

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



Dow AgroSciences

Lontrel™

Herbicide

ACTIVE CONSTITUENT: 300 g/L CLOPYRALID present as the triisopropanolamine salt

GROUP I HERBICIDE

For control of a wide range of broadleaf weeds in wheat, barley, oats, triticale, canola, pastures, fallow land, forests and industrial situations as specified in the Directions For Use.

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Dow AgroSciences

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.

RESTRAINTS:

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.

DO NOT apply immediately before sowing susceptible crops, or sow susceptible crops into paddocks treated the previous year with Lontrel until after the required plantback period has elapsed (see PROTECTION OF CROPS NATIVE AND OTHER NON-TARGET PLANTS section).

DO NOT compost material from treated plants or crops before reading the PROTECTION OF CROPS NATIVE AND OTHER NON-TARGET PLANTS section.

DO NOT spray if rain is likely within 3 hours.

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS	
Barley Oats Triticale Wheat	Pre-sowing	Capeweed	Up to 8 leaf and maximum 10 cm diameter	150 plus knockdown herbicide	WA only	Pre-sowing: This rate should only be used in tank mixture with formulations of paraquat/diquat or glyphosate.	
	Post-sowing pre-emergence through to 3 leaf			150 plus diuron at 300 mL/ha		Post sowing pre-emergent to 3 leaf: This rate should only be used in tank mixture with diuron for control of transplants.	
	Early post-emergence (2 leaf to jointing)			150		Early post-emergent: Weeds should be growing actively and not larger than 5 cm diameter.	
	4 to 5 leaf onwards		Capeweed	Up to 10 cm diameter (4 to 8 leaf)	300	NSW, Vic, SA, Tas and WA only	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. Faba beans and lupins will only be suppressed. Use 75 mL/ha rate only in combination with MCPA LVE.
			Volunteer chickpeas, Lentils and Safflower	Up to 6 leaf	250		
			Volunteer faba beans and Lupins	Up to 4 leaf			
			Volunteer field peas	Maximum 10 cm high or 6 nodes	150		
					75 plus 700 mL/ha MCPA LVE		
			Volunteer medics and seedling lucerne	Up to 8 leaf	150		
			Volunteer sub-clover	Up to 6 leaf			
Volunteer vetch			Runners up to 10 cm maximum 16 leaf	100			
	75 plus 700 mL/ha MCPA LVE						
Prickly lettuce	4 to 6 leaf and maximum 8 cm diameter	150 plus 700 mL/ha MCPA LVE					



(Table continued)

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS
Barley Oats Triticale Wheat	4 to 5 leaf onwards	Thistles including: Nodding Saffron Scotch Slender Spear Stemless Variegated	Rosettes up to 10 cm maximum diameter	50 plus 1 L/ha MCPA amine (500 g/L) or 50 plus 700 mL/ha MCPA LVE	NSW, Vic, SA, Tas, WA and Qld only	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. Faba beans and lupins will only be suppressed. Use 75 mL/ha rate only in combination with MCPA LVE.
	5 leaf to late tillering	Skeleton weed	5 to 15 cm rosettes	500 plus 1 L/ha MCPA amine 500 g/L	NSW, Vic and SA only	Weeds should be a minimum 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)	300	NSW, Vic, SA, Tas, WA and Qld only	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, Lontrel may be tank mixed with Verdict™ 520 Herbicide.
		Volunteer chickpeas, Lentils and Safflower	Up to 6 leaf	250		
		Volunteer faba beans and Lupins	Up to 4 leaf	250		
		Volunteer field peas	Maximum 10 cm high or 6 nodes	150		
		Volunteer medics and seedling lucerne	Up to 8 leaf			
		Volunteer sub-clover	Up to 6 leaf			
		Volunteer vetch	Runners up to 10 cm maximum 16 leaf	100		



(Table continued)

