



Product Name: Macsprad Triclopyr 600 Herbicide

APVMA Approval Number: 83384/108158

Label Name:	Macsprad Triclopyr 600 Herbicide
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Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	600 g/L TRICLOPYR present as the butoxyethyl ester
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Mode of Action:	GROUP I HERBICIDE
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Statement of Claims:	For the control of various woody and broadleaf weeds as specified in the Directions for Use
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Net Contents:	5L - 1000L
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Restraints:	DO NOT apply to weeds which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (water-logged or drought affected), poor nutrition, presence of disease, or previous herbicide treatment as reduced levels of control may result. DO NOT apply if rain is likely within one hour or if foliage is wet from rain and dew. However, when tank mixed with Glyphosate 450, this time extends to 6 hours. DO NOT burn off, cut or clear blackberry or other woody weeds for six months after spraying.
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Directions for Use:	
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Other Limitations:	IN TASMANIA FOR BLACKBERRY: DO NOT treat bushes carrying mature or near mature fruit
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FOR NATIVE VEGETATION: Use of Macsprad Triclopyr 600 Herbicide on native vegetation must be done in accordance with STATE and/or LOCAL legislation

Withholding Periods:	WITHHOLDING PERIODS Pasture: NOT REQUIRED WHEN USED AS DIRECTED Sorghum: NOT REQUIRED WHEN USED AS DIRECTED
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Trade Advice:	-
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General Instructions:	<p>COMPATABILITY</p> <p>Fallow Situations</p> <p>Macsprad Triclopyr 600 Herbicide is compatible with the following products:</p> <p>2,4-D amine or 2,4-D ester Glyphosate 450 Herbicide Clopyralid 300 Herbicide Fluroxypyr 200 Herbicide Touchdown Broadacre Herbicide Chlorpyrifos 500 Insecticide</p> <p>When mixing with Glyphosate in fallow, refer to the Glyphosate 450 label for use rate and adjuvants recommended. DO NOT use Uptake Spraying Oil or D-C-Trate.</p> <p>Sorghum</p> <p>Macsprad Triclopyr 600 Herbicide is compatible with:</p> <p>Atrazine (500 g/L flowable product only) Fluroxypyr 200 Herbicide</p> <p>MINIMUM RECROPPING PERIODS</p> <p>Before using Macsprad Triclopyr 600 Herbicide in tank mixes with other herbicides, check the plant-back information on all product labels. The product with the longest plant back period will determine the time between spraying and planting.</p> <p>Observe the following re-cropping periods for Macsprad Triclopyr 600 Herbicide :</p> <p>Wheat, barley, sorghum, maize 7 days Chickpeas, soybeans, sunflowers 7 days Cotton 14 days</p> <p>MIXING</p> <p>Half fill the spray unit with water and add the required amount of Macsprad Triclopyr 600 Herbicide. Add the remaining water with the agitator running. If required, add crop oils or wetters (surfactants) last. Maintain mechanical or by-pass agitation during spraying. Only mix sufficient solution for immediate daily use and avoid storing prepared solutions.</p> <p>Basal Bark and Cut Stump Application: Quarter fill the spray unit or mixing container with diesel and add the required amount of Macsprad Triclopyr 600 Herbicide. Add the remaining diesel and shake or agitate thoroughly to mix the contents. Periodically shake or agitate to stop product settling out. Only mix sufficient solution for immediate daily use and avoid storing.</p> <p>APPLICATION INFORMATION</p> <p>1. Woody Weed Situations</p> <p>Weeds need to be actively growing for herbicides to have optimum effect. Delay treatment until all regrowth has had time to grow to one metre high in situations which have been bulldozed, slashed, burnt, ploughed or areas having a previous chemical treatment.</p>
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A. High Volume Spraying

Thorough coverage of foliage and stems to the point of runoff is essential; however, avoid excess spraying which is wasteful of chemical.

Hand gun

Apply the recommended mix to give full coverage of leaves and stems through a No. 6 to 8 tip at 700 to 1500 kPa.

A spray volume of 3,000 to 4,000 L per hectare (30 to 40 L/100 m²) should be used on the weed infestation.

Knapsack

Used for smaller infestations, where penetration of the canopy is not essential.

A spray volume of 3 to 4 L/10 m² of infested area should be used.

