

Product Name: APPARENT PANTHER SELECTIVE HERBICIDE  
APVMA Approval No: 66925/136193



Label Name:	APPARENT PANTHER SELECTIVE HERBICIDE
Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	250g/L MCPA PRESENT AS THE ETHYL HEXYL ESTER 25g/L DIFLUFENICAN 150g/L N-METHYL-2-PYRROLIDONE 325g/L HYDROCARBON LIQUID
Mode of Action:	GROUP 12   4 HERBICIDE
Statement of Claims:	For the control of certain broadleaf weeds in winter cereals and clover as specified in the Directions for Use table
Net Contents:	5L-1000L
Restrains:	<p><b>RESTRAINTS:</b> DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions. DO NOT apply to crops under stress due to disease or insect damage. DO NOT apply to frost-affected crops or if frosts are imminent. DO NOT apply when heavy rain is expected within 4 hours.</p> <p><b>SPRAY DRIFT RESTRAINTS</b> Specific definitions for terms used in this section of the label can be found at <a href="http://apvma.gov.au/spraydrift">apvma.gov.au/spraydrift</a> DO NOT allow bystanders to come into contact with the spray cloud. DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas. DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application. DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.</p>
Directions for Use:	This section contains file attachment.

Other Limitations:	
--------------------	--

Withholding Periods:	<p>WITHHOLDING PERIODS  CROP HARVEST: NOT REQUIRED WHEN USED AS DIRECTED.  ALL CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.</p>
----------------------	--

Trade Advice:	
---------------	--

General Instructions:	This section contains file attachment.
-----------------------	--

Resistance Warning:	<p>GENERAL INSTRUCTIONS RESISTANT WEEDS WARNING  GROUP F I HERBICIDE  APPARENT Panther Selective Herbicide is a member of the phenyl-ethers and Phenoxy Carboxylates groups of herbicides and acts by inhibiting carotenoid biosynthesis at the phytoene desaturase step (PDS inhibitors) and disrupting plant cell growth (Auxin mimics). For weed resistance management APPARENT Panther Selective Herbicide is both a Group 12 and a Group 4 herbicide. Some naturally occurring weed biotypes resistant to APPARENT Panther Selective Herbicide and other Group 12 and 4 herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by APPARENT Panther Selective Herbicide or other Group 12 or Group 4 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, AIRR APPARENT AG Pty Ltd accepts no liability for any losses that may result from the failure of APPARENT Panther Selective Herbicide to control resistant weeds.</p>
---------------------	--

Precautions:	
--------------	--

Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS  DO NOT apply under weather conditions, or from spraying equipment, that may cause 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.</p> <p>PROTECTION OF LIVESTOCK  Grazing Precaution: Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning.  Care should be taken especially where Capeweed, Paterson's Curse and variegated thistles predominate in the pasture. Avoid grazing with young or breeding stock.  DO NOT graze horses or pigs on Paterson's Curse. If in doubt, contact your nearest Department of Agriculture.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT  Dangerous to fish. DO NOT contaminate streams, rivers or watercourses with the chemical or used containers.</p>
--------------	--

Storage and Disposal:	STORAGE AND DISPOSAL
-----------------------	----------------------

Store in the 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 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.

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

Safety Directions:

SAFETY DIRECTIONS

Harmful if swallowed. Will damage the eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale vapour. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length chemical resistant gloves and face shield or goggles. 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 Instructions:

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126, New Zealand 0800 764 766. If swallowed, DO NOT induce vomiting. Give a glass of water. If in eyes, wash out immediately with water.

First Aid Warnings:

