



Product Name: APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE  
APVMA Approval No: 81704/128260

Label Name:	APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE
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Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	700 g/L 2,4-D PRESENT AS THE DIMETHYLAMINE AND DIETHANOLAMINE SALT
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Mode of Action:	GROUP <b>I</b> HERBICIDE
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Statement of Claims:	For the control of broad-leaved weeds in fallow before direct drilling or sowing of cereals and pasture; and in cereal crops, pastures, sugar cane, peanuts and non agricultural areas as per the Directions for Use.  THIS IS A PHENOXY HERBICIDE THAT CAN CAUSE SEVERE DAMAGE TO NATIVE VEGETATION AND SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS.
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Net Contents:	5L-1000L
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Restrains:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	IN TASMANIA THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.
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Withholding Periods:	<p>WITHHOLDING PERIOD: PASTURE, CEREAL CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.</p> <p>HARVEST WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.</p>
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Trade Advice:	
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General Instructions:	<p><b>GENERAL INSTRUCTIONS</b> Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid Instructions.</p> <p><b>APPLICATION INFORMATION</b> BOOM SPRAYING Use 30 - 120 L/ha of water. AERIAL SPRAYING Use 10 - 90 L/ha of water</p> <p><b>EQUIPMENT MAINTENANCE AND USAGE</b> Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses.</p>
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Resistance Warning:	<p><b>Resistant Weeds Warning</b> GROUP I HERBICIDE</p> <p>APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE is a member of the Phenoxy group of herbicides. The product has the disruptors of plant cell growth mode of action.</p> <p>For weed resistance management APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE is a Group I herbicide. Some naturally-occurring weed biotypes resistant to APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE and other Group I 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 APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Apparent Pty Ltd accepts no liability for any losses that may result from the failure of APPARENT HARDBALL LOW ODOUR 700 DUAL SALT HERBICIDE to control resistant weeds.</p>
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Precautions:	<p><b>RE-ENTRY PERIOD</b> DO NOT hand harvest sugar cane for at least 1 day after application. If re-entering treated areas before the spray has dried, workers should wear overalls, elbow-length gloves and water-resistant footwear. Clothing must be laundered after each day's use.</p>
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Protections:	<p><b>PROTECTION OF CROPS, NATIVE AND NON-TARGET PLANTS</b> 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. Avoid spray</p>
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drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

**Storage and Disposal:**

**STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight.

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

**Safety Directions:**

**Safety Directions:**

Poisonous if inhaled or swallowed. Corrosive to the eyes and skin. Avoid contact with the eyes and skin. Will irritate the nose and throat. Do not inhale vapour or spray mist.

When opening the container and preparing spray or using undiluted concentrate, wear protective waterproof clothing, elbow-length chemical resistant gloves, impervious footwear and goggles and half face piece respirator with organic vapour/gas cartridge or canister or full facepiece respirator.

When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves.

If applying by hand wear half facepiece respirator with organic vapour/gas cartridge or canister. If clothing becomes contaminated with product remove clothing immediately. If product on skin, immediately wash area with soap and water.

If product in eyes, wash it out immediately with 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, goggles, respirator (and if rubber wash with detergent and warm water) and contaminated clothing

**First Aid Instructions:**

**First Aid Instructions:**

If poisoning occurs, contact a doctor or Poisons Information Centre.

Phone Australia 13 11 26, New Zealand 0800 764 766.

**First Aid Warnings:**

## Restraints

### GENERAL RESTRAINTS

- DO NOT exceed maximum application rate of 6.4 L/ha (4500 g ae/ha).
- DO NOT exceed the maximum daily application rate by backpack spraying of 5.7L/day.
- DO NOT apply if heavy rains or storms are forecast within 3 days.
- DO NOT irrigate to the point of runoff for at least 3 days after application.
- DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

### SPRAY DRIFT RESTRAINTS

- DO NOT apply by a vertical sprayer.

Specific definitions for terms used in this section of the label can be found at [www.apvma.gov.au/spraydrift](http://www.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**. The **buffer zones** in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. 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.

### BOOM SPRAYERS

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

- Spray droplets are not smaller than a VERY COARSE **spray droplet size category**
- Minimum distances between the **application site** and downwind **sensitive areas** (see '**Mandatory buffer zones**' section of the following table titled 'Buffer zones for boom sprayers') are observed.

### Buffer Zones for Boom Sprayers

Application rate (/ha)	Boom Height above target canopy	Mandatory buffer zones (distances given in metres)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 250mL (175 g ae/ha)	0.5m or lower	0	0	0	0	0
	1.0m or lower		15		15	
Up to 500 mL (350 g ae/ha)	0.5m or lower		0		0	
	1.0m or lower		30		30	
Up to 1 L (700 g ae/ha)	0.5m or lower		20		15	
	1.0m or lower		45		45	
Up to 1.5 L (1050 g ae/ha)	0.5m or lower		25		25	
	1.0m or lower		60		60	
Up to 3 L (2100 g ae/ha)	0.5m or lower		35		35	
	1.0m or lower		110		100	
Up to 4 L (2800 g ae/ha)	0.5m or lower		45		45	
	1.0m or lower		140		130	
Up to 4.75 L (3300 g ae/ha)	0.5m or lower		55		50	
	1.0m or lower		160		160	

### AIRCRAFT

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

- Spray droplets are no smaller than a VERY COARSE **spray droplet size category**
- For maximum release heights above the target canopy of 3 metres or 25 per cent of wingspan or 25 per cent of rotor diameter whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for aircraft') are observed.

