

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

TUSSOCK™ HERBICIDE

ACTIVE CONSTITUENT: 745 g/L FLUPROPANATE present as the sodium salt

GROUP	J	HERBICIDE
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For the control of certain grasses as per the directions for use table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT

CONTENTS 1L, 5 L, 20 L

Grow Choice Pty Ltd
113 Fitzroy Street
Tamworth NSW 2340
ACN 069 839 961
Phone: 02 67663979

™ Grow Choice Pty Ltd Trademark

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 waterways with the chemicals 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.

This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple or preferably pressure rinse containers before disposal. Dispose of rinsate by adding it to the spray tank. **DO NOT** dispose of undiluted chemical 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 point or similar container management program 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 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.

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.

MATERIAL SAFETY DATA SHEET

For further hazard information refer to the Material Safety Data Sheet (MSDS) which is available from the supplier.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

TERMS OF SALE:

Grow Choice Pty Ltd will not be held liable for any loss, injury or damage, indirect or consequential, arising from the sale, supply, use or application of this product. The product is not to be used for any purpose or in any way contrary to label instructions.

APVMA APPROVAL NO: 51909/48606

BATCH NO:

DATE OF MANUFACTURE

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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.

Do **NOT** graze, or cut for stock feed, areas which have received spot spray treatment, for at least **14 days** after spraying.

Do **NOT** graze, or cut for stock feed, areas which have received any treatment other than spot spraying, for at least **4 months** after spraying.

Remove stock from treated areas and **DO NOT** slaughter or milk them for human consumption until they have been on clean feed for at least 14 days.

Crop/ Situation	Weeds Controlled	States	Rate			Critical Comments
			Ground per ha	Air per ha	Spot Spraying per 100L	
Industrial use	Paspalum (<i>Paspalum dilatatum</i>)	Tas., WA, SA and Vic. only	9L	-	500mL	Apply to existing growth during November to February inclusive. Apply the recommended rate of 'Tussock 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.
	Kikuyu grass (<i>Pennisetum clandestinum</i>)					
	Couch (<i>Cynodon dactylon</i>)					
	African Feathergrass (<i>Pennisetum macrourum</i>)					
Pastures and non-crop situations	Parramatta grass (<i>Sporobolus</i> spp.)	Qld, NSW, Vic, 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> sp. such as Giant Parramatta Grass (<i>S. fertilis</i>), Giant Rat's 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>)	NSW, WA only	3L	-	300mL	Apply July to December.
		Vic. only				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	Needle grasses (<i>Nassella neesiana</i> , <i>N. leucotricha</i> , <i>N. hyalina</i> , <i>N. charruana</i> , <i>N. tenuissima</i>)	NSW, ACT, Vic, SA, WA only	1.5 - 3L	-	200mL + 150mL Biochoice 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.
Pastures and non-crop situations	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	States	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. 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. Spot Spraying: Spray to run-off at anytime 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>	
	Serrated Tussock (<i>Nassella trichotoma</i>)	Qld only	2L	2L	-	200mL		Apply September to May inclusive. (See Note below)
Pasture – broadacre treatment	Serrated Tussock (<i>Nassella trichotoma</i>)	NSW, ACT, Vic, WA only	1.5-2L	1.5-2L	1:20 via a rotating wiper		Apply September to March and June to August inclusive	<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	-	-		Apply September to February inclusive	<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>
Pasture – broadacre treatment - spray topping			1.5-2L + 0.6-1.25L Biochoice 360 Herbicide + wetting agent	1.5-2L + 0.6-1.25L Biochoice 360 Herbicide + wetting agent	-	-	Apply September to November inclusive	<p>If applied after August, serrated tussock is still likely to set viable seed. To prevent seeding, the use of a knockdown spray may be applicable where it is acceptable to damage associated pasture species. Spray to wet plant – approximately 1000L of prepared solution per hectare.</p> <p>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. Will NOT kill serrated tussock but will reduce seeding. 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.</p>
Pasture – spot treatment - to destroy serrated tussock			-	-	-	150-200mL	Can be applied all year round	<p>Calibrate spray equipment to apply to 1000L water per hectare. The addition of a wetter to the glyphosate use pattern may prove beneficial. Lower rates of may be used on slate and granite soils. Use a dye marker. Area may need re-treatment in subsequent years. Flupropanate may take several months to affect plants. Seed set may be prevented by the addition of a knockdown herbicide, such as Glyphosate.</p>
Pasture – spot treatment - to destroy serrated tussock and prevent seeding			-	-	-	150-200mL + 120mL Biochoice 360 Herbicide	Apply September to November inclusive	<p>To prevent seed set, spray before seedheads begin to emerge. See critical comments for Pasture, “spot treatment to destroy serrated tussock” above.</p>

