



Product Name: Surefire Starox 400 Herbicide
APVMA Approval No: 84324/120321

Label Name:	Surefire Starox 400 Herbicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	400 g/L FLUROXYPYR AS THE METHYL HEPTYL ESTER 100 g/L N-METHYLPYRROLIDONE 300 g/L HYDROCARBON LIQUID
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Mode of Action:	GROUP I HERBICIDE
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Statement of Claims:	For the control of a wide range of broadleaf weeds in Fallow, Lucerne, Maize, Millets, Pastures, Poppies, Sorghum, Sugar Cane, Sweet Corn and Winter Cereals. Also for the control of woody weeds in agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way, as specified in the Directions for Use.
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Net Contents:	1L-1000L
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Restrains:	RESTRAINTS: DO NOT apply to plants which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (waterlogged or drought affected), poor nutrition, presence of disease, or previous herbicide treatment as reduced levels of control may result. Thorough coverage of both foliage and stems, to the point of runoff, is essential for high volume applications (see GENERAL INSTRUCTIONS; application methods WOODY WEED SITUATIONS section). DO NOT spray if rain is likely to occur within one hour.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>WITHHOLDING PERIODS:</p> <p>Grazing: CROPS AND PASTURES: DO NOT GRAZE FAILED CROPS AND TREATED PASTURES OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.</p> <p>Harvest: Poppies – DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST</p> <p>OTHER CROPS – NOT REQUIRED WHEN USED AS DIRECTED.</p>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANT WEEDS WARNING</p> <p>GROUP I HERBICIDE</p> <p>SUREFIRE STAROX 400 HERBICIDE is a member of the pyridine group of herbicides. SUREFIRE STAROX 400 HERBICIDE has a disrupters of plant cell growth mode of action. For weed resistance management SUREFIRE STAROX 400 HERBICIDE is a Group I Herbicide.</p> <p>Some naturally occurring weed biotypes resistant to SUREFIRE STAROX 400 HERBICIDE 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 SUREFIRE STAROX 400 HERBICIDE or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, PCT Holdings 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 PCT Holdings Pty Ltd.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>Susceptible crops include but are not limited to clovers, cotton, fruit, hops, lupins, ornamentals, peas, pine trees, potatoes, navy beans, safflower, shade trees, soybeans, sunflower, tobacco, tomatoes, vegetables and vines.</p> <p>SUREFIRE STAROX 400 HERBICIDE can be damaging to susceptible crops during growing and dormant periods.</p> <p>Grasses are normally unaffected by SUREFIRE STAROX 400 HERBICIDE and establish quickly after treatment. Transitory damage can occur on some species, particularly those that spread by stolons such as couch grass (<i>Cynodon dactylon</i>), Kikuyu grass and carpet grass (<i>Axonopus</i> sp.)</p> <p>DO NOT allow spray to drift onto susceptible crops, shade trees and <i>Pinus</i> spp.</p>
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	<p>DO NOT use under weather conditions or from spraying equipment which could be expected to cause spray to drift onto nearby susceptible plants.</p> <p>PROTECTION OF LIVESTOCK DO NOT graze or cut treated crops for stock food except as specified under withholding periods. Poisonous plants may become more palatable after spraying. DO NOT allow stock to re-enter paddocks containing treated poisonous plants until the plants have died down.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used container. Alongside waterways, treat only noxious weeds and poisonous plants.</p>
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Storage and Disposal:	<p>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 cap and return clean containers to recycler or designated collection point. 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. Refillable containers Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p> <p>110 L Mini Bulk Returnable Container Do not tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of PCT Holdings Pty Ltd.</p> <p>SMALL SPILL MANAGEMENT Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed 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 as above the wash liquid for disposal.</p>
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Safety Directions:	<p>SAFETY DIRECTIONS Avoid contact with eyes and skin. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, face shield or goggles. Wash hands after use. After each day's use wash gloves, face shield or goggles and contaminated clothing.</p>
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First Aid Instructions:	<p>FIRST AID If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, DO NOT induce vomiting. Give a glass of water. If in eyes wash out immediately with water.</p>
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First Aid Warnings:	
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Table 1: Woody weeds in agricultural non-crop areas and rights-of-way, commercial and industrial areas, forests and pastures

Legumes present at the time of spraying will be severely damaged.