### Buffer Zones for Aircraft

Application rate (/ha)	Aircraft Type	Mandatory buffer zones (distances given in meters)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 250mL (175 g ae/ha)	Fixed Wing	0	50	0	50	0
	Helicopter		40		40	
Up to 500 mL (350 g ae/ha)	Fixed Wing		85		85	
	Helicopter		65		65	
Up to 1 L (700g ae/ha)	Fixed Wing		140		130	
	Helicopter		95		95	
Up to 1.5 L (1050 g ae/ha)	Fixed Wing		180		180	
	Helicopter		130		120	
Up to 3 L (2100 g ae/ha)	Fixed Wing		230		220	
	Helicopter		150		150	
Up to 4 L (2800 g ae/ha)	Fixed Wing		425		400	
	Helicopter		250		240	
Up to 4.75 L (3300 g ae/ha)	Fixed Wing		475		450	
	Helicopter		275		275	

### Timing and Usage Restriction Appendices

<b>Appendix 1: Timing restrictions for spraying peanuts</b>			
Situation	Rate (L/ha)	Region	Timing Restriction
			<b>DO NOT APPLY DURING THE MONTHS</b>
<b>Broadcast spraying, prior to sowing (peanuts)</b>	Up to 1.2 L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October

		Mackay/Whitsunday	September to December
		Mary/Burnett	October to November
		SE Queensland	August to May
	Up to 1.5 L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay/Whitsunday	August to December
		Mary/Burnett	September to November
SE Queensland		<b>Use not supported</b>	
<b>Band spraying, post-sowing pre-emergence (peanuts)</b>	Up to 1.6 L/ha	Queensland dryland	No timing restrictions
		Cape York	No timing restrictions
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	No timing restrictions
		Mackay/Whitsunday	No timing restrictions
		Mary/Burnett	No timing restrictions
		SE Queensland	October to January
<b>Broadcast spray, post-sowing pre-emergence (peanuts)</b>	Up to 3.2 L/ha	Queensland dryland	June to August
		Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	October to December
		Burdekin	September and October
		Mackay/Whitsunday	August to December
		Mary/Burnett	April to January
		SE Queensland	<b>Use not supported</b>

**Appendix 2: Application and timing restrictions for application to pastures**

**DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST**

	<u>State</u>	<u>Summer</u>	<u>Autumn</u>	<u>Winter</u>	<u>Spring</u>
Pastures (prior to sowing, conservation tillage)	Queensland & NT	4.5	4.5	4.5	4.5
	New South Wales & ACT	4.5	4.5	4.5	4.5
	Victoria	0.5	1.5	4.5	1.5
	Tasmania	0.5	1.1	3.2	1.5
	South Australia	1.0	1.5	4.5	3.2
	Western Australia	1.5	3.2	4.5	3.2
Pastures (established)	<u>State</u>	<u>Summer</u>	<u>Autumn</u>	<u>Winter</u>	<u>Spring</u>
	Queensland & NT	6.4	6.4	6.4	6.4
	New South Wales & ACT	6.4	6.4	6.4	6.4
	Victoria	0.9	1.7	6.4	3.2
	Tasmania	0.6	1.5	4.5	2.8

	South Australia	1.3	2.8	6.4	4.5
	Western Australia	3.2	4.5	6.4	4.5

**Appendix 3: Timing restrictions for spraying SUGARCANE**

Rate (L/ha)	Region	Timing Restriction
		<b>DO NOT APPLY DURING THE MONTHS</b>
Up to 1.5 L/ha	Wet Tropics	No timing restriction
	Burdekin	No timing restriction
	Mackay/Whitsunday	October to November
	Mary/Burnett	October to November
	Northern NSW	No timing restriction
Up to 3.2 L/ha	Wet Tropics	October to December
	Burdekin	September to October
	Mackay/Whitsunday	August to December
	Mary/Burnett	April to January
	Northern NSW	October to November

**Appendix 4: Application restrictions for TURF**

**DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST**

	<u>State</u>	<u>Rate (L/ha)</u>
Turf	Queensland & NT	2.9
	New South Wales & ACT	2.9
	Victoria	2.2
	Tasmania	2.2
	South Australia	2.2
	Western Australia	3.6

