

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Starane[®] Advanced

HERBICIDE

ACTIVE CONSTITUENT: 333 g/L FLUROXYPYR as the methyl heptyl ester

GROUP I HERBICIDE

For the control of a wide range of broadleaf weeds in fallow, lucerne, maize, millets, pastures, poppies, sorghum, sugar cane, sweet corn, 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.

Pack Sizes: 5 L, 20 L, 100 L, 1000 L

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre.
Phone: *Australia* 13 11 26.

**EMERGENCY RESPONSE
(ALL HOURS)**
RING FROM ANYWHERE IN
AUSTRALIA
1800 370 754
(LOCAL CALL FEE ONLY)

SAFETY DIRECTIONS

- Will irritate the eyes and skin. Avoid contact with eyes and skin.
- Repeated exposure may cause allergic disorders.
- When opening the container, and preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, (when using the spray for high volume applications with a hand gun or knapsack wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat) and elbow-length PVC gloves, a face shield or goggles.
- After each day's use, wash gloves, face shield or goggles and contaminated clothing.
- Wash hands after use.

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

SAFETY DATA SHEET

Additional information is listed on the Safety Data Sheet for **STARANE[®] ADVANCED HERBICIDE** which is available from Corteva Agriscience on request. Call Customer Service Toll Free on 1-800 700 096 or visit www.corteva.com.au



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Visit us at Corteva.com.au

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 (1) hour.

1. WOODY WEED SITUATIONS

Table A: High volume spraying: Dilute product with water.

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD details**.

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

AGRICULTURAL NON-CROP AREAS, COMMERCIAL AND INDUSTRIAL AREAS, FORESTS (INCLUDING SOFTWOOD PLANTATIONS), PASTURES AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /100 L WATER	CRITICAL COMMENTS
Bathurst burr (<i>Xanthium spinosum</i>)	Seedlings and young plants up to 40 cm high	45 mL	
Bellyache bush (<i>Jatropha gossypifolia</i>)	Seedlings and young plants up to flowering	300 mL	
Blue heliotrope (<i>Heliotropium amplexicaule</i>)	Flowering	600 mL	
Black bindweed (climbing buckwheat) (<i>Fallopia convolvulus</i>)	Seedlings and young plants before flowering	180 mL	
Blackberry nightshade (<i>Solanum nigrum</i>)	Seedlings and young plants up to flowering	300 mL	
Bokhara clover (<i>Melilotus albus</i>)	Seedlings and young plants up to flowering		
Broad-leaf pepper tree (<i>Schinus terebinthifolius</i>)	Mature leaves, fruiting	300 mL	
Caltrop (yellow vine) (<i>Tribulus terrestris</i>) (<i>T. micrococcus</i>)	Seedlings and young plants up to 30 cm diameter		
Cobblers pegs (<i>Bidens pilosa</i>)	Up to 15 cm high		
Cockspur thorn (<i>Maclura cochinchinensis</i>)	Up to 3 m high		
Common sensitive plant (<i>Mimosa pudica</i>)	Seedlings and young plants up to flowering		Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).

Common sowthistle (<i>Sonchus oleraceus</i>)	Seedlings and young plants up to bolting		Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).
Creeping lantana (<i>Lantana montevidensis</i>)	At flowering		
Crofton weed (<i>Ageratina adenophora</i>)	Seedlings and young plants up to flowering		
Docks (<i>Rumex</i> spp.)	Seedlings and rosettes up to 30 cm high		
Flannel weed (<i>Sida cordifolia</i>)			
Giant sensitive tree (<i>Mimosa pigra</i>)	Apply from mid to late summer.	180 mL	Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).
Hexham scent (<i>Melilotus indicus</i>)	Seedlings and young plants up to flowering	300 mL	Boom spray: Starane® Advanced at 180 mL/ha + 400 mL/ha of 2,4-D amine (625 g/L)
Hiptage (<i>Hiptage benghalensis</i>)	Seedlings plants up to 1.3 m high		
Honey locust (<i>Gleditsia triacanthos</i>)	Seedlings and young plants up to 2 m high		
Lantana (<i>Lantana camara</i>)	Seedlings and regrowth 0.5 to 1.2 m high		Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old woody plants with sparse canopies.
	Plants and regrowth 1.2 to 2 m high	600 mL	
Limebush (<i>Eremocitrus glauca</i>)	Infestations up to 1.5 m high only		
Madeira vine (<i>Anredera cordifolia</i>)	Apply at time of active growth.	300 mL	
Milkweed (<i>Euphorbia heterophylla</i>)	3 leaf to flowering	600 mL	Repeat applications will be necessary to control subsequent germinations.
Mistflower (<i>Ageratina riparia</i>)	Seedlings and young plants up to flowering	300 mL	
Mother-of-millions (<i>Bryophyllum</i> spp.)	Seedling and young plants before flowering	360 mL	Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).
Noogoora burr (<i>Xanthium pungens</i>)	Seedlings and young plants up to 40 cm high	45 mL	
Ochna (<i>Ochna serrulate</i>)	Plants up to 2 m high	600 mL	

