Product Name: Sabakem Fluroxypyr 400 Herbicide

APVMA Approval No: 88050/120144





	Sabakem Fluroxypyr 400 Herbicide
Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	ACTIVE CONSTITUENT: 400 g/L FLUROXYPYR (present as the methyl heptyl ester) SOLVENT: 316 g/L LIQUID HYDROCARBON 100 g/l N-METHYL-2-PYRROLIDONE
Mode of Action:	GROUP I HERBICIDE
Statement of Claims:	For the Control of a Wide Range of Broadleaf Weeds in Fallow, Lucerne, Maize, Millets, Pastures, Sorghum, Sugar Cane, Sweet Corn, Winter Cereals. Also for the Control of Woody Weeds in Agricultural Non-Crop Areas, Commercial and Industrial Areas, Pastures and Rights-of-Way as Specified in the Directions for Use
Statement of Claims:  Net Contents:	Pastures, Sorghum, Sugar Cane, Sweet Corn, Winter Cereals. Also for the Control of Woody Weeds in Agricultural Non-Crop Areas, Commercial and Industrial Areas, Pastures
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	Pastures, Sorghum, Sugar Cane, Sweet Corn, Winter Cereals. Also for the Control of Woody Weeds in Agricultural Non-Crop Areas, Commercial and Industrial Areas, Pastures and Rights-of-Way as Specified in the Directions for Use

Other Limitations:	
Withholding Periods:	Grazing: DO NOT GRAZE FAILED CROPS AND TREATED PASTURES OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION. Harvest:
	Poppies - DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST.  Other Crops – NOT REQUIRED WHEN USED AS DIRECTED
Trade Advice:	
General Instructions:	This section contains file attachment.
Resistance Warning:	RESISTANT WEEDS WARNING GROUP I HERBICIDE SABAKEM Fluroxypyr 400 Herbicide is a member of the pyridine group of herbicides. The product has a disrupters 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 this product or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Sabakem Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Strategies to minimize the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or Sabakem Pty Ltd representative.
Precautions:	
Drotactions:	DPOTECTION OF CDODS NATIVE AND OTHER NON TARGET DI ANTS

# Protections:

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

Susceptible crops include but are not limited to clovers, cotton, fruit, hops, lupins, ornamentals, peas, pine tree, potatoes, navy beans, safflower, shade trees, soybeans, sunflower, tobacco, tomatoes, vegetables and vines.

SABAKEM Fluroxypyr 400 can be damaging to susceptible crops during both growing and dormant periods.

Grasses are normally unaffected by SABAKEM Fluroxypyr 400 and establish quickly after treatmen. Transitory damage can occur on some species particularly those that spread by stolons such as cough grass (Cynodon dactylon), Kikuyu grass and carpet grass (Axonopus sp.)

DO NOT allow spray to drift onto susceptible crops, shade trees and Pinus spp.

DO NOT use under weather conditions or from spraying equipment that could cause spray to drift onto nearby susceptible plants.

# 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.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Alongside waterways, treat only noxious weeds and poisonous plants.

# Storage and Disposal:

Keep out of reach of children. Store in 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 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.

## 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 and a face shield or goggles. Wash hands after use. After each day's use wash gloves, face shield or goggles and contaminated clothing.

First Aid Instructions:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, DO NOT induce vomiting. If in eyes wash out immediately with water.

First Aid Warnings:	Warnings:	
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# **DIRECTIONS FOR USE**