HIGH VOLUME APPLICATION: Dilute product with water. See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/100 L of water	CRITICAL COMMENTS
Bathurst burr, Noogoora burr	Seedlings and young plants up to 40 cm high	NSW, NT, Qld, WA only	38	
Black bindweed (Climbing buckwheat)	Seedlings and young plants before flowering	NSW, Qld only	150	
<i>Mimosa pigra</i>	Apply from mid to late summer	NT, WA only	250	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; oils and surfactants)
Common sensitive plant	Seedlings and young plants up to flowering	Qld, WA only		
Bellyache bush		Qld, NSW, WA only		
Blackberry nightshade, Bokhara clover		NSW, Qld only		
Caltrop (yellow vine) (<i>Tribulus terrestris</i>) (<i>T. micrococcus</i>)		Seedlings and young plants up to 30 cm diameter.		
Cobblers pegs	Up to 15 cm high			
Cockspur thorn	Up to 3 m high			
Creeping lantana	At flowering			
Crofton weed Mistflower	Seedlings and young plants up to flowering			
Docks (<i>Rumex</i> spp.)	Seedlings and rosettes up to 30 cm high			
Hexham scent	Seedlings and young plants up to flowering			Boom spray: SUREFIRE STAROX 400 HERBICIDE at 300 mL/ha + 400 mL/ha of 2,4-D amine 625
Honey locust	Seedlings and young plants up to 2 m high			
Small flowered mallow (Marshmallow) (<i>Malva parviflora</i>)	Seedlings and young plants up to flowering			
Yellowflower Devil's claw	Seedlings and young plants up to flowering			
Lantana	Seedlings and regrowth 0.5 to 1.2 m high			500
	Plants and regrowth 1.2 to 2 m high			
Blue heliotrope	Flowering			
Limebush	Infestations up to 1.5			

	m high only			
Madeira vine	Apply at time of active growth		250	
Milkweed (<i>Euphorbia heterophylla</i>)	3 leaf to flowering	Qld only	500	Repeat applications will be necessary to control subsequent germinations.
Common sowthistle	Seedlings and young plants up to bolting	NSW, Qld only	250	Add AC Axiwetta 1000 (See GENERAL INSTRUCTIONS ; Oils and surfactants)
Mother-of-millions (<i>Kalanchoe</i> spp.)	Seedling and young plants before flowering		300	
Prickly acacia	Seedlings and young plants up to 2 m high	Qld only	375	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants). Consult Tropical Weeds Research Centre, Charter Towers, for specific advice on application.
<i>Sida</i> spp.	Seedlings and young plants up to flowering	NSW, NT, Qld, WA only	500	
Broadleaf Pepper tree (<i>Schinus terebinthifolius</i>)	Mature leaves, fruiting	Qld only	250	Winter application only. Contact Alan Fletcher Research Station for more information.
Flannel weed (<i>Sida cordifolia</i>)				
Snakeweed, (Dark and light blue)	Seedlings and young plants before flowering		375	Add Uptake* Spraying Oil (See GENERAL INSTRUCTIONS ; Oils and surfactants)
Stinking Passion Flower	Established plants and regrowth	Qld, NT, WA only	225	Use 70 mL/15 L for a knapsack.
Wandering Jew (<i>Tradescantia albiflora</i>)	Young plants up to and including flowering	All States	750	Some regrowth will usually occur and will require treatment.
Wattles (including <i>Acacia aulacocarpa</i> , <i>A. decora</i> , <i>A. harpophylla</i> , <i>A. leiocalyx</i> , <i>A. salicina</i>)	Seedling plants or regrowth 0.5 to 1.2 m high	NSW, Qld only	250	Apply to actively growing plants when soil moisture is plentiful. Some regrowth may occur particularly when treating old woody plants with sparse canopies and under dry conditions.
	Plants or regrowth 1.2 to 2.0 m high only		500	

Table 1: Woody weeds in agricultural non-crop areas and rights-of-way, commercial and industrial areas, forests and pastures continued

BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/100 L of diesel	CRITICAL COMMENTS
<i>Celtis (Celtis sinensis)</i>	Basal Bark only: Young plants up to 2 m high and 20 cm basal diameter.	Qld only	1.8	Treat stems from ground level to where multi-stemmed trunks branch.
Chinee apple	Up to 15 cm basal diameter		1.5	With basal bark, treat circumference of stem to height of 45 cm from the ground. Contact the Land Protection Branch, Department of Natural Resources and Mines, Qld for further information on Chinee Apple.
Cockspur thorn	Basal bark only: up to 5 cm basal diameter		1	
Mimosa bush (<i>Acacia farnesiana</i>)	Up to 5 cm basal diameter	Qld, WA only	1.5	
Prickly acacia	Up to 10 cm basal diameter	Qld only	750mL	
Honey locust	Plants up to 10 cm basal diameter	Qld, NSW only	750 mL	With basal bark, treat circumference of stem to height of 45 cm from the ground. For cut stump application use a rate of 5 L/100 L diesel for all plant sizes. Contact the Land Protection Branch, Department of Natural Resources and Mines, Qld for further information on Honey Locust.
	Plants 10 to 20 cm basal diameter		1.5	
	Plants >20 cm basal diameter		2.5	
Sisal hemp (<i>Agave</i> spp.)	All growth stages	Qld only	1.5	Treat as an overall spray. Contact the Land Protection Branch, Department of Natural Resources and Mines, Qld for advice to control large infestations.
			5 mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.

BROADCAST AND AERIAL APPLICATION: Dilute product with water See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
<i>Mimosa pigra</i>	Actively growing plants	NT, WA only	1.5	Aerial application: Add Uptake* Spraying Oil at the rate of 1 L/100 L spray mix. Apply to actively growing plants from mid to late summer. Contact the Department of Primary Industries and Fisheries, NT for further information.

LOW VOLUME, HIGH CONCENTRATE APPLICATION: Using a drench gun or gas-powered gun
See General Instructions – Application Method for application details

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/10 L of water	CRITICAL COMMENTS
Limebush	Isolated bushes up to 1.2 m high only	NSW, Qld only	500 mL	Apply a 50 mL dose per 5 m ² of bush surface area.
Tree violet (<i>Hymenanthera dentata</i>)	Apply from late flowering to green fruit up to 1.2 m high	NSW only		Apply a 50 mL dose per cubic metre of bush.

Table 2: Established Grass Pastures

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
Blue billygoat weed, Common sensitive plant, Giant sensitive plant, Spinyhead sida	Apply before flowering	Qld, WA only	0.75	Add Uptake* Spraying Oil at 1 L/ha.
St John's wort	Apply from bud to full bloom (usually late Nov to early Jan)	ACT, NSW and Vic only	1.5	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200 L water/ha
Silverleaf nightshade	From onset of flowering to early berry-set. (Usually spring to mid-summer)	NSW only	375 mL or 190 mL + 1.2-1.6 L/ha 2,4-D DMA 625	Add Uptake* Spraying Oil at 1 L/ha. To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment of regrowth is critical for best control.

Table 3: Sorghum, Maize, Millets and Sweet Corn (NSW and QLD only)

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Sorghum	Apply when secondary roots are present, from 4 fully expanded leaves (15 cm tall) up to boot (also see CRITICAL COMMENTS)	Annual ground cherry Wild gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf up to 15 cm tall	250	<p>Sorghum: From 8 leaf to boot stage, use dropper nozzles to prevent herbicide coming in contact with the crop's leaves and the growing point (meristem).</p> <p>Maize and sweet corn: From 6 leaf to just before tasselling, use dropper nozzles to prevent the herbicide coming in contact with the crop's leaves and the growing point (meristem).</p> <p>Millets: DO NOT use mixes with atrazine products.</p> <p>* This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at all crop stages.</p>
		Apple-of-Peru	Seedling plants up to 15 cm tall	375	
		Bathurst burr Noogoora burr	2 to 8 leaf, up to 20 cm tall	250	
Maize and Sweet corn	Apply when secondary roots are present, from 3 fully expanded leaves (10 cm tall) up to just before tasselling (See CRITICAL COMMENTS)		20 to 50 cm tall	375	
		Pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	250	
			10 to 30 cm diameter	375	
		Sesbania pea	2 to 6 leaf up to 10 cm tall	750	
Millets	Spray when secondary roots have developed, usually early to mid-tillering, and not later than before heads start to form at the base of tillers. (See CRITICAL COMMENTS)	Silverleaf nightshade (NSW only) *	Full flower to early berry	375 + LI 700 at 300 mL/100 L	
		Starburr (<i>Acanthospermum hispidum</i>) (Qld only)	Up to 12 leaf and before flowering	750 or 375 + 1.6L Atrazine (600 g/L)	
		Thornapples (<i>Datura</i> spp.)	2 to 8 leaf up to 15 cm tall	375	
		Volunteer sunflower	2 to 5 leaf up to 20 cm tall	500	