Paddy's lucerne (<i>Sida rhombifolia</i>)	Active growth		Plants which have been continually slashed or grazed over many seasons may be difficult to control and regrowth may occur.
Prickly acacia (<i>Vachellia nilotica</i>)	Seedling and young plants up to 2 m high that are actively growing	450 mL	Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section). Consult Tropical Weeds Research Centre, Biosecurity Qld, Charters Towers for specific advice on application.
Scrub nettle (perennial) (<i>Urtica incisa</i>)	Flowering plants up to 1 m high	300 mL	
Siam weed (<i>Chromolaena odorata</i>)	Plants up to 2 m high and up to flowering	210 mL	
Sida (<i>Sida</i> spp.)	Seedlings and young plants up to flowering	600 mL	
Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)	From onset of flowering to early-berry set (usually spring to mid-summer)	300 mL	To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment of regrowth is critical for best control.
Small flowered mallow (marshmallow) (<i>Malva parviflora</i>)	Seedlings and young plants up to flowering		
Snakeweed (dark and light blue) (<i>Stachytarpheta</i> spp.)	Seedling and young plants before flowering	450 mL	Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).
St. John's wort (<i>Hypericum perforatum</i>)	Flowering to early seed set	300 mL	Late spring to early summer.
Stinking passion flower (<i>Passiflora foetida</i>)	Established plants and regrowth	270 mL	
Wandering jew (<i>Tradescantia albiflora</i>)	Young plants up to and including flowering	900 mL	Some regrowth will usually occur and will require re-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	300 mL	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 m high only	600 mL	
White lupin (<i>Lupinus albus</i>)	Young plants up to and including flowering	300 mL	
Yellow-flowered devil's claw (<i>Ibicella lutea</i>)	Seedlings and young plants up to flowering		

Table B: Aerial application

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

AGRICULTURAL NON-CROP AREAS, COMMERCIAL AND INDUSTRIAL AREAS, FORESTS, PASTURES AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Giant sensitive tree (<i>Mimosa pigra</i>)	Actively growing plants	1.8 L	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 Environment, Parks and Water Security, NT for further information.

Table C: Basal bark application

Dilute product with diesel or Biosafe only.

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

AGRICULTURAL NON-CROP AREAS, COMMERCIAL AND INDUSTRIAL AREAS, FORESTS (INCLUDING SOFTWOOD PLANTATIONS), PASTURES AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /100 L OF DIESEL OR BIOSAFE¹	CRITICAL COMMENTS
Broad-leaf pepper tree (<i>Schinus terebinthifolius</i>)	Plants up to 5 cm basal diameter	2.1 L	
Calotrope (<i>Calotropis procera</i>)	Plants up to 3 m high and 10 cm basal diameter	3 L	Plants should be cut as close to the ground (5 cm) as possible for reliable results.
Chinee apple (<i>Ziziphus mauritiana</i>)	Up to 15 cm basal diameter	1.8 L	Treat circumference of stem to a height of 45 cm from the ground. Contact the Department of Agriculture and Fisheries, Qld, for further information.
Chinese celtis (<i>Celtis sinensis</i>)	Young plants up to 2 m high and 20 cm basal diameter	2.1 L	Treat stems from ground level to where multi-stemmed trunks branch.
Cockspur thorn (<i>Maclura cochinchinensis</i>)	Up to 5 cm basal diameter	1.2 L	
Giant sensitive tree (<i>Mimosa pigra</i>)		1 L	Apply during active growth periods.
Honey locust (<i>Gleditsia triacanthos</i>)	Plants up to 10 cm basal diameter	900 mL	Treat circumference of stem to a height of 45 cm from the ground.
	Plants 10 to 20 cm basal diameter	1.8 L	

	Plants >20 cm basal diameter	3 L	Contact the Department of Agriculture and Fisheries, Qld, for further information.
Madeira vine (<i>Anredera cordifolia</i>)	Aerial and ground tubers	2.1 L	Always treat vines away from the host tree as injury to the host tree may occur.
Mimosa bush (<i>Vachellia farnesiana</i>)	Up to 5 cm basal diameter	1.8 L	
Ochna (<i>Ochna serrulate</i>)	Plants up to 2 m high and 10 cm basal diameter	2.1 L	
Pond apple (<i>Annona glabra</i>)	Plants up to 20 cm basal diameter	900 mL	DO NOT apply to trees growing in a body of water. Treat circumference of stem to a height of 50 cm from the ground wetting thoroughly to allow the spray mix to soak through the bark.
Prickly acacia (<i>Vachellia nilotica</i>)	Up to 10 cm basal diameter		
Siam weed (<i>Chromolaena odorata</i>)	Plants up to 2.5 m high and 10 cm basal diameter	900 mL	
Sisal hemp (<i>Agave</i> spp.)	All growth stages	1.8 L	Treat as an overall spray. Contact the Department of Agriculture and Fisheries, Qld, for advice to control large infestations.
		6 mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.

¹ Biosafe may be used as an alternative carrier to diesel. For alternative biodiesel products, first seek advice from Corteva Agriscience.

Table D: Cut stump/ brushcutter application

Dilute product with diesel or Biosafe only.

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

AGRICULTURAL NON-CROP AREAS, COMMERCIAL AND INDUSTRIAL AREAS, FORESTS (INCLUDING SOFTWOOD PLANTATIONS), PASTURES AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /100 L OF DIESEL OR BIOSAFE ¹	CRITICAL COMMENTS
Calotrope (<i>Calotropis procera</i>)	Plants up to 3 m high and 10 cm basal diameter	3 L	Plants should be cut as close to the ground (5 cm) as possible for reliable results.
Chinee apple (<i>Ziziphus mauritiana</i>)	Up to 15 cm basal diameter	1.8 L	Contact the Department of Agriculture and Fisheries, Qld, for further information.