**If applying to golf courses in Tasmania, DO NOT apply to fairways adjacent to natural water bodies.**

**Appendix 5: Risk mitigation measures for Dryland cropping, pre-emergent uses**

Situation	<u>Risk mitigation measures</u>
Dryland cropping, Preparatory spray	Only apply in no-till farming systems (Tasmania, South Australia)
Winter cereals, pre-emergence uses	Only apply in no-till farming systems (Tasmania, South Australia, Western Australia)
Summer cereals, pre-emergent uses	Only apply in no-till farming systems (Tasmania, South Australia)



## 1. FIELD CROPS

Situation & Crop	Weeds	State	Rate	Critical Comments
Wheat	Refer Weed Table	NSW, ACT, SA only	285mL-1.5L/ha	Apply after the first node can be felt at the base of a tiller and before swelling of the head can be felt in a tiller (NSW, SA only).  Apply from tillering to boot stage (VIC only).  Apply from mid tillering to before boot stage (QLD only).  Apply at 5 leaf to fully tillered (TAS only).
		VIC only	200mL-1.25L/ha	
		QLD only	500mL-1.25L/ha	
		TAS only	715mL-1.25L/ha	
Barley		NSW, ACT, SA only	285mL-1.25L/ha	
		VIC only	200mL-1.25L/ha	
		QLD only	500mL-1.25L/ha	
		TAS only	715mL-1.25L/ha	
Cereal Rye, Triticale		NSW, ACT, SA only	285mL-1.25L/ha	
		VIC only	200mL-1.25L/ha	
Oats		NSW, SA only	285mL-715mL/ha	
		VIC only	200mL-715mL/ha	

Cereals: Wheat, Oats, Barley	Cape Tulip	WA only	570mL-1.0L/ha	Apply from the 5 leaf stage up to jointing Leaf stage (Zadoks 15-33). Apply after the 6 leaf stage (Z. 16) for cranbrook, jacup, aroona and spear wheat and mortlock oats to avoid possible damage. DO NOT spray if lucerne is present.  WEED STAGE: 10-15cm. Docks should be sprayed before 5 leaf stage. Cape Tulip – low rate for cormils only.
	Dock, Flatweed, Saffron Thistle		1.0L/ha	
	Indian Hedge, Mustard, London Rocket, Lupin, Matricaria, Rapistrum, Wild Radish		715mL/ha	
	Wild Turnip		570mL/ha	
	Capeweed, Doublegee, Erodium, London Rocket, Lupin, Mustard, Rapistrum, Wild Radish, Wild Turnip		170mL/ha plus 500L/ha Flowable Diuron (500g/L)	Apply when crop has 4-5 leaves and most weeds have germinated and are in 2-5 leaf stage. Crop and weeds should be dry at time of application. Some temporary yellowing of crop may occur after application.  Undersown subclovers may be slightly retarded. DO NOT apply to undersown medics.  <b>TANK MIXTURES: Read and follow all label directions including restraints, spray drift restraints, mandatory no-spray zones, critical comments, withholding periods, regional use restrictions and safety directions for the tank mix products.</b>
Fallow, Stubble:  Spray prior to direct drilling or sowing  Winter Cereals, Grain legumes (peanuts QLD only), Canola	Refer Weed Table	ALL STATES	200mL-1.5L/ha	Observe plant back periods given in the table on this leaflet. Can be mixed with Chlorsulfuron 750g, Paraquat 250g, or Spray.Seed' where grasses are present. Select an appropriate rate from the weed table.  For Skeleton Weed spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.

Millet	Refer weed table	NSW, SA, ACT, VIC only	500mL-1.0L/ha	Spray when secondary roots have developed when fully tillered and before heads start to form at the base of the tillers. Do not use on panorama millet or panicum.
		QLD only	500mL-800mL/ha	
Saccaline, Broom Millet, Millet	Cape Tulip, Dock, Saffron Thistle, Indian Hedge Mustard, London Rocket, Lupin, Rapistrum, Radish, Wild Turnip	WA only	1.0L/ha	Spray when crop is 10-30cm high and secondary roots have developed and before tasselling. Apply as direct spray to weeds.
Sugar Cane (Q80, Q96, & H56 varieties)	Bellvine	QLD, NSW only	250mL/100L water	Apply in spring, using directed spray.
	Morning Glory		500mL to 1.0L/ha	Apply in summer using high clearance tractor.
	Pink Convolvulus Star of Bethlehem		1.0L/ha	Apply in autumn by aircraft.
Sugar Cane	Bindy Eye (Star Burr), Blue Top, Cobblers Pegs, Fleabanes, Jute, Leucas, Needle Burr, Spear Thistle, Water Primrose, Ipomea Vines, Convolvulus Vines	QLD only	1.25L-3.1L/ha	Add 60-120mL of 600g/L non-ionic surfactant to 100L of spray mixture. Agitate well. DO NOT use on Q63, Q67, Q80 or Q96 Varieties.
	Chinese Mint, Blue Snakeweed		3.1L/ha	

