

**CAUTION**

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



**Starane<sup>\*</sup> 200**  
**Herbicide**

**ACTIVE CONSTITUENT: 200 g/L FLUROXYPYR present as the methylheptyl ester**  
**SOLVENT: 586 g/L LIQUID HYDROCARBON**

**GROUP I HERBICIDE**

**For the control of a wide range of Broadleaf Weeds in Fallow, Lucerne, Maize, Millets, Pastures, Poppies, Sorghum, Sugar Cane, Sweetcorn, 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.**

**IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE.**

**Contents:** 1L, 5 L, 20 L

**Dow AgroSciences Australia Limited A.B.N. 24 003 771 659**  
20 Rodborough Road  
Frenchs Forest NSW 2086  
[www.dowagrosciences.com.au](http://www.dowagrosciences.com.au)

**CUSTOMER SERVICE TOLL FREE 1-800 700 096**

\*Trademark of Dow AgroSciences

NRA Approval No: 40352/0999  
GMID No: 79005 (1L), 79135 (5L), 78899 (20L)

## STORAGE AND DISPOSAL

- Store in closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
- Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.
- If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SMALL SPILL MANAGEMENT

Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, 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.

## 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, 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

- If poisoning occurs, contact a doctor or Poisons Information Centre (Ph.: 13 11 26).
- If swallowed, DO NOT induce vomiting. Give a glass of water.

## MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet for Starane 200 Herbicide which is available from Dow AgroSciences on request. Call Customer Service Toll Free on 1-800 700 096.

## NOTICE

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. No warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of the product contrary to label instructions or under off-label permits not endorsed by Dow AgroSciences, or under abnormal conditions.

**EMERGENCY RESPONSE**  
(All Hours)  
RING FROM ANYWHERE IN AUSTRALIA  
**1-800 033 882**  
(LOCAL CALL FEE ONLY)



IN A TRANSPORT EMERGENCY ONLY  
DIAL 000  
FOR POLICE OR FIRE BRIGADE

Barcode  
for stock  
identification

D.O.M./Batch No.:

## **DIRECTIONS FOR USE**

### **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 within one hour.

**Index** (Note: This will show page numbering in final printed version)

<b>Table 1</b>	<b>Woody Weeds in Agricultural Non-Crop Areas and Rights-of-way, Commercial and Industrial Areas, Forests and Pastures</b>
<b>Table 2</b>	<b>Established Grass Pastures (Ground and Aerial)</b>
<b>Table 3</b>	<b>Sorghum, Maize, Millets and Sweet corn</b>
<b>Table 4</b>	<b>Winter Cereals (Wheat, Barley, Oats and Triticale)</b>
<b>Table 5</b>	<b>Summer Fallow</b>
<b>Table 6</b>	<b>Winter Fallow</b>
<b>Table 7</b>	<b>Sugar cane</b>
<b>Table 8</b>	<b>Lucerne (established only)</b>
<b>Table 9</b>	<b>Poppies</b>

**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.

<b>HIGH VOLUME APPLICATION: Dilute product with water See General Instructions - Application Method for application details</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE mL/100L of water</b>	<b>CRITICAL COMMENTS</b>
Bathurst burr Noogoora burr	Seedlings and young plants up to 40 cm high	NSW, NT, Qld, WA only	75	
Black bindweed (Climbing buckwheat) <i>Mimosa pigra</i>	Seedlings and young plants before flowering Apply from mid to late summer.	NSW, Qld only NT, WA only	300	
Common sensitive plant Bellyache bush	Seedlings and young plants up to flowering	Qld, WA only Qld, NSW, WA only	500	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS; Oils and surfactants)
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			
Honey locust	Seedlings and young plants up to 2m 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 1.2m high Plants and regrowth 1.2 to 2 m high			
Blue heliotrope	Flowering			
Limebush	Infestations up to 1.5m high only			
Madeira vine	Apply at time of active growth		1000	Boom spray: Starane 200 at 0.3L/ha + 0.5L/ha of 2,4-D amine (500 g/L).
Milkweed ( <i>Euphorbia heterophylla</i> )	3 leaf to flowering	Qld only	500	Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old woody plants with sparse canopies.
Common sowthistle	Seedlings and young plants up to bolting	NSW, Qld only	500	Repeat applications will be necessary to control subsequent germinations.
Mother-of-millions ( <i>Kalanchoe</i> spp.)	Seedling and young plants before flowering		600	Add a surfactant (See GENERAL INSTRUCTIONS; Oils and surfactants).