Giant sensitive tree (<i>Mimosa pigra</i>)		1 L	Apply during active growth periods.
Hiptage (<i>Hiptage benghalensis</i>)	Plants greater than 1.3 m high	2 L	Plants should be cut as close to the ground (5 cm) as possible for reliable results.
Mimosa bush (<i>Vachellia farnesiana</i>)	Up to 5 cm basal diameter	1.8 L	
Prickly acacia (<i>Vachellia nilotica</i>)	Up to 10 cm basal diameter	900 mL	
Honey locust (<i>Gleditsia triacanthos</i>)	All plants up to and greater than 20 cm basal diameter	3 L	Contact the Department of Agriculture and Fisheries, Qld, for further information.

¹ Biosafe may be used as an alternative carrier to diesel. For alternative biodiesel products, first seek advice from Corteva Agriscience.

Table E: Low volume, high concentrate application

Using a drench gun or gas-powered gun.

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

AGRICULTURAL NON-CROP AREAS, COMMERCIAL AND INDUSTRIAL AREAS, FORESTS (INCLUDING SOFTWOOD PLANTATIONS), PASTURES AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /10 L water	CRITICAL COMMENTS
Limebush (<i>Eremocitrus glauca</i>)	Isolated bushes up to 1.2 m high only	600 mL	Apply a 50 mL dose per 5 m ² of bush surface area.
Ochna (<i>Ochna serrulate</i>)	Isolated bushes up to 1 m high only	300 mL	
Tree Violet (<i>Hymenanchera dentata</i>)	Apply from late flowering to green fruit up to 1.2 m high.	600 mL	Apply a 50 mL dose per cubic metre of bush.

Table F: Boom application

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

ESTABLISHED GRASS PASTURES			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Blue billygoat weed (<i>Ageratum houstonianum</i>)	Apply before flowering.	900 mL	Add Uptake [®] Spraying Oil at 1 L/ha.
Common sensitive plant (<i>Mimosa pudica</i>)			
Giant sensitive plant (<i>Mimosa invisa</i>)			

Spinyhead sida (<i>Sida acuta</i>)			
Paddy's lucerne (<i>Sida rhombifolia</i>)	Apply to actively growing plants from late spring to late summer.	2.4 L or 1.2 L + 1.6 L 2,4-D amine (625 g/L)	
St. John's wort (<i>Hypericum perforatum</i>)	Apply from bud to full bloom (usually late Nov to early Jan).	1.8 L	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200 L water/ha.
Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)	From onset of flowering to early berry-set. (usually spring to mid-summer)	450 – 600 mL or 225 mL + 1.2 - 1.6 L 2,4-D amine (625 g/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.
FORESTRY (SOFTWOOD PLANTATIONS), ROADSIDES, INDUSTRIAL AREAS AND RIGHTS-OF-WAY			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Woody and herbaceous weeds, as above	Pre-plant spray operations in forestry or general broadleaf weed growth	600 mL – 1.8 L	Helicopter (forestry (softwood plantations only)) or ground base application only. Can be mixed with rates of glyphosate up to 2.9 kg a.i./ha.
	Post-plant spray operations		Ground based directional spraying to the inter-row zone only in forestry.

2. BROADACRE CROPPING SITUATIONS

Table A: Sorghum

See GENERAL INSTRUCTIONS – APPLICATION section for APPLICATION METHOD details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Apply when secondary roots are present, from 4 fully expanded leaves (15 cm tall) up to boot (also see CRITICAL COMMENTS).	Annual ground cherry (<i>Physalis angulata</i>)	2 to 8 leaf, up to 15 cm tall	300 mL	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). ⓘ This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at all crop stages .
	Wild gooseberry (<i>Physalis minima</i>)	15 to 30 cm tall	450 mL	
	Apple-of-Peru (<i>Nicandra physalodes</i>)	Seedling plants up to 15 cm tall		
	Bathurst burr (<i>Xanthum spinosum</i>)	2 to 8 leaf, up to 20 cm tall	300 mL	
		20 to 50 cm tall	450 mL	
	Noogoora burr (<i>Xanthium pungens</i>)			
	Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	300 mL	
		10 to 30 cm diameter	450 mL	
	Sesbania pea (<i>Sesbania cannabina</i>)	2 to 6 leaf, up to 10 cm tall	900 mL	
	Silverleaf nightshade ⓘ (<i>Solanum elaeagnifolium</i>)	Full flower to early berry	450 mL + Uptake® at 1 L/ha	
	Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15 cm tall	450 mL	
Volunteer sunflower (<i>Helianthus annuus</i>)	2 to 5 leaf, up to 20 cm tall	600 mL		

	<p><i>Amaranthus</i> spp. including; Boggabri weed (<i>A. mitchellii</i>) Dwarf amaranth (<i>A. macrocarpus</i>) Green amaranth (<i>A. viridis</i>) Redshank (<i>A. cruentus</i>)</p> <p>Anoda weed (<i>Anoda cristata</i>)</p> <p>Bladder ketmia (<i>Hibiscus trionum</i>)</p> <p>Black pigweed (<i>Trianthema portulacastrum</i>)</p> <p>Butterfly pea (<i>Clitoria laurifolia</i>)</p> <p>Caltrop (yellow vine) (<i>Tribulus terrestris</i>)</p> <p>Spineless caltrop (<i>Tribulus micrococcus</i>)</p> <p>Cowvine (Peach vine) (<i>Ipomoea lonchophylla</i>)</p> <p>Hairy wandering jew (<i>Commelina benghalensis</i>)</p> <p>Mintweed (<i>Salvia reflexa</i>)</p>	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	300 mL + 1.25 L atrazine flowable (600 g/L) or 450 mL + 1.67 L atrazine flowable (600 g/L)	<p>Use the low rate (300 mL + 1.25 L) when weeds are small (5 - 7 cm tall/diameter).</p> <p>Use the high rate (450 mL + 1.67 L) when weeds are larger (7 - 15 cm tall/diameter).</p> <p>Starane® Advanced is generally more compatible with liquid atrazine products. (See GENERAL INSTRUCTIONS; COMPATIBILITY section).</p> <p>Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).</p> <p>DO NOT add an oil to mixtures of Starane® Advanced and atrazine.</p>
	<i>Euphorbia davidii</i>	Cotyledons to 4 nodes, up to 15 cm	600 mL + 1.67 L atrazine (600 g/L)	
	Starburr (<i>Acanthospermum hispidum</i>)	Up to 12 leaf and before flowering	900 mL or 450 mL + 1.67 L atrazine (600 g/L)	
	Volunteer peanuts (<i>Arachis hypogaea</i>)	Up to 15 cm diameter	600 mL + 3.75 L atrazine (600 g/L)	

