

POISON

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



HALOXYFOP 520

Herbicide

ACTIVE CONSTITUENT: 520 g/L HALOXYFOP
present as the haloxyfop-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.

IMPORTANT: READ THIS LEAFLET BEFORE USE

4 FARMERS AUSTRALIA PTY LTD
A.B.N. 51 160 092 428

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Batch Number: Date of Manufacture:
APVMA Approval No: 61558/0714

GENERAL INSTRUCTIONS

RESISTANT WEEDS WARNING

GROUP A HERBICIDE

4Farmers Haloxyfop 520 Herbicide is a member of the aryloxyphenoxy propionate ("fop") group of herbicides. The product has the inhibition of fat (lipid) synthesis (or inhibitors of acetyl CoA carboxylase) mode of action. For weed resistance management this product is a Group A herbicide. Some naturally occurring weed biotypes resistant to the product 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 this product or other Group A herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, 4Farmers Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or Primary Industries, or a 4Farmers representative for details.

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. Clopyralid) and allow agitation for approximately one minute.
- Then add 4Farmers Haloxyfop 520 Herbicide at the point where agitation is strongest. (Do not add 4Farmers Haloxyfop 520 Herbicide through a strainer or sieve). Allow further agitation for one minute.
- Half fill the spray tank.
- If using wettable powder or water dispersible granules, or other emulsifiable concentration formulations (e.g. Chlorpyrifos or LE-MAT®), these should be added after the 4Farmers Haloxyfop 520 Herbicide to the half full spray tank ensuring 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. 4Farmers 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 4Farmers Haloxyfop 520 Herbicide. Best results will be achieved with Uptake Spraying Oil at 0.5L/100L of spray solution. Alternatively, other oils plus a non-ionic wetter may also be used. When other crop spraying oils are used, mix at 1L/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 at 200mL/100L must be used along with the higher rate of 4Farmers Haloxyfop 520 Herbicide as specified in the Directions For Use.

Where water volumes of less than 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/ha of wetter.

Canola, lucerne, medic and clover pastures and seed crops:

When tank mixing 4Farmers Haloxyfop 520 Herbicide with clopyralid (canola only) or Broadstrike™ (lucerne, clover and medics), use Uptake Spraying Oil with the lower rates of 4Farmers Haloxyfop 520 or a wetting agent with the higher rates of 4Farmers Haloxyfop 520 Herbicide unless otherwise specified. When mixing 4Farmers 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 4Farmers Haloxyfop 520 Herbicide and Select Herbicide™.

For canola, 4Farmers Haloxyfop 520 Herbicide + clopyralid 750 SG + 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, Soybeans:

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

Continued Overleaf

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™ Spraying Oil	* with a non-ionic wetter	
Annual ryegrass	2 to 4 leaf	75	100	CANOLA, LINOLA AND LINSEED DO NOT apply after the 8th leaf stage of the crop. DO NOT apply after the commencement of stem elongation. This means that application must not occur after the 8 leaf stage, or if stem elongation commences before the 8 leaf stage, application must not occur after stem elongation has commenced. DO NOT apply more than 1 application of herbicide containing haloxyfop per crop. DO NOT apply after grazing.
	Early Tillering	100	100	
Barley grass Brome grass	2 to 4 leaf	50	75	* See GENERAL INSTRUCTIONS, Spraying oils/wetters section.
	Early Tillering	75	100	
Paradoxa grass Volunteer cereals	2 to 4 leaf	37.5	50	FIELD PEAS AND CANOLA: The only oil recommended for use with 4Farmers Haloxyfop 520 is Uptake™ Spraying Oil*. 4Farmers Haloxyfop 520 + Clopyralid 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. LUPINS AND FIELD PEAS: Mixtures with Diflufenican 500 Selective herbicide or simazine may cause crop yellowing and separate applications are recommended.
	Early Tillering	50	75	
Wild oats WA, SA, Vic, Tas, Southern and Central NSW	2 to 4 leaf	50	75	CHICKPEAS, FABA BEANS, LENTILS AND VETCH, LINOLA, LINSEED: Broadleaf herbicides should not be added to 4Farmers Haloxyfop 520. Apply 4Farmers Haloxyfop 520 and broadleaf herbicides at least a week apart. LUCERNE, CLOVER OR MEDIC PASTURES: 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 GENERAL INSTRUCTIONS, 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 4Farmers Haloxyfop 520 Herbicide plus a non-ionic wetter.
	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 2nd trifoliate leaf onwards. For <i>Erodium</i> spp. spraying, apply from cotyledon crop stage onwards.
Canola, Linola and Linseed	Apply from 2nd leaf to 8 leaf stage of crop growth. DO NOT apply after the commencement of stem elongation. This means that application must not occur after the 8 leaf stage, or if stem elongation commences before the 8 leaf stage, application must not occur after stem elongation has commenced.
Chickpeas, Faba beans, Field peas, Lentils, Lupins, Vetch	Apply from 2nd leaf, 2nd node or 2nd branch to 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™ Spraying Oil	CRITICAL COMMENTS
Prairie grass (<i>Bromus catharticus</i>)	Up to early tillering	100	* See GENERAL INSTRUCTIONS, 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 5 cm diameter	50–75	Use lower rate when growing conditions and crop or pasture competition are good and when weed populations are below 100 plants/m ² . Use the higher rate when weed populations are above 100 plants/m ² or when crop or pasture competition is poor. NOTE: Storksbill may not be controlled if simazine or Broadstrike* are tank-mixed with 4Farmers Haloxyfop 520.
Long or shiny leaf storksbill (<i>E. botrys</i>)	Up to 8 leaf or 5 cm diameter	75–100	LUCERNE, CLOVER OR MEDIC PASTURES: 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 GENERAL INSTRUCTIONS, 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 4Farmers Haloxyfop 520 plus a non-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™ Spraying Oil	CRITICAL COMMENTS
Couch grass (suppression), Rhodes grass (control)	Tillering seedlings	150 + 150	For best suppression of couch or control of Rhodes grass, make 2 applications of 4Farmers Haloxyfop 520 2–4 weeks apart. Time second application to coincide with tillering stage of weeds and just after irrigation or significant rain.
Couch grass (control) Rhodes grass (control)	Established stands	400–800	Only treat actively growing weeds which are not moisture stressed. Use these rates for control of couch and Rhodes grass

TABLE 3a. Summer crops – Cotton, Cowpea, Lucerne, Mung bean, Navy beans, Peanuts, Soybeans, Sunflowers.

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake™ Spraying Oil	CRITICAL COMMENTS
Australian millet	2 leaf to tillering up to 15 cm	150	See GENERAL INSTRUCTIONS, Spraying oils/wetters section.
Barnyard grass	2 to 5 leaf	100	
		Tillering up to 15 cm	150
Crowsfoot grass Green panic Johnson grass (rhizome)	2 leaf to tillering up to 15 cm	150	
Johnson grass (seedling) Liverseed grass (seedling) Mossman river grass	2 to 5 leaf Tillering and up to 15 cm	100 150	Tank mixtures may cause transient leaf spotting on the crop but do not normally affect yield.
Summer grass	2 leaf to tillering up to 15 cm	150	DO NOT tank mix broadleaf herbicides with 4Farmers Haloxyfop 520 if grasses have begun tillering or if the grasses are under moisture stress. DO NOT add Uptake™ Spraying Oil when mixing with Blazer™ or Basagran™. DO NOT use Blazer™ or Basagran™ tank-mixes on cowpea.
Volunteer cereals	2 to 4 leaf	100	
	Tillering up to 15 cm	150	

TABLE 3b. Summer crop growth stage application windows

Crop	Crop Growth Stage
Lucerne	Apply from 2nd trifoliate leaf onwards
Cowpea, Mung beans, Navy beans, Soybeans	Apply from 2nd leaf to flowering
Peanuts	Apply from 2nd leaf to pegging
Cotton	Apply from 2nd leaf to before the onset of flowering
Sunflowers	Apply from 2nd leaf to head initiation

COMPATIBILITY

Ground use only: 4Farmers Haloxyfop 520 Herbicide can be tank mixed with:

Insecticides: dimethoate
chlorpyrifos 500 EC Insecticide
chlorpyrifos 750 WG Insecticide
omethoate

Herbicides: atrazine
Basagran™
Blazer™
Broadstrike™ Herbicide
clopyralid Herbicide
MCPA ester (LVE)
– **DO NOT exceed 700mL/ha of MCPA LVE**
Oryzalin
clethodim
simazine
fluroxypyr

Fungicides: mancozeb

Trace elements: magnesium sulphate
zinc sulphate

4Farmers Haloxyfop 520 Herbicide is **NOT COMPATIBLE** with 2,4-D or MCPA as sodium or amine salts.