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS
Pastures and Fallow land	Post-emergence	Hardhead thistle (creeping knapweed, Russian knapweed)	Actively growing plants	Hand gun: 500 mL /100 L of water. Boom spray: 2 or 4 L/ha	Vic only	<p>NOTE: DO NOT USE ON LUCERNE, CLOVERS AND MEDICS WILL BE ELIMINATED FOR AT LEAST ONE YEAR.</p> <p>Victoria only: 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 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>BOOM SPRAYING: Use the higher rates of Lontrel plus MCPA on multicrowned 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. <i>Do not spray flowering thistles.</i></p> <p>PRE-SPRAY MANAGEMENT: 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 7 days to allow thistles to freshen prior to treatment.</p> <p>POST-TREATMENT MANAGEMENT: Response of thistles to treatment with the Lontrel 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>CLOVER DAMAGE: The Lontrel 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 Lontrel plus MCPA mixture will reduce the clover component of the pasture for about 2 months. Clover recovery will be quicker during periods of active growth.</p> <p>HANDGUN (Spot spray): Treat from rosette stage to early flowering. Thorough spraying is necessary.</p> <p>DRENCHGUN: Apply 10 mL to rosette crown. To multicrown plants, apply 10 mL to each crown.</p>
				Hand gun: 500 mL/100 L of water. Boom spray: 4 L/ha	Qld only	
		Thistles including: Nodding Variegated Scotch Spear Slender Saffron	Rosette stage prior to stem elongation. Treat rosette stage prior to stem elongation.	50 or 70mL/ha plus 1 to 1.5 L MCPA amine (500 g/L)/ha Drench gun: 50 mL /1 L of water Hand gun: 250 mL /100 L of water	NSW, Vic, Tas, SA and Qld only	



(Table continued)

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS
Pastures and Fallow land	Post-emergence	Nodding thistle	Rosettes up to 20 cm diameter	100	NSW only	Apply the spray from September to October. Apply by boom spray only. DO NOT apply to thistles over 20 cm in diameter. When thistles are over 20 cm in diameter use Lontrel plus MCPA (referred to above). Clover Damage: Damage to white clover will be no greater than damage with MCPA alone and less than damage from Lontrel plus MCPA mixtures. Damage to sub-clover may be greater than with MCPA or 2,4-D alone. DO NOT use for spot treatment.
		Californian thistle	From early buds to flowering (December to February)	Hand gun: 250 mL /100 L of water Boom spray: 2 L/ha	Vic and Tas only	Addition of a wetting agent at label rates is recommended. Retreatment of regrowth in the year following treatment will usually be necessary to achieve a high level of control. NOTE: Clovers and medics will be eliminated for at least 1 year.
Pastures, Forests, Rights-of-Way Industrial situations		Groundsel bush	Young seedlings to mature plants	Hand gun: 330 or 500 mL /100 L of water	Qld and NSW only	Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2 metres tall or when growth is slow.
Pasture and <i>Pinus radiata</i> plantations		Silver wattle	Active growth spring to summer	Hand gun: 500 mL /100 L of water Boom and aerial spray: 5 L/ha (weeds 30 cm to 2 m) 7 L/ha (weeds 2 to 4 m) 8.5 L/ha (weeds 4 to 8 m)	NSW, Vic and Tas only	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. HANDGUN: Means high volume NOT 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. BOOM AND AERIAL SPRAYING: For boom spraying apply in 150 to 200 L of water/ha. 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 BP Ulvapon®. Mix Lontrel and water first and then add BP Ulvapon®. Maintain continuous agitation. Clovers and other legumes will be eliminated for at least 1 year.
Forests		Cape ivy	Any growth stage	Hand gun: 3.3 L/ha	Vic and Tas only	Apply by hand held weed wiper or C.D.A. 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.

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



WITHHOLDING PERIODS

Pastures and Fallow Land: **DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

Cereals and Canola: **DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

Cereals: **DO NOT APPLY LATER THAN 10 WEEKS BEFORE HARVEST**

Canola: **DO NOT HARVEST FOR 12 WEEKS AFTER APPLICATION.**

Forests, except *Pinus radiata* Plantations: **DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION.**

Pinus radiata Plantations: **DO NOT GRAZE FOR 14 DAYS AFTER APPLICATION.**

GENERAL INSTRUCTIONS

MIXING

Half fill the spray tank with water and add the required quantity of Lontrel and complete filling. Agitate continuously to ensure thorough mixing before and during application. Only mix sufficient chemical for each day's work.

