



Australian Pesticides &  
Veterinary Medicines Authority

Product Name: Quantum Clopyralid 300 SL Herbicide

APVMA Approval No: 95197/148988

Label Name:	Quantum Clopyralid 300 SL Herbicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENT: 300 g/L CLOPYRALID PRESENT AS THE TRIISOPROPANOLAMINE SALT
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Mode of Action:	GROUP 4 HERBICIDE
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Statement of Claims:	For the control of a wide range of broadleaf weeds in wheat, barley, triticale, oats, pastures, canola, fallow land, forests and industrial situations as specified in the Directions for Use.
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Net Contents:	1 - 1000 L
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Restraints:	<p>IT IS ESSENTIAL to select a rate appropriate to weed size. Best results will be obtained when weeds are actively growing at treatment.</p> <p>RESTRAINTS:</p> <p>DO NOT apply to weeds which may be stressed (inactive growth) due to prolonged periods of extreme heat or cold, moisture stress (water logging or drought) or previous herbicide treatment as reduced levels of control may result.</p> <p>DO NOT sow susceptible crops (see PROTECTION OF CROPS) for nine months following any application up to 300 mL/ha or for twelve months following an application in excess of 300 mL/ha and up to 500 mL/ha. Field peas should not be sown the season following an application of 500 mL/ha. Where rates in excess of 500 mL/ha have been used, susceptible crops including field peas, should not be sown for at least two years.</p> <p>DO NOT spray if rain is likely within 3 hours.</p> <p>SPRAY DRIFT RESTRAINTS</p> <p>Specific definitions for terms used in this section of the label can be found at <a href="http://apvma.gov.au/spraydrift">apvma.gov.au/spraydrift</a>.</p> <p>DO NOT allow bystanders to come into contact with the spray cloud.</p>
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	<p>DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.</p> <p>DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.</p> <p>DO NOT apply If there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.</p>
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>WITHHOLDING PERIODS</p> <p>Pastures and Fallow Land: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.</p> <p>Cereals: DO NOT HARVEST FOR 10 WEEKS AFTER APPLICATION. DO NOT GRAZE OR CUT TREATED CEREALS FOR STOCK FEED FOR 4 WEEKS AFTER APPLICATION IF RATE IS IN EXCESS OF 300mL/ha.</p> <p>Canola: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FEED EARLIER THAN 12 WEEKS AFTER APPLICATION.</p> <p>Forests, except Pinus radiata Plantations: DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION.</p> <p>Pinus radiata Plantations: DO NOT GRAZE FOR 14 DAYS AFTER APPLICATION.</p>
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Trade Advice:	
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General Instructions:	<p>GENERAL INSTRUCTIONS</p> <p>MIXING</p> <p>Half fill the spray tank with water and add the required amount of Quantum Clopyralid 300 SL Herbicide. Add the remaining water with the agitator running. Agitate continuously to ensure thorough mixing before and during application. Only mix sufficient chemical for each day's work.</p> <p>When using with tank mixtures: Wettable powder or dry flowable formulations should be added to the spray tank first, followed by suspension concentrates (flowables), then aqueous concentrates (ie. Quantum Clopyralid 300 SL Herbicide), emulsifiable concentrate formulations (eg. MCPA LVE).</p> <p>APPLICATION</p> <p>BOOM SPRAYING CROP and PASTURES</p> <p>Apply Quantum Clopyralid 300 SL Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering medium to coarse droplets size and not less than 50 L/ha water volume for boom sprayers or not less than 20 L/ha for aerial applications.</p> <p>Hardhead thistle – Use a spray volume of 200 to 250 L/ha of water.</p> <p>Silver wattle – Use a spray volume of 150 to 200 L/ha of water by ground boomspray and a minimum spray volume of 50 L/ha by aircraft.</p> <p>HIGH VOLUME HAND GUN</p>
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	<p>Apply the recommended mix to give full coverage of leaves and stems through a No. 6-8 tip at 700 to 1500 kPa. Spray volume for effective coverage of dense two metre high silver wattle should be 30 to 40 litres of spray per 100 m<sup>2</sup> (10 m x 10 m) of infestation. For larger areas, an equivalent would be 3000 to 4000 litres per infested hectare.</p> <p><b>CLEANING SPRAY EQUIPMENT</b>  Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto unused land away from desirable plants and water courses.</p> <p><b>PARTIAL CLEANING</b> (before spraying other labeled or tolerant crops):  After using Quantum Clopyralid 300 SL Herbicide, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose. Quarter fill the tank with clean water and circulate through the pump, line, hoses and nozzles. Drain and repeat procedure twice.</p> <p><b>COMPLETE CLEANING</b> (before spraying susceptible crops):  Before spraying sensitive crops with equipment that has been used to apply Quantum Clopyralid 300 SL Herbicide, wash the tank and rinse the system as above. Then quarter fill the tank again and add an alkali detergent (e.g. Liquid Surf®, Omo®, Omomatic®, Drive® at 500 mL/100 L water or the powder equivalent at 500 g/100L water) and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean separately. Finally flush the system with clean water and allow to drain.</p>