**Table 1: Woody Weeds in Agricultural non-crop areas and Rights-of- way, Commercial and Industrial areas, Forests and Pastures**

<b>HIGH VOLUME APPLICATION: Dilute product with water See General Instructions - Application Method for application details</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE mL/100L of water</b>	<b>CRITICAL COMMENTS</b>
Prickly acacia	Seedling and young plants up to 2m high	Qld only	750	Add Uptake Spraying Oil (See GENERAL INSTRUCTIONS; Oils and surfactants). Consult Tropical Weeds Research Centre, Charters Towers, for specific advice on application.
<i>Sida</i> spp.	Seedlings and young plants up to flowering	NSW, NT Qld, WA	1000	
Broadleaf Pepper tree ( <i>Schinus terebinthifolius</i> ) QLD only	Mature leaves, fruiting	Qld only	500	Winter application only. Contact Alan Fletcher Research Station for more information.
Flannel weed ( <i>Sida cordifolia</i> )				
Snakeweed, (Dark and light blue)	Seedling and young plants before flowering		750	Add Uptake Spraying Oil (See GENERAL INSTRUCTIONS; Oils and surfactants).
Stinking Passion Flower	Established plants and regrowth	Qld, NT, WA	450	Use 70 mL/15 L for a knapsack.
Wandering jew ( <i>Tradescantia albiflora</i> )	Young plants up to and including flowering	All States	1500	Some regrowth will usually occur and will require retreatment.
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 1.2m high	NSW, Qld only	500	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 2.0m high only		1000	

**Table 1: Woody Weeds in Agricultural non-crop areas and Rights-of- way, Commercial and Industrial areas, Forests and Pastures**

