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

**Apparent** 

**Purge 450 IPA**

**HERBICIDE**

ACTIVE CONSTITUENT: 450 g/L 2,4-D PRESENT AS THE ISOPROPYLAMINE SALT  
50 g/L N-METHYL-2-PYRROLIDONE

**GROUP 4 HERBICIDE**

For the control of emerged broadleaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control in crops and situations detailed in the Directions for Use.

**THIS IS A PHENOXY HERBICIDE THAT CAN CAUSE SEVERE DAMAGE TO SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS.**

**IMPORTANT: Read this booklet before use.**

APVMA Approval No: 69060/128224

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216

## GENERAL RESTRAINTS

DO NOT exceed maximum application rate of 10 L/ha (4500 g ae/ha).

DO NOT exceed the maximum daily application rate by backpack spraying of 8.9 L of product per 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.

Additional USAGE restrictions apply in some crops, states and seasons, see restriction tables 1, 2, 3, 4 and 5.

## 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 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 or two hours after sunrise.

## BOOM SPRAYERS

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

- Spray droplets 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 downwind buffer zones (distances given in metres)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 1 L (450 g a/ha)	0.5m or lower	Not Required	5	Not Required	5	Not Required
	1.0m or lower		35		30	
Up to 2 L (900 g ae/ha)	0.5m or lower		25		20	
	1.0m or lower		50		50	
Up to 3 L (1350 g ae/ha)	0.5m or lower		30		30	
	1.0m or lower		70		70	
Up to 4 L (1800 g ae/ha)	0.5m or lower		35		35	
	1.0m or lower		90		85	
Up to 5 L (2250 g ae/ha)	0.5m or lower		40		35	
	1.0m or lower		110		110	

## AIRCRAFT

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

- spray droplets not smaller than a Very 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, 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 metres)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 1 L (450 g ae/ha)	Fixed wing	0	100	0	100	0
	Helicopter		75		75	
Up to 2 L (900 g ae/ha)	Fixed wing		160		160	
	Helicopter		110		110	
Up to 3 L (1350 g ae/ha)	Fixed wing		210		210	
	Helicopter		150		140	
Up to 4 L (1800 g ae/ha)	Fixed wing		275		250	
	Helicopter		180		170	
Up to 5 L (2250 g ae/ha)	Fixed wing		325		300	
	Helicopter		200		200	

## Timing and Usage Restriction Appendices

Table 1: Timing restrictions for spraying peanuts

Situation	Rate (L/ha)	Region	Timing Restriction DO NOT APPLY DURING THE MONTHS	
Broadcast spraying, prior to sowing (peanuts)	Up to 1.9 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 2.4 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>			

Situation (cont)	Rate (L/ha)	Region	Timing Restriction DO NOT APPLY DURING THE MONTHS
<b>Fallow Band Spray Prior To Sowing Peanuts</b>	Up to 2.5 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 5 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>

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

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

	State	Summer	Autumn	Winter	Spring
Pastures (prior to sowing, conservation tillage)	Queensland & NT	7.1	7.1	7.1	7.1
	New South Wales & ACT	7.1	7.1	7.1	7.1
	Victoria	0.8	2.3	7.1	2.3
	Tasmania	0.8	1.7	4.9	2.3
	South Australia	1.6	2.3	7.1	4.9
	Western Australia	2.3	4.9	7.1	4.9
Pastures (established)	Queensland & NT	10	10	10	10
	New South Wales & ACT	10	10	10	10
	Victoria	1.3	2.7	10	5
	Tasmania	0.9	2.3	7.1	4.4
	South Australia	2	4.4	10	7.1
	Western Australia	5	7.1	10	7.1

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

Situation	Rate (L/ha)	Region	Timing Restriction DO NOT APPLY DURING THE MONTHS
	Up to <b>2.4L/ha</b>	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 <b>4.9L/ha</b>
Burdekin	September to October		
Mackay/Whitsunday	August to December		
Mary/Burnett	April to January		
Northern NSW	October to November		

**Table 4: Application restrictions for TURF**

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

Turf	State	Rate (L/ha)
	Queensland & NT	4.4
	New South Wales & ACT	4.4
	Victoria	3.5
	Tasmania	3.5
	South Australia	3.5
	Western Australia	5.6

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

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

Situation	Risk Mitigation Measures
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)

