

## WEED TABLE

Where weeds are to be sprayed in a crop or pasture, use only the rate 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.

### APPLICATION RATE PER HECTARE

\*E: refer to Critical Comments for Wheat, Barley, Oats, Triticale

Weeds Controlled	Application Rate per Hectare						Critical Comments
	VIC	NSW, ACT	SA	TAS	QLD	WA	
Ball Mustard	-	-	1.7L	-	-	-	Apply at rosette stage.
Bathurst Burr	2L	1-2L	2L	2L	2L	2L	Spray young seedlings only.
Black Bindweed	-	1.4-2L	-	-	1.4-2L	-	Apply at young stage prior to flowering.
Californian Burr	-	1-2L	-	2.2L	-	-	Spray young seedlings only.
Cape Tulip	-	-	-	-	-	2L	Apply just prior to flowering. Gives mild suppression only.
Capeweed	-	2.1L	2.1L	2.1L	2.1L	2.1L	Apply at seedling stage.
Carrot Weed	2L	-	-	-	2L	-	Apply at seedling stage.
Charlock	700mL E	1L E	700mL E	1.2-2L	700mL E	-	Spray up to rosette stage.
Cutleaf Mignonette	-	-	2.1L	-	-	-	Apply at young rosette stage.
Dandelion	2L	2L	2L	2L	2L	2L	Apply at young rosette stage.
Deadnettle	-	2.1L	-	-	2.1L	-	Moderately susceptible. Apply at seedling stage.
Docks	1.5L	-	2.1L	2.1L	-	-	Apply at rosette stage and before flower heads emerge. Only the top growth of old established plants will be affected.
Fat Hen	2L	1-2L	-	2L	2L	-	Spray up to rosette stage.
Fennel	2.7L	2.7L	2.7L	2.7L	2.7L	2.7L	Apply at young stage.
Field Bindweed	2L	-	2L	2L	2L	2L	Apply at bud stage, repeating over several seasons.
Field Cress	-	-	-	2.2L	-	-	Apply at young stage.
Fiatweed or Catsear	-	-	-	2.2L	-	1.4L	Apply when weeds are 10-15cm high.
Fumitory (red)	1.4L	1.4L	1.4L	-	1.4L	-	Apply at young stage prior to flowering.
Hoary Cress	4.5L	-	2.1L	-	4.5L	-	Apply before flowering.
Horehound	-	3.0L	2.1L	-	-	-	Apply at rosette stage.
Hedge Mustard	1.1E	-	700mL	700mL	700mL	1.25L	Apply at rosette stage.
Hexham Scent or Mellilotus	1.5L	1.2L	1.4L	-	1.4L	-	Apply at young seedling stage.
Lesser Swinecress	-	-	-	2.2L	-	-	Apply at young stage.
Lincoln Weed	-	-	700mL	-	-	-	Apply at rosette stage.
London Rocket	-	-	-	-	-	1.25L	-
Lupins	-	700mL-1.5L	-	-	-	1.25L	Spray up to 10cm high.
Mintweed	2L	2L	-	-	2L	-	Spray young seedlings only.
Mustards	1.1L E	1L E	1.1L	1.1L	-	1.25L	Spray up to rosette stage.
Noogoora Burr	2L	1-2L	2L	-	2L	2L	Spray young seedlings only.
Opium Poppy	-	-	-	2.2L	-	-	Apply at young stage.
Paterson's Curse	-	1-1.5L	-	-	4L	-	Apply early rosette stage.
Pimpernel	-	-	700mL	-	-	-	Apply at rosette stage.
Plantains	-	2L	-	2L	2L	-	Apply at young stage.
Rapeseed	-	1-1.5L	-	-	-	-	Spray up to rosette stage.
Rough Poppy	-	700mL-1.5L	-	-	-	-	Spray up to rosette stage.
Safflower	-	700mL-1L	-	-	-	-	Spray up to rosette stage.
Shepherds Pursue	-	-	-	2.2L	-	-	Apply at rosette stage.
Skeleton Weed	-	1.5-2L	-	-	-	-	Spray rosettes before aerial growth commences.
Sorrel	-	-	2.1L	-	-	-	Apply to rosette stage.
Stinkwort	2L	1-1.5L	2L	-	-	2L	Apply when weeds are 10-15cm high.
Sunflower (seedlings)	-	1-1.5L	-	-	-	-	Spray up to rosette stage.
Thistles	-	-	-	-	-	-	-
- Artichoke	1.6L	-	2.1L	-	2L	700mL	Apply at rosette stage.
- Nodding	-	2.5L	-	-	-	-	Spray early rosettes. Repeat spray required in following Spring or Autumn.
- Saffron	1.5-2.5L	1-2L	1.4-2.5L	1.4-2.5L	1.4-2.5L	1.5-2.5L	Spray up to rosette stage (September WA).
- Scotch or Cotton	2.2L	-	700mL-1.4L	2.2L	-	-	Apply at seedling stage.
- Slender	3L	1-2L	1L	3L	-	3L	Spray young seedlings only.
- Soldier	1.1L	-	1.1L	-	-	-	Spray young seedlings. Use higher rate for larger weeds.
- Spear	-	1.5-2L	-	2.2L	-	-	Apply at rosette stage.
- Star	-	-	1-1.4L	-	-	-	Apply at seedling stage. Use higher rate for larger weeds.
- Variegated	1.5L	1-2L	700mL-1.4L	1.5L	1.5L	1.5L	Spray young seedlings only. Use 2L/ha (SA) for well developed weeds.
Turnip Weed	1.1L E	1L E	1L	-	-	-	Spray up to rosette stage.
Wild Artichoke	-	-	2.1L	-	-	-	Apply at rosette stage.
Wild Radish	1.4L	1L E	1.4L	2L	700mL-1.1L	1.2L	Spray up to rosette stage.
Wild Turnip	1.1L E	1L E	700mL	2L	700mL-1.1L	900mL	Spray up to rosette stage.