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 APPL		•	
WEEDS CONTROLLED	ee General Instructions – A WEED GROWTH STAGE	Application Meth	nod for applicati RATE in WATER	on details  CRITICAL COMMENTS
Bathurst burr, Noogoora burr	Seedlings and young plants up to 40 cm high	NSW, NT, Qld, WA only	38mL/100L	
Black bindweed (Climbing buckwheat)	Seedlings and young plants before flowering	NSW, Qld only	150mL/100L	
Mimosa pigra	Apply from mid to late summer	NT, WA only		Add an appropriate crop oil/surfactant adjuvant (see
Common sensitive plant	Seedlings and young plants up to flowering	Qld, WA only	250mL/100L	<b>General Instructions</b> ; Oils and surfactants).
Bellyache bush		Qld, NSW, WA only		
Blackberry nightshade, Bokhara clover		NSW, Qld only		
Caltrop (yellow vine) ( <i>Tribulus terrestris</i> ) (T. <i>micrococcus</i> )	Seedlings and young plants up to 30 cm diameter			
Cobblers pegs	Up to 15 cm high	1		
Cockspur thorn	Up to 3 m high			
Creeping lantana	At flowering	1		
Crofton weed, Mistflower	Seedlings and young plants up to flowering			
Docks (Rumex spp.)	Seedlings and rosettes up to 30 cm high			
Hexham scent	Seedlings and young plants up to flowering			Boom spray: SABAKEM Fluroxypyr 400 at 0.3 L/ha + 0.5 L/ha of 2,4-D amine (500 g/L)
Honey locust	Seedlings and young plants up to 2 m high			
Small flowered mallow (Marshmallow)	Seedlings and young plants up to flowering			
(Malva parviflora) Yellowflower Devil's claw	Seedlings and young plants up to flowering			

Table 1 (cont): Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures.

HIGH VOLUME APPLICATION: Dilute product with water.  See General Instructions – Application Method for application details						
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE inWATER	CRITICAL COMMENTS		
Lantana	Seedlings and regrowth 0.5 to 1.2 m high	NSW, Qld only	250 mL/100L	Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old		
	Plants and regrowth 1.2 to 2 m high		500 mL/100L	woody plants with sparse canopies.		
Blue heliotrope	Flowering					
Limebush	Infestations up to 1.5 m high only					
Madeira vine	Apply at time of active growth		250 mL/100L			
Milkweed ( <i>Euphorbia</i> <i>heterophylla</i> )	3 leaf to flowering	Qld only	500 mL/100L	Repeat applications will be necessary to control subsequent germinations.		
Common sowthistle	Seedlings and young plants up to bolting	NSW, Qld only	250 mL/100L	Add a surfactant (see GENERAL INSTRUCTIONS; Oils and surfactants).		
Mother-of-millions (Kalanchoe spp.)	Seedling and young plants before flowering		300 mL/100L			
Prickly acacia	Seedling and young plants up to 2 m high	Qld only	375 mL/100L	Add appropriate crop oil/surfactant adjuvant (see <b>GENERAL INSTRUCTIONS</b> ; Oils and surfactants). Consult Tropical Weeds Research Centre, Charters Towers, for specific advice on application		
Sida spp.	Seedling and young plants up to flowering	NSW, NT, Qld, WA only	500 mL/100L			
Broadleaf Pepper tree (Schinus terebinthifolius)	Mature leaves, fruiting	Qld only	250 mL/100L	Winter application only. Contact Alan Fletcher Research Station for more information.		
Flannel weed (Sida cordifolia)						
Snakeweed (Dark and light blue)	Seedling and young plants before flowering		375 mL/100L	Add appropriate crop oil/surfactant adjuvant (see <b>GENERAL INSTRUCTIONS</b> ; Oils and surfactants).		
Stinking Passion Flower	Established plants and regrowth	Qld, NT, WA only	225 mL/100L	Use 70mL/15 L for a knapsack.		
Wandering jew (Tradescantia albiflora)	Young plants up to and including flowering	All States	750 mL/100L	Some regrowth will usually occur and will require retreatment.		
Wattles (including Acacia aulacocarpa A. decora	Seeding plants or regrowth 0.5 to 1.2 m high	NSW, Qld only	250 mL/100L	Apply to actively growing plants when soil moisture is plentiful. Some regrowth may occur particularly when		
A. harpophylla A. leiocalyx A. salicina)	Plants or regrowth 1.2 to 2.0 m high only		500 mL/100L	treating old woody plants with sparse canopies and under dry conditions.		

Table 1 (cont): Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures.