## DIRECTIONS FOR USE

**Table 1. Pre sowing: FALLOWS, STUBBLE SPRAY PRIOR TO DIRECT DRILLING OR SOWING**

CROP	TARGET WEEDS	STATE	RATE (/ha)	
<b>Cereals:</b> Wheat, Barley, Oats, Triticale, Rice, Sorghum <b>Grain legumes:</b> Chickpeas, Faba Beans, Field Peas, Lentils, Lupins, Narbon Beans, Navy Beans, Persian Clover <b>Oilseeds:</b> Canola, Cotton, Linseed, Safflower, Soybeans, Sunflower <b>Pastures:</b> Balansa Clover, Lucerne, Perennial Ryegrass, Phalaris, Sub Clover, Vetch, White Clover, Persian Clover	Fumitory (white), Ball Mustard, Indian Hedge Mustard, Common Sowthistle, Turnip Weed, Wild Turnip, Wild Radish	All states	440 mL – 800 mL + Glyphosate 450g/L & surfactant at recommended label rates	
	Seedlings of: Australian Bindweed, Belvine, Calltrop, New Zealand Spinach, Raspweed Ageratum (Blue Top), Dock, Volunteer Lupins, Volunteer Peas, Volunteer Sunflowers, Charlock, Fumitory (Red), Medic, Paterson's Curse, Prickly Lettuce (Wild Lettuce), Saffron Thistle, Spear Thistle, Variegated Thistle	NSW, Qld, only		
	All states		600 mL – 800 mL + Glyphosate 450g/L & surfactant at recommended label rates	
	Bathurst Burr, Blackberry Nightshade, Californian Burr, Horehound Seedlings, Lincoln Weed Seedlings, Marshmallow Seedlings, Sorrel Seedlings, Thornapple, Volunteer Vetch, Volunteer Safflower, Common Ice-Plant, Storksbill/Erodium Seedlings, Ivyleaf, Speedwell, Melilotus, Shepherd's Purse, Skeleton Weed (Suppression only), Ward's Weed, Wireweed Seedlings (Hogweed), White Clover, Sub-Clover	All states	800 mL - 1.2 L + glyphosate 450g/L & surfactant at recommended label rates	
	Amaranth, Apple of Peru, Mexican Poppy, Annual Ground Cherry, Bladder Ketmia, Fat Hen, Melons, Native Rosella, Noorgoora Burr, Potato Weed, Cow Vine, Yellow Vine, Rapeseed	NSW, ACT, Qld only	1.2 L – 1.8 L/ha + Glyphosate 450g/L & surfactant at recommended label rates	
Winter cereal, maize, sweetcorn, peanuts	Refer to weed table	Vic, NSW, ACT, Qld, NT only	<b>Vic:</b> 310 mL-1.9 L <b>NSW, ACT, Qld:</b> 800 mL-2.3 L	
<b>Pastures:</b> Conservation tillage, Direct drilling, Surface sowing or Fallow maintenance	Charlock, Mustards, Shepherd's Purse, Saffron, Slender, Spear & Variegated thistles, Turnip Weed, Wild Radish, Wild Turnip	All states	730 mL – 2.2 L	
	Clover, Sorrel	All states	1.5 L plus 280 mL-400mL/ha Dicamba 500g/L	

CRITICAL COMMENTS	USAGE RESTRICTIONS
<p><b>RATE SELECTION:</b> Use the lower rate for seedling broadleaf weeds and increase to the higher rate for broadleaf weeds more than 10 cm diameter/high. Always add Glyphosate 450g/L herbicide at recommended label rates. At the time of application all weeds must be actively growing and not under stress from low moisture, frost, cold, disease or water-logging. If grazing has occurred allow regrowth to 6-8 cm before spraying and use higher rate.</p> <p>Always add either a non-ionic surfactant or an acidifying surfactant in accordance with label directions on the glyphosate 450 g/l herbicide product.</p> <p>Use acidifying surfactant with the glyphosate 450 g/l herbicide if insecticides will be included in the tank mixture or if faster brownout of weeds is required.</p>	<p>USAGE RESTRICTIONS APPLY. See TABLE 5: Risk mitigation measures for Dryland cropping, pre-emergent uses</p>
<p>Observe plant back periods given in the table on this booklet. Can be mixed with chlorsulfuron, metsulfuron or paraquat when grasses are present. For skeleton weed spraying should be done 6-8 weeks before sowing &amp; subsequent cultivation limited to a minimum</p>	<p>USAGE RESTRICTIONS APPLY: See TABLE 1: Timing restrictions for spraying peanuts and TABLE 5: Risk mitigation measures for Dryland cropping, pre-emergent uses</p>
<p>Apply to actively growing young weeds before sowing. Observe plant back periods.</p>	<p>USAGE RESTRICTIONS APPLY: See TABLE 2: Application and timing restrictions for application to pastures</p>
<p>Apply to actively growing plants in autumn. Do not sow pasture seed for at least 30 days after application</p>	