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Resistance Warning:	<p><b>RESISTANT WEEDS WARNING</b>  <b>GROUP 4 HERBICIDE</b>  Quantum Clopyralid 300 SL Herbicide is a member of the Pyridines group of herbicides. The product Quantum Clopyralid 300 SL Herbicide has the disrupters of plant cell growth mode of action. For weed resistance management, the product Quantum Clopyralid 300 SL Herbicide is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 4 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 the product or other Group 4 herbicides.</p> <p>Since occurrence of resistant weeds is difficult to detect prior to use, Quantum Agrosiences Holdings Pty Ltd accepts no liability for any losses that may result from the failure of the 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 Quantum representative.</p>
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Precautions:	
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Protections:	<p><b>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</b>  <b>DO NOT</b> apply Quantum Clopyralid 300 SL Herbicide to crops or pastures, which are to be used for the production of compost or mulches for use with susceptible crops or plants. The use of straw, hay or other plant material treated with Quantum Clopyralid 300 SL Herbicide for composting or mulching susceptible crops may damage these crops. Susceptible crops include chickpeas, cotton, faba beans, field peas, fruit trees, lentils, lupins, lucerne, medics, ornamentals, potatoes, safflower, sub-clover, tomatoes, vegetables, vines, wattles and white clover.</p> <p>Plant back periods: Residues in the straw of treated crops can affect subsequent susceptible crops. Susceptible crops listed above should not be sown for: nine months following any application up to 300 mL/ha; twelve months following an application in excess of 300 mL/ha and up to 500 mL/ha.</p>
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	<p>Note: Field peas are particularly susceptible and should not be sown the season following an application of 500 mL/ha. Where rates in excess of 500 mL/ha have been used, susceptible crops, including field peas, should not be sown for at least two years.</p> <p><b>PROTECTION OF LIVESTOCK</b> DO NOT graze or cut treated crops for stock food except as specified under WITHHOLDING PERIODS.</p> <p><b>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</b> Quantum Clopyralid 300 SL Herbicide has low toxicity to fish, birds, honey bees, livestock, earthworms and aquatic organisms. DO NOT contaminate streams, rivers or watercourses with chemical or used containers.</p>
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Storage and Disposal:	<p><b>STORAGE AND DISPOSAL</b> Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. DO NOT store near feedstuffs, fertilisers or seed. Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging 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.</p> <p><b>SMALL SPILL MANAGEMENT</b> Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed and contain in a refuse vessel for disposal. (See STORAGE AND DISPOSAL section). If necessary, wash the spill area with an alkali detergent and water and absorb as above, the wash liquid for disposal.</p>
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Safety Directions:	<p><b>SAFETY DIRECTIONS</b> Will irritate the skin. Will damage the eyes. May irritate the nose and throat. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container and preparing product for use and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves, goggles, disposable mist face mask covering mouth and nose. In addition, when opening the container and preparing product for use, if applying by aerial spraying equipment, wear cotton overalls, over normal clothing, buttoned to the neck and wrist, elbow-length chemical resistant gloves, goggles and disposable mist face mask covering mouth and nose. In addition, if applying by spraying equipment carried on the back of the user, wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat, elbow length chemical resistant gloves, goggles and disposable mist face mask covering mouth and nose. If product on skin, immediately wash area with soap and water. If product or spray in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.</p>
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First Aid Instructions:	<p><b>FIRST AID</b> If poisoning occurs, contact a doctor or Poisons Information Centre. Telephone Australia 13 11 26.</p>
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First Aid Warnings:	
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## DIRECTIONS FOR USE