B. Aerial Application

Apply in 100 to 200 L water/ha. Use a calibrated aircraft to apply in half overlap passes.

Nozzle configurations should produce droplets of not less than 250 to 350 micron diameter (eg D8/45).

The potential for damage from drift can be greatly reduced by avoiding unsuitable spraying conditions and using spray pressure and nozzles to minimise the production of small droplets.

DO NOT spray when wind exceeds 10 km/hr and/or air temperature reaches 30°C.

Human flagging is not authorised unless protected by engineering controls such as vehicles with cabs.

C. Controlled Droplet Application (CDA)

Results similar to high volume spraying can be obtained using Micron Herbi* or similar equipment. Select a nozzle to give a flow rate of 2 mL/sec and a sweeping action of approximately 1 m/sec to ensure a droplet density of 20/cm². Use a marking agent as recommended by the manufacturer, to check spray coverage. Also, consult directions provided with CDA unit.

D. Low Volume, High Concentrate Application Techniques

Good control will be achieved, similar to high volume application, where bush size enables good coverage of the bush. Use a marking agent, as recommended by the manufacturer, to check spray coverage.

Gas powered gun:

Apply 50 mL shots to obtain uniform coverage to 4 to 5 m² of surface area of bush. This equates to 20 droplets/cm² of leaf surface.

Sprinkler sprayer:

This technique uses a micro sprinkler, connected to a hollow fibreglass rod attached to a pressure knapsack sprayer. Use low pressures (50 to 200 kPa) and apply with a slow sweeping action over the top of the plants ensuring even coverage on the leaves.

E. Basal Bark and Cut Stump Treatment

Use Macspray Triclopyr 600 Herbicide mixed with diesel. Diesel may adversely affect the rubber seals in some sprayer equipment. To avoid this, fit spray equipment with Viton* seals and fittings. When using Macspray Triclopyr 600 Herbicide with diesel, nitrile gloves should be worn instead of rubber gloves.

Basal bark method:

DO NOT apply to wet stems as this can repel the diesel mixture. Apply only with hand-directed equipment such as a pressure sprayer or a paint brush. Spray equipment should be used at low pressures, up to 200 kPa, to avoid excessive splashing or drift. Species with old, rough bark require more thorough wetting than smooth barked species. Liberally spray or paint the bark around the stem from ground level up to 30 cm high, wetting thoroughly to the point of runoff (unless otherwise stated).

Cut stump method:

Stems should be cut less than 15 cm above the ground. Immediately apply Macspred Triclopyr 600 Herbicide /diesel mixture liberally to the freshly cut stump by spraying or painting the cut surface and sides of the stem.

2. Cropping/Fallow Situations

A. Boom Application

Application of Macspred Triclopyr 600 Herbicide in a minimum spray volume of 50 L/ha is recommended. Flat fan nozzles are recommended, using pressures in the range of 200 to 300 kPa. Boom height must be set to ensure double overlap of nozzle patterns.

B. Aerial Application

DO NOT allow Macspred Triclopyr 600 Herbicide to physically drift onto desirable plants. Aircraft may be used to apply Macspred Triclopyr 600 Herbicide in fallow situations, when ground application equipment cannot be used due to prolonged wet conditions. A minimum spray volume of 35 L/ha should be used with flat fan and CP nozzle configurations. DO NOT apply Macspred Triclopyr 600 Herbicide by aircraft when wind exceeds 10 km/hr and/or air temperature reaches 30°C. Droplets with an average diameter (Volume Mean Diameter) of 250 to 350 micron diameter are recommended. Human flagging is not authorised unless protected by engineering controls such as vehicles with cabs.

CLEANING SPRAY EQUIPMENT: Water-Based Cleaning

Rinsing:

After using Macspred Triclopyr 600 Herbicide, empty the spray unit completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Drain the spray unit and clean any filters in the tank, pump, lines, hoses and nozzles. After cleaning the spray unit as above, quarter-fill with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

Decontamination:

Before spraying cotton and other sensitive crops with equipment that has been used to apply Macspred Triclopyr 600 Herbicide, see PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS section.

Wash the tank and rinse the system as above. Then quarter-fill the tank and add an alkaline detergent (eg liquid SURF*, OMO, OMOMATIC, DRIVE at 500 mL/100 L of water, or the powder equivalent at 500g/100L of water) and circulate throughout the system for at least 15 minutes.