**Table 2. Post sowing - pre and post emergent uses**

CROP	TARGET WEEDS	STATE	RATE (/ha)	CRITICAL COMMENTS	USAGE RESTRICTIONS
Wheat, Barley, Cereal Rye, Triticale, Oats	Refer to weed table	NSW, ACT, SA, Vic, Qld, Tas only	450 mL – 1.9 L Refer to weed table for specific rates in each state	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, ACT, 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).	
Cereals: Wheat, Oats, Barley	Cape Tulip	WA only	930 mL – 1.7 L	Apply from the 5 leaf stage up to jointing 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, Saffron Thistle		1.5 L		
	Indian Hedge Mustard, London Rocket, Lupin, Rapistrum, Wild Radish		1.1 L		
	Wild Turnip		930 mL		
	Capeweed, Doublegee, Erodium, London Rocket, Lupin, Mustard, Rapistrum, Wild Radish, Wild Turnip		250 mL plus 277 g/ha Diuron 900 Herbicide		
Sugar Cane	Bindy Eye (Starr Burr), Blue Top, Cobblers Pegs, Fleabanes, Jute, Leucas, Needle Burr, Spear Thistle, Water Primrose, Ipomea Vines, Convolvulus Vines	Qld, NSW only	2.4-4.9 L	Add 170 mL of surfactant 600 g/L to 100L of spray mixture. Agitate well. DO NOT USE on Q63, Q67, Q80 or Q96 VARIETIES	USAGE RESTRICTIONS APPLY: See TABLE 3: Timing restrictions for spraying SUGARCANE
	Chinese Mint, Blue Snakeweed	QLD, NSW only	4.9 L		
Maize, Sweetcorn	Refer to weed table	NSW, ACT, SA only	800mL – 1.5 L	Apply when crop is 10-20cm high and secondary roots are developing for an over the top spray. When crop is between 20cm high and just before tasselling, spray with droppers into the whorl and on upper leaves.	
		Qld only	800mL – 1.2 L	Apply when crop is 10-30cm high and secondary roots have developed. Use drop nozzles and direct spray when crop exceeds 30cm in height and before tasselling.	
		Tas only	800mL – 1.5 L	Apply when the crop is 15-30cm high. Do not spray if the crop is showing signs of stress. Some leaf twisting may occur following application – crop recovers quickly.	
Sorghum	Refer to weed table	NSW, ACT, SA, Vic only	800 mL-1.5 L	Apply preferably when crop is at 3-6 fully expanded leaf stage but can be sprayed from 2-8 leaf stage. From 6 leaf stage onwards to within 2 weeks of flowering, crop can be sprayed with dropped nozzles to avoid chemical being sprayed into the whorl and on upper leaves.	
		Qld only (except central Qld)	800mL – 1.2 L	Apply when crop has 4-8 fully expanded leaves & secondary roots have developed.	
Millet	Refer to weed table	NSW, ACT, SA, Vic only	800mL-1.5 L	Spray when secondary roots have developed, when fully tillered & before heads start to form at base on tillers. Do not use on Panorama Millet or Panicum.	
		QLD only	800mL-1.2 L		
Maize, Sweetcorn, Saccaline, Broom Millet, Millet	Cape Tulip, Dock, Saffron Thistle, Indian Hedge Mustard, London Rocket, Lupin, Rapistrum, Radish, Wild Turnip	WA only	1.5 L	Spray when crop is 10-30 cm high & secondary roots have developed & before tasselling. Apply as direct spray to weeds.	
Grain sorghum				Apply when crop is 12cm high. DO NOT apply between tassel & dough stage. Avoid spraying in flower.	
Peanuts	Broadleaf Weeds except Noogoora Burr Grasses except Mossman Burr	QLD, NT only	2.4 L or 5 L	<b>LOWER RATE:</b> Apply as a BAND SPRAY as soon as possible after planting in a 55cm band. <b>HIGHER RATE:</b> Apply as an OVERALL SPRAY after planting and before crop emergence. Some crop damage may occur if heavy rain falls between application & crop emergence.	USAGE RESTRICTIONS APPLY: See TABLE 1: timing restrictions for peanuts.