Tank mixtures: Wettable powder or dry flowable formulations should be added to the spray tank first, followed by suspension concentrates (flowables), aqueous concentrates (Lontrel) and the emulsifiable concentrate formulations (e.g. Verdict™ 520 or MCPA LVE).

COMPATIBILITY

Lontrel is compatible with the following:

BROADLEAF HERBICIDES: Starane™ 200 or Starane™ Advanced, Ally®, bromoxynil, chlorsulfuron, diuron, glyphosate, MCPA amine, MCPA LVE, paraquat, Spray-Seed®, terbutryn, 2,4-D amine.

GRASS HERBICIDES IN CEREAL CROPS: Diclofop methyl, Grasp®+, Puma®+ (+ Grasp and Puma for wild oat control only).

GRASS HERBICIDES ON BROADLEAF CROPS: Verdict™ 520 Herbicide.

APPLICATION

BOOM SPRAYING CROP and PASTURES:

Apply Lontrel in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering 200 to 300 micron droplets and not less than 50 L/ha water volume for boom sprayers or not less than 20 L/ha for aerial applications.

Hardhead thistle - Use a spray volume of 200 to 250 L/ha of water.

Silver wattle - Use a spray volume of 150 to 200 L/ha of water by ground boom-spray and a minimum spray volume of 50 L/ha by aircraft.

HIGH VOLUME HAND GUN:

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 2 metre high silver wattle should be 30 to 40 litres of spray per 100 m² (10 m x 10 m) of infestation. For larger areas an equivalent would be 3000 to 4000 litres per infested hectare.

CLEANING SPRAY EQUIPMENT

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.

PARTIAL CLEANING (before spraying other labelled or tolerant crops):

After using Lontrel, 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.

COMPLETE CLEANING (before spraying susceptible crops):

After using Lontrel, 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 as above, then drain.

Quarter fill the tank again and add a liquid alkali detergent at 500 g (or mL)/100 L water 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, remove filters and nozzles and clean separately. Rinse inside the tank thoroughly using a pressure hose and flush system with clean water.

RESISTANT WEEDS WARNING

GROUP I HERBICIDE

Lontrel Herbicide is a member of the pyridines group of herbicides. The product has the disrupters of plant cell growth mode of action. For weed resistance management, the product is a Group I herbicide.

Some naturally occurring weed biotypes resistant to the product and other disrupters of plant cell growth herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by the product or other disrupters of plant cell growth herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Dow AgroSciences accepts no liability for any losses that may result from the failure of 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 local Dow AgroSciences representative.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.



Composts and mulches - DO NOT apply Lontrel Herbicide to crops or pastures that will be used for the production of compost or mulches or mushroom substrate. Such compost or mulch made from plant material treated with Lontrel may cause damage to susceptible crops and plants.

Susceptible crops and plants include, but are not limited to chickpeas, clover, cotton, faba beans, field peas, fruit trees, lentils, lupins, lucerne, medics, ornamentals, potatoes, safflower, tomatoes, vegetables, grape and kiwifruit vines, vetches, and wattles. Field peas, faba beans, lentils and vetches are particularly susceptible and should not be sown the season following an application of Lontrel at 500 mL/ha.

Where Lontrel residue carry over from use rates of less than 500 mL/ha is suspected and susceptible crops are to be planted, test the treated area as follows:

- Field bioassay - where rain allows, plant a small area of the susceptible crop 4 to 6 weeks before desired planting date and take note of any symptoms of injury. If any herbicide symptoms are observed, only plant either canola or a cereal (see recommendation for northern and southern Australia below).
- Pot bioassay - where not practical to do field bioassay, plant a small number of seeds of the susceptible crop into pots containing soil from the treated field. Do this 4 to 6 weeks before desired planting date. If any herbicide symptoms are observed, only plant either canola or a cereal (see recommendation for northern and southern Australia below).

