

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

TITAN

CLOPYRALID 600 SL

HERBICIDE

ACTIVE CONSTITUENT: 600g/L CLOPYRALID present as DIMETHYLAMINE and DIETHYLAMINE SALTS

GROUP **4** HERBICIDE

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.

APVMA Approval No.: 90381/128701

Pack Size: 1L-1000L



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IN A TRANSPORT EMERGENCY

DIAL 000

POLICE OR FIRE BRIGADE

TRANSPORT AND HANDLING
NOT A DANGEROUS GOOD
ACCORDING TO THE AUSTRALIAN
DANGEROUS GOODS (ADG) CODE
FOR TRANSPORT BY ROAD AND RAIL

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 spray if rain is likely within 3 hours.

DO NOT apply immediately before sowing susceptible crops, or sow susceptible crops into paddocks treated the previous year with TITAN Clopyralid 600 SL Herbicide 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.

When applying to plantation trees including *Pinus radiata* plantations the following restriction statement applies: Must use closed mixing and loading for aerial application.

When applying to forests to control Groundsel Bush, Ragwort, Silver Wattle and Cape Ivy, the following restriction statement applies: DO NOT apply by using spraying equipment carried on the back of the user.

FOR PROFESSIONAL USE ONLY

Spray Drift Restraints

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

DO NOT allow bystanders to come into contact with the spray cloud.

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.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

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 one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

Spray droplets not smaller than a COARSE spray droplet size category.

DO NOT apply by aircraft unless the following requirements are met:

Spray droplets not smaller than a COARSE spray droplet size category.

For maximum release height above the target canopy of 3 metres or 25 per cent of wingspan or 25 per cent of rotor diameter, whichever is the greatest.

1. LAND USE						
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 10cm diameter	75 plus knockdown herbicide	WA only	Pre-sowing: This rate should only be used in tank mixture with formulations of paraquat/diquat or glyphosate.
	Pre-emergence through to 3 leaf			75 plus diuron at label rates		Post-sowing pre-emergent to 3 leaf: This rate should only be used in tank mixture with diuron for control of transplants. Refer to diuron label for specific rates.
	Early post-emergence (2 leaf to jointing)		Cotyledons to 6 leaf and maximum 5cm diameter	75		Early post-emergent: Weeds should be growing actively and not larger than 5cm diameter.
	4 to 5 leaf onwards	Capeweed, Soldier Thistle	Up to 10cm diameter (4 to 8 leaf)	150	NSW, ACT, VIC, TAS, SA, 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 75mL/ha rate only in combination with MCPA LVE.
		Volunteer Chickpeas, Lentils and Safflower	Up to 6 leaf	125		
		Volunteer Faba Beans and Lupins	Up to 4 leaf			
		Volunteer Field Peas	Maximum 10cm high or 6 nodes	75 40 plus 700mL/ha LVE MCPA		
		Volunteer Medics and seedling Lucerne	Up to 8 leaf	75		
		Volunteer Sub-Clover	Up to 6 leaf			
		Volunteer Vetch	Runners up to 10cm maximum 16 leaf	50 40 plus 630mL/ha LVE MCPA (570g/L)		
		Prickly Lettuce	4 to 6 leaf and maximum 8cm diameter	75 plus 700mL/ha LVE MCPA	NSW, ACT, VIC, TAS, SA, WA 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.
	5 leaf to late tillering	Thistles including: Nodding, Saffron, Scotch, Slender, Spear, Stemless, Variegated	Rosettes up to 10cm maximum diameter	25 plus 1.0L/ha MCPA amine (500g/L) or 25 plus 630mL/ha LVE MCPA (570g/L)	QLD, NSW, ACT, VIC, TAS, SA, WA only	Use 75mL/ha rate only in combination with MCPA LVE.
		Skeleton Weed	5 to 15cm rosettes	250 plus 1.0L/ha MCPA amine (500g/L)	NSW, ACT, VIC, SA only	Weeds should be a minimum 5cm in diameter, and growing actively. This rate will give control until harvest and substantially reduce weed numbers the following season.