**Table 3. Pastures and non-agricultural use**

CROP	TARGET WEEDS	STATE	RATE (/ha)	CRITICAL COMMENTS	USAGE RESTRICTIONS
Pastures and non-agricultural	Refer Weed Table	NSW, Qld, SA, Tas only	730 mL –2.3 L	<b>CRITICAL COMMENTS</b> Pasture legumes including lucerne, clovers and medics may be damaged unless well protected by grasses. Spot spraying is preferred. For pastures not containing legumes. Only seedling docks, spear thistles and saffron thistle will be controlled  Spray when plants are actively growing preferably before flowering or vining.  Spray when plants are small Best results are obtained when plants are small. Use high rate on larger plants. Spray after good emergence of seedlings Spot spraying. For boneseed only, thoroughly wet plants or seedlings. <b>MISTING:</b> Lightly wet plants <b>HIGH VOLUME:</b> Thoroughly wet plants <b>CUT STUMP:</b> Swab the cut stump within one hour of cutting. Apply by a pouring can or knapsack spray. <b>AERIAL APPLICATION:</b> Spray when actively growing. 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 the following Autumn. Broadcast grass seed and keep stock off following Summer to allow the pasture to establish. Damage may result to pasture legumes. <b>Hand gun and Knapsack only:</b> a thorough coverage of leaves and plantlets is necessary. Use a non-ionic surfactant (100 %)at the rate of 1.0 mL of surfactant per 1 L of mixture. In all cases apply to young, actively growing weeds ensuring thorough coverage. <sup>1</sup> Spray rosette stage <sup>2</sup> Repeat spraying if necessary	<b>USAGE RESTRICTIONS APPLY:</b> See TABLE 2: Application and timing restrictions for application to pastures
	Amsinckia, Docks, Bindweed, Caltrop, Flatweed, Spear Thistle, Capeweed, Doublegee, Saffron Thistle, Mustard, Wild Radish, Wild Turnip, Annual Thistles, Paterson's Curse	WA only	1.5 L		
	Afghan melons		2.2 L + 1% crop oil		
	Paddy melons		1.1-1.5 L		
	Prickly saltwort		2.2 L		
	Stinkwort		2.2 – 4.4 plus surfactant		
	Dove weed		4.4 L		
Pastures, Rights of Way & Industrial	Boxthorn, Boneseed, Hawthorn	Vic, SA only	110 mL/10 L water	<b>AERIAL APPLICATION:</b> Spray when actively growing. 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 the following Autumn. Broadcast grass seed and keep stock off following Summer to allow the pasture to establish. Damage may result to pasture legumes. <b>Hand gun and Knapsack only:</b> a thorough coverage of leaves and plantlets is necessary. Use a non-ionic surfactant (100 %)at the rate of 1.0 mL of surfactant per 1 L of mixture. In all cases apply to young, actively growing weeds ensuring thorough coverage. <sup>1</sup> Spray rosette stage <sup>2</sup> Repeat spraying if necessary	<b>USAGE RESTRICTIONS APPLY:</b> See TABLE 4: Application restrictions for TURF
	Groundsel	NSW,ACT, Qld, SA only	1.3 L/15 L water		
			400 mL/100 L water		
			330 mL/15 L water		
			4-6.1 L		
	Lantana		400mL in 100L water/ha		
	Mother of Millions	NSW, ACT only	550 mL/100 L water		
	Noogoora Burr, Weir Vine (Ipomea), Scarlet Impernel (seedlings only), White Eye (Mexican Clover)	Qld only	220 mL/100 L water		
Annual & Perennial Pigweed Artichoke Thistle, Bathurst Burr, Billygoat Weed, Blue Snake Weed, Burr Medic, Clockweed <sup>1</sup> , Fleabanes, Galvanised Burr, Hemlock, Hoary Cress, Kyalinga Weed (Whisker Grass) <sup>2</sup> , Knobweed, Milky Cotton Bushes, Parthenium Weed, Paterson's Curse, Saffron Thistle, Star Burr, Thornapple, Variegated Thistle <sup>1</sup>		400 mL/100 L water			
Rubber Vine		220 mL/10 L			
Lawns/Turf	Refer weed table	WA, QLD only	2.3 – 4.5 mL/1 L water	Apply to freshly cut stump. Wet foliage thoroughly	<b>USAGE RESTRICTION APPLY:</b> See TABLE 4: Application restrictions for TURF

**Table 4. 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 and 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 period of grazing. Avoid grazing with young or breeding stock. Do not graze horses or pigs on Paterson's Curse.