Table B: Maize and sweet corn

See GENERAL INSTRUCTIONS – APPLICATION section for APPLICATION METHOD details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Apply when secondary roots are present, from 3 fully expanded leaves (10 cm tall) up to just before tasselling. (See CRITICAL COMMENTS).	Annual ground cherry (<i>Physalis angulata</i>)	2 to 8 leaf, up to 15 cm tall	300 mL	Maize: 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). Sweet corn: From 4 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).
	Wild gooseberry (<i>Physalis minima</i>)	15 to 30 cm tall	450 mL	
	Apple-of-Peru (<i>Nicandra physalodes</i>)	Seedling plants, up to 15 cm tall		
	Bathurst burr (<i>Xanthum spinosum</i>)	2 to 8 leaf, up to 20 cm tall	300 mL	
	Noogoora burr (<i>Xanthium pungens</i>)	20 to 50 cm tall	450 mL	
	Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	300 mL	
		10 to 30 cm diameter	450 mL	
	Sesbania pea (<i>Sesbania cannabina</i>)	2 to 6 leaf, up to 10 cm tall	900 mL	
	Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15 cm tall	450 mL	
	Volunteer sunflower (<i>Helianthus annuus</i>)	2 to 5 leaf, up to 20 cm tall	600 mL	

	<p><i>Amaranthus</i> spp. including; Boggabri weed (<i>A. mitchellii</i>) Dwarf amaranth (<i>A. macrocarpus</i>) Green amaranth (<i>A. viridis</i>) Redshank (<i>A. cruentus</i>)</p> <p>Anoda weed (<i>Anoda cristata</i>)</p> <p>Bladder ketmia (<i>Hibiscus trionum</i>)</p> <p>Black pigweed (<i>Trianthema portulacastrum</i>)</p> <p>Caltrop (yellow vine) (<i>Tribulus terrestris</i>)</p> <p>Spineless caltrop (<i>Tribulus micrococcus</i>)</p> <p>Cowvine (peach vine) (<i>Ipomoea lonchophylla</i>)</p> <p>Hairy wandering jew (<i>Commelina benghalensis</i>)</p> <p>Mintweed (<i>Salvia reflexa</i>)</p>	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	300 mL + 1.25 L atrazine flowable (600 g/L) or 450 mL + 1.67 L atrazine flowable (600 g/L)	<p>Use the low rate (300 mL + 1.25 L) when weeds are small (5 – 7 cm tall/diameter).</p> <p>Use the high rate (450 mL + 1.67 L) when weeds are larger (7- 15 cm tall/diameter).</p> <p>Starane® Advanced is generally more compatible with liquid atrazine products. (See GENERAL INSTRUCTIONS; COMPATIBILITY section).</p> <p>Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).</p> <p>DO NOT add an oil to mixtures of Starane® Advanced and atrazine.</p>
	<i>Euphorbia davidii</i>	Cotyledons to 4 nodes, up to 15 cm	600 mL + 1.67 L atrazine (600 g/L)	
	Starburr (<i>Acanthospermum hispidum</i>)	Up to 12 leaf and before flowering	900 mL or 450 mL + 1.67 L atrazine (600 g/L)	
	Volunteer peanuts (<i>Arachis hypogaea</i>)	Up to 15 cm diameter	600 mL + 2.7 L atrazine (600 g/L)	
Sweet corn (Tas only) 3 to 5 leaf	Blackberry nightshade (<i>Solanum nigrum</i>) Volunteer potatoes (<i>Solanum tuberosum</i>)	3 to 5 leaf	600 mL	

Table C: Millets
See GENERAL INSTRUCTIONS – APPLICATION section for APPLICATION METHOD details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
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).	Annual ground cherry (<i>Physalis angulata</i>)	2 to 8 leaf, up to 15 cm tall	300 mL	Millets: DO NOT use mixes of Starane® Advanced + atrazine on Japanese millet (<i>Echinochloa esculenta</i>). Starane® Advanced + atrazine can be safely applied to: French millet (<i>Panicum miliaceum</i>) Foxtail millet (<i>Setaria italica</i> var. panorama)
	Wild gooseberry (<i>Physalis minima</i>)	15 to 30 cm tall	450 mL	
	Apple-of-Peru (<i>Nicandra physalodes</i>)	Seedling plants up to 15 cm tall		
	Bathurst burr (<i>Xanthum spinosum</i>)	2 to 8 leaf, up to 20 cm tall	300 mL	
	Noogoora burr (<i>Xanthium pungens</i>)	20 to 50 cm tall	450 mL	
	Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	300 mL	
		10 to 30 cm diameter	450 mL	
	Sesbania pea (<i>Sesbania cannabina</i>)	2 to 6 leaf, up to 10 cm tall	900 mL	
	Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15 cm tall	450 mL	
Volunteer sunflower (<i>Helianthus annuus</i>)	2 to 5 leaf, up to 20 cm tall	600 mL		