Peanuts	Broadleaf Weeds except Noogoora Burr, Grasses except Mossman Burr	QLD only	1.6L–3.2L/ha	<p>LOWER RATE: Apply as BAND SPRAY as soon as possible after planting in a 55cm band.</p> <p>HIGHER RATE: Apply as OVERALL SPRAY after planting and before crop emergence.</p> <p>Some crop damage may occur if heavy rain falls between application and crop emergence.</p>
Harvest Aid or Salvage Spray	Dessicate Broadleaf Weeds	ALL STATES	1.0-1.5L/ha	Apply after dough stage.
Winter Cereals	Refer Weed Table			
Bananas	To destroy Banana suckers	QLD only	145mL/10L water	Inject at the rate of 15mL per fully grown plant, 10mL per medium sized plant and 5mL for small suckers.
			285mL/100L water	Allow suckers from corms of treated plants to form broad adult leaves, then spray. Isolated spots may require a second spray.
Common Stylo forage or seed crops	Refer to Weeds Table		715mL/ha	Apply post-emergence when weeds are 3 weeks old and crop is at least 3 weeks old.
Carribbean Stylo forage or seed crops			715mL–1.25L/ha	Apply post-emergence when crop is 3 weeks old.

## 2. PASTURES AND NON-AGRICULTURAL USE

Situation & Crop	Weeds	State	Rate	Critical Comments
Pastures and Non- Agricultural	Refer Weed Table	NSW, QLD, SA, ACT, TAS only	500mL-1.5L/ha	Pasture legumes including lucerne, clovers and medics may be damaged unless well protected by grasses. Spot spraying is preferred.
	Galvanised Burr	NSW, ACT only	285mL/100L water	Apply to young actively growing weeds.  Ensure thorough and even coverage of plants.  <b>Note:</b> Treated plants need to be burnt to destroy seeds.
	Amsinckia, Docks, Bindweed, Caltrop Flatweed, Spear Thistle, Capeweed, Saffron Thistle, Mustard, Wild Radish, Wild Turnip, Annual Thistles, Paterson's Curse, Heliotrope, Ragwort, Three cornered Jack (Doublegee, Spiny Emex)	WA only	1.0-2.1L/ha	For pastures not containing legumes. Only seedling docks, spear thistle and saffron thistle will be controlled.  SUMMER WEEDS: Use low rate for seedlings, 1.25-2.1L/ha for larger plants. Stock poisoning may occur when grazed after spraying if large amounts present, particularly Heliotrope.  WINTER WEEDS: Use low rate for seedlings, 1.25-2.1L/ha for larger plants. If stock present, use spray/grazing rates.
	Afghan Melons		1.25L/ha plus 1% crop oil	Spray when plants are actively growing preferably before flowering or vining.

	Paddy Melons		715mL–1.0L/ha	
	Prickly Saltwort (Roly Poly)		1.25L/ha	Spray when plants are small.
	Stinkwort		1.25-2.85L/ha plus surfactant	Best results are obtained when plants are small. Use high rate on larger plants.
	Dove Weed		2.85L/ha	Spray after good emergence of seedlings.
Pastures, Rights of Way and Industrial	Boxthorn, Boneseed, Hawthorn	VIC, SA only	70mL/10L water/ha	Spot Spraying. For boneseed only, thoroughly wet plants or seedlings.
			Undiluted	Apply as an undiluted spray to freshly cut stumps.
	Groundsel	NSW, QLD, ACT, SA only	850mL/15L water	MISTING: Lightly wet plants.
			285mL/100L water	HIGH VOLUME: Thoroughly wet plants.
		TAS only	215mL/15L water	CUT STUMP: Swab the cut stump immediately.  Apply by a pouring can or knapsack spray.
		QLD, NSW, ACT, SA, TAS only	2.6-3.9L/ha	AERIAL APPLICATION: Spray when Groundsel is actively growing.
	Lantana	NSW, QLD, ACT, SA only	285mL/100L water	Use a very coarse spray with sufficient pressure to penetrate canopy and wet stems as well as foliage. Spray at the end of a wet summer (March to May). Defoliation should occur but respraying of new growth will be necessary in following autumn. Broadcast grass seed and keep stock off following summer to allow the pasture to establish. Damage may result to pasture legumes.

	Mother of Millions	NSW only	360mL/100L water	Hand gun and knapsack only. A thorough coverage of leaves and plantlets is necessary. Use 1000g/L non-ionic surfactant at the rate of 1mL of surfactant per 1L of mixture.
	Noogoora Burr, Weir Vine (Ipomea), Scarlet Pimpernel (seedlings only), White Eye (Mexican Clover)	QLD only	145mL/100L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage.

Pastures, Rights of Way and Industrial (cont.)	Annual and Perennial Pigweed, Artichoke Thistle, Bathurst Burr, Billygoat Weed, Blue Snake Weed, Burr Medic, Clockweed*, Fleabanes, Galvanised Burr, Hemlock, Hoary Cress+, Kyalinga Weed (Whisker Grass), Knobweed, Milky Cotton Bushes, Parthenium Weed, Paterson's Curse, Saffron Thistle, Star Burr, Thornapple, Variegated Thistle*	QLD only	285mL/100L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage.  * Spray rosette stage.  + Repeat spraying necessary.
	Rubber Vine	QLD only	145mL/10L water	Apply to freshly cut stump
	Sesbania Pea		500mL-800mL/ha	Apply to freshly cut stump
	Water Hyacinth		3.1-4.75L/ha	Apply in 2200 to 3300L water/ha
	Wild Tobacco Tree		215mL/15L water	<b>Cut Stump Treatment:</b> Swab cut stump within 1 hour of cutting. Apply by pouring can or knapsack sprayer.