**DIRECTIONS FOR USE**

CROP	WEEDS CONTROLLED	STAGE OF WEED GROWTH	STATE	RATE/ha	CRITICAL COMMENTS
<b>Cereals</b> Wheat, barley, oats, triticale, cereal rye (including cereals undersown with clover) <b>Pasture</b> Newly sown and established clover-based pasture, clover for hay and seed production	Wild Radish	Up to the 2 leaf stage and not more than 60mm in diameter	WA only	250mL	<b>CROP STAGE</b> <b>Cereals</b> Up to 750mL (3 leaf to fully tillered stage - Z13 to 30). Over 750mL (5 leaf to fully tillered stage - Z15 to 30). Optimum results are achieved when sprayed at 3-5 leaf crop stage (generally 4-8 weeks post sowing). <b>WA only:</b> DO NOT apply to Barley or Kulin Wheat before the 5 leaf stage (Z15). <b>Warning:</b> APPARENT Panther Selective Herbicide may cause transient crop yellowing of cereals. Some varieties of oats have not been tested. (Refer to "Crop Tolerance" section of General Instructions). <b>Clover</b> Application is recommended prior to the eighth trifoliolate leaf stage, however, applications prior to the third leaf stage may result in crop damage especially under stressed conditions and in sandy soils. DO NOT apply to Annual Medics or lucerne. <b>Warning:</b> APPARENT Panther Selective Herbicide may cause transient crop yellowing of clover, and may affect growth and seed set of some varieties of clover. (Refer to "Crop Tolerance" section of General Instructions). <b>WEED STAGE</b> Apply when weeds are actively growing. In most situations the rate specified for each weed size will give satisfactory control. Under certain conditions such as: * high crop and weed density; * late season germinations; * abnormal weed growth (including early flowering), higher rates of product (up to the maximum rate of application specified for that weed) may be required. APPARENT Panther Selective Herbicide will not effectively control: * regrowth of suppressed weeds; * transplanted weeds; * regrowth from rhizomes or roots; * weeds growing under stress from previous herbicide applications. <b>GRAZING</b> Efficacy on larger weeds will be improved by grazing with normal levels of stock after the 7 day withholding period. Refer to 'Protection of Livestock' for grazing precautions. <b>APPLICATION</b> Activity of this product will be reduced if weeds are stressed. Optimum results will be obtained if good soil moisture exists at and after application. Where crop or weed density is high, water volume should be increased. <b>WILD RADISH</b> APPARENT Panther Selective Herbicide will provide residual control of Wild Radish for up to 4 weeks after application. Effective residual activity of this product may be reduced where: * rates lower than 1.0L/ha are used; * dry conditions prevail; * poor coverage of the soil surface is achieved; * crop is planted in non-wetting sand; * soils contain a high content of organic matter. Optimum results will be obtained if good soil moisture exists at and after application.
		Up to the 4 leaf stage and not more than 120mm in diameter	ALL STATES	500mL	
		Up to the 6 leaf stage and not more than 150mm in diameter		750mL	
		Up to the 8 leaf stage and not more than 180mm in diameter		1.0L	
	Charlock, Hedge Mustard, Indian Hedge Mustard, Shepherd's Purse, Turnip Weed, Wild Turnip	Up to the 2 leaf stage and not more than 60mm in diameter		500mL	
		Up to the 4 leaf stage and not more than 120mm in diameter		750mL	
		Up to the 6 leaf stage and not more than 150mm in diameter		1.0L	
	London Rocket	Up to the 5 leaf stage and not more than 120mm in diameter	QLD only	750mL	
	Ward's Weed		SA only		
	Capeweed	Up to the 2 leaf stage and not more than 60mm in diameter	ALL STATES	500mL	
		Up to the 4 leaf stage and not more than 120mm in diameter		1.0L	
	Crassula	Up to the 2 leaf stage		500mL	
		Up to the 4 leaf stage		750mL	
	Prickly Lettuce	Up to the 2 leaf stage		500mL	
		Up to the 4 leaf stage		750mL	
		Up to the 6 leaf stage		1.0L	
	Dense-flower Fumitory	Up to the 2 leaf stage		750mL	
	Corn Gromwell, Saffron Thistle, Toad Rush			1.0L	
Deadnettle		NSW, VIC, SA only			
Sorrel	Up to the 2 leaf stage	VIC only	1.0L		
Canola (rape)	Up to the 4 leaf stage	ALL STATES	500mL		
Purple Goosefoot	Up to the 6 leaf stage	QLD only	500mL		
Turnip Weed, Wild Turnip	Cotyledon to 2 leaf stage	NSW only (West of Newell Hwy.) SA only (Eyre peninsula north of the line between Venus Bay and Cowell)	350mL		
<b>Cereals</b> Wheat, barley, oats, triticale, cereal rye	Fumitory	2 - 6 leaf stage	ALL STATES	500mL +200mL Terbutryn (500g/L)	
<b>Cereals</b> Wheat, barley, oats, triticale, cereal rye (including cereals undersown with clover) <b>Pasture</b> Newly sown and established clover based pasture, clover for hay and seed production	<b>SUPPRESSION OF THE FOLLOWING WEEDS</b>				
	Saffron Thistle	Up to the 6 leaf stage	ALL STATES	1.0L	
	Chickweed, Fireweed, Hexham Scent (King Island Melilot), Iceplant, Mouse-eared Chickweed, Night-scented Stock, Paterson's Curse, Peppergrass, Skeleton Weed, Long Storksbill, Volunteer Lupins	Up to the 4 leaf stage			
	Wireweed (Hogweed)			750mL	
Common Sowthistle (Milk Thistle), Cowvine, Dock, Doublegee (Spiny Emex), Fat Hen, Horehound, Hyssop Loosestripe, Marshmallow, Rough Poppy, Scarlet Pimpernel, Stemless Thistle, Tree Hogweed, Variegated Thistle, Vetch (tares)	Up to the 2 leaf stage			1.0 L	