	<p><i>Amaranthus</i> spp. including; Boggabri weed (<i>A. mitchellii</i>) Dwarf amaranth (<i>A. macrocarpus</i>) Green amaranth (<i>A. viridis</i>) Redshank (<i>A. cruentus</i>)</p> <p>Anoda weed (<i>Anoda cristata</i>)</p> <p>Bladder ketmia (<i>Hibiscus trionum</i>)</p> <p>Black pigweed (<i>Trianthema portulacastrum</i>)</p> <p>Caltrop (yellow vine) (<i>Tribulus terrestris</i>)</p> <p>Spineless caltrop (<i>Tribulus micrococcus</i>)</p> <p>Cowvine (peach vine) (<i>Ipomoea lonchophylla</i>)</p> <p>Hairy wandering jew (<i>Commelina benghalensis</i>)</p> <p>Mintweed (<i>Salvia reflexa</i>)</p>	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	300 mL + 1.25 L atrazine flowable (600 g/L) or 450 mL + 1.67 L atrazine flowable (600 g/L)	<p>Use the low rate (300 mL + 1.25 L) when weeds are small (5 - 7 cm tall/diameter).</p> <p>Use the high rate (450 mL + 1.67 L) when weeds are larger (7 - 15 cm tall/diameter).</p> <p>Starane® Advanced is generally more compatible with liquid atrazine products. (See GENERAL INSTRUCTIONS; COMPATIBILITY section)</p> <p>Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).</p> <p>DO NOT add an oil to mixtures of Starane® Advanced and atrazine.</p>
	Starburr (<i>Acanthospermum hispidum</i>)	Up to 12 leaf and before flowering	900 mL or 450 mL + 1.67 L atrazine flowable (600 g/L)	

Table D: Winter cereals boom application

See **GENERAL INSTRUCTIONS – APPLICATION** section for **APPLICATION METHOD** details.

WHEAT, BARLEY, OATS AND TRITICALE				
CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Apply from 3 leaf to flag (Zadoks 13 to 39).	Bedstraw (<i>Galium tricornutum</i>)	3 to 6 whorl	300 mL + Uptake®	Add Uptake® Spraying Oil at 500 mL/ 100 L water.

Black bindweed (climbing buckwheat) (<i>Fallopia convolvulus</i>)	2 to 4 leaf	300 mL + Uptake® ^❶	Useful suppression only
	2 to 6 leaf	450 mL or 300 mL + 5 g metsulfuron (600 g/kg) ^❶	Mixtures: Mixing partners with Starane® Advanced may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation.
Cleavers (<i>Galium aparine</i>)	1 to 3 whorl	600 mL	
Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf	600 mL	DO NOT use Starane® Advanced + metsulfuron mixtures in oats or durum wheat.
Deadnettle (<i>Lamium amplexicaule</i>)	2 to 6 leaf	900 mL or 300 mL + 5 g metsulfuron (600 g/kg) ^❶	
Doublegee (Spiny emex) (<i>Emex australis</i>)	2 to 4 leaf		
Prickly lettuce (<i>Lactuca serriola</i>)	2 to 5 leaf	300 mL + Uptake® or 600 mL	
Volunteer lupins (<i>Lupin angustifolius</i>)	2 to 8 leaf	900 mL	
Volunteer potato (<i>Solanum tuberosum</i>)	10 to 15 cm tall		
Wireweed (hogweed) (<i>Polygonum aviculare</i>)	2 to 3 leaf	300 mL + 5 g metsulfuron (600 g/kg) ^❶	
Bittercress (<i>Coronopus didymus</i>) Mustards (<i>Sisymbrium</i> spp.) Shepherd's purse (<i>Capsella bursa-pastoris</i>) Turnip weed (<i>Rapistrum rugosum</i>) Wild radish (<i>Raphanus raphanistrum</i>) Wild turnip (<i>Brassica tournefortii</i>)	Up to 8 leaf and up to 15 cm diameter	300 to 900 mL + metsulfuron (600 g/kg) ^❶ or Corteva Agriscience LVE 600 MCPA	The Starane® Advanced rate depends on what other weeds are present as listed above. See Mixtures comment above metsulfuron at 5 g/ha (This mix does not control wild radish). Corteva Agriscience LVE 600 MCPA at 580 mL/ha

❶ Add either Uptake® or a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).

Table E: Established lucerne (NSW only) boom application
 See GENERAL INSTRUCTIONS – APPLICATION section for APPLICATION METHOD details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Established crops at least eighteen (18) months old	Annual ground cherry (<i>Physalis angulata</i>) Bathurst burr (<i>Xanthum spinosum</i>) Noogoora burr (<i>Xanthium pungens</i>) Wild gooseberry (<i>Physalis minima</i>)	2 to 8 leaf, up to 15 cm high	300 mL	<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.</p> <p>DO NOT treat crops after the summer growing season (after end of March).</p> <p>To broaden the spectrum of weeds controlled, Starane® Advanced can be mixed with 2,4-DB amine.</p>
	Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter		