## GENERAL INSTRUCTIONS

Weeds should be sprayed while actively growing and at their most susceptible stage. As a general guide, annuals should be sprayed when young and perennials just prior to appearance of bud stage. Extremes of cold or drought are unfavourable. The best conditions are when the soil is moist, weather fine and rain unlikely within 6 hours of application.

### APPLICATION MIXING INFORMATION

This product mixes readily with water. Half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly before adding the remaining water.

BOOM SPRAYING - Use 30 to 120 litres water per hectare.

- Use minimum of 170 litres water per hectare for LINSEED.

AERIAL SPRAYING - Use 10 to 90 litres water per hectare.

### RESISTANT WEEDS WARNING

#### GROUP I HERBICIDE

Rygel MCPA 500 Selective Herbicide is a member of the Phenoxys group of herbicides. Rygel MCPA 500 Selective Herbicide has the disruptors of plant cell growth mode of action. For weed resistance management Rygel MCPA 500 Selective Herbicide is a Group I Herbicide.

Some naturally occurring weed biotypes resistant to Rygel MCPA 500 Selective 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 Rygel MCPA 500 Selective Herbicide or other disruptors of plant cell growth herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Rygel Pty Ltd accepts no liability for any losses that may result from the failure of Rygel MCPA 500 Selective Herbicide to control resistant weeds.

### EQUIPMENT MAINTENANCE AND USAGE

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 cleaned with Spraymate Tank & Equipment Cleaner or well washed out with a 2% solution of cloudy ammonia followed by several clear water rinses.

### COMPATIBILITY TANK MIXES

This product can be tank mixed with herbicides: diflufenican, metsulfuron, dicamba, bromoxynil, flowable diuron, clopyralid, sethoxydim, paraquat/diquat, flowable terbutryn, picloram, methabenzthiazuron. The effectiveness of the insecticides phosmet, omethoate, demeton-s-methyl and dimethoate may be reduced by alkaline hydrolysis if tank mixed with this product. For these situations the addition of Spray-Sure AP-700 is recommended. When tank mixing add the required amount of compatible product (and surfactant if recommended) when the spray tank is nearly full and while continuously agitating. If left overnight, agitate thoroughly before spraying.

### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT spray in high winds. DO NOT spray crops or weeds outside the stages indicated in 'Critical Comments' as damage, loss of yield or inadequate weed control may result.

**Drift Warning:** DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crop, cropping lands or pastures. Avoid spray drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, fruit trees, vegetables, legume crops and pastures, oilseed crops and susceptible trees (eg. Kurrajongs, Belahs, Eucalypts).

**Legume Tolerance:** The use of Rygel MCPA 500 is preferred to 2,4-D amine or 2,4-D ester in situations where legumes are undersown in the crop.

**N.B.:** The tolerance of pasture legumes to applied product can vary with species, variety, growing conditions, stage of growth and companion crop cover. DO NOT spray cereal crops undersown with lucerne as damage may result.

### PROTECTION OF LIVESTOCK

Low hazard to bees. May be applied at any time as recommended in the Directions For Use.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

Do not contaminate dams, rivers or streams with the product or used container.

### STORAGE AND DISPOSAL

#### (5L, 20L, 200L only)

Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

**For refillable containers (100L only):** Store in the closed, original container in a dry, cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Empty containers fully into application equipment. Close all valves and return to point of supply for refill or storage.

**110L Mini Bulk Returnable Container:** Store the original sealed 110L container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Do not tamper with the MicroMatic valve or the security seal. Do not contaminate the container with water or any other foreign matter.

After each use of the product ensure that the MicroMatic coupler, delivery system and hoses are disconnected, triple rinse with clean water and drained accordingly. When the contents of the 110L container have been used, please return the empty container to the point of purchase. The 110L container remains the property of Rygel Australia Pty Ltd.

### SAFETY DIRECTIONS

Harmful if swallowed. Attacks eyes. Will irritate the skin. When opening the container, preparing spray and using spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and goggles. If product on skin immediately wash area with soap and water. If product or spray in eyes, wash 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 and contaminated clothing.

### FIRST AID

If poisoning occurs, contact a Doctor or Poisons Information Centre (Tel: Australia 13 11 26).

### MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet that can be obtained from the supplier.

### CONDITIONS OF SALE

The use of Rygel MCPA 500 Selective Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Rygel Australia 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 Rygel Australia Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

In an Emergency Dial 000 Police or Fire Brigade

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

Rygel

# MCPA 500

Selective Herbicide

ACTIVE CONSTITUENT: 500 g/L MCPA  
present as the dimethylamine salt

GROUP I HERBICIDE

For the control of broadleaf weeds in cereals, linseed, pastures, sugarcane and turf as per Directions for Use table.

READ COMPLETE DIRECTIONS FOR USE  
BEFORE USING THIS PRODUCT.

**RYGEL**  
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## DIRECTIONS FOR USE

### RESTRAINTS

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

DO NOT apply if rain is likely within 6 hours.