CROP	TARGET WEEDS	STATE	RATE (/ha)
Pastures – Spray/ Graze Techniques	Docks	Vic only	1.5 L
	Amsinckia, Thistles, Capeweed, Doublegee, Mustard, Paterson's Curse, Wild Turnip, Wild Radish, Docks, Geranium, Erodium	SA only	730 mL
	Annual Thistles, Capeweed, Doublegee, Mustards, Paterson's Curse, Turnip, Saffron Thistle, Spear Thistle	Tas, Vic only	730 mL
	Amsinckia, Docks (seedling only), Capeweed, Doublegee, Mustard, Wild Radish, Wild Turnip, Paterson's Curse, Annual Thistles	WA only	870 mL
	Spear Thistle, Saffron Thistle		1.7 L
	Melons		2.2 L
	Caltrop, Capeweed, Charlock, Mustards, Paterson's Curse, Shepherd's Curse, Saffron, Slender, Spear or Variegated Thistle, Turnip Weed, Wild Radish, Wild Turnip	NSW, ACT only	400 mL – 1.5 L

**Table 5. Other uses**

APPLICATION METHOD	CROP	TARGET WEEDS	STATE
Harvest aid or Salvage spray	Winter cereals, Maize & sorghum	Dessicate broadleaf weeds Refer to weed table	Qld, NSW, ACT only
SPOT SPRAYING	High Volume Spraying	Refer to weed table	All States
	Knapsack application		

**Fallow**

Situation	Purpose	Application Rate
Preparatory spray for fallow/ clear felled Pinus elliptorii plantations prior to replanting pine seedlings	Control of groundsel, unwanted seedlings of previous crop ("wildings") and other susceptible broadleaf weeds listed on the product label	Up to 6 L/ha with label rates of glyphosate as required.

CRITICAL COMMENTS	USAGE RESTRICTIONS
Apply in September only and follow other recommendations above.	USAGE RESTRICTIONS APPLY: See TABLE 2: Application and timing restrictions for application to pastures
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 pastures show signs of over grazing. Then return to normal stocking levels. Use high stoking rates in following spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control	
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.	
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. Heavy stocking on young plants sprayed with 750 mL/ha provides effective control.	
Spray actively growing 6-8 week old weeds. Introduce stock 7-10 days after spraying, preferably sheep (cattle are less effective). 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.	

RATE (/ha)	CRITICAL COMMENTS	USAGE RESTRICTIONS
1.7 – 2.3L	Apply after dough stage.	No usage restrictions
	Add 1/10th of rate on weed table to 150 L of water. Each 150 L of mix will cover 1000m <sup>2</sup> (1/10th ha) e.g. if rate in weed table is 1.5 L use 150 mL/150 L water.	
	Add 1/100th of rate on weed table to 10 L of water. Each 10 L of mix will cover 100m <sup>2</sup> (1/100th ha) e.g. if rate in weed table is 1.5 L use 15 mL/10 L water.	

Critical Comments
Refer to label precautions. Minimum plant-back period of 14 days. All application is to comply with Forests NSW Manual for the Use of Herbicides. Persons applying pesticides by aircraft in NSW must hold a current NSW pilot (pesticide rating) licence and be employed or engaged by the holder of an aircraft (pesticide applicator) licence.

## Hardwood & Softwood Plantations

Crop	Weeds	Application rate
HARDWOOD & SOFTWOOD PLANTATIONS	Broadleaf and woody weeds as per product labels including grousel and <i>Pinus</i> spp. wildings	Maximum rate 2.2 L/ha

## Oil Tea Tree

Crop	Weeds	Application rate
Oil Tea Tree	Weeds on label	Apply at a maximum of 1.5L/ha as per label directions
	Purple Top ( <i>Verbena bonariensis</i> )	Apply at 1.5 L/ha plus 720 g ai glyphosate/ha in tank mix.

## Critical Comments

Apply a single preplant 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.

## Critical Comments

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:

- All residual tea tree foliage has been removed by mechanical shaving, or by using a burner,
- No swollen buds are present on stumps. **NOTE** that buds can burst 8 days after harvest in summer and
- Surface of cut stumps are dry before spraying commences.

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.

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

## WITHOLDING PERIODS:

**PASTURE, CEREAL CROPS:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION

**CROP HARVEST WITHOLDING PERIOD:** NOT REQUIRED WHEN USED AS DIRECTED

**IN TASMANIA, THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.**

## WEED TABLE:

The rates listed in the Weed Table below are spot spraying rates for use in crop or pasture, or for use where weeds only are present and no crop or pasture is involved.

**NOTE:** Where weeds are to be sprayed in a CROP or PASTURE (other than spot spraying) use only the rates given for the particular crop or situation indicated under the Directions for Use.