Table 3: Sorghum, Maize, Millets and Sweet Corn (NSW and QLD only) continued

SUREFIRE STAROX 400 HERBICIDE in tank-mixes with atrazine: Sorghum, Maize and Sweet Corn					
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Sorghum, Maize and Sweet corn	Spray when secondary roots have developed, usually early to mid-tillering, and not later than before heads start to form at the base of tillers. (See CRITICAL COMMENTS)	<p><i>Amaranthus</i> spp. including: Boggabri weed, Dwarf amaranth, Green amaranth, Red shank</p> <p>Anoda weed, Bladder ketmia, Black pigweed (<i>Trianthema portulacastrum</i>), Caltrop (yellow vine) including: <i>Tribulus terrestris</i>, <i>T. micrococcus</i> and <i>T. maximus</i>,</p> <p>Cowvine (peach vine) (<i>Ipomoea lonchophylla</i>), Hairy wandering Jew (<i>Commelina benghalensis</i>), Mintweed</p>	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	250 mL + 1.2 L Atrazine flowable (600 g/L) or 375 mL + 1.6 L of Atrazine flowable (600 g/L).	<p>Use the low rate (250 mL + 1.2 L) when weeds are small (5-7 cm tall/diameter)</p> <p>Use the high rate (375 mL + 1.6 L) when the weeds are larger (7-15 cm tall/diameter).</p> <p>SUREFIRE STAROX 400 HERBICIDE is generally more compatible with Liquid atrazine products (see GENERAL INSTRUCTIONS; compatibility section).</p>
		<i>Euphorbia davidii</i>	Cotyledons to 4 nodes up to 15 cm	500 mL + 1.6 L of Atrazine flowable (600 g/L).	Add a surfactant (see GENERAL INSTRUCTIONS; Oils and surfactants).
		Volunteer peanuts	Up to 15 cm diameter	500 mL + 3.7 L of Atrazine flowable (600 g/L).	DO NOT add an oil to mixtures of SUREFIRE STAROX 400 HERBICIDE and Atrazine.
Sweet Corn: Tasmania only					
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Sweet corn only	3 to 5 leaf	Blackberry nightshade, volunteer potatoes	3 to 5 leaf	500 mL	

Table 4: Winter Cereals (Wheat, Barley, Oats and Triticale)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/ha	CRITICAL COMMENTS
Apply from 3 leaf to flag (Zadoks 13 to 39)	Bedstraw (<i>Galium tricornutum</i>)	1 to 3 whorl	Vic, SA, WA only	500	¹ Add either LI 700 or a surfactant (see GENERAL INSTRUCTIONS; Oils and Surfactants). Useful suppression only Mixtures: Mixing partners with SUREFIRE STAROX 400 HERBICIDE may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation. Plants 15 to 30 cm tall will only be suppressed.
	Cleavers (<i>Galium aparine</i>)		NSW, Vic only		
	Black bindweed (Climbing buckwheat)	2 to 4 leaf	NSW, Qld only	250 ¹	
		2 to 6 leaf		375 or 250 + 5 g Metsulfuron-methyl ¹	
	Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf		500	
	Deadnettle	2 to 6 leaf		750 or 250 + 5 g Metsulfuron-methyl ¹	
	Spiny emex (Doublegee, Three cornered jack)	2 to 4 leaf	NSW, SA, Qld, WA only		
	Prickly lettuce	2 to 5 leaf	NSW, Qld, Tas, Vic, WA only	500	
	Volunteer lupins	2 to 8 leaf	NSW, Vic, WA only	750	
	Volunteer potato	10 to 15 cm tall	WA and Tas only		
	Wireweed	2 to 3 leaf	NSW, Qld, SA, Tas, Vic, WA only		
			NSW and Qld only	250 + 5 g Metsulfuron-methyl ¹	
Bittercress (<i>Coronopus didymus</i>),	Up to 8 leaf and up to 15	Qld, NSW, Vic,	250 to 750 + Metsulfuron-methyl ¹ or	The SUREFIRE STAROX 400 HERBICIDE rate depends on what other	