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS
Canola	2 to 8 leaf	Capeweed, Saffron Thistle, Skeleton Weed, Soldier Thistle	Up to 10cm diameter (4 to 8 leaf)	150	QLD NSW, ACT, VIC, TAS, SA, WA 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 TITAN Clopyralid 600 SL Herbicide may be tank mixed with haloxyfop herbicides.
		Volunteer Chickpeas, Lentils and Safflower	Up to 6 leaf	125		
		Volunteer Faba Beans and Lupins	Up to 4 leaf	125		
		Volunteer Field Peas	Maximum 10cm high or 6 nodes	75		
		Volunteer Medics and seedling Lucerne	Up to 8 leaf	75		
		Volunteer Sub-Clover	Up to 6 leaf	75		
		Volunteer Vetch	Runners up to 10cm maximum 16 leaf	50		
Pastures and Fallow Land	Post-emergence	Hardhead Thistle (Creeping Knapweed, Russian Knapweed)	Actively growing plants	Hand Gun: 250mL/100L of water Boom Spray: 1 or 2L/ha Hand Gun: 250mL/100L of water Boom Spray: 2L/ha	VIC only QLD 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 250L of water/ha.</p> <p>Boom Spraying: Use the higher rates of TITAN Clopyralid 600 SL Herbicide plus MCPA on multi-crowned plants or rosettes larger than 30cm 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. DO NOT spray flowering thistles.</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 for seven days to allow thistles to freshen prior to treatment.</p> <p>Post-Treatment Management: Response of thistles to treatment with the TITAN Clopyralid 600 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>Clover Damage: The TITAN Clopyralid 600 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 TITAN Clopyralid 600 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>Hand Gun (Spot spray): Treat from rosette stage to early flowering. Thorough spraying is necessary.</p> <p>Drench Gun: Apply 5mL to rosette crown. To multi-crown plants, apply 5mL to each crown.</p>
		Thistles including: Nodding, Variegated, Scotch, Spear, Slender, Saffron	Rosette stage prior to stem elongation. Treat rosette stage prior to stem elongation.	25 or 35mL/ha plus 1 to 1.5L MCPA amine (500g/L)/ha Drench Gun: 25mL/1L of water Hand gun: 125mL/100L of water	QLD, NSW, ACT, VIC, TAS, SA only	

CROP	CROP STAGE	WEED	WEED STAGE	RATE mL/ha	STATE	CRITICAL COMMENTS
Pastures and Fallow Land — <i>continued</i>	Post-emergence	Nodding Thistle	Rosettes up to 20cm diameter	50	NSW, ACT only	Apply the spray from September to October. Apply by boom spray only. DO NOT apply to thistles over 20cm in diameter. When thistles are over 20cm in diameter use TITAN Clopyralid 600 SL Herbicide 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 TITAN Clopyralid 600 SL Herbicide plus MCPA mixtures. Damage to Sub-Clover may be greater than with MCPA or 2,4-D alone. DO NOT use for spot treatment.
	Post-emergence	Californian Thistle	From early buds to flowering (December to February)	Hand Gun: 125mL/100L of water Boom Spray: 1L/ha	VIC, TAS only	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. Note: Clovers and Medics will be eliminated for at least one year.
Forests, Rights-of-Way, Industrial situations	Post-emergence	Groundsel Bush	Young seedlings to mature plants	Hand Gun: 165 or 250mL/100L of water	QLD, NSW, ACT only	Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2m tall or when growth is slow.
Pastures		Silver Wattle	Active growth spring to summer	Hand Gun: 250mL/100L of water Boom and Aerial Spray: 2.5L/ha (weeds 30cm to 2m) 3.5L/ha (weeds 2 to 4m) 4.25L/ha (weeds 4 to 8m)	NSW, ACT, VIC, TAS only	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. Hand Gun: Means high volume NOT low volume knapsack. Spray to give full coverage of leaves and stems. Add organosilicone surfactant at 200mL/100L for optimum results. See General Instructions for handgun spraying. Boom and Aerial Spraying: For boom spraying apply in 150 to 200L of water/ha. For aerial treatment apply in a minimum of 50L/ha of water containing 25 to 50% by volume of anti-evaporant oil such as Ulvapron. Must use closed mixing and loading for aerial application. Mix TITAN Clopyralid 600 SL Herbicide and water first and then add Ulvapron. Maintain continuous agitation. Clovers and other Legumes will be eliminated for at least one year.

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

WITHHOLDING PERIODS

Pastures, Fallow land, Industrial and Commercial situations: 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 (HARVEST): DO NOT APPLY LATER THAN 10 WEEKS BEFORE HARVEST.

Canola (HARVEST): NOT REQUIRED WHEN USED AS DIRECTED.

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

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

FORESTS – 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 (waterlogging or drought) or previous herbicide treatment as reduced levels of control may result.
DO NOT spray if rain is likely.