Drain the whole system. Remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain. Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto unused land away from desirable plants and watercourses.

CLEANING SPRAY EQUIPMENT: Diesel-Based Cleaning

Rinsing

After using Macspred Triclopyr 600 Herbicide dissolved in diesel, empty the spray unit completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Drain the spray unit and clean any filters in the tank, pump, lines, hoses and nozzles.

Alternatively, use a degreaser such as Caltex Kwik-D-Grease* to remove traces of diesel from the sprayer. Rinse

tank and spray through the nozzles with water to remove degreaser.

Decontamination

After rinsing as described above, quarter fill the tank with clean water and add an alkaline detergent (eg liquid SURF*, OMO, OMOMATIC, DRIVE at 50 mL/10L of water, or the powder equivalent at 50g/10L of water).

Shake or operate spray to circulate the washing solution throughout the sprayer and spray the solution through the nozzle. Rinse thoroughly with clean water to remove detergent.

	To clean brushes and container, spray liberally with degreaser. Hose off thoroughly with clean water and repeat using detergents (see above). DO NOT use this equipment for any other purpose.
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Resistance Warning:	<p>Resistant Weeds Warning</p> <p>GROUP I HERBICIDE</p> <p>Macspréd Triclopyr 600 Herbicide is a member of the pyridines group of herbicides. The product has the disruptors of plant cell growth mode of action. For weed resistance management, the product is a Group I Herbicide. Some naturally occurring weed biotypes resistant to the product and other Group I 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 the product or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Macspréd Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.</p>
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Precautions:	-
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>Crops susceptible to Macspréd Triclopyr 600 Herbicide include, but are not limited to: peas, lupins, lucerne, navy beans, soybeans and other legumes; cotton, fruit, hops, ornamentals, shade trees and <i>Pinus</i> spp., potatoes, safflower, sugarbeet, sunflower, tobacco, tomatoes, vegetables and vines.</p> <p>Macspréd Triclopyr 600 Herbicide is damaging to susceptible crops during both growing and dormant periods. Grasses are normally unaffected and establish quickly after treatment.</p> <p>DO NOT allow spray drift onto waterways, native vegetation and susceptible crops. When using MACSPRED</p> <p>TRICLOPYR 600 and Glyphosate 450 by aerial application in fallow situations, observance of a buffer zone of 150 metres to protect native tree species is required.</p> <p>Drift Warning: 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.</p> <p>PROTECTION OF LIVESTOCK</p> <p>Poisonous plants may become more palatable after spraying and stock should be kept away from these plants until they have died down.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>This product is highly toxic to fish and other aquatic organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>SMALL SPILL MANAGEMENT</p> <p>Wear appropriate clothing and protective equipment while cleaning up spills (see SAFETY DIRECTIONS).</p> <p>Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up contaminated material and contain in a refuse vessel for disposal. If spilled inside a building, wash contaminated surfaces to deactivate Triclopyr with a dilute solution of bleach (sodium hypochlorite), prepared in accordance with the bleach label instructions.</p> <p>Dispose of the contaminated material in accordance with STORAGE AND DISPOSAL instructions below.</p> <p>STORAGE AND DISPOSAL</p>
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	<p>Store in closed, original container in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT store near food, feedstuffs, fertilisers or seed.</p> <p>Triple 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 to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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> <p>For refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
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Safety Directions:	Poisonous if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow-length rubber gloves Wash hands after use. After each day's use, wash gloves and contaminated clothing.
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First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. (Phone Australia 131 126). If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.
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First Aid Warnings:	-
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TABLE 1. Woody Weed Situations: Agricultural Non-Crop Areas, Commercial and Industrial Areas, Forests, Pastures and Rights of Way.