## WEED TABLE:

WEEDS	APPLICATION RATE PER HECTARE						CRITICAL COMMENTS
	CROP						
	Vic	NSW	SA	Qld	Tas		
Amaranthus spp.	-	730mL-1.5L	-	1.2L	-		Spray young plants.
Apple of Peru	-	730mL-1.5L	-	1.2 L	-		Spray young plants. Susceptible when young.
Bathurst Burr	-	1.1-1.5L	-	1.2L	-		Spray seedlings only.
Blackberry Nightshade	-	730mL-1.5L	-	1.2L	-		-
California Burr	-	1.1-1.5 L	-	1.2 L	-		Spray seedlings only
Cape Tulip	-	-	-	-	-		low rate for cormils only
Capeweed	1.9L	-	2.3L	-	1.9L		Spray seedlings to rosette stage.
Caltrop	-	1.1-2.3L	-	1.2L	-		Moderately susceptible.
Charlock	730mL-1.1L	730mL-1.5L	730mL	-	1.9L		Spray at rosette stage.
Clover	-	1.7L	-	-	-		-
Common Ice Plant	-	-	1.5 L	-	-		-

  

WEEDS	PASTURE			CRITICAL COMMENTS
	WA	NSW, SA, Qld, Tas only		
	-	-		
-	-		Spray young plants. Susceptible when young.	
-	1.1-1.5L NOT SA		Spray seedlings only.	
-	-		-	
-	1.1- 1.5 L NOT SA		Spray seedlings only	
-	930mL -1.7L		low rate for cormils only	
-	2.3-3.9L		Spray seedlings to rosette stage.	
-	-		Moderately susceptible.	
-	1.1-1.5L		Spray at rosette stage.	
-	-		-	
-	-		-	





WEEDS	APPLICATION RATE PER HECTARE				
	CROP				
	Vic	NSW	SA	Qld	Tas
Thornapple	-	1.1L -1.5 L	-	-	-
Turnip Weed/ Rapistrum	-	730mL-1.5L	-	730mL	-
Wards Weed	-	-	1.5L	-	-
Wild Cabbage	1.9 L	-	-	-	-
Wild Poppy	730mL	-	-	-	-
Wild Radish	1.9 L	2.3 L	1.9L	1.2 L	1.9L
Wild Turnip	310-730 mL	730mL-1.5 L	440 mL	-	1.9L
Vetches/ Tares	1.9 L	-	1.5 L	-	-

	APPLICATION RATE PER HECTARE		CRITICAL COMMENTS
	CROP		
	WA	PASTURE NSW, SA, Qld, Tas only	
	-	2.2-3.3 L NOT SA	Spray seedlings only.
	1.1L	730mL- 1.5L	-
	-	-	-
	-	-	Spray multiple leaves.
	-	1.5-2.3L	Spray rosettes.
	1.1 L	1.1-1.5L	Spray up to young rosette stage.
	930mL	730mL-1.5L	Spray 2 -4 leaf up to rosette stage
	-	-	Spray at multiple leaf stage

### Plant Back Days

CROP / RATES	Up to 770 mL/ha	770 mL-1.6 L/ha	1.6-2.3 L/ha
Balansa Clover	7	7	10
Barley①	1	1	3
Chickpeas②	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
Lupins④	7	14	21
Medic	7	7	10
Narbon Beans	7	7	10
Navy Beans	10	10	14
Oats	3	3	7
Perennial Ryegrass	7	7	10
Persian Clover	7	7	10
Phalaris	7	7	10
Canola/Rapeseed②	14	21	28

### GENERAL INSTRUCTIONS

Apparent Purge 450 IPA Herbicide is a water soluble liquid product with non selective herbicidal activity against broadleaf weeds. Apparent Purge 450 IPA Herbicide will control emerged weeds only, and provides no residual control although certain plant back periods should be observed. Apparent Purge 450 IPA Herbicide is absorbed by plant foliage and accumulates to toxic levels in the regions of growth and reproduction, upsetting the ability of plants to balance the synthesis and use of nutrients. Visible effects are a gradual yellowing and wilting of the plants which advances to complete browning of above ground growth and deterioration of root systems. Effects may not be apparent for 7 - 10 days or even up to 21 days under cold or cloudy conditions.

**DO NOT** treat weeds under poor growing or dormant conditions such as occur in drought, water-logging, disease, insect damage, following frost, weeds heavily covered with dust or silt. Reduced results may also occur if weeds are under stress from previous herbicide application. Rainfall occurring up to 6 hours after application may reduce effectiveness.

CROP / RATES	Up to 770 mL/ha	770 mL-1.6 L/ha	1.6-2.3 L/ha
Rice	7	7	14
Safflower②	7	14	21
Sorghum③	3	7	10
Soybean	14	14	21
Sub-Clover	7	7	10
Sunflower③	7	10	14
Triticale①	1	3	7
Vetch	7	7	10
Wheat④	1	3	7
White Clover	7	7	10

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

#### NOTES:

- ① In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for wheat, barley and triticale.
- ② In Queensland, planting of canola/ rapeseed, Chickpeas and safflower must be delayed for at least 14 days following rainfall at least 15 mm.
- ③ In Central Queensland, when using 1.1 L/ha or less of Titan Amine 450 Herbicide, the plant back period for sorghum and sunflower is 1 day irrespective of rainfall.
- ④ In WA the Plant Back Period for lupins at all rates is 28 days.