Pastures – Spray/Graze Techniques				*PRECAUTION. An increased quantity of poisonous plants may be eaten by stock using Spray-Graze eg. caltrop, capeweed, Paterson's curse, variegated thistle and deaths could result from causes such as nitrate poisoning. With Paterson's curse, preferably graze stock soon destined for slaughter and avoid extended periods of grazing. Avoid grazing with young or breeding stock. Do not graze horses or pigs on Paterson's curse.
	Amsinckia, Thistles, Capeweed, Doublegee, Mustard, Paterson's Curse, Wild Turnip, Wild Radish, Docks, Geranium, Erodium	SA only	500mL/ha	Apply from 6 weeks after opening rains in autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep. Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing. Then return to normal stocking levels. Use high stocking rates in following spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control.
	Annual Thistles, Capeweed, Doublegee, Mustards, Paterson's Curse, Turnip, Saffron Thistle, Spear Thistle, Geranium, Slender Thistle	TAS, VIC only		

Amsinckia, Docks (Seedling only), Capeweed, Doublegee, Mustard, Wild Radish, Wild Turnip, Paterson's Curse, Annual Thistles	WA only	535-715mL/ha	Apply from 6 weeks after opening rains in autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep. Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing. Then return to normal stocking levels. Use high stocking rates in following spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control.
Spear Thistle, Saffron Thistle		1.0L/ha	Apply to saffron thistle at the end of September when plants are running up to flower. Sub-clovers may be damaged at this rate and use is not recommended for all medic pastures.
Melons		1.25L/ha + 1% oil	Heavy stocking on young plants sprayed with 715mL/ha provides effective control.
Docks	VIC only	1.0L/ha	Apply in September only and follow other recommendations above.
Caltrop, Capeweed, Charlock, Mustards, Paterson's Curse, Shepherd's Purse, Saffron, Slender, Spear or Variegated Thistle*, Turnip Weed, Wild Radish, Wild Turnip	NSW, ACT only	250mL-1.0L/ha	<p>Spray actively growing 6-8 week old weeds. Introduce stock 7-10 days after spraying, preferably sheep (cattle are less effective).</p> <p>Stocking rate should be at least 5 times heavier than normal until weeds have been reduced, but before survival of desirable pasture species is threatened. Lucerne and medics may be damaged and should be grazed short before spraying. Other legumes may be affected.</p>

Lawns, Playing fields	Refer Weed Table	QLD, NSW, ACT only	1.3-2.6mL/1L of water or 1.25-2.85L/ha	Wet foliage thoroughly. DO NOT mow lawn for 1 week before and at least 1 week after application.  DO NOT use on Buffalo grass (WA only).
		WA only	35mL per 10-15L water/100m <sup>2</sup>	

### 3. CONSERVATION TILLAGE

Direct Drilling, Surface Sowing or Fallow Maintenance	Charlock, Mustards, Shepherd's Purse, Saffron, Slender, Spear and Variegated Thistles*, Turnip Weed, Wild Radish, Wild Turnip	ALL STATES	500mL-1.25L/ha	Apply to actively growing young plants. Before sowing: Observe plant back periods given in the table on this leaflet. Warning: Treated plants may become toxic to stock.
	Clover, Sorrel		1.0L/ha plus 700mL–1L/ha of Dicamba 200g	Apply to actively growing plants in autumn. Do not sow pasture seed for at least 30 days after application.

### 4. TREE CROPS

Crop	Weeds	Application Rate	Critical Comments
Hardwood & Softwood Plantations	Broadleaf and woody weeds as per product label including grounsel and pinus spp. wildings	Maximum rate 1.4L/ha	Apply a single pre-plant application and/or a maximum of 2 post plant applications using shielded sprayers within the first 2 years following planting. Apply using aircraft (rotary wing only) or ground based equipment. DO NOT spray over or into watercourses. Products may be mixed with glyphosate for pre-plant spray operations.

Oil Tea Tree	Weeds on label	Apply a maximum of 850mL/ha as per label directions	Apply as a shielded spray. Avoid contact with foliage, green stems, exposed non-woody roots, desirable plants and trees as severe injury or destruction may result. Apply following harvest as a blanket spray only after: <ul style="list-style-type: none"> <li>• All residual tea tree foliage has been removed by mechanical shaving, or by using a burner,</li> <li>• No swollen buds are present on stumps. NOTE that buds can burst 8 days after harvest in summer and</li> <li>• Surface of cut stumps are dry before spraying commences.</li> </ul>
	Purple Top (Verbena bonariensis)	Apply a maximum of 850mL /ha as per label directions Plus 720 g ai glyphosate /ha in a tank mix	Apply as a shielded spray. Avoid contact with foliage, green stems, exposed non-woody roots, desirable plants and trees as severe injury or destruction may result.