<b>BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel. See General Instructions - Application Method for application details</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE L/100L of diesel</b>	<b>CRITICAL COMMENTS</b>
<i>Celtis (Celtis sinensis)</i>	<b>Basal Bark only:</b> Young plants up to 2m high and 20 cm basal diameter	Qld only	3.5	Treat stems from ground level to where multi-stemmed trunks branch.
Chinee apple	Up to 15 cm basal diameter		3	With basal bark, treat circumference of stem to a height of 45 cm from the ground. Contact The Land Protection Branch, Department of Lands, Qld, for further information on Chinee Apple.
Cockspur thorn	<b>Basal Bark only:</b> Up to 5 cm basal diameter		2	
Mimosa bush ( <i>Acacia farnesiana</i> )	Up to 5 cm basal diameter	Qld, WA only	3	
Prickly acacia	Up to 10 cm basal diameter	Qld only	1.5	
Honey locust	Plants up to 10 cm basal diameter	Qld, NSW only	1.5	With basal bark, treat circumference of stem to a height of 45 cm from the ground. <b>For cut stump application</b> use a rate of 5 L/100 diesel for all plant sizes. Contact The Land Protection Branch, Department of Lands, Qld, for further information on Honey Locust.
	Plants 10 to 20 cm basal diameter		3	
	Plants >20 cm basal diameter		5	
Sisal hemp ( <i>Agave spp.</i> )	All growth stages	Qld only	3	Treat as an overall spray. Contact The Land Protection Branch, Department of Lands, Qld for advice to control large infestations.
			10 mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.
<b>BROADCAST AND AERIAL APPLICATION: Dilute product with water. See General Instructions - Application Method for application details</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE L/ha</b>	<b>CRITICAL COMMENTS</b>
<i>Mimosa pigra</i>	Actively growing plants	NT, WA only	3L	Aerial application: Add Uptake Spraying Oil at the rate of 1L/100L spray mix. Apply to actively growing plants from mid to late summer. Contact the Department of Primary Industries and Fisheries, NT for further information.
<b>LOW VOLUME, HIGH CONCENTRATE APPLICATION: Using a drench gun or gas-powered gun. See General Instructions - Application Method for application details</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE 10L of water</b>	<b>CRITICAL COMMENTS</b>
Limebush	Isolated bushes up to 1.2m high only	NSW, Qld only	1	Apply a 50 mL dose per 5m <sup>2</sup> of bush surface area.
Tree violet ( <i>Hymenanchera 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	1.5	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	3	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	0.75 or 0.375 + 1.5 - 2 2,4-D amine (500g/L)	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 L/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	0.5	<b>Sorghum:</b> 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).  <b>Maize and sweet corn:</b> From 6 leaf to just before tasselling, use dropper nozzles to prevent the herbicides coming in contact with the crop's leaves and the growing point (meristem).  <b>Millets: DO NOT</b> use mixes with Atrazine  ● This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at <b>all crop stages.</b>
			15 to 30 cm tall	0.75	
		Apple-of-Peru	Seedling plants up to 15 cm tall		
		Bathurst burr Noogoora burr	2 to 8 leaf Up to 20 cm tall	0.5	
20 to 50 cm tall	0.75				
Maize and Sweet corn	Apply when secondary roots are present, from 3 fully expanded leaves (10 cm tall) up to just before tasseling (See CRITICAL COMMENTS)	Pigweed ( <i>Portulaca oleracea</i> )	Up to 10 cm diameter	0.5	
			10 to 30 cm diameter	0.75	
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)	Sesbania pea	2 to 6 leaf Up to 10 cm tall	1.5	
		Silverleaf nightshade (NSW only) ●	Full flower to early berry	0.75 + Uptake at 1 L/ha	
		Starburr ( <i>Acanthospermum hispidum</i> ) (Qld only)	Up to 12 leaf and before flowering	1.5 or 0.75 + 2 L atrazine (500 g/L)	
		Thornapples ( <i>Datura</i> spp.)	2 to 8 leaf Up to 15 cm tall	0.75	
		Volunteer sunflower	2 to 5 leaf Up to 20 cm tall	1	

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

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS
<b>Starane 200 in tank-mixes with atrazine: Sorghum, Maize and Sweet Corn</b>					
Sorghum, Maize and Sweet corn (continued)	<i>See Above</i>	<i>Amaranthus</i> spp. including: Boggabri weed, Dwarf amaranth, Green amaranth, Redshank 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> Cowvine (peach vine) ( <i>Ipomoea lonchophylla</i> ) Hairy wandering jew ( <i>Commelina benghalensis</i> ) Mintweed	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	0.5 + 1.5 of atrazine flowable (500 g/L) <b>or</b> 0.75 + 2 of atrazine flowable (500 g/L)	<p><b>Use the low rate</b> (0.5 + 1.5 L) when weeds are small (5-7 cm tall/diameter).</p> <p><b>Use the high rate</b> (0.75 L + 2 L) when the weeds are larger (7-15 cm tall/diameter).</p> <p>Starane 200 is generally more compatible with <b>Liquid atrazine products (see GENERAL INSTRUCTIONS; compatibility section)</b>.</p> <p>Add a surfactant (see GENERAL INSTRUCTIONS; Oils and surfactants).</p> <p><b>DO NOT</b> add an oil to mixtures of Starane 200 and atrazine.</p>
		<i>Euphorbia davidii</i>	Cotyledons to 4 nodes up to 15 cm	1 + 2 atrazine flowable (500 g/L)	
		Volunteer peanuts	Up to 15 cm diameter	1 + 4.5 atrazine flowable (500 g/L)	
<b>Sweet Corn: Tasmania only</b>					
Sweet corn only	3 to 5 leaf	Blackberry nightshade Volunteer potatoes	3 to 5 leaf	1	