### 1. FIELD CROPS

Situation & Crop	Weeds Controlled	State	Rate Volume/ha	Critical Comments
Wheat, Barley, Oats, Triticale	Refer to Weed Table	SA, Tas only	700mL - 2.1L	Apply through the tillering stage after the crop plants have 5 leaves and before they commence jointing.
		Qld only		Apply from early tillering (4 to 5 fully emerged main stem leaves plus one or more tillers) until before the boot stage (visible swelling of the head at the top of the main stem).
		NSW, ACT only		Apply 700mL rate after crop has reached 5 leaf stage and weeds marked E in Weed Table have 3-6 leaves. Higher rate 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.
		Vic only	700mL - 1.5L	Apply 700mL rate after crop has reached 2-3 leaf stage and weeks marked E in Weed Table have 2-4 leaves. Higher rate after the crop plants have 5 leaves, to fully tillered.
		WA only	900mL - 2L	Apply to crop from 5 leaf to flag leaf emergence. (Zadoks 15-37)
Wheat, Barley, Triticale, Cereals, Rye	Capeweed, Double Gee, Erodium, Mustard, Rapistrum, Wild Turnip, Wild Radish	WA only	400mL plus 350mL diuron (500g/L)	CROP: 3-4 leaf stage (Zadoks 13-14)
			500mL plus 400mL diuron (500g/L)	CROP: 4-5 leaf stage (Zadoks 14-15) Apply by aircraft or boom with 20-100L/ha water, when 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 sub-clovers may be slightly retarded. DO NOT apply to undersown medics.
	Amsinckia (Yellow Burr), Capeweed, Charlock, Deadnettle, Double Gee, (Spiny Emex, Three Corner Jack), Erodium spp, Mustard, Turnip Weed, White Ironweed (Corn Gromwell, Sheep Weed), Wild Radish, Wild Turnip	NSW, ACT, Vic only	500mL plus 500mL diuron (500g/L)	Apply by boom spray or aircraft when the crop is at the 3-5 leaf stage (NSW and SA only) and 5 leaf stage (Vic only). Weeds must be in the 2-5 leaf stage. Do not use on undersown medic or lucerne. Do not use on Kamilaroi, Kite, Olympic or Shortim Wheat.
	Capeweed, Mustard, three Corner Jack, Turnip Weed, Wild Radish, Wild Turnip, Wards Weed, Common Ice Plant, Pimpernel	SA only	350mL plus 500mL diuron (500g/L)	Do not use on very light sandy soils.
Wheat, Barley, Oats, Triticale	Soldier Thistle	SA only	700mL plus 200mL clopyralid	Apply to crop at tillering stage after the crop has 5 leaves and before the crop commences jointing.
	Skeleton Weed		700mL plus 500mL clopyralid	Apply to rosettes from 5-15cm diameter when the crop is between the 5 leaf and late tillering growth stages. It is essential that all the Skeleton Weed is emerged and minimum of 5cm diameter, which is usually not before August. This rate will provide control of Skeleton Weed until harvest and will substantially reduce seed numbers the following season.
Field Peas	Prickly Lettuce ( <i>Lactuca serriola</i> )	NSW, Vic, Tas, SA only	<b>Weed Stage: 4 leaf</b> 125mL plus 125mL of Rygel Diflufenican	<b>FIELD PEAS:</b> Apply early post-emergence after the third node stage and before the start of flowering. <b>Warning:</b> Field peas grown on high pH soils in the presence of free lime may be less tolerant to Rygel Diflufenican. <b>APPLICATION AND WEED CONTROL:</b> Apply when weeds are actively growing. For optimum results apply 4 to 6 weeks post-sowing.
			<b>Weed Stage: 6 leaf</b> 150mL plus 150mL of Rygel Diflufenican	Application beyond 8 weeks post-sowing may result in reduced levels of weed control. 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.
	Charlock (Wild Mustard) ( <i>Sinapis arvensis</i> )		<b>Weed Stage: 4 leaf</b> 125mL plus 125mL of Rygel Diflufenican	Rygel Diflufenican will not effectively control: • regrowth of suppressed weeds, • transplanted weeds, • regrowth from rhizomes or roots, • weeds growing under stress from previous herbicide applications.
			<b>Weed Stage: 6 leaf</b> 150mL plus 150mL of Rygel Diflufenican	
Linseed	Refer to Weed Table	Qld only	700mL - 2.1L	Apply when crop is 10-15cm tall with at least 170L/ha of water. Do not spray after buds appear. Some wilting effect may be seen following application but crop usually recovers quickly.
		NSW, ACT, Vic, SA, Tas only	700mL - 1.1L	Do not apply by aircraft.
Sugar Cane	Blue Top, Chinese Burr, Flannel Weed, Gambia Pea, Bell Vine, Streaked Rattle Pod, Bindweed, Pink Convolvulus, Cupids Flower, Merremia Vine, Morning Glory	Qld only	1.4L	POST EMERGENT: Apply as a directed inter-row spray. Do not exceed rates with phenoxy sensitive varieties.
	As above plus Fat Hen, Noogoora Burr		2.1L	
	All of the above		10L	PRE-EMERGENT: Apply over the row in a 45cm band within 24 hours of planting.
Flax	Refer to Weed Table	Vic, Tas only	490mL	Apply to crop when 8-20cm high.

