

POISON

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

TITAN

FLUPROPANATE 745 SL HERBICIDE

ACTIVE CONSTITUENT: 745 g/L FLUPROPANATE present as the SODIUM SALT

GROUP **0** HERBICIDE



A component of integrated management of Serrated Tussock, Giant Parramatta Grass, Giant Rats Tail Grass, Chilean Needle Grass, African Lovegrass and certain grasses according to the Directions For Use table.

APVMA Approval No.: 88982/141000

Pack Size: 1L; 5L; 20L



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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

Restrictions:

DO NOT apply this product to steeply sloping sites when applying high rates recommended for perennial grass control.

DO NOT allow spray drift onto susceptible crops and ornamentals.

DO NOT spray near desirable trees.

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.

CROP / SITUATION	WEEDS CONTROLLED	STATE	RATE			CRITICAL COMMENTS
			Ground per ha	Air per ha	Spot spraying per 100L	
Industrial use	Paspalum (<i>Paspalum dilatatum</i>), Kikuyu Grass (<i>Pennisetum clandestinum</i>), Couch (<i>Cynodon dactylon</i>)	VIC, TAS, SA, WA only	9L	–	500mL	Apply to existing growth during November to February inclusive. Apply the recommended rate of TITAN Flupropanate 745 SL Herbicide in 800-2000L of water per ha. Ensure that the spray completely wets all leaf surfaces. Spot Spraying: Spray thoroughly to ensure run-off.
	African Feathergrass (<i>Pennisetum macrourum</i>)	TAS, WA only			–	
Pastures and non-crop situations	Parramatta Grass (<i>Sporobolus</i> spp.)	QLD, NSW, WA only	2L	2L	200mL	Apply December to February inclusive. Application Volumes: Pastures Aerial: 40-80L water per ha Ground Boom Spray: 150L water per ha Spot Spraying: NSW & QLD: 1000L/ha or for a 15L knapsack treat 150m ²
	<i>Sporobolus</i> spp. such as Giant Parramatta Grass (<i>S. fertilis</i>), Giant Rats Tail Fescue (<i>S. pyramidalis</i> and <i>S. natalensis</i>)	NSW only	1.5-2L	–	200mL	In Northern NSW, apply from July to December inclusive, during the drier time of year. Use the higher rate for heavy infestations. To obtain better herbicide selectivity and less damage to desirable pasture species, apply when the pasture is dormant, semi-dormant. For example in NSW, the optimum application time is late winter and early spring. DO NOT apply in severe droughts or to weeds retarded by burning.
	African Love Grass (<i>Eragrostis curvula</i>)	QLD, NSW, WA only VIC only	3L	–	300mL	Apply July to December. Apply July to December inclusive. All other Critical Comments as for Serrated Tussock VIC.
	Rats Tail grasses	QLD, WA only	2L	–	200mL	Spray to run-off.
Urban open space, woodlands, roadsides, nature reserves and pastures	Chilean Needle grasses (<i>Nassella neesiana</i> , <i>N. leucotricha</i> , <i>N. hyaline</i> , <i>N. charruana</i> , <i>N. tenuissima</i>)	QLD, NSW, ACT, VIC, SA, WA only	1.5-3L	–	200mL + 150mL TITAN Glyphosate 360 Herbicide	Apply tank mix to actively growing plants from spring to autumn. Apply once per year.
					100mL-300mL	Calibrate spray equipment to apply 1000L water per hectare. Apply to actively growing and stress free plants. Control will take 3-12 months depending on weather conditions and senescence of plant foliage. High rates will kill native grasses. Apply once per year. Avoid use in channels or drains. DO NOT re-seed treated areas until at least 100mm of leaching rain has fallen.
Perennial pastures	Coolatai Grass (small patchy infestations) (<i>Hyparrhenia</i> spp.)	NSW only	–	–	300mL per 100L water	Apply in winter and spring between the months of July and October. Apply using high volume spot spray applicators. Apply herbicide solution to Coolatai Grass to the point of run-off from leaf surfaces.