## 5. OTHER USES

Situation & Crop	Weeds	State	Mixing Rates/ Comments
High Volume Spraying	Refer to Weed Table	ALL STATES	Add 1/10th of rate on weed table to 150L of water. Each 150L of mix will cover 1000m <sup>2</sup> (1/10 <sup>th</sup> ha) e.g. If rate in weed table is 1.25L, use 125mL/150L water
Knapsack Application	Refer to Weed Table		Add 1/10th of rate on weed table to 10L of water. Each 10L of mix will cover 100m <sup>2</sup> (1/100 <sup>th</sup> ha). eg. If rate in weed table is 1.25L, use 125mL/10L water.

MAXIMUM TOLERANCE FOR USE IN WHEAT, BARLEY, OATS AND TRITICALE INCLUDING TOLERANCE FOR UNDERSOWN LEGUMES							
Crop	QLD	NSW, ACT	VIC	VIC	SA	WA	TAS
			Early Tillering	Tillered Boot Stage		Tillered to Boot (Z15-35)	Tillered to Boot (Z15-35)
Cereal Rye	-	-	-	-	1.25L/ha	-	-
Wheat	1.6L/ha	1.5L/ha	200mL/ha	1.25L/ha	1.5L/ha	1.5L/ha	1.5L/ha
Barley	1.25L/ha	1.25L/ha	200mL/ha	1.25L/ha	1.25L/ha	1.25L/ha	1.25L/ha
Oats	-	715mL/ha	200mL/ha	715mL/ha	800mL/ha	1.0L/ha	-
Triticale	-	1.25L/ha	200mL/ha	-	1.25L/ha	1.5L/ha	715mL/ha
Undersown Clovers	-	-	200mL/ha	-	-	610mL/ha	500mL/ha
Undersown Medics	-	-	200mL/ha	-	-	NIL	500mL/ha
Undersown Lucerne	-	-	200mL/ha	-	-	NIL	-

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

**WEED TABLE: NOTE:** Where weeds are to be sprayed in a CROP or PASTURE use only the rates given for the particular crop or situation indicated under the Directions for Use table. In most cases this will give control, however some hard to kill weeds or those in advanced stages of growth may only be suppressed. The rates listed in the Weed Table below are for use where weeds only are present, and no crop or pasture is involved. Use at these rates in a crop or pasture other than for spot spraying may cause damage. This product should only be used in those states where a rate or range of rates is indicated for the particular weeds listed.

Weeds	Application Rate per Hectare							Critical Comments
	Crop						Pasture	
	VIC	NSW, ACT	SA	QLD	TAS	WA	NSW, SA, QLD, TAS only	
<b>Amaranthus spp.</b>	-	500mL-1.0L	-	800mL	-	-	-	Spray young plants.
<b>Amsinckia</b>	-	-	-	-	-	1.0L	-	
<b>Apple of Peru</b>	-	500mL-1.0L	-	800mL	-	-	-	Spray young plants. Susceptible when young.
<b>Bathurst Burr</b>	-	715mL-1.0L	1.5-2.0L	800mL	-	-	715mL-1.0L not SA	Spray seedlings only.
<b>Bellvine</b>	-	1.6L	-	1.6L	-	-	-	Spray before seeding. Advanced stages susceptible.
<b>Billygoat Weed</b>	-	3.0L	-	3.0L	-	-	-	Spray at young stage.

<b>Bindweed</b>	-	-	-	-	-	1.0L	-	
<b>Blackberry Nightshade</b>	-	500mL-1.0L	-	800mL	-	-	-	
<b>Blackeyed Susan</b>	-	1.6L	-	1.6L	-	-	-	Apply at pre-flowering, preferably young stages.
<b>Blue Snakeweed</b>	-	1.6L	-	1.6L	-	-	-	Spray seedlings at young stages only.
<b>California Burr</b>	-	715mL-1.0L	-	800mL	-	-	715mL-1.0L not SA	Spray seedlings only.
<b>Cape Tulip</b>	-	-	-	-	-	570mL-1.0L	-	Low rate for cormils only
<b>Capeweed</b>	1.25L	-	1.5L	-	1.25L	1.0L	1.5-2.5L	Spray seedlings to rosette stage.
<b>Caltrop</b>	-	715mL-1.5L	-	800mL	-	1.0L	-	Moderately susceptible.
<b>Castor Oil Plant</b>	-	3.0L	-	3.0L	-	-	-	Spray at young stage.
<b>Charlock</b>	500mL-715mL	500mL-1.0L	500mL	-	1.25L	-	715mL-1.0L	Spray at rosette stage.
<b>Clover</b>	-	1.0L	-	-	-	-	-	
<b>Cobbler's Pegs</b>	-	1.6L	-	1.6L	-	-	-	Apply at pre-flowering, preferably young stages.
<b>Common Ice Plant</b>	-	-	1.0L	-	-	-	-	
<b>Common Sida</b>	-	1.6L	-	1.6L	-	-	-	Spray seedling or young stages only.

