

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Rygel

# Metsulfuron 600 WG Herbicide

Active Constituent: 600g/kg METSULFURON

For the control of brush and broadleaf weeds in native pastures, rights of way, commercial and industrial areas and for the control of certain broadleaved weeds in winter cereal crops.

APVMA Approval No: 58351/0304

Pack Size: 500g

## GENERAL INSTRUCTIONS - CEREAL CROPS

Rygel Metsulfuron 600 WG Herbicide is a selective herbicide, which can be used in Cereal crops at the early post emergence stage of the crop (3 leaf to before booting stage). It may also be applied before planting the crop i.e. pre-plant. Best results are obtained if weeds are small (no larger than 5cm in height or diameter) and actively growing. To achieve good weed control, it is preferable that rainfall wets the soil to a depth of 5 to 7.5cm within 4 weeks of application. If application is not made when conditions and weed growth are optimum, results may be slow to appear and some weeds may only be suppressed or stunted.

For post emergent application, the product will remain in the soil for a period of time. The soil persistence will depend on environmental conditions such as soil pH, moisture, temperature and soil organic matter. Breakdown is faster in warm, wet acid soils and slowest in alkaline, cold, dry soils. This product does NOT provide acceptable residual control.

### Crop Safety

Do not apply to the wheat varieties Miling, Jacup, King or Harrier.

Do not apply to crops undersown with legumes, as the product will seriously affect legumes.

Should the crop have been treated with another sulfonylurea herbicide eg Chlorsulfuron, consult your local representative or Department of Agriculture before application of Rygel Metsulfuron as crop injury may occur.

Do not apply to crops that are stressed by any factor such as adverse environmental conditions, waterlogging, drought, frost, poor nutrient status, extreme acid or alkaline soil conditions, insect or nematode damage. Crop injury may occur if the product is applied to these crops. If the crop is stressed after application of the herbicide, crop yellowing and slow growth may occur but the final yield is normally unaffected, as the crop will recover. Application to soils with pH 5.5 or less may result in some crop retardation, especially if the crop is stressed.

### Application Equipment

For control of weeds in winter cereal crops the product may be applied by ground or air.

### Ground Spraying

Ensure the boom is properly calibrated to a constant speed or rate of delivery for thorough coverage and uniform spray pattern. Avoid overlapping and shut off boom while starting, turning, slowing or stopping as injury to the crop may occur. Apply in a minimum of 50L prepared spray/ha.

### Aerial Application

Apply in a minimum of 20L/ha. Application in higher water volumes may improve weed control reliability. Avoid spraying in conditions, which favour temperature inversions, still conditions, or in winds likely to cause drift onto sensitive crops or fallow areas to be planted to sensitive crops. Turn off boom when passing over creeks, dams or waterways.

The use of Micronair equipment is not recommended as the fine droplets emitted may lead to spray drift.

### Use of surfactant/ wetting agent

Always add a non-ionic surfactant/ wetting agent at the rate of 0.1% (active constituent) of final spray volume. The use of spaying oils is NOT recommended.

**NOTE: DO NOT** add a surfactant/wetting agent when tank mixing with terbutryn or diuron.

### Compatibility

RYGEL Metsulfuron 600 WG Herbicide is compatible with most commonly used broadleaf herbicides including:  
MCPA amine, diuron flowable, 2,4-D amine, terbutryn + MCPA, flumetsulam, bromoxynil + MCPA, metosulam, MCPA ester, MCPA amine, LVE MCPA, diflufenican + MCPA, diflufenican + bromoxynil, picloram + MCPA, picloram + 2,4-D, metribuzin, clopyralid, dicamba, fluroxypyr, glyphosate.

The product is also compatible with commonly used insecticides such as chlorpyrifos and omethoate. Some temporary crop yellowing may occur with these mixtures. Other mixtures should be tested on a small scale before large areas are treated.

**NOTE:** The compatibility of Rygel Metsulfuron 600 WG Herbicide with grass herbicides varies between products and weed species (refer table below). DO NOT mix with tralkoxydim or flamprop-m-methyl.