CROP / SITUATION	WEEDS CONTROLLED	STATE	RATE				CRITICAL COMMENTS	
			Ground per ha	Air	Wiper	Spot spraying per 100L		
Pastures and non-crop situations	Serrated Tussock (<i>Nassella trichotoma</i>)	VIC, TAS, WA only	2L	2L	–	200mL	<p>Apply during November to February inclusive. Graze to reduce cover of desirable species before spraying.</p> <p>Re-seeding: Desirable pasture species such as Phalaris, Cocksfoot, Ryegrass, Red and White Clovers, Subterranean Clovers and Lucerne must not be sown until at least 100mm of leaching rain has fallen. If drought conditions prevail defer sowing until next season.</p> <p>Spot Spraying: Spray to run-off at any time from spring through to autumn but observe above precautions on re-seeding.</p>	<p>Application volumes: Pastures Aerial: 40-80L water per ha Ground Boom Spray: 150L water per ha Spot Spraying: NSW & QLD: 1000L/ha or for a 15L knapsack treat 150m²</p>
		QLD only						
Pasture – broadacre treatment		NSW, ACT, VIC, WA only	1.5-2L	1.5-2L	1:20 via a rotating wiper	–	<p>Apply September to March and June to August inclusive.</p> <p>TITAN Flupropanate 745 SL Herbicide will kill Serrated Tussock at any time of year but application timing should take into regard other desirable pasture species such as Clover/ Sub-clovers.</p> <p>Use the higher rate on heavy basalt and alluvial soils. The lower rate can be used on lighter granite and shale derived soils.</p>	<p>Aerial application: Apply in a volume of 35-80L of water. In more difficult country, use higher rates of water, anti-drift additives and larger droplets.</p> <p>Ground application: Apply in a volume of 80-150L. Use the lower rate on slate, shale and granite soils, use the higher rate on basalt soils.</p> <p>Rotating Wiper: Graze heavily prior to treatment to ensure height differential between pasture and Serrated Tussock. In dense Serrated Tussock, stock may not graze heavily and some pasture damage may result. Apply as single or double pass.</p> <p>Winter application: Avoid application in very dry winters.</p>
Pasture – broadacre treatment - to remove seedlings from improved pasture			0.5-2L	–	–	–	<p>Apply September to February inclusive.</p> <p>Seedlings of Serrated Tussock are susceptible to shading and low rates of flupropanate. In all situations, use conservative stocking rates and fertilise to maintain a vigorous pasture after spraying.</p> <p>Use the lower rate for slate and granite soils. Serrated Tussock plants must be less than 10cm high and have less than 80 leaves. Apply September to November before pastures “bolt” in the spring flush, or December to February when improved species are dormant.</p>	

CROP / SITUATION	WEEDS CONTROLLED	STATE	RATE				CRITICAL COMMENTS
			Ground per ha	Air	Wiper	Spot spraying per 100L	
Pasture – broadacre treatment - spray topping	Serrated Tussock (<i>Nassella trichotoma</i>)	NSW, ACT, VIC, WA only	1.5-2L + 0.6-1.25L TITAN Glyphosate 360 Herbicide + wetting agent	1.5-2L + 0.6-1.25L TITAN Glyphosate 360 Herbicide + wetting agent	1:20 via a rotating wiper	–	Apply September to November inclusive. TITAN Flupropanate 745 SL Herbicide alone needs to be applied prior August in most years to stop Serrated Tussock setting seed. After August the mixture with glyphosate will prevent seeding if applied by November in most years. The added glyphosate will cause damage to other pasture species and will reduce the efficacy of TITAN Flupropanate 745 SL Herbicide and may reduce the period of residual control. Rotating Wiper: Apply as a double pass 2 to 8 weeks before seed heads begin to emerge. Add a wetting agent at the recommended label rates. Graze heavily prior to treatment to ensure height differential between pasture and Serrated Tussock. In dense Serrated Tussock, stock may not graze heavily and some pasture damage will occur.
Pasture – spot treatment - to destroy Serrated Tussock			–	–	–	150-200mL	Can be applied all year round. Calibrate spray equipment to apply 1000L water per hectare. Lower rates may be used on slate and granite soils. Use a dye marker. Area may need re-treatment in subsequent years. TITAN Flupropanate 745 SL Herbicide may take several months to affect plants. Seed set may be prevented by the addition of a knockdown herbicide, such as Glyphosate, at a rate of 400mL per 100L.
Pasture – spot treatment - to destroy Serrated Tussock and prevent seeding			–	–	–	150-200mL + 120mL TITAN Glyphosate 360 Herbicide	Apply September to November inclusive. To prevent seed set, spray before stem elongation begins. See critical comments for Pasture, “spot treatment to destroy Serrated Tussock” above.

CROP / SITUATION	WEEDS CONTROLLED	STATE	RATE			CRITICAL COMMENTS
			Per ha	Per 100L	Knapsack (15L)	
Non-crop situations	Paspalum	QLD, NSW, WA only	9L	500mL	75mL	For optimum results apply during active growth, preferably from November to April. Apply in 800-2000L water per ha. Spray must completely wet all surfaces. The addition of wetting agent is recommended. Johnson Grass: Spray when actively growing and not less than 30-50cm high. Use 12L in winter rainfall areas when rainfall is below 80cm per annum. Use 18-22L in summer rainfall areas or where rainfall exceeds 80cm per annum. Follow up spraying may be required in following season. Spot Spraying: Spray thoroughly to run-off with the recommended dilution rates.
	Couch					
	Johnson Grass		12-22L	1L	200mL	
	Kikuyu Grass	QLD, WA only	9L	500mL	75mL	
	Columbus Grass	NSW, WA only	12-22L	1L	200mL	

Note: The optimum timing of TITAN Flupropanate 745 SL Herbicide application to avoid damage to desirable pasture species and/or to allow TITAN Flupropanate 745 SL Herbicide residues to be leached from the soil prior to autumn re-seeding is the period November to February inclusive. Precautions on re-seeding and protection of pasture legumes must be observed.