<b>Common Sowthistle</b>	-	1.6L	-	1.6L	1.25L	-	-	Apply at pre-flowering, preferably young stages.
<b>Docks</b>	1.25L	-	1.25L	1.25L	1.25L	1.0L	2.85L SA only	Spray at multiple leaf stage -effective only on seedlings.
<b>Doveweed</b>	-	-	-	-	-	1.0L	-	
<b>Fat Hen</b>	-	500mL, 1.5L	-	800mL	1.25L	-	-	Spray pre-flowering.
<b>Flannel Weed</b>	-	1.6L	-	1.6L	-	-	-	Spray seedling or young stages only.
<b>Flat Weed</b>	-	-	-	-	-	1.0L	-	
<b>Fumitory - red</b>	-	-	1.5L	-	-	-	-	
<b>Fumitory - white</b>	715mL	-	500mL	-	-	-	-	Spray at multiple leaf stage.
<b>Heliotrope</b>	-	-	-	-	-	1.0L	-	
<b>Hexham Scent or Melilotus</b>	1.25L	-	1.0L	1.25L	-	-	1.0-1.5L	Spray multiple leaf stage before seeding.
<b>Hoary Cress</b>	800mL- 1.25L	1.0-1.5L	1.25L	1.25L	-	-	1.25-1.5L	Spray rosettes and pre-flowering.
<b>Hogweed/Wireweed</b>	1.25L	-	-	1.25L	-	-	-	Spray at multiple leaf stage (VIC). Spray at seedling and young plant stage (QLD).
<b>Horehound</b>	-	-	1.25L	-	-	-	2.0-2.85L SA only	Spray seedlings.



<b>Indian Hedge Mustard</b>	-	-	-	-	1.25L	1.0L	-	
<b>Khaki Weed</b>	-	-	-	-	-	-	1.0-2.0L not SA	Spray seedlings only.
<b>Knobweed</b>	-	-	-	1.6- 3.0L	-	-	-	Lower rate for seedlings; higher rate for later stages.
<b>Lincoln Weed</b>	-	-	1.5L	-	-	-	-	Spray early rosettes.
<b>London Rocket</b>	-	-	-	-	-	-	-	
<b>Lupins</b>	-	715mL- 1.5L	-	-	-	-	-	
<b>Melons - Camel, Paddy</b>	-	500mL- 1.0L	-	-	-	-	-	
<b>Mexican Poppy</b>	-	-	-	1.25L	-	-	-	Spray seedlings - plants become more resistant with age.
<b>Mintweed</b>	-	1.0L	-	800mL	-	-	-	Spray seedlings - resistant in later stages.
<b>Morning Glory</b>	-	1.6L	-	1.6L	-	-	-	Spray at seedling to flowering stage.
<b>Mustards</b>	200mL- 500mL	500mL- 1.0L	500mL -1.25L	800mL	-	715mL	500mL-1.0L	Spray at 2-4 leaf up to rosette stage.
<b>Needle Burr</b>	-	1.6L	-	1.6L	-	-	-	Apply at pre-flowering, preferably young stages.
<b>New Zealand Spinach</b>	-	1.0-1.5L	-	-	-	-	-	
<b>Noogoora Burr</b>	-	715mL- 1.0L	-	800mL	-	-	715mL-1.0L	Spray seedlings only.

							not SA	
<b>Paterson's Curse</b>	-	1.0-1.5L	-	1.25L	-	1.0L	1.5-2.0L	Spray rosettes or before plants have 10 leaves. Later stages harder to kill.
<b>Pinkburr (Pink Flowered Burr)</b>	-	1.6L	-	1.6L	-	-	-	Spray seedling or young stages only.
<b>Potato Weed</b>	-	500mL-1.0L	-	800mL	-	-	-	
<b>Purple top</b>	-	3.0L	-	3.0L	-	-	-	Spray at young stage.
<b>Radish</b>	-	-	-	-	-	1.0L	-	
<b>Ragwort</b>	-	-	-	-	3.4L	1.0L	-	Spray up to early rosette stage (TAS only).
<b>Rapeseed</b>	-	715mL-1.5L	-	-	-	-	-	
<b>Rapistrum</b>	-	-	-	-	-	1.0L	-	
<b>Rough Poppy</b>	-	1.0L	-	-	-	-	-	
<b>Safflower</b>	-	500mL-1.0L	-	-	-	-	-	
<b>Shepherds Purse</b>	-	-	-	-	1.25L	-	715mL-1.0L	Spray young rosettes.
<b>Siratro (Purple Bean)</b>	-	1.6L	-	-	-	-	-	Spray seedling or young stages only.
<b>Skeleton Weed</b>	1.25L	1.0L-1.5L	-	-	-	-	-	Spray rosettes before aerial growth commences.