Pre-Planting: Boom and Aerial Application				
IMPORTANT NOTE: For aerial application on plantation trees including <i>Pinus radiata</i> plantations, a closed mixing and loading system MUST be used.				
2. FORESTS AND PLANTATION TREES INCLUDING <i>EUCALYPTUS</i> SPP., <i>CORYMBIA MACULATA</i> AND <i>PINUS RADIATA</i>				
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	STATE	CRITICAL COMMENTS
Capeweed, Thistles, Volunteer Legumes, Flatweed, Fleabanes	Pre-emergent	1-3L	ALL STATES	Use the higher rate for extended pre-emergence control (>3 months).
<i>PINUS RADIATA</i> only				
Silver Wattle (suppression only)	Pre-emergence from seeds	3L	NSW, ACT, VIC, TAS, SA only	For best results apply TITAN Clopyralid 600 SL Herbicide to bare soil just prior to spring rain or when wattles are expected to germinate. Avoid application to heavy trash situations. A high level of suppression may not be achieved where rain does not fall for an extended period after application (>1 month), or where very high rainfall occurs after application (>1200mm/yr).
Groundsel Bush	Young seedlings to mature plants	165-250mL	QLD, NSW, ACT only	DO NOT apply by using spraying equipment carried on the back of the user. Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2m tall or when growth is slow.
Ragwort	Actively growing rosettes up to stem elongation and before flowering	100 to 150mL	ALL STATES	DO NOT apply by using spraying equipment carried on the back of the user. Spray from the rosette to the shooting stage of growth. Use the higher rate on large multi-crown plants. Addition of a 100% non-ionic surfactant such as WetDrop Wetter at 0.1% v/v is recommended. Add Diquat (200g/L) at 1L/100L water plus a surfactant after opening of the first flowers, to prevent the formation of viable seed. Where Diquat is added use a directed spray to avoid tree injury.
Silver Wattle	Active growth spring to summer	250mL	NSW, ACT, VIC, TAS, SA only	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. Hand Gun: Means high volume NOT low volume knapsack. DO NOT apply by using spraying equipment carried on the back of the user. (See General Instructions, Application). Spray to the point of run-off to give full coverage of leaves and stems. Add Pulse (organosilicone surfactant) at 200mL/100L for optimum results.
Cape Ivy	Any growth stage	1.65L	VIC, TAS only	DO NOT apply by using spraying equipment carried on the back of the user. 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.
Post-Planting: Boom and Aerial Application				
IMPORTANT NOTE: For aerial application on plantation trees including <i>Pinus radiata</i> plantations, a closed mixing and loading system MUST be used.				
FORESTS AND PLANTATION TREES INCLUDING <i>EUCALYPTUS</i> SPP., <i>CORYMBIA MACULATA</i> AND <i>PINUS RADIATA</i>				
WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	STATE	CRITICAL COMMENTS
Capeweed, Flatweed, Thistles (except Hardhead Thistle), Volunteer Legumes, Skeleton Weed	Actively growing rosettes, seedlings up to 15cm diameter or height	250 to 500mL	ALL STATES	Cupping of the tip leaves and “weepy leader” symptoms may occur on certain <i>Eucalyptus</i> spp. and <i>Corymbia maculata</i> and are generally transient and do not result in long-term injury. These symptoms may be more obvious at rates of 1L/ha or higher or where mixtures are used on Blue Gum, Shining Gum and Spotted Gum. Where “weepy leader” effect is a concern use a directed spray. Use the 250mL rate until 3 months post-planting and the 500mL rate for trees 3 months and older. Use the low rate only under ideal conditions with excellent weed growth and where knockdown control of small weeds is desired. Use the high rate where longer control is required of larger weeds. For the control of annual and certain perennial grasses, TITAN Clopyralid 600 SL Herbicide can be tank mixed with Verdict* or other 520g/L Haloxyfop products. See also comments in Mixing section. Bonza* should not be used in tank mixes with Verdict or other 520g/L Haloxyfop products and TITAN Clopyralid 600 SL Herbicide on sensitive species such as Blue Gum, Shining Gum or Spotted Gum where rates of TITAN Clopyralid 600 SL Herbicide are more than 1L/ha. Use a 100% non-ionic surfactant such as WetDrop Wetter at 0.1% v/v instead.
Capeweed, Flatweed, Fleabane, Thistles including Hardhead Thistle, Volunteer Legumes, Skeleton Weed	Actively growing rosettes and seedlings greater than 15cm diameter or height up to stem elongation and before flowering	1L		

