

CROP GROWTH STAGE (cont)	WEEDS CONTROLLED	CROP GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
Apply from 3 leaf to flag (Zadoks 13 to 39)	Volunteer lupins	2 to 8 leaf.	NSW, Vic, WA only	1.5	Mixtures: Mixing partners with Staroxy 200 may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation. Plants 15 to 30cm tall will only be suppressed.
	Volunteer potato Wireweed	10 to 15 cm tall. 2 to 3 leaf.	WA and Tas only NSW, Qld, SA, Tas Vic WA only NSW and Qld only	0.5 + 5 g Metsulfuron-Methyl (600 a/kg) ☉ 0.5 to 1.5 + Metsulfuron-Methyl (600 g/kg) ☉ or Eclipse or MCPA LVE or MCPA Amine.	The Staroxy 200 rate depends on what other weeds are present as listed above. See Mixtures comment above. Metsulfuron-Methyl (600 g/kg) @ 5 g/ha (This mix does not control wild radish). Eclipse* @ 5 - 7g/ha (use the 5 g rate on turnip weed onlv). LVE MCPA @ 700 mL/ha MCPA 500 @ 1.0 L/ha.
	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 only		

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 ☉	☉ 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		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).
Bellvine.	Pre-flowering.	NSW, Qld only	0.5 + 1.2 Roundup CT.	☉ Delay treatment until the maximum number of shoots have emerged, but before the onset of fruiting (late summer).
Bladder ketmia.	4 to 8 leaf, up to 10 cm tall.			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.
Cowvine (Peach vine) <i>Ipomoea lonchoclylla</i> .	2 to 10 leaf up to 10 cm diameter.		0.5 + 1 Roundup CT.	
Caltrop (Yellow vine) including: <i>Tribulus terrestris</i> , <i>T. maximus</i> and <i>T. micrococcus</i> .	Up to 15 cm diameter.			
Pigweed (<i>Portulaca oleracea</i>).	Up to 10 cm diameter.		0.75 ☉	
	Up to 60 cm diameter.		0.75 + 1 Roundup CT	
<i>Polymeria pusilla</i> .	2 to 10 leaf up to 20 cm diameter		1 ☉ or 0.5 + 1.2 Roundup CT	
<i>Rhynchosia</i> .	Seedlings to early flowering.		1 ☉ or 0.375 + 0.8 Roundup CT	
Smallflower mallow or Marshmallow (<i>Malva carviflora</i>).	Up to 8 leaf up to 20 cm.		1 ☉	
Thornapples (<i>Datura</i> spp.).	2 to 8 leaf up to 15 cm diameter.	NSW, Qld, WA only	0.75 ☉ or 0.5 + 1.2 Roundup CT	
Sesbania pea.	2 to 6 leaf up to 10 cm tall.	NSW, Qld only	1.5 ☉ or 0.5 + 1.2 Roundup CT.	
Perennial Ground Cherry (<i>Physalis virainiana</i>). ☉	Bud to early flowering up to 20 cm tall.	NSW, Qld only	1.5 or 3 ☉	
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) Important: 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 ☉	☉ Add Uptake Spraying Oil (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 ☉	☉ Add Uptake Spraying Oil or a surfactant (see GENERAL INSTRUCTIONS; oils and surfactants section)
Common sowthistle (<i>Sonchus oleraceus</i>) Common sowthistle	2 to 5 leaf up to 10 cm diameter.		1.0 , or 0.5 + 0.6 Roundup CT.	When mixing with Roundup CT to control both grass and broadleaf weeds, refer to the label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS; Compatibility Section)
Prickly lettuce				
Spiny emex (Doublegee, Three cornered jack)	2 to 8 leaf.		1.5 ☉ or 0.5 ☉ + 5 g Metsulfuron-Methyl (600 g/kg).	
Wireweed	2 to 3 leaf up to 10 cm tall.		1.5 ☉ or 0.5 ☉ + 5 g Metsulfuron-Methyl (600 g/kg) or 0.5 ☉ + 0.6 Roundup CT.	

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

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS
From early tillering to maturity	Balsam pear, Blackberry nightshade, Blue billygoat weed, Centro, Cowpea, Giant sensitive plant, Lablab bean, Noogoora burr, Phasesy bean, Pinkburr, Prickly African cucumber, Spinyhead sida, Stinking passion flower (seedlings onlv).	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. 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.
	Bellvine, Morning glory, Red or pink convolvulus, Star-of-Bethlehem.	Established or ratoon plants with at least 1m of regrowth.	As above + 1 2,4-D Amine (500 g/L).	Thoroughly wet plants to the point of run-off.
	Stinking passion flower.		High volume: 450 mL/100 L water Knapsack: 70 mL/15 L water	
	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 Onlv).

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS
Established crops at least lucerne eighteen months old.	Annual ground cherry, Bathurst burr, Noogoora burr, Wild gooseberry.	2 to 8 leaf up to 15cm 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.
	Pigweed.	Up to 10cm diameter.		DO NOT treat crops growing on sandy or stony soils. DO NOT treat crops after the summer growing season (after end of March). To broaden the spectrum of weeds controlled, Staroxy 200 can be mixed with 2 4-DB Amine.

Table 9: Poppies (TAS only).