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

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/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	1	<b>Ⓢ Add either Uptake or a surfactant (see GENERAL INSTRUCTIONS; Oils and surfactants).</b>
	Cleavers ( <i>Galium aparine</i> )		NSW, Vic only		
	Black bindweed (Climbing buckwheat)	2 to 4 leaf	NSW, Qld only	0.5Ⓢ	Useful suppression only
		2 to 6 leaf			
	Common sowthistle ( <i>Sonchus oleraceus</i> )	2 to 5 leaf		1	
	Deadnettle	2 to 6 leaf		1.5 or 0.5 + 5 g AllyⓈ	
	Spiny emex (Doublegee, Three cornered jack)	2 to 4 leaf		NSW, SA, Qld, WA	
	Prickly lettuce	2 to 5 leaf	NSW, Qld, Tas, Vic, WA	1	
	Volunteer lupins	2 to 8 leaf	NSW, Vic, WA only	1.5	
	Volunteer potato	10 to 15cm 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, WA		
			NSW and Qld only	0.5 + 5 g AllyⓈ	
	Bittercress ( <i>Coronopus didymus</i> ) Mustards Shepherd's purse Turnip weed Wild radish Wild turnip	Up to 8 leaf and up to 15 cm diameter	Qld, NSW, Vic, SA, Tas, WA	0.5 to 1.5 + AllyⓈ or EclipseⓈ or MCPA LVE or MCPA amine	The Starane 200 rate depends on what other weeds are present as listed above See <b>Mixtures</b> comment above Ally @ 5 g/ha (This mix does not control wild radish) Eclipse @ 5-7 g/ha (use the 5 g rate on turnip weed only) MCPA LVE (500 g/L) @ 700 mL/ha MCPA amine (500 g/L) @ 1.0 L/ha.

**Table 5: Summer Fallow**

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
Annual ground cherry Wild gooseberry ( <i>Physalis</i> spp.)	2 to 8 leaf, up to 15 cm tall	NSW, Qld only	0.75 <sup>②</sup>	① Add Uptake spraying oil (see GENERAL INSTRUCTIONS; Oils and surfactants section).
Bathurst burr Noogoora burr	2 to 8 leaf, up to 20 cm tall	NSW, Qld, Vic, WA only		
Bellvine	Pre-flowering	NSW, Qld only	0.5 + 1.2 Roundup <sup>®</sup> CT	When mixing with Roundup CT to control both grass and broadleaf weeds, refer to the Roundup CT label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS; Compatibility Section).  ② Delay treatment until the maximum number of shoots have 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.
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 15 cm diameter		0.5 + 1.0 Roundup CT	
Pigweed ( <i>Portulaca oleracea</i> )	Up to 10 cm diameter		0.75 <sup>①</sup>	
	Up to 60 cm diameter		0.75 + 1.0 Roundup CT	
<i>Polymeria pusilla</i>	2 to 10 leaf up to 20 cm diameter		1 <sup>①</sup> or 0.5 + 1.2 Roundup CT	
Rhynchosia	Seedlings to early flowering		1 <sup>①</sup> or 0.375 + 0.8 Roundup CT	
Smallflower mallow or Marshmallow ( <i>Malva parviflora</i> )	up to 8 leaf up to 20 cm		1 <sup>①</sup>	
Thornapples ( <i>Datura</i> spp.)	2 to 8 leaf up to 15 cm diameter		NSW, Qld, WA only	
Sesbania pea	2 to 6 leaf up to 10 cm tall	NSW, Qld only	1.5 <sup>①</sup> or 0.5 + 1.2 Roundup CT	
Perennial Ground Cherry ( <i>Physalis virginiana</i> ) <sup>②</sup>	Bud to early flowering up to 20 cm tall		1.5 or 3 <sup>①</sup>	