**DO NOT** spray if strong winds prevail.

### CROP ESTABLISHMENT

Apparent Purge 450 IPA Herbicide is recommended as a herbicide additive to Glyphosate for control of emerged weeds prior to crop establishment. When Apparent Purge 450 IPA Herbicide is applied prior to crop establishment, certain Plant Back Periods should be observed to ensure that the herbicide has degraded sufficiently to allow safe sowing of the intended crop. This process is largely influenced by moisture, temperature and certain soil characteristics and may be delayed particularly when conditions are cold and dry. Refer to the Plant Back Period table for specific information. In seasons of heavy weed growth, or where the following conditions apply, it may be necessary to further delay sowing until a suitable seedbed can be formed. Conditions which can delay crop germination and seedling development include; Heavy green or decaying weed growth incorporated into the soil; Soil compaction or crusting; Cold and wet soils; Deep seeding; Prior use of residual or pre-emergent herbicides. To minimize these effects it is suggested that; Weed bulk be reduced by grazing and cultivating to

leave trash on the surface to dry out; A friable seedbed be produced by cultivation, where necessary; The use of pre-emergent herbicides to be avoided if they might contribute to reduced germination; A correct seeding depth be used. The preferred alternative is to spray early to control any weeds in their less advanced stages and ensure the seedbed is in a suitable condition for early sowing when soil temperatures are not excessively cold.

#### **APPLICATION BOOM EQUIPMENT**

Application of Apparent Purge 450 IPA Herbicide/Glyphosate mixtures in spray volumes of 25 - 100 L/ha is recommended. When Apparent Chlorsulfuron 750 WDG Herbicide OR Apparent Metsulfuron 600 WDG Herbicide is included in the mixture a minimum spray volume of 30 L/ha is recommended.

When Simazine is included in the mixture a minimum spray volume of 100 L/ha is recommended. Flat fan nozzle equipment is recommended using pressure in the range 240 - 280 kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

#### **AERIAL EQUIPMENT**

Application of Apparent Purge 450 IPA Herbicide/Glyphosate mixtures using either Micronair of boom equipment should occur in a minimum spray volume of 15 L/ha. Apply with spray droplets not smaller than a VERY COARSE spray droplet size category. Swath width should be 15 - 17 metres. Application under hot conditions: High temperature and/or low relative humidity cause excessive evaporation of spray droplets which may reduce results. When temperatures reach 25°C increase water volume to 30 L/ha. DO NOT apply by aircraft when temperature is above 35°C. DO NOT use in intensive horticultural cropping areas. Thoroughly wash aircraft, especially landing gear after each day of spraying to remove herbicide residues.

#### **EQUIPMENT MAINTENANCE**

Spray solutions of Apparent Purge 450 IPA Herbicide and Glyphosate should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fiberglass, plastic-lined containers. Do not mix, store or apply spray solutions in galvanized steel or unlined steel (except stainless steel) containers or spray tanks. Apparent Purge 450 IPA Herbicide/Glyphosate spray solutions may react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Thoroughly clean all equipment after use either by using hot soapy water or 1% solution of ammonia followed by several clean water rinses or use Spraymate Tank & Equipment Cleaner. If using Sulfonylurea herbicides (Apparent Chlorsulfuron 750 WDG Herbicide OR Apparent Metsulfuron 600 WDG Herbicide), follow decontamination procedures detailed on those product labels.

Apparent Purge 450 IPA Herbicide is compatible in tank mixes with Apparent Glyphosate 450 Herbicide and Apparent Glyphosate Green 360 Herbicide, Apparent Dicamba 500, Apparent Chlorsulfuron 750 WDG Herbicide OR Apparent Metsulfuron 600 WDG Herbicide, Simazine Flowable, Simazine DF, Nutrazine Flowable, Sprayseed\*, Apparent Chlorpyrifos 500, Dimethoate, Le Mat\*/Comrad\* and Imidan\*.