	SAL BARK AND CUT ST			<del>-</del>
	See General Instructions	s – Applica	tion Method for	application details
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE in diesel	CRITICAL COMMENTS
Celtis (Celtis sinensis)	Basal Bark only: Young plants up to 2	Qld only	1.8 L/100L	Treat stems from ground level to where multi-stemmed trunks branch.
	m high and 20 cm basal diameter			
Chinese apple	Up to 15 cm basal diameter		1.5 L/100L	With basal bark, treat circumference of stem to a height of 45cm from the ground. Contact the Land Protection Branch, Department of Lands, Qld, for further information on Chinese Apple.
Cockspur thorn	Basal Bark only: Up to 5 cm basal diameter		1 L/100L	
Mimosa bush (Acacia farnesiana)	Up to 5 cm basal diameter	Qld, WA only	1.5 L/100L	
Prickly acacia	Up to 10 cm basal diameter	Qld only	0.75 L/100L	
Honey locust	Plants up to 10 cm basal diameter	Qld, NSW	0.75 L/100L	With basal bark, treat circumference of stem to a height of 45cm from the
	Plants 10 to 20 cm basal diameter	only	1.5 L/100L	ground.  For cut stump application use a rate
	Plants >20cm basal diameter		2.5 L/100L	of 5L/100 diesel for all plant sizes.  Contact the Land Protection Branch, Department of Lands, Qld for further information on Honey Locust.
Sisal hemp ( <i>Agave</i> spp.)	All growth stages	Qld only	1.5 L/100L	Treat as an overall spray. Contact The Land Protection Branch, Department of Lands, 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 GROWTH STATE RATE CRITICAL COMMENTS STAGE						
Mimosa pigra	Actively growing plants	NT, WA only	1.5L/ha	Aerial application: Add appropriate crop oil/surfactant adjuvant 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: Use a drench gun or gas-powered gun.  See General Instructions – Application Method for application details							
WEEDS CONTROLLED WEED STATE RATE CRITICAL COMMENTS in water							
Limebush	Isolated bushes up to 1.2 m high only	NSW, Qld only	500mL/10L	Apply a 50 mL dose per 5m <sup>2</sup> of bush surface area.			
Tree violet (Hymenanthera dentata)	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	CRITICAL COMMENTS
Blue billygoat weed, Common sensitive plant, Giant sensitive plant, Spinyhead sida	Apply before flowering	Qld, WA only	750mL/ha	Add appropriate crop oil/surfactant adjuvant 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	1.5L/ha	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200L water/ha.
Silverleaf nightshade	From onset of flowering to early berry-set (usually spring to mid-summer)	NSW only	375mL or 190mL/ha + 1.2-1.6L/ha 2,4-D amine (625 g/L)	Add appropriate crop oil/surfactant adjuvant 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 & Qld only)

Table 3: 8	Table 3: Sorghum, Maize, Millets and Sweet corn (NSW & Qld only)								
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE	CRITICAL COMMENTS				
Sorghum	Apply when secondary roots are present, from 4 fully	Annual ground cherry, Wild gooseberry	2 to 8 leaf Up to 15 cm tall	250mL/ha	Sorghum: From 8 leaf to boot stage, use dropper nozzles to prevent				
	expanded leaves (15 cm tall) up to boot (also see	( <i>Physalis</i> spp.)	15 to 30 cm tall	375mL/ha	herbicide coming in contact with the crop's leaves and the growing				
	CRITICAL COMMENTS)	Apple-of-Peru	Seedling plants up to 15 cm tall		point (meristem).				
		Bathurst burr, Noogoora burr	2 to 8 leaf Up to 20 cm tall	250mL/ha					
Maize & Sweet	Apply when secondary roots are		20 to 50 cm tall	375mL/ha	Maize and sweet corn: From 6 leaf to just before				
corn	present, from 3 fully expanded leaves (10 cm tall) up to just before tasselling (see	present, from 3 fully expanded leaves	Pigweed (Portulaca	Up to 10 cm diameter	250mL/ha	tasseling, use dropper nozzles to prevent the herbicides coming in			
		oleracea)	10 to 30 cm diameter	375mL/ha	contact with the crop's leaves and the growing				
	CRITICAL COMMENTS)	Sesbania pea	2 to 6 leaf Up to 10 cm tall	750mL/ha	point (meristem).				
Millets	Spray when secondary roots have developed, usually early to mid- tillering, and not	Silverleaf nightshade (NSW only) (1)	Full flower to early berry	375mL/ha + LI700 at 300mL/ha	Millets: DO NOT use mixes with atrazine products.				
	later than before heads start to form at the base of tillers. (See CRITICAL COMMENTS)	Starburr (Acanthospermum hispidum) (Qld only)	Up to 12 leaf and before flowering	750mL/ha or 375mL/ha + 2 L/ha atrazine (500 g/L)	(1) This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at all crop stages.				
		Thornapples (Datura spp.)	2 to 8 leaf Up to 15 cm tall	375mL/ha					
		Volunteer sunflower	2 to 5 leaf Up to 20 cm tall	500mL/ha					