CROP GROWTH STAGE	WEED CONTROLLED	WEED GROWTH STAGE	RATE L/ha	CRITICAL COMMENTS
4 to 6 leaf	Cleavers Fumitory, Shepherd's purse, Wireweed.	2 to 6 leaf.	1 1 + 5 Asulox*	
8 - 10 leaf	Common sowthistle, Prickly lettuce.	2 to 5 leaf.	1	DO NOT apply Staroxy 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:

Grazing:

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

Harvest:

Poppies - DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST.

Other Crops - Not required when used as directed.

MINIMUM RECROPPING PERIODS

Plant-back periods for crops following the application of Staroxy 200 for rates up to 1.5 L/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 Staroxy 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, ie. the product with the longest plant-back period.

GENERAL INSTRUCTIONS:

MIXING

Staroxy 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 Staroxy 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 Staroxy 200. Add the remainder of the diesel and agitate or shake to mix contents.

Tank mixtures: Wettable powder or dry flowable formulations (eg water dispersible granules) should be added to the spray tank first, followed by suspension concentrates (Flowables), water soluble salts and then emulsifiable concentrate formulations (Staroxy 200). Add spraying oils and surfactants (wettters) last.

OILS AND SURFACTANTS

Oils:

Where specified use 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 Spraying Oil is used, unless 1 L/100 L or 1 L/ha is specified.

Surfactants (wettters):

Use a 100% concentrate non-ionic surfactant such as BS 1000* at 100 mL/100 L spray mixture where required.

COMPATIBILITY

Staroxy 200 is compatible with the herbicides listed. Follow any regional restrictions, and all directions and restrictions on the label, of any product mixed with Staroxy 200.

Atrazine (see below)	Lontron*	Tordon* 75-D
Ally*	Metsulfuron-methyl (600 g/kg)	Tordon 242
Broadstrike*	MCPA	Touchdown*
Eclipse*	Puma* S	2,4-D
Diclofop methyl	Roundup* (see below)	2,4-DB
Garlon* 600	Roundup CT* (see below)	
Glyphosate CT		

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 STAROXY 200 AND ATRAZINE.

Staroxy 200 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 non-ionic surfactant at 100 mL/100 L of spray mix. DO NOT use a spraying oil when tank mixing Staroxy 200 and atrazine.

Guidelines for tank-mixing Staroxy and Common atrazine formulations:

Tank Mix	Rate (L/ha)	Water Hardness			Min. Water Volume (L/ha)		Comments
		Soft	Med	Hard	Ground	Aerial	
Staroxy 200	0.75	✓	✓	✓	50	35	
Staroxy 200 + Gesaprim 500FW	0.75 + 2	✓	✓	✓	50 - 100	35	Precipitate can be easily resuspended.
Staroxy 200 + Atradex 900WG	0.75 + 1.1	✓	✗	✗	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.
Staroxy 200 + Nu-trazine 900 DF	0.75 + 1.1	✓	✗	✗	100	Do not use	Sediment may be difficult to resuspend and may block nozzles.
Staroxy 200 + Flowable Nu-trazine 500 FW	0.75 + 2.0	✓	✓	✗	100	Do not use	Precipitate may be difficult to resuspend and may block nozzles.

Topik 240 EC

Always use Uptake Spraying Oil with Staroxy 200 + Topik 240 EC tank-mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.

DO NOT mix Staroxy 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 Staroxy 200 at more than 0.75 L/ha in tank mixes with Topik 240 EC.

Roundup CT

When mixing Staroxy 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 Staroxy 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 Staroxy 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 direct 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 droplets with an average diameter (Volume Mean Diameter: VMD) of 250 - 350 microns.

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

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

WOODY WEED SITUATIONS

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

A. High Volume Application

Hand Gun

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

Ensure thorough coverage to the point of runoff.

Knapsack

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

B. Low Volume, High Concentrate Application Drench Gun or Grass-Powered Gun. Apply the recommended mixture uniformly across the foliage by applying 50 mL shots to cover 4 to 5 m² of surface area of plant. This is approximately equivalent to 20 droplets per cm² of the leaf surface. Use a marking agent as recommended by the equipment manufacturer to check spray coverage.

C. Basal Bark and Cut Stump Application Basal Bark

DO NOT apply to wet stems as this can repel the diesel mixture. Spray or paint the recommended mixture around the base of each stem from ground level to a height of at least 30 cm from the ground, wetting the bark to the point of runoff. Apply with a paint brush or a pressure sprayer with an appropriate lance and solid cone nozzle. If using spray equipment use low pressures (≤ 200 kPa) sufficient to form a cone of spray. Old rough bark will require more spray than smooth or young thin bark.

Cut Stump

Apply the recommended mixture liberally to the freshly cut stump immediately after cutting. Apply by spraying or painting the cut surface and sides of the stump.

Best results are obtained when 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 Staroxy 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 (eg. Liquid SURF*, OMO* or DRIVE*) 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* 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 (eg. Liquid SURF*, OMO* or DRIVE*) at 50 mL/10 L of water or the powder equivalent at 50 g/10 L. 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

Staroxy 200 Herbicide is a member of the pyridine group of herbicides. Staroxy 200 has a disruptors of plant cell growth mode of action. For weed resistance management Staroxy 200 is a Group I Herbicide.

Some naturally occurring weed biotypes resistant to Staroxy 200 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 Staroxy 200 or other Group I Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, eChem (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 eChem (Australia) Pty Ltd 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 trees, potatoes, navy beans, safflower, shade trees, soybeans, sunflower, tobacco, tomatoes, vegetables, and vines.

Staroxy 200 can be damaging to susceptible crops during both growing and dormant periods. Grasses are normally unaffected by Staroxy 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.