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE/ha	STATE	CRITICAL COMMENTS
Californian Thistle	From early bud to flowering (December to February)	1L	ALL STATES	For best control of California Thistle use a wetter such as WetDrop Wetter at 0.1% v/v. A second annual application may also be required for the best control.
Ragwort	Small rosettes to larger rosettes up to stem elongation and before flowering	500mL to 1L		Spray from the rosette to the shooting stage of growth. For small rosette seedling plants use the lower rate. For large rosette multi-crown and/or perennial plants use the higher rate. Addition of a 100% non-ionic surfactant such as WetDrop Wetter at 0.1% v/v is recommended. Add diquat (200g/L) at 1L/100L water plus a surfactant after opening of the first flowers, to prevent the formation of viable seed. Where diquat is added use a directed spray to avoid tree injury.
Sorrel (suppression only)	Actively growing rosettes, seedlings up to 15cm diameter or height	3 to 4.25L		Higher rates give better suppression. At rates greater than 3L use a directed spray to avoid tree injury.
Silver Wattle	Active growth spring to summer (0.5 to 2m tall)	2.5L	NSW, ACT, VIC, TAS, SA only	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. For boom spraying apply in 150 to 200L water/ha. For aerial treatment apply in a minimum of 50L/ha of water containing 25 to 50% by volume of anti-evaporant such as Broadcoat*. Mix TITAN Clopyralid 600 SL Herbicide and water first and then add Broadcoat*. Maintain continuous agitation. At rates of 3.5L and 4.25L for <i>Eucalypt</i> spp. use a directed spray to avoid tree injury.
	Active growth spring to summer (2 to 4m tall)	3.5L		
	Active growth spring to summer (4 to 8m tall)	4.25L		

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HARVEST WITHHOLDING PERIOD: NONE REQUIRED WHEN USED AS DIRECTED.

GRAZING/STOCKFOOD WITHHOLDING PERIOD:

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 amount of TITAN Clopyralid 600 SL Herbicide 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, emulsifiable concentrate formulations (eg. haloxyfop or MCPA LVE).

COMPATIBILITY

TITAN Clopyralid 600 SL Herbicide is compatible with the following:

Broadleaf Herbicides:

TITAN Metsulfuron 600 WG Herbicide, TITAN Bromoxynil 200 Selective Herbicide, TITAN Chlorsulfuron 750 WG Herbicide, TITAN Diuron 900 WG Herbicide, TITAN Glyphosate products, MCPA amine, MCPA LVE, TITAN Parquat 250 Herbicide, TITAN EOS Herbicide, terbutryn, 2,4-D amine.

Grass Herbicides on Broadleaf Crops: Haloxyfop.

APPLICATION BOOM SPRAYING CROPS and PASTURES

Ground Boom: Apply TITAN Clopyralid 600 SL Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering coarse droplets and not less than 50L/ha water volume for boom sprayers.

Hardhead Thistle: Use a spray volume of 200 to 250L/ha of water. Silver Wattle: Use a spray volume of 150 to 200L/ha of water by ground boomspray.

Boom Spraying Plantation Trees: Apply TITAN Clopyralid 600 SL Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering coarse droplets and not less than 50L/ha water volume for boom sprayers.

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 1500kPa. Spray volume for effective coverage of dense two metre high silver wattle should be 30 to 40 litres of spray per 100m² (10m x 10m) of infestation. For larger areas an equivalent would be 3000 to 4000 litres per infested hectare.

AIRCRAFT

Apply TITAN Clopyralid 600 SL Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated aircraft, delivering coarse droplets and not less than 20L/ha for aerial applications.

Silver Wattle: Use a minimum spray volume of 50L/ha by aircraft. Plantation Trees: Apply TITAN Clopyralid 600 SL Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated aircraft, delivering coarse droplets and not less than 20L/ha for aerial application.

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 TITAN Clopyralid 600 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.

Complete Cleaning (before spraying susceptible crops): After using TITAN Clopyralid 600 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 as above, then drain. Quarter fill the tank again and add a liquid alkali detergent (eg. Surf*, Omo*, Drive*) at 500mL/100L water and circulate throughout the system for at least fifteen minutes. 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

TITAN Clopyralid 600 SL Herbicide is a member of the Pyridines group of herbicides. TITAN Clopyralid 600 SL Herbicide has the disrupters of plant cell growth mode of action. For weed resistance management, TITAN Clopyralid 600 SL Herbicide is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to TITAN Clopyralid 600 SL Herbicide 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 TITAN Clopyralid 600 SL Herbicide or other Group 4 herbicides. Since occurrence of resistant weeds is difficult to detect prior to use TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Clopyralid 600 SL Herbicide to control resistant weeds.