A: High Volume Spraying

Weeds Controlled	Weed Growth Stage	State	Rate per 100 L water	Critical Comments
African Boxthorn (<i>Lycium ferocissimum</i>)	Less than 2 m tall	Tas only	170 mL	
Angophora sp. and Banksia sp. regrowth	1 to 2 m tall	All States	400 or 560 mL	Use the higher rate on larger regrowth. Ensure the weed has dense foliage.
Blackberry (<i>Rubus fruticosus</i>)	Active growth during late spring to early autumn		170 mL	Where herbicides other than Group I herbicides have been used, allow two seasons regrowth to occur before spraying with Macspray Triclopyr 600 Herbicide. Any subsequent regrowth and seedlings should be sprayed after hardening off.
In association with: St John's Wort (<i>Hypericum perforatum</i>)	During flowering (Nov to Jan)	NSW, ACT, Vic and Tas only		Apply as a thorough foliage spray.
Brigalow (<i>Acacia harpophylla</i>)	1 to 2 m tall	NSW, ACT and Qld only		Use at least 1000 L of water /ha.
Brooms - English (<i>Cytisus scoparius</i>)	Spring to mid-summer prior to pod formation	All States		
Camphor Laurel (<i>Cinnamomum camphora</i>)	Seedlings up to 3 m tall			
Capeweed (<i>Arcotheeca calendula</i>)	Rosette	Tas only	80 mL	
Common Prickly Pear (<i>Opuntia</i> spp.)	Active growth	All States	3 L	
English Ivy (<i>Hedera helix</i>)	Active growth during late spring or late summer	Vic only	1 L plus 1 L glyphosate (360g/L)	DO NOT treat ivy growing up trees or on other plants, as death of the host may result. This mixture is not selective to grasses.
Eucalyptus spp.	Seedlings and regrowth from small lignotubers, 1 to 2 m tall	Qld, SA, WA and NT only	400 mL	Add 250mL to 500mL/100L water of a non-ionic surfactant for best results.
		NSW, ACT, Tas and Vic only	560 mL	
Fennel (<i>Foeniculum vulgare</i>)	1 to 2 m tall	Tas only	170 mL	
Green Cestrum (<i>Cestrum parqui</i>)		NSW, ACT, Qld and Vic only		Some regrowth may be expected the following season, which can be sprayed after hardening off.

Weeds Controlled	Weed Growth Stage	State	Rate per 100 L water	Critical Comments
Groundsel Bush (<i>Baccharis halimifolia</i>)	Seedlings 1 to 2 m tall	All States	160 mL	
	2 to 3 m tall		320 mL	
Gorse (<i>Ulex europaeus</i>)	Spring to mid summer		170 mL or 340 mL	Add a 100% concentrate non-ionic wetting agent at rate of 125 mL/100L water. Retreatment of regrowth may be necessary. Use higher water rate on older hardened off plants.

Horehound (<i>Marrubium vulgare</i>)	Rosette	Tas only	170 mL	
Saffron Thistle (<i>Carthamus lanatus</i>)	Up to bud stage		80 mL	
Tiger Pear (<i>Opuntia aurantiaca</i>)	Active growth	All States	3 L	
Wattles (<i>Acacia</i> spp.), including Silver wattle, Black wattle	Seedlings 1 to 2 m tall		160 mL	
	2 to 3 m tall		320 mL	

B: Aerial Application

Helicopter NSW, ACT, SA, Tas, Vic and WA only

Helicopter or fixed wing aircraft (Qld only)

Weeds Controlled	Weed Growth Stage	State	Rate per ha	Critical Comments
Blackberry (<i>Rubus fruticosus</i>)	Late spring to autumn	All States	4.8 L	Avoid overspray / drift onto waterways.

C: Controlled Droplet Application (CDA)

Weeds Controlled	Weed Growth Stage	State	Rate per 1 L water	Critical Comments
Blackberry (<i>Rubus fruticosus</i>)	Late spring to autumn	All States	170 mL	

Table D: Low Volume, High Concentrate Application Techniques (Gas Powered Gun, Sprinkler Sprayer)

Weeds Controlled	Weed Growth Stage	State	Rate per 10 L water	Critical Comments
Blackberry (<i>Rubus fruticosus</i>)	Late spring to autumn	All States	280 mL	
Eucalypt Seedlings (<i>Eucalyptus</i> spp.)	1 to 2 m tall		400 mL	