Table F: Sugar Cane
 See GENERAL INSTRUCTIONS – APPLICATION section for APPLICATION METHOD details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
From early tillering to maturity	Balsum pear <i>(Momordica charantia)</i> Blackberry nightshade <i>(Solanum nigrum)</i> Blue billygoat weed <i>(Ageratum houstonianum)</i> Centro <i>(Centrosema pubescens)</i> Cowpea <i>(Vigna unguiculate)</i> Giant sensitive plant (seedlings only) <i>(Mimosa invisa)</i> Lablab bean <i>(Lablab purpureus)</i> Noogoora burr <i>(Xanthum pungens)</i> Phasey bean <i>(Macroptilium lathyroides)</i> Pinkburr <i>(Urena lobata)</i> Prickly African cucumber <i>(Cucumis metuliferus)</i> Spinyhead sida <i>(Sida acuta)</i> Stinking passion flower (seedlings only) <i>(Passiflora foetida)</i>	Apply from 2 to 3 leaf until flowering.	Ground: 780 mL Aerial: 900 mL	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 Uptake® Spraying Oil at 1 L/100 L spray mixture. Ground application: Apply in 100 - 400 L/ha water and add Uptake® Spraying Oil at 500 mL/100 L of spray mixture.

	<p>Bellvine (<i>Ipomoea plebeia</i>)</p> <p>Morning glory (<i>Ipomoea purpurea</i>)</p> <p>Pink convolvulus (<i>Ipomoea triloba</i>)</p> <p>Red convolvulus (<i>Ipomoea hederifolia</i>)</p> <p>Star-of-Bethlehem (<i>Ipomoea quamoclit</i>)</p>		<p>As above + 800 mL 2,4-D amine (625 g/L)</p>	
	<p>Milkweed (<i>Euphorbia heterophylla</i>)</p>	<p>Seedlings and young plants up to flowering</p>	<p>1.8 L or 1.38 L + 3.33 L atrazine flowable (600 g/L)</p>	<p>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.</p>
CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /100 L WATER	CRITICAL COMMENTS
From early tillering to maturity	Stinking passion flower (<i>Passiflora foetida</i>)	Established or ratoon plants with at least 1 m of regrowth	270 mL	Spot spray application: Thoroughly wet plants to the point of run-off.

Table G: Poppies (Tas only)
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
4 to 6 leaf	Cleavers (<i>Galium aparine</i>)	2 to 6 leaf	600 mL	
	Fumitory (<i>Fumaria</i> spp.)		600 mL + 5 L Asulox®	
	Shepherd's purse (<i>Capsella bursa-pastoris</i>)			
	Wireweed (hogweed) (<i>Polygonum aviculare</i>)			
8 to 10 leaf	Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf	600 mL	DO NOT apply Starane® Advanced to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid content could occur.
	Prickly lettuce (<i>Lactuca serriola</i>)			
	Black nightshade (<i>Solanum nigrum</i>)	Cotyledon to 4 leaf	900 mL	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.
	Fumitory (<i>Fumaria</i> spp.)	6 to 10 leaf		
	Volunteer potato (<i>Solanum tuberosum</i>)	From tuber initiation to flower bud		

3. FALLOW SITUATIONS

Table A: Boom application

See **GENERAL INSTRUCTIONS – APPLICATION** section for application method details.

WINTER FALLOW			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Bedstraw (<i>Galium tricornutum</i>)	Up to 5 whorl	600 mL ①	When mixing with glyphosate (450 g/L) to control both grass and broadleaf weeds, refer to the glyphosate product label for use rates and adjuvants recommended for the grasses. (See GENERAL INSTRUCTIONS; COMPATIBILITY section).
Cleavers (<i>Galium aparine</i>)			
Black bindweed (climbing buckwheat) (<i>Fallopia convolvulus</i>)	2 to 8 leaf, up to 10 cm diameter	450 mL ①	
Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf, up to 10 cm diameter	600 mL ①	
Prickly lettuce (<i>Lactuca serriola</i>)			
Doublegee (spiny emex) (<i>Emex australis</i>)	2 to 8 leaf	900 mL ①	
Wireweed (hogweed) (<i>Polygonum aviculare</i>)	2 to 3 leaf, up to 10 cm tall		
Doublegee (spiny emex) (<i>Emex australis</i>)	2 to 8 leaf	300 mL ② + 5 g metsulfuron (600 g/kg)	
Wireweed (hogweed) (<i>Polygonum aviculare</i>)	2 to 3 leaf, up to 10 cm tall		
Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf, up to 10 cm diameter	300 mL + 600 mL glyphosate (450 g/L)	
Prickly lettuce (<i>Lactuca serriola</i>)			
Wireweed (hogweed) (<i>Polygonum aviculare</i>)			
Small-flowered mallow (<i>Malva parviflora</i>)	Up to 8 leaf, up to 20 cm diameter	300 mL + 1.2 L glyphosate (450 g/L)	

① Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).

② Add Uptake® or a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).

Table B: Boom application
See GENERAL INSTRUCTIONS – APPLICATION section for application method details.

SUMMER FALLOW			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Annual ground cherry (<i>Physalis angulata</i>)	2 to 8 leaf, up to 15 cm tall	450 mL ❶	❶ Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section). ❷ 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.
Bathurst burr (<i>Xanthium spinosum</i>)	2 to 8 leaf, up to 20 cm tall		
Noogoora burr (<i>Xanthium pungens</i>)			
Perennial ground cherry (<i>Physalis virginiana</i>) ❷	Bud to early flowering, up to 20 cm tall	900 mL ❶ or 1.8 L ❶	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.
Polymeria (<i>Polymeria pusilla</i>)	2 to 10 leaf, up to 20 cm diameter	600 mL ❶	
Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	300 mL ❶	
Rhynchosia (<i>Rhynchosia minima</i>)	Seedlings to early flowering	600 mL ❶	
Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)	Full flower to early berry-set (usually Dec - Feb)	450 to 600 mL	
Small-flowered mallow (<i>Malva parviflora</i>)	Up to 8 leaf, up to 20 cm diameter	300 mL + 1.2 L glyphosate (450 g/L)	
	Up to 8 leaf, up to 20 cm diameter	600 mL ❶	❶ Add Uptake® Spraying Oil (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section).
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15 cm tall	450 mL ❶	
Sesbania pea (<i>Sesbania cannabina</i>)	2 to 6 leaf, up to 10 cm tall	900 mL ❶	
Volunteer sunflowers (<i>Helianthus annuus</i>)	2 to 5 leaf, up to 20 cm	600 mL ❶	
Wild gooseberry (<i>Physalis minima</i>)	2 to 8 leaf, up to 15 cm tall	450 mL ❶	