Table 3 (cont): Sorghum, Maize, Millets and Sweet Corn (NSW & Qld only)

S	SABAKEM Fluroxypyr 400 in tank-mixes with atrazine: Sorghum, Maize and Sweet corn.							
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE	CRITICAL COMMENTS			
Sorghum, Maize & Sweetcorn (cont).	See above (See CRITICAL COMMENTS)	Amaranthus spp. including: Boggabri weed, Dwarf amaranth, Green amaranth, Redshank, Anoda weed, Bladder ketmia, Black pigweed (Trianthema portulacastrum), Caltrop (yellow vine), including Tribulus terrestris, T. microccus and T. maximus Cowvine	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	250ml/ha + 1.5L/ha of atrazine flowable (500 g/L) or 375mL/ha + 2L/ha of atrazine flowable (500 g/L)	Use the low rate (250mL/ha + 1.5 L/ha) when weeds are small (5- 7 cm tall/ diameter).  Use the high rate (375mL/ha + 2 L/ha) when the weeds are larger (7 - 15 cm tall/ diameter).  SABAKEM Fluroxypyr 400 is generally more compatible with Liquid atrazine products (see GENERAL INSTRUCTIONS; compatibility section).			
		(peach vine) (Ipomoea Ionchophylla), Hairy wandering jew (Commelina benghalensis), Mintweed			Add a surfactant (See GENERAL INSTRUCTIONS; Oils and surfactants).  DO NOT add an oil to mixtures of SABAKEM Fluroxypyr 400 and atrazine.			
		Euphorbia davidii	Cotyledons to 4 nodes up to 15 cm	0.5 + 2 atrazine flowable (500 g/L)				
		Volunteer peanuts	Up to 15 cm diameter	0.5 + 4.5 atrazine flowable (500 g/L)				

	Sweet corn: Tasmania only							
CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS			
Sweet corn only	3 to 5 leaf	Blackberry nightshade,	3 to 5 leaf	0.5				
		Volunteer potatoes						