E: Basal Bark and Cut Stump Treatment

Weeds Controlled	Weed Growth Stage	State	Rate per 60L diesel	Critical Comments
African Boxthorn (<i>Lycium ferocissimum</i>)	Basal bark Plants up to 5 cm basal diameter Cut stump Plants up to and in excess of basal bark size	All States	2 L	
Australian Blackthorn (<i>Bursaria spinosa</i>)			1L	
Broom		Tas only	1.25 L	
Brown Salwood (<i>Acacia aulacocarpa</i>)		All States	0.5 L	
Bitter Bark (<i>Alstonia constricta</i>)		NSW , ACT and Qld only	1 L	
Castor Oil (<i>Ricinus communis</i>)		All States		
Chinese Apple (<i>Ziziphus mauritiana</i>)				
Dawson Gum (<i>Eucalyptus cambageana</i>)		Qld only	2 L	
Eucalypts (except Dawson Gum), False Sandalwood (<i>Eremophila mitchellii</i>), Green Wattle (<i>Acacia decurrens</i>)		All States	1 L	
Lantana (<i>Lantana camara</i>), Needlewood (<i>Hakea leucoptera</i>)				
Olive (<i>Olea europaea</i>)		SA only	2 L	
		NSW, ACT only	4 L	
Paperbark Teatree (<i>Melaleuca spp.</i>)		All States	1 L	
Rubbergrove (<i>Cryptostegia grandiflora</i>)				
Silver Wattle (<i>Acacia dealbata</i>)				
Sweet Briar (<i>Rosa rubiginosa</i>)			2 L	
Yellow-wood (<i>Terminalia oblongata</i>)		Qld only		

Weeds Controlled	Weed Growth Stage	State	Rate per 60 L diesel	Critical Comments
Camphor Laurel (<i>Cinnamomum camphora</i>)	Basal bark Plants up to 10 cm basal diameter	NSW, ACT and Qld only	1 L	
Common Prickly Pear (<i>Opuntia</i> spp.)	Cut stump Plants up to and in excess of basal bark size	All States	0.8 L	Apply as a thorough foliage spray.
Groundsel Bush (<i>Baccharis halimifolia</i>)			0.5 L	Treat from early summer rains to end of April when regrowth is apparent.
Prickly Acacia (<i>Acacia nilotica</i>)			5 L	Treatment may be carried out at any time of the year.
Privet (<i>Ligustrum lucidum</i>)			0.8 L	Apply as a thorough foliage spray.
Smooth Tree Pear (<i>Opuntia monacantha</i>) Tiger Pear (<i>Opuntia aurantiaca</i>)			1 L	
Tree of Heaven (<i>Ailanthus altissima</i>)				

Table 2: Woody Weed Situations: Fencelines and Fire Trails Only

Weeds Controlled	Weed Growth Stage	State	Rate	
Broadleaf Hopbush (<i>Dodonaea viscosa</i>), Narrowleaf Hopbush (<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>) Turpentine Bush (<i>Eremophila sturtii</i>)	Basal bark Plants up to 10 cm basal diameter	NSW, ACT only	1 L/60L Diesel	

Table 3. Coping/Fallow Situations: Fallow, Stubble, Firebreaks

Weeds Controlled	Weed Growth Stage	State	Rate/100L Water	Critical Comments
Camel (Afghan, Bitter)	Up to 20cm diameter	NSW, ACT, Qld, SA, Vic, WA only	120 mL #	There are some strains of melon that are not controlled. Contact your local agricultural advisor for more information.
Melon (<i>Citrullus lanatus</i>)	Runners from 20 to 40 cm diameter		160 mL #	# Add a crop oil such as Uptake* Spraying Oil at 500 mL/100 L water or D-C-Trate* Crop Oil at 1 L/100 L water.
Prickly Paddy Melon (<i>Cucumis myriocarpus</i>)	Up to 20 cm diameter		80 mL #	DO NOT use oils when tank mixing with Glyphosate 450. See COMPATIBILITY section. This mixture is not selective to grasses. When using Macspray Triclopyr 600 Herbicide and Glyphosate 450 by aerial application, observance of a buffer zone of 150 metres to protect native tree species is required.
	Runners from 20 to 40 cm diameter		160 mL #	

Table 4. Coping/Fallow Situations: Sorghum (apply between 4 to 6 leaf stage, when secondary roots have developed)

Prickly Paddy Melon (<i>Cucumis myriocarpus</i>)	Up to 20 cm diameter	NSW, ACT, Qld only	80 mL	DO NOT add crop oils, as severe crop damage may occur. Fusing of sorghum prop roots may be observed. This may be worse under stress (eg root disease). Should only be mixed with Fluroxypyr 200 Herbicide and Atrazine 500 SC for increased weed spectrum.
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**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL
UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**