③ Registered Trademark

**Table 5 (Continued): Summer Fallow**

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
Silverleaf nightshade	Full flower to early berry-set (usually Dec - Feb)	NSW only	0.75 or 0.375 + 1.5 - 2 2,4-D amine (500 g/L)	Add Uptake spraying oil at the rate of 1 L/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	1+ 4.5 atrazine flowable (500 g/L)	Add a surfactant (see GENERAL INSTRUCTIONS; Oils and surfactants). <b>Important:</b> See GENERAL INSTRUCTIONS; Compatibility section.
Volunteer sunflowers	2 to 5 leaf up to 20 cm	NSW, Qld only	1	Add Uptake Spraying Oil (See GENERAL INSTRUCTIONS; Oils and surfactants section).

**Table 6: Winter Fallow**

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
Bedstraw ( <i>Galium tricornutum</i> )	Up to 5 whorl	Vic, SA, WA only	1 <sup>①</sup>	<sup>①</sup> Add Uptake Spraying Oil (See GENERAL INSTRUCTIONS; Oils and surfactants). <sup>②</sup> Add Uptake or a surfactant (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	0.75 <sup>①</sup>	When mixing with Roundup CT to control both grass and broadleaf weeds, refer to the Roundup CT 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		1.0 <sup>①</sup> or 0.5 + 0.6 Roundup CT	
Prickly lettuce				
Spiny emex (Doublegee, Three cornered jack)	2 to 8 leaf	1.5 <sup>①</sup> or 0.5 <sup>②</sup> + 5 g Ally		
Wireweed	2 to 3 leaf up to 10 cm tall	1.5 <sup>①</sup> or 0.5 <sup>②</sup> + 5 g Ally or 0.5 <sup>②</sup> + 0.6 Roundup CT		

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

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE L/ha	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)	Apply from 2 to 3 leaf until flowering	Ground: 1.3  Aerial: 1.5	For optimal weed control, delay application until just before the “close-in” stage. <b>Aerial application:</b> Apply in not less than 60 L/ha water and add Uptake Spraying Oil at 1L / 100L spray mixture. <b>Ground application:</b> Apply in 100 - 400 L/ha water and add Uptake Spraying Oil at 500 mL / 100L of spray mixture.
	Bellvine, Morning glory Red or pink convolvulus Star-of-Bethlehem		As above + 1 2,4-D amine (500 g/L)	
	Stinking passion flower	Established or ratoon plants with at least 1.0 m of regrowth	<b>High volume:</b> 450 mL/100 L water  <b>Knapsack::</b> 70 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	3 or 2.3 + 4 atrazine flowable (500 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	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE L/ha	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	0.5	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.  <b>DO NOT</b> treat crops growing on sandy or stony soils. <b>DO NOT</b> treat crops after the summer growing season (after end of March). To broaden the spectrum of weeds controlled, Starane 200 can be mixed with 2,4-DB amine.
	Pigweed	Up to 10 cm diameter		

**Table 9: Poppies (TAS only)**

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS
4 to 6 leaf	Cleavers	2 to 6 leaf	1	
	Fumitory Shepherd's purse Wireweed		1 + 5 Asulox	
8-10 leaf	Common sowthistle Prickly lettuce	2 to 5 leaf	1	<b>DO NOT</b> apply Starane 200 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	1.5	
	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**

**WITHHOLDING PERIODS:**

**CROPS AND PASTURES:** DO NOT GRAZE FAILED CROPS AND TREATED PASTURES OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

**POPPIES:** DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST

**MINIMUM RECROPPING PERIODS**

Plant-back periods for crops following the application of Starane 200 for rates up to 1.5L/ha.			
RATE L/ha	0.375	0.75	1.5
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 Starane 200 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.

## GENERAL INSTRUCTIONS

### MIXING:

- Starane 200 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 Starane 200 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 Starane 200. 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 (Starane 200). 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 100L/ha spray volume, ensure a minimum of 250 mL/ha of Uptake is used, unless 1 L/100L or 1 L/ha is specified.