Red pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	225 mL + 1.2 L glyphosate (450 g/L)	When mixing with glyphosate (450 g/L) to control both grass and broadleaf weeds, refer to the glyphosate product label for use rates and adjuvants recommended for the grasses. (See GENERAL INSTRUCTIONS; COMPATIBILITY section)
Rhynchosia (<i>Rhynchosia minima</i>)	Seedlings to early flowering		
Bellvine (<i>Ipomoea plebeia</i>)	Pre-flowering		
Bladder ketmia (<i>Hibiscus trionum</i>)	4 to 8 leaf, up to 10 cm tall		
Black bindweed (Climbing buckwheat) (<i>Fallopia convolvulus</i>)	2 to 10 leaf, up to 20 cm diameter		
Cowvine (peach vine) (<i>Ipomoea lonchophylla</i>)	2 to 10 leaf, up to 10 cm diameter		
Caltrop (yellow vine) (<i>Tribulus terrestris</i>)	Up to 15 cm diameter		
Polymeria (<i>Polymeria pusilla</i>)	2 to 10 leaf, up to 20 cm diameter		
Red pigweed (<i>Portulaca oleracea</i>)	10 to 30 cm diameter		
Spineless caltrop (<i>Tribulus micrococcus</i>)	Up to 15 cm diameter		
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf, up to 15 cm tall		
Sesbania pea (<i>Sesbania cannabina</i>)	2 to 6 leaf, up to 10 cm tall		

Table B: Boom application (continued)

See **GENERAL INSTRUCTIONS – APPLICATION** section for application method details.

SUMMER FALLOW			
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE /ha	CRITICAL COMMENTS
Black bindweed (climbing buckwheat) (<i>Fallopia convolvulus</i>)	10-12 leaf, up to 30 cm diameter	450 mL + 1.2 L glyphosate (450 g/L)	
Red pigweed (<i>Portulaca oleracea</i>)	Up to 60 cm diameter		

Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)	Full flower to early berry-set (usually Dec - Feb)	225 mL + 1.2 - 1.6 L 2,4-D amine (625 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 (<i>Arachis hypogaea</i>)	Up to 15 cm diameter	600 mL + 3.75 L atrazine (600 g/L)	Add a surfactant (see GENERAL INSTRUCTIONS; OILS and SURFACTANTS section). Important: (See GENERAL INSTRUCTIONS; COMPATIBILITY section).
Volunteer Roundup Ready Flex Cotton (<i>Gossypium</i> spp.)	2-6 leaf, up to 10 cm tall	450 mL	
	5-7 node, up to 25 cm tall	600 mL	

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.

Winter and summer cereals, sugar cane:

NO WITHHOLDING PERIOD REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

MINIMUM RECROPPING PERIODS

Plant-back periods for crops following the application of Starane® Advanced for rates up to 900 mL/ha.			
RATE mL/ha	225	450	900
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

Restraint: Do not plant susceptible crops, including cotton, pigeon peas and other pulse crops, into irrigated fields with soils containing less than 25% clay content, within 12 months of treatment with Starane® Advanced.

Note: Before using Starane® Advanced 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.

MIXING

Starane® Advanced may be mixed with water or diesel (or Biosafe).

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® Advanced and complete filling. Agitate continuously to ensure thorough mixing before and during application.

Mixing in diesel (or Biosafe): Half fill the spray tank with diesel or Biosafe and add the required quantity of Starane® Advanced. Add the remainder of the diesel or Biosafe 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® Advanced). Add spraying OILS and SURFACTANTS (wettters) last. (See COMPATIBILITY section for glyphosate (450 g/L) for additional instructions when mixing with glyphosate.)

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):

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

COMPATIBILITY

Starane® Advanced is compatible with the **herbicides** listed. Follow any regional restrictions, and all directions and restrictions on the label, of any chemical mixed with Starane® Advanced.

2,4-D amine, 2,4-D ester, 2,4-DB, atrazine (see below), Broadstrike®, Crusader® GoDRI®, diclofop methyl, FallowBoss® Tordon®, Garlon® 600, glyphosate, Lontrel® Advanced, MCPA amine, MCPA LVE, metsulfuron-methyl, Paradigm®, Pixxaro®, Rexade®, Topik® 240 EC (see below), Tordon® 75-D, Trezac® and Ubeniq®.

ATRAZINE

AVOID USING HARD WATER WHEREVER POSSIBLE.

Where hard water cannot be avoided, the addition of a 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® ADVANCED AND ATRAZINE.

Starane® Advanced 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 two (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® Advanced and atrazine.