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



WITHHOLDING PERIODS:

There are two withholding periods (WHPs), which apply one after the other for this chemical, and both must be observed. The first, the grazing and cutting WHP, depends on the type of spraying used.

Stock which have been grazed in treated areas after the grazing and cutting WHP has passed must then be moved to untreated areas or fed on clean feed for at least 14 days before slaughter. The requirement for moving animals from treated to untreated areas, or feeding them with clean feed for at least 14 days before animals are sent to slaughter, applies permanently to treated areas, whether spot sprayed or sprayed in some other way.

Spot Spraying: Spot spray treatment is the direct hand spraying of individual plants in an area with no spraying of any surrounding areas. DO NOT graze or cut for stock feed, areas which have received spot treatment, for at least 14 days after spraying. DO not graze stock in treated areas for at least 14 days prior to slaughter or being milked for human consumption.

Blanket treatment (treatment other than spot spraying): DO NOT graze treated areas or cut for stockfeed for 4 months after application. DO NOT graze stock in treated areas for at least 14 days prior to slaughter or being milked for human consumption.

GENERAL INSTRUCTIONS

MIXING

This product is highly soluble in water and the required amount can be added direct to the spray tank while stirring or with agitator running. Maintain good agitation during the spraying operation.

WETTING AGENT

No wetting agent/surfactant needs to be added unless specifically stated in the Direction For Use table, as the predominant mode of action is via root absorption of the herbicide and not by contact with the leaf surface.

COMPATIBILITY

It is not recommended to mix this product with chemicals other than glyphosate. For more rapid knockdown glyphosate may be added in accordance with the Direction For Use table. Note a reduction in efficacy of 5-15% may occur in respect of kill and a reduction in the period of residual control may also occur when used with glyphosate.

APPLICATION

Boom spray equipment needs to be accurately calibrated to deliver the required spray volume and nozzles checked to ensure a uniform spray pattern.

Spot spray equipment should be calibrated.

For aerial application in more difficult country, for example where slopes and/or large trees are present, use higher water volumes, anti-drift additives and coarser droplets.

Paddock Preparation

Graze desirable species prior to spraying to prevent them covering weeds.

RESEEDING

Desirable pasture species such as Phalaris, Cocksfoot, Ryegrass, Red and White Clovers, Subterranean Clovers and Lucerne may be sown after at least 100mm of leaching rain has fallen. If drought conditions prevail, defer sowing until next season.

CLEAN UP

Equipment should be cleaned after use.

RESISTANT WEEDS WARNING

TITAN Flupropanate 745 SL Herbicide is a member of the alkanolic acids group of herbicides. TITAN Flupropanate 745 SL Herbicide has the inhibitor of fat synthesis mode of action. For weed resistance management TITAN Flupropanate 745 SL Herbicide is a Group 0 Herbicide. Some naturally occurring weed biotypes resistant to TITAN Flupropanate 745 SL Herbicide and other inhibitors of fat synthesis mode of action 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 Flupropanate 745 SL Herbicide or any other inhibitors of fat synthesis mode of action herbicides. Since the 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 Flupropanate 745 SL Herbicide to control resistant weeds.

GROUP 0 HERBICIDE

PRECAUTIONS

Important

- This product is very slow acting and control of existing growth will take 3-12 months depending on weather conditions and senescence of plant foliage.
- The actual length of satisfactory residual control will depend on soil type and rainfall until regeneration occurs from grass seed or surviving rhizomes.
- TITAN Flupropanate 745 SL Herbicide is liable to leaching and movement in the soil under heavy rainfall or irrigation and dry conditions favour its persistence in the soil.
- Avoid use in channels and drains and where roots of desirable plants may extend and in other situations where desirable plants grow close to the treated area.
- Control of grasses growing in shaded conditions may be reduced.
- Some desirable grasses, such as native species and perennial improved species, Subterranean Clover and other annual legumes may be damaged by this product if exposed to the spray or if they germinate before product residues have dissipated from the soil.

DO NOT treat pasture land with this product more than once per year. Obtain advice from your district agricultural officer.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

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

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or watercourses with the chemicals or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemical 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 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.

SAFETY DIRECTIONS

Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing the spray wear elbow-length PVC gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. Always use in the open or a well-ventilated area. 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 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. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Flupropanate 745 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.

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.