CROP	WEEDS CONTROLLED	STAGE OF WEED GROWTH	STATE	RATE/ha	CRITICAL COMMENTS
Cereals Wheat, barley, oats, triticale, cereal rye	Wild Radish	Up to the 4 leaf stage and not more than 120mm in diameter	ALL STATES	350mL plus 200mL MCPA LVE (500g/L)	<p><b>Refer also to all Critical Comments relating to weed stage, grazing, application and wild radish above.</b></p> <p>* Reduced efficacy (suppression only) may be achieved on Wild Radish larger than 8 leaf or greater than 180 mm in diameter.</p> <p>DO NOT use this tank-mix if cereals are undersown with lucerne or annual medics.</p> <p><b>Crop Stage</b>  APPARENT Panther Selective Herbicide 350mL + MCPA LVE 200mL: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30).  APPARENT Panther Selective Herbicide 500mL + MCPA LVE 200mL: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30).  APPARENT Panther Selective Herbicide 500mL + MCPA LVE 400mL: Apply from 5 leaf stage to fully tillered (Zadok's Z15 to Z30).  Optimum results are achieved when sprayed at 3-5 leaf crop stage (generally 4-8 weeks post sowing).  <b>WA only:</b> DO NOT apply to Barley or Kulin Wheat before the 5 leaf stage (Z15).  <b>Warning:</b> APPARENT Panther Selective Herbicide may cause transient crop yellowing of cereals. Some varieties of oats have not been tested. (Refer to "Crop Tolerance" section of General Instructions). Observe instructions also on MCPA LVE product label.</p>
		Up to the 6 leaf stage and not more than 150mm in diameter		500mL plus 200mL MCPA LVE (500g/L)	
		Up to the 8 leaf stage and not more than 180mm in diameter*		500mL plus 400mL MCPA LVE (500g/L)	

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

#### WEED LIST

Common name	Scientific name
Canola (rape)	<i>Brassica napus</i>
Capeweed	<i>Arctotheca calendula</i>
Charlock	<i>Sinapis arvensis</i>
Chickweed	<i>Stellaria media</i>
Common Sowthistle (milk thistle)	<i>Sonchus oleraceus</i>
Corn Gromwell	<i>Buaglossoides arvensis</i>
Cowvine	<i>Ipomoea lonchophylla</i>
Crassula	<i>Crassula</i> spp.
Deadnettle	<i>Lamium amplexicaule</i>
Dense-flower Fumitory	<i>Fumaria densiflora</i>
Dock	<i>Rumex</i> spp.
Doublegee (Spiny Emex)	<i>Emex australis</i>
Fat Hen	<i>Chenopodium album</i>
Fireweed	<i>Senecio</i> spp.
Fumitory	<i>Fumaria</i> spp.
Hedge Mustard	<i>Sisymbrium officinale</i>
Hexham Scent (King Island Melilot)	<i>Melilotus indicus</i>
Horehound	<i>Marrubium vulgare</i>
Hyssop Loosestrife	<i>Lythrum hyssopifolia</i>
Iceplant	<i>Mesembryanthemum</i> spp.
Indian Hedge Mustard	<i>Sisymbrium orientale</i>
London Rocket	<i>Sisymbrium irio</i>
Long Storksbill	<i>Erodium botrys</i>
Marshmallow	<i>Malva parviflora</i>

Common name	Scientific name
Mouse-eared Chickweed	<i>Cerastium glomeratum</i>
Night-scented Stock	<i>Matthiola longipetala</i>
Paterson's Curse	<i>Echium plantagineum</i>
Peppercress	<i>Lepidium</i> spp.
Prickly Lettuce	<i>Lactuca serriola</i>
Purple Goosefoot	<i>Scleroblitum atriplicinum</i>
Rough Poppy	<i>Papaver hybridum</i>
Saffron Thistle	<i>Carthamus lanatus</i>
Scarlet Pimpernel	<i>Anagallis arvensis</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Skeleton Weed	<i>Chondrilla juncea</i>
Sorrel	<i>Rumex</i> spp.
Stemless Thistle	<i>Onopordum acaulon</i>
Toad Rush	<i>Juncus bufonius</i>
Tree Hogweed	<i>Polygonum patulum</i>
Turnip Weed	<i>Rapistrum rugosum</i>
Variiegated Thistle	<i>Silybum marianu</i>
Vetch Tares)	<i>Vicia sativa</i>
Volunteer Lupins	<i>Lupinus</i> spp.
Ward's Weed	<i>Carrichtera annua</i>
Wild Radish	<i>Raphanus raphanistrum</i>
Wild Turnip	<i>Brassica tournefortii</i>
Wireweed (Hogweed)	<i>Polygonum aviculare</i>

## GENERAL INSTRUCTIONS

### TOLERANCE

Some pre-emergence herbicides, such as atrazine, can cause stress to certain crops resulting in an increase in crop damage when using this product. Subterranean clover is particularly sensitive.