	Mustards, Shepherd's purse, Turnip weed, Wild radish, Wild turnip	cm diameter	SA, Tas, WA only	Eclipse ¹ or MCPA LVE (500 g/L) or MCPA amine (750 g/L).	weeds are present as listed above (see Mixtures comment above). Metsulfuron-methyl (600 g/kg) at 5 g/ha (This mix does not control wild radish). Eclipse at 5-7 g/ha (use the 5 g rate on turnip weed only). MCPA LVE (500 g/L) at 700 mL/ha MCPA Amine (750 g/L) at 1.0 L/ha
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Table 5: Summer Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/ha	CRITICAL COMMENTS
Annual ground cherry, Wild gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf, up to 15 cm tall	NSW, Qld only	375 ²	¹ Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants section) When mixing with Glyphosate to control both grass and broadleaf weeds, refer to the Glyphosate label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS ; Compatibility Section). ² Delay treatment until the maximum number of shoots has emerged, but before the onset of fruiting (late summer). DO NOT treat plants showing symptoms from previous treatment. Use the high rate when longer term weed control (6-10 months) is required and delay planting crops during this period. The low rate will require follow-up treatments.
Bathurst burr, Noogoora burr	2 to 8 leaf, up to 20 cm tall	NSW, Qld, Vic, WA only		
Bellvine	Pre-flowering	NSW, Qld only	250 + 1.2 L Glyphosate 450	
Bladder ketmia	4 to 8 leaf, up to 10 cm tall			
Cowvine (Peach vine) <i>Ipomoea lonchophylla</i>	2 to 10 leaf up to 10 cm diameter			
Caltrop (Yellow vine) including: <i>Tribulus terrestris</i> , <i>T. maximus</i> and <i>T. micrococcus</i>	Up to 15cm diameter		250 + 1 L Glyphosate 450	
Pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter		375 ¹	
	Up to 60 cm diameter		375 + 1 L Glyphosate 450	
<i>Polymeria pusilla</i>	2 to 10 leaf up to 20 cm diameter		500 ¹ or 250 + 1.2L Glyphosate 450	
Rhynchosia	Seedlings to early flowering	500 ¹ or 190 + 800 mL Glyphosate 450		
Smallflower mallow or Marshmallow (<i>Malva parviflora</i>)	Up to 8 leaf up to 20 cm	500 ¹		
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf up to 15 cm diameter	NSW, Qld, WA only	375 ¹ or 250 + 1.2 Glyphosate 450	
Sesbania pea	2 to 6 leaf up to 10 cm tall	NSW, Qld only	750 ¹ or 250 + 1.2 Glyphosate 450.	
Perennial Ground Cherry (<i>Physalis virginiana</i>)	Bud to early flowering up to 20 cm tall	NSW, Qld only	750 or 1.5 L ¹	

Table 5: Summer Fallow continued

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/ha	CRITICAL COMMENTS
Silverleaf nightshade	Full flower to early berry-set (usually Dec – Feb)	NSW only	375 or 190 + 1.2-1.6 L 2,4-D amine 625	Add LI 700 at the rate of 300 mL/100 L spray mixture. To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment will be required to control regrowth and is critical for optimal control. If wanting to prevent seed set repeat applications may be needed in the same season, although this does not lead to better long term control.
Volunteer peanuts	Up to 15 cm diameter	Qld only	500 + 3.7 Atrazine flowable (600 g/L)	Add a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants). Important: See GENERAL INSTRUCTIONS ; Compatibility section.
Volunteer sunflowers	2 to 5 leaf up to 20 cm	NSW, Qld only	500 mL	Add LI 700 (see GENERAL INSTRUCTIONS ; Oils and surfactants section).

Table 6: Winter Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/ha	CRITICAL COMMENTS
Bedstraw (<i>Galium tricornutum</i>)	Up to 5 whorl	Vic, Sa, WA only	500 ¹	¹ Add LI 700 (see GENERAL INSTRUCTIONS; Oils and surfactants section).
Cleavers (<i>Galium aparine</i>)		NSW, Vic only		
Black bindweed (Climbing buckwheat)	2 to 8 leaf up to 10 cm diameter	NSW, Qld only	375 ¹	² Add AC Axiwetta 1000 (see GENERAL INSTRUCTIONS; oils and surfactants section). When mixing with Glyphosate 450 to control both grass and broadleaf weeds, refer to the label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS ; Compatibility section).
Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf up to 10 cm diameter		500 ¹ or 250 ² + 0.6 Glyphosate 450	
Prickly lettuce				
Spiny emex (Doublegee, Three cornered jack)	2 to 8 leaf		750 ¹ or 250 ² + 5 g Metsulfuron-methyl (600 g/kg)	
Wireweed	2 to 3 leaf up to 10 cm tall		750 ¹ or 250 ² + 5 g Metsulfuron-methyl (600 g/kg) or 500 ² + 600 mL Glyphosate 450	