#### **SURFACTANT ADDITION**

DO NOT add surfactant excepting in conservation tillage where the product is to be tankmixed with Apparent Glyphosate 450. In this situation always add either a non-ionic surfactant (e.g. Apparent Wetter Gold) or the acidifying surfactant LI-700 in accordance with label directions on the Apparent Glyphosate 450 product. Use LI-700 with Apparent Glyphosate 450 if insecticides will be included in the tank mixture or if faster brownout of weeds is required. DO NOT mix with spraying oils, or any other materials or agricultural chemicals except as directed on this label. DO NOT use LI-700 or Bonus if sulfonylurea herbicides (Apparent Chlorsulfuron 750 WDG herbicide OR Apparent Metsulfuron 600 WDG herbicide) are included in the spray mixture.

#### **TANK MIXTURES**

The Apparent Purge 450 IPA Herbicide directions for use on this label are designed to be used as a tank mixture with Apparent Glyphosate 450, Apparent Glyphosate Green 360 herbicide. However, as shown in the compatibility and

surfactant addition sections of this label, it is possible to extend/improve weed control to include other foliage applied and/or residual herbicides and adjuvants. A mixture of Apparent Purge 450 IPA Herbicide and Glyphosate may be tank mixed with the following herbicides, insecticides and adjuvants where recommended in the Directions for Use tables. Read and follow all label directions, restraints and plant pack periods, withholding periods and safety directions for the tank mix products.

Apparent Dicamba 500 – for improved control of Sow Thistle. Observe any regional use restrictions. Apparent Chlorsulfuron 750 WDG Herbicide - Will provide control for a wide range of broadleaf weeds and grasses. Apparent Metsulfuron 600 WDG herbicide - For improved knockdown control of Yellow Burrweed (Amsinckia), Volunteer Chickpeas, Chickweed, Common Sow thistle, Cut-leaf Mignonette, Deadnettle, Faba beans, Mallee Catchfly, Soursob, Staggar Weed, Wild Garlic. Apparent Metsulfuron 600 WDG herbicide does not provide residual in-crop weed control.

#### **COMPATIBILITY**

##### **INSECTICIDES**

Chlorpyrifos 500EC, Dimethoate, Imidan\* and Le Mat\*/Comrad\* can be introduced into the tank mix for specific control to prevent insect damage to emerging crops.

##### **MIXING INSTRUCTIONS**

Apparent Purge 450 mixes readily with water. Ensure the spray tank is free of any residue of previous spray materials.

1. Fill the spray tank with clean water to one half of the required amount and start agitation. DO NOT use mechanical agitators as these may cause excessive foaming when herbicides are added.
2. Where Apparent Buffer 700 Surfactant acidifying surfactant is recommended at either 100mL or 300mL/100L, add to tank through top mesh screen.
3. Add recommended herbicide additive/insecticide to spray tank and mix thoroughly.
4. Add Apparent Purge 450 and mix thoroughly.
5. Add Apparent Glyphosate 450 herbicide and the remaining water.
6. When non-ionic surfactant is used, add near the end of the filling process to minimize foaming.
7. Always maintain adequate agitation during application and use the tank mix promptly.

##### **RESISTANCE WEEDS WARNING**

#### **GROUP 4 HERBICIDE**

Apparent Purge 450 IPA Herbicide is a member of the Phenoxy group of herbicides. Apparent Purge 450 IPA Herbicide has the Disruptors of plant cell growth mode of action. For weed resistance management Apparent Purge 450 IPA Herbicide is a group 4 herbicide. Some naturally-occurring weed biotypes resistant to Apparent Purge 450 IPA Herbicide and other disruptors of plant cell growth herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Apparent Purge 450 IPA Herbicide or other disruptors of plant cell growth 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 Purge 450 IPA Herbicide to control resistant weeds.

**RE-ENTRY PERIOD** 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.

##### **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. Avoid spray 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**

Store in the closed original container in a cool, well-ventilated area. 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 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.

**Refillable containers:** Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

**110 L Returnable Container:** Store the original sealed container in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the non-return valve or the security seal. DO NOT contaminate the container with water or any foreign matter. After each use of the product, please ensure that the non-return valve, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the container have been used, please return the empty container to the point of purchase.

## **SAFETY DIRECTIONS**

Poisonous if absorbed by skin contact or swallowed. Will damage the eyes. Will irritate the skin. Avoid contact with the eyes and skin. When opening the container and preparing spray or using undiluted concentrate, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves and face shield or goggles. 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 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, face shield or goggles and contaminated clothing.

## **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766. If swallowed, do NOT induce vomiting. If in eyes wash out immediately with water.

## **SAFETY DATA SHEET**

Additional information is listed in the Safety Data Sheet (SDS), which is available from the supplier.

## **CONDITIONS OF SALE**

The use of Apparent Purge 450 IPA Herbicide being beyond the control of the manufacturer no warranty expressed or implied is given by AIRR Apparent Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and AIRR Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

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