### CEREALS

After application some transient crop yellowing may occur. This usually appears as yellow or white banding on leaves. Provided the crop is not under stress from pre-emergent herbicide, root disease, insect damage, frost, dry or excessively moist conditions, the development of the crop and subsequent growth will be unaffected.

**Warning (Oats):** The tolerance of oat varieties Esk and Nile (the two main varieties grown in Tasmania) to APPARENT Panther Selective Herbicide has not been tested. Test a small area of crop before using APPARENT Diflufenican + MCPA Selective Herbicide over large areas. Consult your local AIRR APPARENT AG representative for advice on specific varieties.

### PASTURE

The tolerance of clover varieties to APPARENT Panther Selective Herbicide can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress.

**Warning:** APPARENT Panther Selective Herbicide may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter, particularly at rates in excess of 500 mL/ha and in areas of double spray. For this reason we recommend application prior to the 8 trifoliolate leaf stage. However, at the lower rates (500 mL/ha and less) and under normal growing conditions, subsequent growth and seed yield should not be affected. Under normal growing conditions, the following varieties have shown acceptable levels of foliage tolerance to APPARENT Panther Selective Herbicide applied at 500 mL/ha:

**Arrowleaf:** Zulu **Balansa:** Paradana **Berseem:** Sacromonte

**Persian:** Kyambro, Lupers, Maral

**White:** Haifa

**Subterranean Clover:** Daliak, Dalkeith, Denmark, Esperance, Geraldton, Goulburn, Karridale, Larissa, Leura, Mt.Barker, Nungarin, Rosedale, Seaton Park, Trikkala and Woogenellup.

The effects of this product on clover seed yield have been tested on the following varieties. Under normal growing conditions they show acceptable levels of tolerance to this product applied at 500mL/ha:

**Subterranean Clover:** Esperance, Goulburn, Larissa, Seaton Park and Trikkala.

**Warning:** Rose and Strawberry clover have shown increased sensitivity to APPARENT Panther Selective Herbicide. APPARENT Panther Selective Herbicide may affect the seed yield of Subterranean Clover variety Woogenellup. Some pasture grasses, including Phalaris and Cocksfoot, may show some initial reduction in vegetative growth after application of APPARENT Panther Selective Herbicide. Care should be exercised if sensitive clover varieties or grasses are included in the pasture sward.

Varieties not listed should be tested before using APPARENT Panther Selective Herbicide over large areas. Consult your local AIRR APPARENT AG representative for advice on specific varieties.

### SUBSEQUENT CROPS

To reduce effect on subsequent susceptible crops (e.g. canola), ensure thorough cultivation of soil prior to the sowing of these crops.

### Mixing

To ensure even mixing, half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly then add the remainder of the water. Agitate again before spraying commences. Reseal part-used product container immediately after use. Spray mixtures containing APPARENT Panther Selective Herbicide should not be left to stand overnight. Prolonged periods of exposure to cold temperatures could result in settling out of the product in the mixture.

**Warning:** The rubber components present in some spraying units may be affected by exposure to the solvents in APPARENT Panther Selective Herbicide and some other agricultural products. To reduce this risk it is recommended that the spray unit be thoroughly washed with a boom cleaner and fresh water after use. Contact the spray unit manufacturer to determine the suitability of the rubber components for use with agricultural products.

### APPLICATION

**Boom Sprayer:** A minimum of 50L of water per hectare should be used, however, for optimum results water rates of 70-100L/ha are recommended. Increase the water volume if weed infestation is heavy or crop cover is dense. Complete coverage of weeds is essential.

**Aircraft (NSW, Vic, SA only):** Apply in a minimum of 30L water per hectare. Effective weed control will only be achieved where good coverage of leaf surface is achieved.

When mixing with other herbicides, crop yellowing may be enhanced. If the crop is stressed, the application of the herbicide tank-mixtures may cause yield reduction. Growers should seek advice before spraying recently released cereal varieties.

Use the recommended rates for both herbicides in the tank-mixture as well as the surfactant recommendation of the grass herbicide. If another herbicide is applied as a tank mix, observe the plantback restrictions on that label.

**Warning:** DO NOT use crop oils with APPARENT Panther Selective Herbicide or APPARENT Panther Selective Herbicide tank mixtures with other products in cereals. As formulations of other manufacturer's products are beyond the control of AIRR APPARENT AG Pty Ltd, all mixtures should be tested prior to mixing commercial quantities.