Crop/ Situation	Weeds Controlled	States	Rate			Critical Comments
			Per ha	Per 100L	Knapsack (15L)	
Non-crop situations	Paspalum	Qld, NSW, WA only	9L	500mL	75mL	<p>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.</p>
	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 'TUSOCK HERBICIDE' application to avoid damage to desirable pasture species and/or to allow 'TUSOCK 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 (WHP's), which apply after the 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 they can be slaughtered or milked for human consumption.

The requirement for moving animals from treated to untreated areas, or feeding them with clean feed for at least 14 days before milk is collected for human consumption or 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;

AND, IF STOCK ARE GRAZED IN THE TREATED AREAS AFTER THE 14 DAYS HAS PASSED, remove stock from treated areas and Do NOT slaughter or milk them for human consumption until they have been on clean feed for at least 14 days.

Other spraying

This means any treatment other than direct hand spraying of individual plants.

DO NOT graze, or cut for stock feed, areas which have received any treatment other than spot spraying, for at least 4 months after spraying.

AND, IF STOCK ARE GRAZED IN THE TREATED AREAS AFTER THE 4 MONTHS HAS PASSED, remove stock from treated areas and DO NOT slaughter or milk them for human consumption until they have been on clean feed for at least 14 days.

GENERAL INSTRUCTIONS

Resistant Weeds Warning

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TUSSOCK HERBICIDE is a member of the alkanolic acids group of herbicides. TUSSOCK HERBICIDE has the inhibitor of fat synthesis mode of action. For weed resistance management TUSSOCK HERBICIDE is a Group J Herbicide.

Some naturally occurring weed biotypes resistant to TUSSOCK 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 TUSSOCK 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, Grow Choice Pty Ltd accepts no liability for any losses that may result from the failure of TUSSOCK HERBICIDE to control resistant weeds.

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.
- TUSSOCK 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.
- 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.

Mixing

This product is highly soluble in water and the required amount can be added direct to the spray tank while stirring or with the agitator running. When used in mixtures with dispersible powders, first make a slurry of the powder in a small quantity of water, add this to the half filled spray tank with the agitator running, and then add the required quantity of product and continue filling until the spray tank is full. Good agitation must be maintained during the spraying operation.

Wetting agent

Addition of 100mL of a non-ionic surfactant (600 g/L) per 100 litres of spray is recommended.

Compatibility

This product may be mixed with Glyphosate to improve knockdown of existing vegetation.

Application

Boom spray equipment should be carefully calibrated to deliver the required volume of spray and checked to see that the nozzles are delivering a uniform spray pattern.

Paddock Preparation

Graze to reduce cover of desirable species for spraying.

Re-seeding

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.

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PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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STORAGE AND DISPOSAL

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This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple or preferably pressure rinse containers before disposal. Dispose of rinsate by adding it to the spray tank. **DO NOT** dispose of undiluted chemical 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 point or similar container management program site. The cap should not be replaced but may be taken separately.

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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.

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FIRST AID

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TERMS OF SALE:

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