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

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE	CRITICAL COMMENTS
Apply from 3 leaf to flag (Zadoks 13 to 39)	Bedstraw (Galium tricornutum) Cleavers (Galium aparine)	1 to 3 whorl	Vic, SA, WA only NSW, Vic only	500mL/ha	(1) Add either an appropriate crop oil/surfactant adjuvant or a surfactant (see GENERAL INSTRUCTIONS: Oils and surfactants).
	Black bindweed	2 to 4 leaf	NSW,	250mL/ha <sup>(1)</sup>	Useful suppression only.
	(Climbing buckwheat)	2 to 6 leaf	Qld only	375mL/ha or 250mL/ha + 5 g/ha Metsulfuron methyl 600	Mixtures: Mixing partners with SABAKEM Fluroxypyr 400 may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation.
	Common sowthistle (Sonchus oleraceus)	2 to 5 leaf		500mL/ha	
	Deadnettle	2 to 6 leaf		750mL/ha	
	Spiny emex (Doublegee, Three cornered jack)	2 to 4 leaf	NSW, SA, Qld, WA only	or 250mL/ha + 5g/ha Metsulfuron methyl <sup>(1)</sup>	
	Prickly lettuce	2 to 5 leaf	NSW, Qld, Tas, Vic, WA	500mL/ha	
	Volunteer lupins	2 to 8 leaf	NSW, Vic, WA only	750mL/ha	
	Volunteer potato	10 to 15 cm tall	WA and Tas only		Plants 15 to 30 cm tall will only be suppressed.
	Wireweed	2 to 3 leaf	NSW, Qld, SA, Tas, Vic and WA		
			NSW and Qld only	250mL/ha + 5g/ha Metsulfuron methyl (1)	
	Bittercress (Coronopus didymus), Mustards,	Up to 8 leaf and up to 15 cm diameter	Qld, NSW, Vic, SA, Tas, WA	250mL/ha to 750mL/ha +	The SABAKEM Fluroxypyr rate depends on what other weeds are present as listed above.
	Shepherd's purse, Turnip weed,		only	Metsulfuron methyl <sup>(1)</sup>	See <b>Mixtures</b> comment above.
	Wild radish, Wild turnip			or Eclipse <sup>(1)</sup> or	Metsulfuron methyl (600g/kg) @ 5 g/ha (this mix does not control wild radish).
				MCPA LVE or	Eclipse @ 5-7 g/ha (use the 5 g rate on turnip weed only).  MCPA LVE (500 g/L) @ 700
				MCPA amine	mL/ha.  MCPA Amine (500 g/L) @ 1.0 L/ha.

Table 5: Summer Fallow

Table 5: Summer Fall		T		T
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE	CRITICAL COMMENTS
Annual ground cherry, Wild gooseberry	2 to 8 leaf, up to 15 cm tall	NSW, Qld only	375ml/ha <sup>(2)</sup>	(1) Add an appropriate crop oil/ surfactant adjuvant (see <b>GENERAL</b> <b>INSTRUCTIONS</b> ; Oils and surfactants).
(Physalis spp.) Bathurst burr, Noogoora burr	2 to 8 leaf, up to 20 cm tall	NSW, Qld, Vic, WA only		When mixing with Glyphosate 450g/L to control both grass and broadleaf
Bellvine	Pre-flowering	NSW, Qld	250mL/ha +	weeds, refer to the Glyphosate 450g/L
Bladder ketmia	4 to 8 leaf, up to 10 cm tall	only	1.2L/ha Glyphosate 450g/L	label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS;
Cowvine (Peach vine) Ipomoea lonchophylla	2 to 10 leaf up to 10 cm diameter		+30g/L	compatibility section).  (2) Delay treatment until the maximum
Caltrop (Yellow vine), including Tribulus terrestris, T. maximus and T. microccus	Up to 15 cm diameter		250mL/ha + 1.0mL/ha Glyphosate 450g/L	number of shoots have emerged, but before the onset of fruiting (late summer).  DO NOT treat plants showing symptoms from previous treatment.
Pigweed (Portulaca oleracea)	Up to 10 cm diameter		375mL/ha <sup>(1)</sup>	Use the high rate when longer-term weed control (6-10 months) is required and delay planting crops during this
(r shalasa sishassa)	Up to 60 cm diameter		375mL/ha + 1.0mL/ha Glyphosate 450g/L	period. The low rate will require follow- up treatments.
Polymeria pusilla	2 to 10 leaf up to 20 cm diameter		(1) or 250mL/ha + 1.2L/ha Glyphosate 450g/L	
Rhynchosia	Seedlings to early flowering		500mL/ha <sup>(1)</sup> or 190mL/ha + 800mL/ha Glyphosate 450g/L	
Smallflower mallow or Marshmallow (Malva parviflora)	Up to 8 leaf up to 20 cm diameter		500mL/ha <sup>(1)</sup>	
Thornapples ( <i>Datura</i> spp.)	2 to 8 leaf up to 15 cm diameter	NSW, Qld, WA only	375mL/ha <sup>(1)</sup> or 250mL/ha + 1.2mL/ha Glyphosate 450g/L	
Sesbania pea	2 to 6 leaf up to 10 cm tall	NSW Qld only	750mL/ha <sup>(1)</sup> or 250mL/ha + 1.2mL/ha Glyphosate 450g/L	
Perennial Ground Cherry ( <i>Physalis</i> <i>virginiana</i> ) <sup>(w)</sup>	Bud to early flowering up to 20 cm tall		750mL or 1.5mL/ha <sup>(1)</sup>	
Silverleaf nightshade	Full flower to early berry-set (usually Dec – Feb)	NSW only	375mL/ha or 190mL/ha + 1.5L – 2L/ha 2,4-D amine (500 g/L)	Add an appropriate crop oil/surfactant adjuvant at the rate of 1 L/100 L spray mixture.  To ensure maximum effect, delay application until the majority of shoots

