses.

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

Cereal crops or grasses planted within twelve weeks of application may be damaged by the residual effects of FMC Haloxyfop 520 Herbicide, particularly on light and red soils.

## PROTECTION OF LIVESTOCK

DO NOT graze or cut treated crops for stock food except as specified under withholding periods.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

FMC Haloxyfop 520 Herbicide is toxic to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

## STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Do not store near feedstuffs, fertilisers or seeds.

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.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SMALL SPILL MANAGEMENT

Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. When absorption is complete, sweep up material and contain in a refuse vessel for disposal (see STORAGE AND DISPOSAL section). If necessary wash the spill area with an alkali detergent and water and absorb this wash liquid for disposal as directed above.

## SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves and face shield or goggles and contaminated clothing. Wash hands after use.

## FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## MSDS

Additional information is listed in the Material Safety Data Sheet, which is available from the supplier.

## WARRANTY

FMC Crop Protection Pty Ltd makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

APVMA Approval No. 67928/57106

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In a Transport Emergency Dial <b>000</b> Police or Fire Brigade	SPECIALIST ADVICE IN EMERGENCY ONLY <b>1800 033 111</b> ALL HOURS – AUSTRALIA WIDE
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