Table 7: Sugar cane (Qld, NSW, NT and WA only)

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
From early tillering to maturity	Balsam pear, Blackberry nightshade, Blue billygoat weed, Centro, Cowpea, Giant sensitive plant, Lablab bean, Noogoora burr, Phasey bean, Pinkburr, Prickly African cucumber, Spinyhead sida, Stinking passion flower (seedlings only)	Apply from 2 to 3 leaf until flowering	Ground: 650 Aerial: 750	For optimal weed control, delay application until just before the "close-in" stage. Aerial application: Apply in not less than 60 L/ha water and add LI 700 at 300 mL/100 L spray mixture. Ground application: Apply in 100-400 L/ha water and add LI 700 at 300 mL/100 L of spray mixture.
	Bellvine, Morning glory, Red or pink convolvulus, Star-of-Bethlehem		As above +800 mL 2,4-D amine 625	
	Stinking passion flower	Established or ratoon plants with at least 1.0 m of regrowth.	High volume: 225 mL/100 L water Knapsack: 35 mL/15 L water	Thoroughly wet plants to the point of run-off.
	Milkweed (<i>Euphorbia heterophylla</i>)	Seedlings and young plants up to flowering	1.5L or 1.15L + 3.3 L Atrazine flowable (600 g/L)	Better control will be achieved with the atrazine mixture. Delay application until just before the cane reaches the "close-in" stage. This will improve control and minimise the number of seedlings that germinate.

Table 8: Lucerne (NSW only)

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Established crops at least 18 months old	Annual ground cherry, Bathurst burr, Noogoora burr, Wild gooseberry	2 to 8 leaf up to 15 cm high	250	<p>To minimise crop injury and to maximise weed control, cut, slash or heavily graze the lucerne before application. Wherever possible, irrigate before application to stimulate weed growth.</p> <p>DO NOT treat crops growing on sandy or stony soils. DO NOT treat crops after the summer growing season (after end of March). To broaden the spectrum of weeds controlled, SUREFIRE STAROX 400 HERBICIDE can be mixed with 2,4-DB amine</p>
	Pigweed	Up to 10 cm diameter		

Table 9: Poppies (Tas only)

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
4 to 6 leaf	Cleavers, Fumitory	2 to 6 leaf	500	
	Shepherd's purse, Wireweed		500 + 5 L Asulox	
8 to 10 leaf	Common sowthistle, Prickly lettuce	2 to 5 leaf	500	DO NOT apply SUREFIRE STAROX 400 HERBICIDE to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid content could occur.
	Black nightshade	Cotyledon to 4 leaf	750	
	Fumitory	6 to 10 leaf		
	Volunteer potato	From tuber initiation to flower bud		This rate will provide season long control of volunteer potato, but will not control all daughter tubers and will only suppress potatoes over 15 cm tall.

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

GENERAL INSTRUCTIONS:

MIXING

SUREFIRE STAROX 400 HERBICIDE may be mixed with water or diesel. Mix only sufficient chemical for each days' use and avoid storing.

Mixing in water: Half fill the spray tank with water and add the required quantity of SUREFIRE STAROX 400 HERBICIDE and complete filling. Agitate continuously to ensure thorough mixing before and during application.

Mixing in diesel: Half fill the spray tank with diesel and add the required quantity of SUREFIRE STAROX 400 HERBICIDE. Add the remainder of the diesel and agitate or shake to mix contents.

Tank mixtures: Wettable powder or dry flowable formulations (e.g. water dispersible granules) should be added to the spray tank first, followed by suspension concentrates (Flowables), water soluble salts and then emulsifiable concentrate formulations (SUREFIRE STAROX 400 HERBICIDE). Add spraying oils and surfactants (wettters) last.