### 2. PASTURES, SEED CROPS & TURF

Situation & Crop	Weeds Controlled	State	Rate Volume/ha	Critical Comments
Grass Pastures	Refer to Weed Table	All States	700mL - 4L	Apply to established grass-based pastures. Damage may occur to Legumes if present. See "Legume Tolerance." NOTE: Capeweed, Paterson's Curse and Variegated Thistle may be poisonous to stock after spraying.
	Salvation Jane	SA only	1L plus 400mL diuron (500g/L)	Use this mixture only if spraying is delayed until early Winter. Rosettes should not exceed 20cm diameter.
	Soldier Thistle	SA only	700mL - 2.1L	Use low rate on seedlings, with no more than 2 true leaves. Use 100 litres of water for best results. If clover is present do not exceed 600mL.
	Seedling and established Horehound	NSW, ACT only	3L	Apply in Autumn when Horehound plants are at the seedling stage. If sub clover or medic plants are present they will be damaged by this application.
Grass Seed Crops	Refer to Weed Table	Qld, SA, Tas, Vic, WA only	700mL - 4L	Apply to established grass seed crops.
Sub Clover Seed Crops	Refer to Weed Table	Vic, SA only	700mL - 1.5L	Do not exceed rate specified. Spray in Autumn and early Winter.
Pastures - Spray/Graze Technique	Caltrop, Capeweed, Charlock, Mustards, Paterson's Curse, Shepherd's Purse, Saffron, Slender, Spear or Variegated Thistle, Turnip Weed, Wild Radish, Wild Turnip	NSW, ACT, Vic only	350mL - 1.4L	Spray actively growing 6-8 week old weeds. Introduce stock 7-10 days after spraying, preferably sheep as cattle are less effective. Use stocking rate 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. Refer "Legume Tolerance." <b>Precaution:</b> 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 periods of grazing. Avoid grazing with young or breeding stock. Do not graze horses or pigs on Paterson's Curse. Observe Withholding Period of at least 7 days after spraying.
	Refer to Weed Table	WA only	925mL - 1.85L	
	Capeweed, Dandelion, Seedling Dock, Three Corner Jack, Geranium, Erodium, Mustard, Annual Thistles, Turnip Weed, Wild Radish, Wild Turnip	SA only	500mL	
	Soldier Thistle		600mL	
Turf	Refer to Weed Table	All States	500mL or 5mL per 100 sq. metres 1.4 - 2.8L or 14 - 28mL per 100 sq. metres.	Newly laid - Delay until well established or at least two months old. Apply in high volume to actively growing weeds. See "Legume Tolerance". Buffalo grass is more easily damaged than other grasses.  Established - Apply in high volume to actively growing weeds. Do not mow for 2 days before application. Some transitory damage may occur to fine turf grasses and strawberry clover. See "Legume Tolerance". Buffalo grass is more easily damaged than other grasses.

### 3. SPOT SPRAYING

Situation	Weeds Controlled	State	Mixing Rate / Critical Comments
High volume spraying	Refer to Weed Table	All States	Add 1/10th of rate on Weed Table to 150 litres of water. Each 150 litres of mix will cover 1000m <sup>2</sup> (1/10th ha) e.g. if rate in Weed Table is 1.4L, use 140mL/150L water.
Knapsack application			Add 1/10th of rate on Weed Table to 150 litres of water. Each 150 litres of mix will cover 100m <sup>2</sup> (1/100th ha) e.g. if rate in Weed Table is 1.4L, use 140mL/150L water.

### 4. NON CROP AREAS, FALLOW LAND, INDUSTRIAL & COMMERCIAL AREAS, RIGHTS OF WAY

Situation & Crop	Weeds Controlled	State	Rate Volume/ha	Critical Comments
Non Crop Areas, Fallow Land, Industrial and Commercial Areas, Rights of Way	Refer to Weed Table	All States	Refer to Weed Table	Apply at rates shown in Weed Table when weeds only are present and no crop or pasture is involved.

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

**WITHHOLDING PERIOD:  
CERELS, PASTURE - DO NOT GRAZE OR CUT FOR STOCK FOR 7 DAYS AFTER APPLICATION.**

**HARVEST WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.**