Guidelines for tank mixing Starane® Advanced and common atrazine formulations:

Tank Mix	Rate (/ha)	Water Hardness			Minimum Water Volume (L/ha)		Comments
		Soft	Medium	Hard	Ground	Aerial	
Starane®	450 mL	✓	✓	✓	50	35	
Starane® + Gesaprim® 600 FW	450 mL + 1.67 L	✓	✓	✓	50 - 100	35	Precipitate can be easily resuspended.
Starane® + Atradex® 900 WG	450 mL + 1.1 kg	✓	×	×	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.
Starane® + Nu-Trazine® DF	450 mL + 1.1 kg	✓	×	×	100	Do not use	Sediment may be difficult to resuspend and may block nozzles.
Starane® + Nu-Trazine® 500 FW	450 mL + 2 L	✓	✓	×	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.

TOPIK 240 EC

Always use Uptake® Spraying Oil with Starane® Advanced + Topik® 240 EC tank mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.

DO NOT mix Starane® Advanced 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® Advanced at more than 450 mL/ha in tank mixes with Topik® 240 EC.

Glyphosate (450 g/L)

When mixing Starane® Advanced with glyphosate (450 g/L) to control both grass and broadleaf weeds, refer to the glyphosate product label for use rate recommended for grasses. DO NOT use glyphosate (450 g/L) at less than 1.2 L/ha in tank mixes with Starane® Advanced, when barnyard grass, buttongrass, crowsfoot grass, native millet and liverseed grass are the target species.

Mixing Instructions for glyphosate + Starane® Advanced + other tank-mix partners:

Step 1: Fill the spray tank to 1/2 full with clean water, start and maintain agitation.

Step 2: Where ammonium sulphate (crystalline or liquid form) is recommended, wash crystalline form at 0.8% w/v (800 g/100 L spray solution) through a top mesh screen into the tank OR add Liase at 2 % v/v (2 L/100 L spray solution) and mix thoroughly for several minutes.

Step 3: Add glyphosate (450 g/L) and allow mixing thoroughly for several minutes.

Step 4: For other tank-mix partners: Add dry flowable formulations (e.g. metsulfuron) first, followed by suspension concentrates (flowables e.g. atrazine), water soluble salts (e.g. Lontrel® Advanced).

Step 5: Then add emulsifiable concentrate formulations, such as Starane® Advanced, and allow mixing thoroughly for several minutes.

Step 6: Add remaining water to desired final fill level.

Step 7: Add a 100% non-ionic surfactant at 0.2% v/v near the end of the filling process to minimize excessive foaming.

Removing hose from tank immediately after the filling will prevent back siphoning into water source. Always maintain adequate agitation during application and use the tank load promptly.

APPLICATION METHODS AND WATER RATES

BROADCAST APPLICATION IN CROPPING, PASTURE AND FALLOW SITUATIONS.

A. Ground application (boom)

Apply Starane® Advanced with an accurately calibrated boom sprayer, in at least 50 L/ha water (100-400 L/ha for sugar cane). Flat fan nozzles applying a medium quality spray (ASAE-S572) are recommended.

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 sugar cane)

Use equipment calibrated to produce a coarse quality spray (ASAE-S572).

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 spray when wind speed is less than 3 km/hr or more than 20 km/hr.

WOODY WEED SITUATIONS

Weeds must be actively growing to attain optimal effect. Delay the treatment of re-growth 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 and 12 volt sprayer packs

Only recommended for the control of herbaceous weeds such as cobbler's peg, docks and wandering jew. DO NOT use knapsacks or 12 volt sprayer packs to treat woody weeds.

B. Aerial application

Apply in 200 L of water/ha using an aircraft to apply 100 L per pass on a double overlap pattern using nozzle configurations to produce a coarse quality spray (ASAE-S572).

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

DO NOT spray when wind speed is less than 3 km/hr or more than 20 km/hr and/or air temperature reaches 35°C.

C. Basal bark and cut stump application

Basal bark

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

D: 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.

E. 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.

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 watercourses.

Cleaning equipment after using water-based sprays:

Rinsing: After using Starane[®] Advanced, 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, NATIVE AND OTHER NON-TARGET PLANTS): Wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent 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. If using a concentrated laundry detergent use 250 g (or mL)/100 L water. Do not use chlorine based cleaners.

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 or Biosafe - based sprays:

On completion of spraying, use a degreaser to remove traces of diesel or Biosafe 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 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.

RESISTANT WEEDS WARNING

GROUP I HERBICIDE

Starane[®] Advanced 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 Group I herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Corteva Agriscience Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or local Corteva Agriscience 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[®] Advanced can be damaging to susceptible crops during both growing and dormant periods.

Grasses are normally unaffected by Starane[®] Advanced 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* spp.).

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

Keep out of reach of children.

Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Do not store near food, feedstuffs, fertilisers or seed.

5 and 20 L

This container can be recycled if it is clean, dry, free of visible residues and has the **drumMUSTER** logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any **drumMUSTER** collection or similar container

management program site. The cap should not be replaced, but may be taken separately. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 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.

100 L

Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage.

1,000 L

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Close all valves and arrange for collection under the relevant return program.

SPILL AND LEAK MANAGEMENT

Do not touch or walk through spilled material. Wear a face shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and footwear. Stop leak when safe to do so. Dam area and prevent entry into waterways and drains. **Small spills/leaks:** Absorb with material such as sand, soil or sawdust. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Dam the area of large spills and report them to Corteva Agriscience Emergency Services at 1-800 370 754.

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CUSTOMER SERVICE TOLL FREE

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Barcode
for stock
identification



Hazard and precautionary statements according to classification under GHS (Globally Harmonised System of Classification and Labelling)

Avoid breathing mist, vapours or spray. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Contaminated clothing should not be allowed out of the workplace.