<b>Sorrel</b>	1.25L	1.5L	1.25L	-	-	-	-	Only moderately susceptible.
<b>Speedwell - Ivy leaf</b>	-	-	1.0L	-	-	-	-	
<b>Spinyhead Sida</b>	-	1.6L	-	1.6L	-	-	-	Spray seeding or young stages only.
<b>Starburr</b>	-	1.6L	-	1.6L	-	-	-	Spray before seeding, advanced stages susceptible.
<b>Spiny Emex</b>	-	-	-	1.25L	-	-	-	Only young plants are susceptible.
<b>Star of Bethlehem (Cupid's Flower)</b>	-	-	-	1.6L	-	-	-	Spray before seeding, advanced stages susceptible.
<b>Stinkwort</b>	-	715mL- 1.25L	-	-	-	-	-	
<b>Storkbill / Erodium</b>	-	-	-	-	1.25L	-	1.4-2.85L	Spray seedlings to young rosettes.
<b>Sunflower (seedlings)</b>	1.25L	500mL- 1.25L	-	800mL	-	-	-	
<b>Thistles: -Annual</b>	-	-	-	-	-	1.0L	-	
<b>-Californian</b>	-	-	-	-	2.4L	-	2.85-3.4L	Repeated applications may be necessary (NSW, TAS only)
<b>- Saffron</b>	1.0L	500mL- 1.5L	1.25L	1.25L	850mL	1.0L	1.0-1.5L	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
<b>- Slender/Shore</b>	-	715mL- 1.5L	-	-	-	1.25L	1.0L	Suppression only.
<b>- Soldier</b>	1.25L	-	-	-	-	-	1.0-1.4L not NSW, TAS	Spray young rosette.

<b>- Spear</b>	500mL	-	-	-	1.25L	-	1.0-1.4L	Spray young rosettes.
<b>- Star</b>	-	-	-	-	-	-	1.4-2.85L SA only	Use higher rate as flower stalk appears.
<b>- Variegated</b>	-	500mL- 1.5L	-	800mL	1.25L	-	1.0-1.5L	Spray at rosette stage.
<b>Thornapple</b>	-	715mL- 1.0L	-	-	-	-	1.4-2.1L not SA	Spray seedlings only.
<b>Tridax (Tridax Daisy)</b>	-	1.6L	-	1.6L	-	-	-	Spray seedling or young stages only.
<b>Turnip Weed/Rapistrum</b>	-	500mL- 1.0L	-	500mL	-	715mL	500mL-1.0L	
<b>Vetches/Tares</b>	1.25L	-	1.0L	-	-	-	-	Spray at multiple leaf stage.
<b>Wards Weed</b>	-	-	1.0L	-	-	-	-	
<b>Wild Cabbage</b>	1.25L	-	-	-	-	-	-	Spray multiple leaves.
<b>Wild Poppy</b>	500mL	-	-	-	-	-	1.0-1.5L	Spray rosettes.
<b>Wild Radish</b>	1.25L	1.25- 1.5L	1.25L	800mL	1.25L	715mL	715mL-1.0L	Spray up to young rosette stage.
<b>Wild Turnip</b>	200- 500mL	500mL- 1.0L	285mL	-	1.25L	570mL	500mL-1.0L	Spray 2-4 leaf up to rosette stage.

## Plant Back Days

Crop	Rates		
	Up to 500 mL/ha	500 mL – 1L/ha	1 – 1.5L/ha
Balansa Clover	7	7	10
Barley %	1	1	3
Chickpeas #	7	14	21
Cotton	10	14	21
Faba Beans	7	7	10
Field Peas	7	14	14
Lentils	7	7	10
Linseed	7	7	14
Lucerne	7	7	10
Lupins +	7	14	21
Medics	7	7	10
Narbon Beans	7	7	10
Navybean	10	10	14
Oats	3	3	7
Perennial Ryegrass	7	7	10
Persian Clover	7	7	10
Phalaris	7	7	10
Canola / Rapeseed #	14	21	28
Rice	7	7	14
Safflower #	7	14	21
Sorghum @	3	7	10
Soybean	14	14	21
Sub-Clover	7	7	10

Sunflower @	7	10	14
Triticale %	1	3	7
Vetch	7	7	10
Wheat %	1	3	7
White Clover	7	7	10

**IMPORTANT:**

**WHEN APPLIED TO DRY SOILS AT LEAST 15mm (1/2 inch) OF RAIN MUST FALL PRIOR TO THE COMMENCEMENT OF THE PLANT BACK PERIOD.**

**NOTES:**

% In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for Wheat, Barley and Triticale.

# In Queensland, planting of Canola/Rapeseed, Chickpeas and Safflower must be delayed for at least 14 days following rainfall of at least 15mm.

@ In Central Queensland, when using 700 mL/ha or less of Apparent Hardball Low Odour 700 Dual Salt Herbicide , the Plant Back Period for Sorghum and Sunflower is 1 day irrespective of rainfall.

+ In WA, the Plant Back Period for Lupins at all rates is 28 days.