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE	CRITICAL COMMENTS
				have emerged.  Follow-up treatment will be required to control regrowth and is critical for optimum 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	500mL/ha + 4.5L/ha atrazine flowable (500 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	500mL/ha	Add an appropriate crop oil/surfactant adjuvant (see <b>General Instructions</b> ; Oils and surfactants section).

**Table 6: Winter Fallow** 

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

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

rable /: Sugar	Table 7: Sugar cane (Qld, NSW, NT and WA only)						
CROP STAGE GROWTH	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE	CRITICAL COMMENTS			
From early tillering to maturity	Balsum 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) Bellvine, Morning glory, Red or pink convolvulus,	Apply from 2 to 3 leaf until flowering	Ground: 650mL/ha Aerial: 750mL/ha  As above + 1L/ha 2,4-D amine (500 g/L)	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 an appropriate crop oil/surfactant adjuvant at 1L/100L spray mixture.  Ground application: Apply in 100 – 400 L/ha water and add an appropriate crop oil/surfactant adjuvant at 500 mL/100L of spray mixture.			
	Star-of-Bethlehem 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 (Euphorbia heterophylla)	Seedlings and young plants up to flowering.	1.5 or 1.15 + 4 atrazine flowable (500 g/L)	Better control will be achieved with the atrazine mixture. Delay application until just before the cane reaches the "closein" stage. This will improve control and minimise the number of seedlings that germinate.			

Table 8: Lucerne (NSW only)

CROP STAGE GROWTH	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE	CRITICAL COMMENTS
Established crops at least eighteen months old	Annual ground cherry, Bathurst burr, Noogoora burr, Wild gooseberry	2 to 8 leaf up to 15 cm high  Up to 10 cm diameter	250mL/ha	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.  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, SABAKEM Fluroxypyr 400 can be mixed with 2,4-DB Amine

Table 9: Poppies (Tas only)

CROP STAGE GROWTH	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE	CRITICAL COMMENTS	
4 to 6 leaf	Cleavers, Fumitory	2 to 6 leaf	500mL/ha		
	Shepherd's purse, Wireweed		500mL/ha + 5L/ha Asulox *		
8 to 10 leaf	Common sowthistle, Prickly lettuce	2 to 5 leaf	500mL/ha	DO NOT apply SABAKEM Fluroxypyr 400 to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid	
	Black nightshade	Cotyledon to 4 leaf	750mL/ha	content could occur.	
	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**

SABAKEM Fluroxypyr 400 may be mixed with water or diesel.

Mix only sufficient chemical for each day's use and avoid storing.

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

**Mixing in Diesel:** Half fill the tank with diesel and add the required quantity of SABAKEM Fluroxypyr 400. 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 (SABAKEM Fluroxypyr 400). Add spraying oils and surfactants (wetters) last.

# **OILS AND SURFACTANTS**

## Oils

Use an appropriate crop oil/surfactant adjuvant 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 this adjuvant is used, unless 1 L/100 L or 1 L/ha is specified.

# **Surfactants (wetters)**

Use a 1000g/L non-ionic surfactant such at 100 mL/100 L of spray mix where required.