GROUP **4** HERBICIDE

Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture or TITAN AG representative.

RE-ENTRY PERIODS

DO NOT allow entry into treated areas until the spray has dried when applying to Barley, Oats, Triticale, Wheat, Forests (except in control of Cape Ivy), Rights-of-Way, Industrial situations and Canola, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

DO NOT allow entry into treated areas until the spray has dried to undertake low exposure activities (eg. irrigation or weeding) and for 8 days after application to undertake high exposure activities (eg. pruning, training) when applying to control Cape Ivy in forests, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

DO NOT allow entry into treated areas until the spray has dried to undertake low exposure activities (eg. irrigation) and for 9 days after application to undertake high exposure activities (eg. hand weeding, transplanting) when applying to pastures and fallow land, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

DO NOT allow entry into treated areas until the spray has dried to undertake low exposure activities (eg. irrigation, scouting or weeding) and for 17 days after application to undertake high exposure activities (eg. pruning, training) when applying to *Pinus radiata* plantations, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PRECAUTIONS

When applying to plantation trees including *Pinus radiata* plantations the following restriction statement applies:

Must use closed mixing and loading for aerial application.

When applying to forests to control Groundsel Bush, Ragwort, Silver Wattle and Cape Ivy, the following restriction statement applies:

DO NOT apply by using spraying equipment carried on the back of the user.

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 TITAN Clopyralid 600 SL 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 TITAN Clopyralid 600 SL Herbicide 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 TITAN Clopyralid 600 SL Herbicide at 250mL/ha.

Plantback Periods: Where TITAN Clopyralid 600 SL Herbicide residue carry over from use rates of less than 250mL/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 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 TITAN Clopyralid 600 SL 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 25mm rain event in the post-harvest summer to autumn period, with a subsequent extended period of at least 1 week where the top 10cm 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 (>25mm) 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, Lentils, Lupins, Medics, Vetch	Up to 150	9 months
	150-250	12 months
	>250	24 months
Barley, Canola, Wheat, Oats	All label rates	1 week

Plantback Period for Northern Australia Summer Dominant Rainfall Areas (Nth NSW, QLD)

Required rainfall before plantback:

If planting susceptible summer crops – at least 100mm rain

If planting susceptible winter crops – at least 150mm rain

This rain or irrigation should wet the soil for 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 50mm 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 40mL/ha	>40-150mL/ha
Lucerne	9 months	9 months
Chickpea, Cotton, Soybean, Sunflower	3 months	6 months
Maize, Sorghum	1 week	2 weeks
Barley, Canola, Wheat, Oats	1 week	1 week

Note: Susceptible crops should not be sown for at least 2 years where TITAN Clopyralid 600 SL Herbicide at more than 150mL/ha has been used in northern Australia. Cereals and Canola may be safely planted less than one week after application. However, post-emergent weed control may be reduced due to soil disturbance if one week is not allowed after application.

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

TITAN Clopyralid 600 SL Herbicide 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

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 500mm below the surface in disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in accordance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

Returnable containers (110L only): DO NOT remove or tamper with the dry valves or security seal. DO NOT contaminate the drum with water or any other foreign matter. After each use of the product ensure that the dry valve coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained. Add the rinsings to the spray tank. When the drum is empty remove the dry valve coupler and return to the point of purchase. The drum remains the property of TITAN AG Pty Ltd.

Refillable containers (1000L only): Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SMALL SPILL MANAGEMENT

Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed and contain in a refuse vessel for disposal. (See STORAGE AND DISPOSAL section). If necessary, wash the spill area with an alkali detergent and water and absorb as above, the wash liquid for disposal.

SAFETY DIRECTIONS

Harmful if swallowed. May irritate the skin. Will damage the eyes. Avoid contact with the eyes and skin. When using together with other products, consult their label safety directions. If product or spray in eyes, wash it out immediately with water. When opening the container and preparing the product for use, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves and face shield or goggles. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Clopyralid 600 SL Herbicide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com.au

CONDITIONS OF SALE: TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Very toxic to aquatic life with long lasting effects. Precautionary Statements: Avoid release to the environment. Collect spillage. Dispose of contents/ container in accordance with local/regional/national regulations.