#### Surfactants (wettters):

Use a 100% concentrate non-ionic surfactant such as BS1000® at 100 mL/100 L of spray mix where required.

### COMPATIBILITY

Starane 200 is compatible with the herbicides listed.

Follow any regional restrictions, and all directions and restrictions on the label, of any chemical mixed with Starane 200.

atrazine (see below)

Ally®

Broadstrike\*

Eclipse\*

diclofop methyl

Garlon\* 600

Lontrel\*

MCPA

Puma® S

Roundup®

Roundup® CT (see below)

Topik® 240 EC (see below)

Tordon\* 75-D

Tordon\* 242

Touchdown®

2,4-D

2,4-DB

\* Trademark of Dow AgroSciences

® Registered Trademark

### 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 STARANE AND ATRAZINE.**

Starane 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 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 Starane and atrazine.

### **Guidelines For Tank-Mixing Starane 200 And Common Atrazine Formulations:**

Tank Mix	Rate (L/ha)	Water Hardness			Minimum Water Volume (L/ha)		Comments
		Soft	Medium	Hard	Ground	Aerial	
Starane	0.75	✓	✓	✓	50	35	
Starane + Gesaprim® 500FW	0.75 + 2	✓	✓	✓	50 - 100	35	Precipitate can be easily resuspended
Starane + Atradex® 900WG	0.75 + 1.1	✓	✗	✗	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles
Starane + Nu-Trazine® DF	0.75 + 1.1	✓	✗	✗	100	Do not use	Sediment may be difficult to resuspend and may block nozzles
Starane + Nu-Trazine® 500FW	0.75 + 2	✓	✓	✗	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles

\* Trademark of Dow AgroSciences

® Registered Trademark

#### **TOPIK 240 EC**

- Always use Uptake Spraying Oil with Starane 200 + Topik 240 EC tank-mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.
- DO NOT mix Starane 200 with Topik 240 EC if the grass weeds are not actively growing. Always use the maximum label rate of Topik 240 EC for the appropriate grass growth stage.
- DO NOT use Starane 200 at more than 0.75 L/ha in tank mixes with Topik 240 EC.

#### **ROUNDUP CT**

- When mixing Starane 200 with Roundup CT to control both grass and broadleaf weeds, refer to the Roundup CT label for use rate and adjuvants recommended for grasses. DO NOT use Roundup CT at less than 1.2 L/ha in tank mixes with Starane 200, 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 Starane 200 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 manufacturers 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 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.

### **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 m<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 50 mL 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 appropriate lance and solid cone nozzle. If using spray equipment use low pressures ( $\leq 200$  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 Starane 200 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<sup>®</sup>, OMO<sup>®</sup> or DRIVE<sup>®</sup>) at 500 mL/100 L of water or the powder equivalent at 500 g/100 L 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<sup>®</sup> 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<sup>®</sup>, OMO<sup>®</sup> or DRIVE<sup>®</sup>) at 50 mL/10 L 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.

® Registered Trademark

## RESISTANT WEED WARNING

### Mode of Action

GROUP	I	HERBICIDE
-------	---	-----------

Starane 200 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 disrupters of plant cell growth 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 disrupters of plant cell growth herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Dow AgroSciences 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 local Dow AgroSciences representative.

### 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.
- Starane 200 can be damaging to susceptible crops during both growing and dormant periods.
- Grasses are normally unaffected by Starane 200 and establish quickly after treatment. Transitory damage can occur on some species particularly those that spread by stolons such as couch 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 which could be expected to 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, therefore livestock should be kept out of the area until the plants have died down.
- 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**

- Store in closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
- Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.
- If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## **SMALL SPILL MANAGEMENT**

Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, 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.

## **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, 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**

- If poisoning occurs, contact a doctor or Poisons Information Centre (Ph.: 13 11 26).
- If swallowed, DO NOT induce vomiting. Give a glass of water.