Stubble from treated crops - ensure that harvesters effectively spread crop straw and do not leave a heavy 'header trail' after harvest. Burn (if legal in the area), bale and remove, slash or incorporate stubble as soon as practical after harvest and as long as possible before planting next year to allow microbial breakdown of any residues in straw. Heavy stubble loads may carry more residue into the following season. Where heavy stubble burdens and/or non-wetting soils exist and less than recommended rain amount have occurred from application to planting the susceptible crop (see below), only plant a winter or summer cereal or canola.

Planting crops following use of Lontrel herbicide in previous crop - planting crops 'dry' without significant rain (see below) in the 'autumn break' increases the risk of injury to susceptible crops. This practice should be avoided, or only plant a winter or irrigated summer cereal crop or canola. In severely dry conditions, where less than 30% of average annual rainfall and/or less than the minimum rain (see below) has fallen between application and planting the next year, only plant a winter or irrigated summer cereal or canola.

PLANTBACK PERIODS FOR SOUTHERN AUSTRALIAN WINTER DOMINANT RAINFALL AREAS (Sth NSW, VIC, SA, WA)

Required rainfall - A minimum 25 mm rain event in the post harvest summer to autumn period, with a subsequent extended period of at least 1 week where the top 10 cm of the soil stays moist is required to enable breakdown of soil residues. Fastest residue breakdown will occur under good soil moisture and warm conditions, which promote microbial activity. Where significant rain (> 25 mm) has fallen in summer to autumn, with soil wetting for at least one week, the following plantback periods apply:

Following Crops	Rate (mL/ha)	Plantback Interval
Clover, chickpea, faba bean, field pea, lentils, lupins, medics and vetch	Up to 300	9 months
	300 - 500	12 months
	> 500	24 months
Barley, canola, wheat, oats	All label rates	1 week

PLANTBACK PERIODS FOR NORTHERN AUSTRALIA SUMMER DOMINANT RAINFALL AREAS (Nth NSW, QLD)

Required rainfall before plantback:

If planting susceptible summer crops – at least 100 mm rain

If planting susceptible winter crops – at least 150 mm rain

This rain or irrigation should wet the soil or extended periods (at least one week) this is essential for breakdown of soil residues prior to planting susceptible crops.

If planting a cereal or canola crop – at least 50 mm of rain or irrigation is required to enable soil wetting for at least one week.

Where these requirements have been met the following plantback periods apply:

Following Crops	Rate (mL/ha) and Plantback Interval	
	Up to 75 mL/ha	>75 - 300 mL/ha
Chickpea, cotton, soybean, sunflower	3 months	6 months
Lucerne	9 months	9 months
Maize, sorghum	1 week	2 weeks
Wheat, barley, oats, canola	1 week	1 week

Note: Susceptible crops should not be sown for at least 2 years where Lontrel Herbicide at more than 300 mL/ha has been used in northern Australia.



PROTECTION OF LIVESTOCK

DO NOT graze or cut treated crops for stock food except as specified under WITHHOLDING PERIODS.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Lontrel has low toxicity to fish, birds, honey bees, livestock, earthworms and aquatic organisms.

DO NOT contaminate streams, rivers or waterways with chemical or used containers.

STORAGE AND DISPOSAL

Storage for all containers

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 food, feedstuffs, fertilisers or seed.

DO NOT store near food, feedstuffs, fertilisers or seed.

This container can be recycled if it is clean, dry, free of visible residues and has the **drumMUSTER** logo visible.

Triple or pressure rinse container for disposal. Dispose of rinsate by adding to the spray tank. Do not dispose of undiluted chemicals 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 site. The cap should not be replaced but may be taken separately. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility.

If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. **DO NOT** burn empty containers or product.

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 Dow AgroSciences Emergency Services at 1-800 033 882.

SAFETY DIRECTIONS

- May irritate the eyes and skin. Avoid contact with eyes and skin.
- **DO NOT** inhale the spray mist.
- When preparing the spray, wear elbow-length PVC gloves and a face shield.
- After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
- After each day's use, wash gloves and face shield.

FIRST AID

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

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet for **LONTREL™ HERBICIDE** which is available from Dow AgroSciences on request. Call Customer Service Toll Free on 1-800 700 096 or visit www.dowagrosciences.com.au

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

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



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