## **COMPATIBILITY**

SABAKEM Fluroxypyr 400 is compatible with the herbicides listed. Follow any regional restrictions, and all directions and restrictions on the label, of any chemical mixed with SABAKEM Fluroxypyr 400.

Atrazine (see below) Glyphosate 360
Metsulfuron methyl (600g/kg) Glyphosate 450g/L

Broadstrike Clodinafop 240 EC (see below)

Eclipse Picloram + 2,4-D Diclofop-methyl Picloram + MCPA

Triclopyr (600 g/L)

Clopyralid 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 SABAKEM FLUROXYPYR AND ATRAZINE. SABAKEM Fluroxypyr plus atrazine tank mixes <u>must be agitated vigorously and continuously during mixing and application</u>. After mixing DO NOT allow to stand without agitation. Ensure that the time <u>from mixing to the end of application is not more than 2 hours</u>. If settling out 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 SABAKEM Fluroxypyr 400 and atrazine.

Guidelines For Tank-Mixing SABAKEM Fluroxypyr 400 and Common Atrazine Formulations

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Tank Mix	Rate/ha	W	ater Hardne	ess	Minimum Water Volume (L/ha)		Critical Comments	
		Soft	Medium	Hard	Ground	Aerial		
SABAKEM Fluroxypyr	375mL	✓	✓	✓	50	35		
SABAKEM Fluroxypyr + Gesaprim 500FW	375mL + 2L	✓	<b>✓</b>	<b>✓</b>	50 – 100	35	Precipitate can be easily resuspended	
SABAKEM Fluroxypyr + Atradex 900WG	375mL + 1.1L	✓	*	*	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.	
SABAKEM Fluroxypyr + Nu-Trazine DF	375mL + 1.1L	✓	*	*	100	Do not use	Sediment may be difficult to resuspend and may block nozzles	
SABAKEM Fluroxypyr + Nu-Trazine 500FW	375mL + 2L	✓	<b>✓</b>	*	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.	

## Clodinafop 240 EC Herbicide

Always use an appropriate crop oil/surfactant adjuvant with SABAKEM Fluroxypyr 400 + Clodinafop 240 EC tank-mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.

DO NOT mix SABAKEM Fluroxypyr 400 with Clodinafop 240 EC if the grass weeds are not actively growing. Always use the maximum label rate of. Clodinafop 240 EC for the appropriate grass growth stage.

DO NOT use SABAKEM Fluroxypyr at more than 0.375 L/ha in tank mixes with Clodinafop 240 EC.

# **GLYPHOSATE 450g/L**

When mixing SABAKEM Fluroxypyr with Glyphosate 450g/L to control both grass and broadleaf weeds, refer to the Glyphosate 450g/L label for use rates and adjuvants recommended for the grasses. DO NOT use Glyphosate 450g/L at less than 1.2 L/ha in tank mixes with SABAKEM Fluroxypyr 400, when barnyard grass, buttongrass, crowsfoot 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 SABAKEM Fluroxypyr 400 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 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 sugarcane).

Use equipment calibrated to produce droplets with an average diameter (Volume Mean Diameter; VMD) of 250 – 350 micron.

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/100m<sup>2</sup>) 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 50mL shots to cover 4 to 5 m<sup>2</sup> of surface area of plant. This is approximately equivalent to 20 droplets per cm<sup>2</sup> 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 approximate 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 the 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 SABAKEM Fluroxypyr 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 the 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/100L of water or the powder equivalent at 500 g/100 L 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.

## 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 and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 50 mL/10L of water or the powder equivalent at 50 g/10 L of water. Shake 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 RE-CROPPING PERIODS**

RATE L/ha	0.188	0.375	0.75	
CROP		DAYS		
Barley	7	7	7	
Wheat	7	7	7	
Chickpea	7	7	7	
Cotton	14	14	28	
Soybean	7	7	14	
Sunflower	7	7	7	
Maize	7	7	7	
Sorghum	7	7	7	

**NOTE**: Before using SABAKEM Fluroxypyr 400 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.