OILS AND SURFACTANTS

Oils:

Use only Uptake Spraying Oil at the rate of 500 mL/100 L of spray mix. When using less than 100 L/ha spray volume, ensure a minimum of 250 mL/ha of Uptake is used, unless 1 L/100 L or 1 L/ha is specified.

Surfactants (wettters):

LI 700 to be used at 300 mL/100 L.

Use a 100% concentrate non-ionic surfactant such as AC Axiwetter 1000 at 100 mL/100 L of spray mix where required.

COMPATIBILITY

SUREFIRE STAROX 400 HERBICIDE is compatible with the herbicides listed. Follow any regional restrictions, and all directions and restrictions on the label of any product mixed with SUREFIRE STAROX 400 HERBICIDE.

Atrazine(see below), Glyphosate 360, Metsulfuron Methyl (600 g/kg), Glyphosate 450, Broadstrike, cloquintocet-mexyl/clodinafop-propargyl (see below), Eclipse, Tordon 75-D, Diclofop methyl, Clopyralid, Tordon 242, Triclopyr (600 g/L), Touchdown, Lontrel, 2,4-D, MCPA, 2,4-DB.

ATRAZINE

AVOID USING HARD WATER WHEREVER POSSIBLE. Where hard water cannot be avoided, the addition of CALGON® water conditioning agent to the spray tank at 100 g/100 L water before adding any herbicide may improve compatibility.

AGITATION IS VERY IMPORTANT WHEN MIXING SUREFIRE STAROX 400 HERBICIDE AND ATRAZINE.

SUREFIRE STAROX 400 HERBICIDE plus atrazine tank mixes must be agitated vigorously and continuously during mixing and application. After mixing DO NOT allow to stand without agitation. Ensure that the time from mixing to the end of application is not more than 2 hours.

If settling occurs, re-suspension is difficult, even with vigorous agitation. Agitation using only the pump's by-pass is usually inadequate, particularly with larger tanks (more than 2000 L). Additional mechanical agitation will be necessary in large tanks, computer sprayers and mixing tanks.

When additional surfactant is required, add a 100% concentrate non-ionic surfactant at 100 mL/100 L of spray mix. DO NOT use a spraying oil when tank mixing SUREFIRE STAROX 400 HERBICIDE and atrazine.

Guidelines for tank-mixing SUREFIRE STAROX 400 HERBICIDE and Atrazine Formulations:

Tank mix	Rate (/ha)	Water Hardness		Min. Water Volume (L/ha)		Comments
		Soft	Hard	Ground	Aerial	
SUREFIRE STAROX 400 HERBICIDE + AC Axis 900 WG Herbicide	375 mL + 1.1 L	✓	✓	100	Do not use	Sediment may be difficult to resuspend and may block nozzles.
SUREFIRE STAROX 400 HERBICIDE + Atrazine (600 g/L)	375 mL + 1.7 L	✓	✓	100	Do not use	

CLOQUINTOCET-MEXYL/CLODINAPOP-PROPARGYL

Always use Uptake Spraying Oil with SUREFIRE STAROX 400 HERBICIDE + cloquintocet-mexyl/clodinafop-propargyl tank-mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.

DO NOT mix SUREFIRE STAROX 400 HERBICIDE with cloquintocet-mexyl/clodinafop-propargyl if the grass weeds are not actively growing. Always use the maximum label rate of cloquintocet-mexyl/clodinafop-propargyl for the appropriate grass growth stage. DO NOT use SUREFIRE STAROX 400 HERBICIDE at more than 0.75 L/ha in tank mixes with cloquintocet-mexyl/clodinafop-propargyl.

Glyphosate 450

When mixing SUREFIRE STAROX 400 HERBICIDE with Glyphosate 450 to control both grass and broadleaf weeds, refer to that label for use rate and adjuvants recommended for grasses. DO NOT use Glyphosate 450 at less than 1.2 L/ha in tank mixes with SUREFIRE STAROX 400 HERBICIDE when barnyard grass, buttongrass, crowfoot grass, native millet and liverseed grass are the target species.

APPLICATION METHODS and WATER RATES

BROADCAST APPLICATION IN CROPPING, PASTURE AND FALLOW SITUATIONS

A. Ground application (Boom)

Apply SUREFIRE STAROX 400 HERBICIDE with an accurately calibrated boom sprayer, in at least 50 L/ha water (100-400 L/ha for sugar cane).

Flat fan nozzles are recommended using pressures in the range of 200 to 300 kPa.