IT IS ESSENTIAL to select a rate appropriate to weed size. Best results will be obtained when weeds are actively growing at treatment.

CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Barley Oats Triticale Wheat	Pre-sowing	Capeweed	Up to 8 leaf and maximum 10 cm diameter	WA only	150 mL plus knockdown herbicide	<b>Pre-sowing:</b> This rate should only be used in tank mixture with formulations of paraquat/diquat or glyphosate.
	Post-sowing pre-emergence though to 3 leaf				150 mL plus Diuron at 300 mL/ha	Post-sowing pre-emergence though to 3 leaf: This rate should only be used in tank mix with Diuron for control of transplants. TANK MIXTURES: Read and follow all label instructions including restraints, spray drift restraints, mandatory no-spray zones, critical comments, withholding periods, regional use restrictions and Safety Directions for the tank mix products.
	Early post-emergence (2 leaf to joining)		Cotyledons to 6 leaf and maximum 5 cm diameter		150 mL	<b>Early post-emergent:</b> Weeds should be growing actively and not larger than 5 cm diameter.
	4 to 5 leaf onwards	Capeweed Soldier thistle	Up to 10 cm diameter (4 to 8 leaf)	NSW, ACT, Vic, SA, Tas and WA only	300 mL	Weeds should be young and actively growing. Weeds will become stunted and not be competitive soon after application although final results may not show for some weeks.
		Volunteer chickpeas, lentils and safflower	Up to 6 leaf		250 mL	

		Volunteer faba beans and lupins	Up to 4 leaf			Faba beans and lupins will only be suppressed.  Use 75 mL/ha rate only in combination with MCPA LVE.
		Volunteer field peas	Maximum 10 cm high or 6 nodes		150 mL	
		Volunteer medics and seedling lucerne	Up to 8 leaf		75 mL plus 700 mL/ha MCPA LVE	
		Volunteer sub-clover	Up to 6 leaf		150 mL	

CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Barley Oats Triticale Wheat	4 to 5 leaf onwards	Volunteer vetch	Runners up to 10 cm maximum 16 leaf	NSW, ACT, Vic, SA, Tas and WA only	100 mL	Weeds should be young and actively growing. Weeds will become stunted and not be competitive soon after application although final results may not show for some weeks.
					75 mL plus 700 mL/ha MCPA LVE	
		Prickly lettuce	4 to 6 leaf and maximum 8 cm diameter	NSW, ACT, Vic, SA, Tas and WA only	150 mL plus 700 mL/ha MCPA LVE	Faba beans and lupins will only be suppressed.  Use 75 mL/ha rate only in combination with

		Thistles including: Nodding, Saffron, Scotch, Slender, Spear, Stemless, Variegated	Rosettes up to 10 cm maximum diameter	NSW, ACT, Vic, SA, Tas, Qld and WA only	50 mL plus 1 L/ha MCPA amine (500 g/L) or 50 mL plus 700 mL/ha MCPA LVE	MCPA LVE.
	5 leaf to late tillering	Skeleton weed	5 to 15 cm rosettes	NSW, ACT, Vic and SA only	500 mL plus 1 L/ha MCPA amine (500 g/L)	Weeds should be a minimum of 5 cm in diameter, and growing actively. This rate will give control until harvest and substantially reduce weed numbers the following season.
Canola	2 to 8 leaf	Capeweed Saffron thistle Skeleton weed Soldier thistle	Up to 10 cm diameter (4 to 8 leaf)	NSW, ACT, Vic, SA, Tas, WA, Qld only	300 mL	Weeds should be young and actively growing. Weeds will become stunted and will not be competitive soon after application although final results may not show for some weeks. Skeleton weed will only be controlled until harvest.  Faba beans and lupins will only be suppressed.  For the control of annual grasses, Quantum Clopyralid 300 SL Herbicide may be tank mixed with haloxyfop 520 g/L herbicides.
		Volunteer chickpeas, lentils and safflower	Up to 6 leaf		250 mL	
		Volunteer faba beans and lupins	Up to 4 leaf		250 mL	
		Volunteer field peas	Maximum 10 cm high or 6 nodes		150 mL	
		Volunteer medics and seedling lucerne	Up to 8 leaf		150 mL	
		Volunteer sub-clover	Up to 6 leaf		150 mL	

		Volunteer vetch	Runners up to 10 cm maximum 16 leaf		100 mL	
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CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Pastures and fallow land	Post-emergence	Hardhead thistle (Creeping knapweed Russian knapweed)	Actively growing plants	Vic and Qld only	<b>Hand gun:</b> 500 mL/100 L of water  <b>Boom spray:</b> 2 or 4 L/ha	<b>NOTE: DO NOT USE ON LUCERNE. CLOVERS AND MEDICS WILL BE ELIMINATED FOR AT LEAST ONE YEAR.</b>  <b>Victoria only:</b> Use the lower rate only on light soils (sand and sandy loam) where a slightly lower degree of control is acceptable. Use the higher rate on all soil types where complete control is required. Addition of a wetting agent at label rates is recommended for treatment of