Aerial use: No product other than a recommended crop oil or wetter should be mixed with 4Farmers Haloxyfop 520 Herbicide when applied by air except for addition of clopyralid for use in forestry and clopyralid 750 SG for use in canola only.

APPLICATION

Apply 4Farmers 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 50–150L/ha

Aerial application 30L/ha minimum

CLEANING SPRAY EQUIPMENT

If broadleaf herbicides, particularly sulfonyleureas, have been used in the spray equipment at any time prior to 4Farmers 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 4Farmers Haloxyfop 520 Herbicide, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any 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®, OMO® or DRIVE®) at 0.5L/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 them 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.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

4Farmers 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 plants/crops, cropping lands or pastures.

Cereal crops or grasses planted within twelve weeks of application may be damaged by the residual effects of 4Farmers 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

Toxic to fish.

DO NOT contaminate streams, rivers or waterways with the chemical or used container.

STORAGE AND DISPOSAL

Store in the closed original container in a 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 500mm 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). If necessary wash the spill area with an alkali detergent and water and absorb this wash liquid for disposal as described above.

SAFETY DIRECTIONS

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

SAFETY DATA SHEET

For further information please refer to the Safety Data Sheet. For a copy visit our website at www.4farmers.com.au

CONDITIONS OF SALE

The use of 4Farmers Haloxyfop 520 Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by 4Farmers Australia Pty Ltd regarding its suitability, fitness or efficacy for any purpose for which it is used by the buyer, whether in accordance with the directions or not and 4Farmers Australia Pty Ltd accepts no responsibility for any consequences whatsoever resulting from the use of this product.

TABLE 4. Annual and Perennial grasses and *Erodium* spp. in Orchard, Vine and Plantation crops, forestry, and pyrethrum.

CROPS	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE (mL/ha) with Uptake™ 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	See GENERAL INSTRUCTIONS, Spraying oils/wetters section. Spray should be directed to the base of the tree or vine avoiding contact with fruit and foliage. Spot spray: Use 25 mL to 50 mL/100 L of water. Use higher rate on late tillering mature grasses.
			Vegetative to early tillering	200	
		Buffel grass Green panic Johnson grass Kikuyu <i>Paspalum</i> spp <i>Setaria</i> spp	Late tillering	400	
Forestry: Eucalyptus spp.		Annual grasses: Annual ryegrass Barley grass Barnyard grass Brome grass Crowfoot grass Lesser canary grass Liverseed grass Mossman river grass Paradoxa grass Summer grass Volunteer cereals Wild oats	2 leaf to tillering	200	Annual Grasses: Where treated in association with perennial grasses, these annual grasses will be controlled.
			Annual grasses as above	Vegetative to tillering	
Pyrethrum		Barley grass Brome grass Rope twitch Barnyard grass <i>Erodium</i> spp. Volunteer cereals	Vegetative to tillering	100–250	Pyrethrum Tasmania only: For <i>Erodium</i> spp 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. 4Farmers Haloxyfop 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
		4Farmers Haloxyfop 520 Herbicide	Select Herbicide	
FOP/DIM susceptible Annual ryegrass + Volunteer barley Volunteer wheat Brome grass Wild oats Barley grass Phalaris	2 to 4 leaf	25	150	See GENERAL INSTRUCTIONS, Spraying oils/wetters section. Use Uptake Spraying Oil at 500mL/100L or Hasten® at 1L/100L. Apply at the same crop growth stages as those in Table 1b Winter Crops. Lentils: Apply up to 7 node-early branching crop growth stage only. Lupins: Not for Qld.
	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	
	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, orchard crops, peanuts, plantation crops, soybeans, sunflowers, vetch or vine crops.

Medic And Clover Seed Crops:

DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

STOCK FOOD WITHHOLDING PERIODS:

Canola, Chickpeas, Cotton, Cowpea, Faba Beans, Field Peas, Lentils, Linola, Linseed, Lupins, Mung Beans, Navy Beans, Peanuts, Soybeans, Sunflowers, Vetch:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 28 DAYS AFTER APPLICATION

Lucerne:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION

Medic and Clover Pasture:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION

COTTON GIN TRASH MUST NOT BE FED TO ANIMALS.

In a Transport Emergency Dial 000 Police or Fire Brigade	Special Poisons Advice: 13 11 26
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