Set the boom at a height to ensure a double overlap of the nozzle patterns.

B. Ground directed application (Dropper nozzles)

To minimise crop effects, dropper nozzles should be used in sorghum when the crop is beyond the 8 leaf growth stage and, in maize and sweet corn, when the crop is beyond the 6 leaf growth stage.

Adjust the nozzles to direct the spray into the base of the crop and away from the leaves and the growing point. See manufacturer's directions for setting up and calibration of dropper nozzles.

C. Aerial Application

Apply in a minimum volume of at least 35 L/ha water (60 L/ha in sugar cane).

Use equipment calibrated to produce droplets with an average diameter (Volume Mean Diameter: VMD) of 250-350 microns.

DO NOT apply when the temperature is above 30°C, when there is no wind or when the wind is blowing toward susceptible crops.

DO NOT use human flaggers unless they are protected by engineering controls such as enclosed cabs.

WOODY WEED SITUATIONS

Weeds must be actively growing to attain optimal effect. Delay the treatment of regrowth following bulldozing, slashing, burning, ploughing or a previous chemical treatment until it has at least 1 metre of new, vigorous growth.

A. High Volume Application

Hand Gun

Apply the recommended mix to obtain full coverage of leaves and stems using a number 6-8 tip at 700 to 1500 kPa. To obtain good coverage, a spray volume of 1500 to 4000 L/ha (15 to 40 L/100 m²) is required per infested hectare.

Ensure thorough coverage to the point of runoff.

Knapsack

Knapsack sprayers may be used on smaller infestations where penetration and coverage of the canopy is easier to achieve. Use the same use rate and spray techniques as for handgun application.

B. Low Volume, High Concentrate Application

Drench Gun or Gas-Powered Gun

Apply the recommended mixture uniformly across the foliage by applying 50 mL shots to cover 4 to 5 m² of surface area of plant. This is approximately equivalent to 20 droplets per cm² of the leaf surface. Use a marking agent as recommended by the equipment manufacturer to check spray coverage.

C. Basal Bark and Cut Stump Application

Basal Bark

DO NOT apply to wet stems as this can repel the diesel mixture.

Spray or paint the recommended mixture around the base of each stem from ground level to a height of at least 30 cm from the ground, wetting the bark to the point of runoff.

Apply with a paint brush or a pressure sprayer with an appropriate lance and solid cone nozzle. If using spray equipment use low pressures (≤ 200 kPa) sufficient to form a cone of spray.

Old rough bark will require more spray than smooth or young thin bark.

Cut Stump

Apply the recommended mixture liberally to the freshly cut stump immediately after cutting. Apply by spraying or painting the cut surface and sides of the stump. Best results are obtained when stems are cut less than 15 cm above the ground.

CLEANING SPRAY EQUIPMENT

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

Cleaning equipment after using water-based sprays:

Rinsing: After using SUREFIRE STAROX 400 HERBICIDE, empty the tank completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Drain, and clean any filters in the tank, pump, lines, hoses and nozzles.

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

Decontamination (before spraying cotton and other sensitive crops; see PROTECTION OF CROPS): Wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 500 mL/100 L 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.

Cleaning equipment after using diesel-based sprays:

On completion of spraying, use a degreaser such as Caltex Kwik-D-Grease to remove traces of diesel from the sprayer. Rinse tank and spray through nozzles with water to remove degreaser.

Then, quarter fill the tank with clean water and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 50 mL/10 L of water. Shake the sprayer to circulate the washing solution throughout the sprayer, then spray the solution through the nozzles. Rinse well with clean water to remove the detergent.

To clean brushes and containers, spray liberally with degreaser. Hose off with clean water and repeat using detergents as above.

DO NOT use this equipment for any other purpose.

MINIMUM RECROPPING PERIODS

Plant-back periods for crops following the application of SUREFIRE STAROX 400 HERBICIDE for rates up to 750 mL/ha

RATE mL/ha	190	375	750
CROP	DAYS		
Barley, Wheat, Chickpea, Sunflower, Maize, Sorghum	7	7	7
Soybean			14
Cotton	14	14	28

Note: Before using SUREFIRE STAROX 400 HERBICIDE in tank mixes with other herbicides, check the plant-back information on all product labels. The time between spraying and planting will be determined by the most residual product, i.e. the product with the longest plant-back period.