		Thistles including: Nodding Variegated Scotch Spear Slender Saffron	Rosette stage prior to stem elongation.	NSW, ACT, Vic, Tas, SA and Qld only	<p>50 or 70 mL/ha plus 1 to 1.5 L MCPA amine (500 g/L)</p> <p><b>Drench gun:</b> 50 mL/1 L of water</p> <p><b>Hand gun:</b> 250 mL/100 L of water</p>	<p>hardhead thistle. Spray between September and April on actively growing plants for effective control. Thorough coverage is essential. Apply in 200 to 250 L of water/ha.</p> <p><b>BOOM SPRAYING:</b> Use the higher rates of Quantum Clopyralid 300 SL Herbicide plus MCPA on multi-crowned plants or rosettes larger than 30 cm in diameter. Spraying may be done at any time during active growth, usually in early winter or spring. Avoid spraying during the dormant winter period or at any time when thistles are not actively growing.</p> <p><i>Do not spray flowering thistles.</i></p> <p><b>PRE-SPRAY MANAGEMENT:</b> The pasture should be slightly grazed prior to spraying to reduce clover and grass cover and expose the smaller thistles to the spray. The grazed pasture should be left for seven days to allow thistles to freshen prior to treatment.</p> <p><b>POST-TREATMENT MANAGEMENT:</b> Response of thistles to treatment with the Quantum Clopyralid 300 SL Herbicide plus MCPA mixture will be slow compared to the standard treatments with 2,4-D or MCPA. If possible delay grazing of sprayed thistles for 14 days after treatment.</p> <p><b>CLOVER DAMAGE:</b> The Quantum Clopyralid 300 SL Herbicide plus MCPA mixture can be very damaging to subterranean clover. The lower rate is no more damaging than label rates of 2,4-D or MCPA. The higher rate of the Quantum Clopyralid 300 SL Herbicide plus MCPA mixture will reduce the clover component of the pasture for about two months. Clover recovery will be quicker during periods of active growth.</p> <p><b>HANDGUN (Spot spray):</b> Treat from rosette stage to early flowering. Thorough spraying is necessary.</p> <p><b>DRENCHGUN:</b> Apply 10 mL to rosette crown. To multicrown plants, apply 10 mL to each crown.</p>
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CROP	CROP STAGE	WEED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Pastures and fallow land	Post-emergence	Nodding thistle	Rosettes up to 20 cm diameter	NSW, ACT only	100 mL	Apply the spray from September to October. Apply by boom spray only. <b>DO NOT</b> apply to thistles over 20 cm in diameter. When thistles are over 20 cm in diameter use Quantum Clopyralid 300 SL Herbicide plus MCPA (referred to above). <b>Clover Damage:</b> Damage to white clover will be no greater than damage with MCPA alone and less than damage from Quantum Clopyralid 300 SL Herbicide plus MCPA mixtures. Damage to sub-clover may be greater than with MCPA or 2,4-D alone. <b>DO NOT</b> use for spot treatment.
		Californian thistle	From early buds to flowering (December to February)	Vic and Tas only	<b>Hand gun:</b> 250 mL/100 L of water <b>Boom spray:</b> 2 L/ha	Addition of a wetting agent at label rates is recommended. Re-treatment of re-growth in the year following treatment will usually be necessary to achieve a high level of control. <b>NOTE:</b> Clovers and medics will be eliminated for at least one year.
Pasture, Forests, Rights-of-Way, Industrial Situations	Post-emergence	Groundsel bush	Young seedlings to mature plants	Qld, NSW, ACT only	<b>Hand gun:</b> 330 or 500 mL/100 L of water	Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2 m tall or when growth is slow.

Pasture and <i>Pinus radiata</i> plantations		Silver wattle	Active growth spring to summer	NSW, ACT, Vic and Tas only	<p><b>Hand gun:</b> 500 mL/100 L of water</p> <p><b>Boom and aerial spray:</b> 5 L/ha (weeds 30 cm to 2 m)</p> <p>7 L/ha (weeds 2 to 4 m)</p> <p>8.5 L/ha (weeds 4 to 8 m)</p>	<p>For effective control apply when bushes are growing actively. Large trees will not show complete necrosis.</p> <p><b>HANDGUN:</b> Means high volume <b>NOT</b> low volume knapsack. Spray to give full coverage of leaves and stems. Add organosilicone surfactant at 200 mL/100 L for optimum results. See General Instructions for handgun spraying.</p> <p><b>BOOM AND AERIAL SPRAYING:</b> For boom spraying apply in 150 to 200 L of water/ha.</p> <p>For aerial treatment apply in a minimum of 50 L/ha of water containing 25 to 50% by volume of anti-evaporant oil such as 855 g/L petroleum oil. Mix Quantum Clopyralid 300 SL Herbicide and water first and then add 855 g/L petroleum oil. Maintain continuous agitation. Clovers and other legumes will be eliminated for at least one year.</p>
Forests		Cape ivy	Any growth stage	Vic and Tas only	<p><b>Hand gun:</b> 3.3 L/ha</p>	<p>Apply by hand held weed wiper or CDA at dilutions with water at 1:3. Application may be made at any time of the year provided foliage is dry at the time. Avoid spraying non-target plants.</p>

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