	Biological Compatibility		
	Wild Oats	Annual Ryegrass	Phalaris
<b>Fenoxaprop-p-ethyl</b>	Yes		No
<b>Diclofop-methyl</b>	Refer to notes on Rygel Metsulfuron / diclofop-methyl based products or Rygel Metsulfuron / diclofop-methyl + fenoxaprop-p-ethyl mixtures		-
<b>Diclofop + Fenoxaprop</b>			No
<b>Tralkoxydim</b>	No		No
<b>Flamprop</b>	No		-

**Notes on RYGEL Metsulfuron/Diclofop methyl or RYGEL Metsulfuron/ Diclofop + Fenoxaprop mixtures:**

- a) some reduction in grass weed control can be expected.
- b) In heavily weed infested areas control may be inadequate (Victoria and Tasmania only).
- c) significant reduction in grass weed control should be expected (SA only).
  - c) Mixtures of Rygel Metsulfuron plus diclofop-methyl or diclofop-methyl + fenoxaprop-p-ethyl are not recommended in WA as these mixtures will result in significant reduction in grass weed control and/or crop damage.

**Spray Preparation**

The product is a dry flowable granule that must be mixed with clean water.

1. Partially fill the spray tank with water.
2. With the agitation system engaged, add the required amount of product (as per Directions for Use Table) to the tank using only the measuring device provided.
3. Add the remainder of the water.
4. Always maintain agitation to keep the product in suspension. If the spray solution is allowed to stand, thoroughly re-agitate before using.

If tank mixing with another product, ensure Rygel Metsulfuron is in suspension before adding the other product to the tank. If using in conjunction with liquid fertilisers, slurry the product in water before mixing the slurry into the liquid fertiliser. Do not add surfactants and check with the Department of Agriculture on compatibility.

**Crop Rotation Recommendations**

Many crop species are sensitive to metsulfuron methyl. The minimum re-cropping intervals are given in the table below. Do not rotate crops other than those listed below to land previously treated with Metsulfuron methyl. It is advisable to determine crop tolerance on a small scale before sowing larger areas.

MINIMUM RE-CROPPING INTERVAL				
Soil pH*	10 days	6 weeks	9 months	14 months
5.6-8.5	Wheat	Barley Cereal Rye Triticale	Canola Chickpeas Faba Beans Linseed Lucerne Lupins Medics* * Oats Peas Safflower r Subterranean Clover**	Japanese Millet Maize Panorama White Millet French Millet Sorghum Soybeans Sunflower
8.6 and above	Tolerance of crops (grown to maturity) should be determined on a small scale, in the previous season, before sowing into larger areas.			

\* Soil pH is determined by laboratory analysis using 1:5 water suspension method.

\*\* Including natural regeneration of medics and sub-clover.

**GENERAL INSTRUCTIONS RELATING TO ALL USES FOR RYGEL METSULFURON 600 WG HERBICIDE**

**RESISTANT WEEDS WARNING**

Rygel Metsulfuron 600 WG Herbicide is a member of the sulfonyleurea group of herbicides. Rygel Metsulfuron 600 WG Herbicide has the ALS inhibitor mode of action. For weed resistance management Rygel Metsulfuron 600 WG Herbicide is a Group B Herbicide.

Some naturally occurring weed biotypes resistant to Rygel Metsulfuron 600 WG Herbicide and other ALS inhibitor 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 Metsulfuron 600 WG Herbicide or any other ALS inhibitor herbicide.

Since the occurrence of resistant weeds is difficult to detect prior to use, Rygel Australia Pty Ltd accepts no liability for any losses that may result from the failure of Rygel Metsulfuron 600 WG Herbicide to control resistant weeds.

**Sprayer Cleanup**

Many plant species are sensitive to low concentrations of Rygel Metsulfuron 600 WG Herbicide. For this reason it is important to thoroughly clean spray tanks after use as small quantities of product remaining in the tank may cause injury to desirable pastures and crops if the tank is used for other spraying procedures. The following method of tank cleanup should be used:

1. Drain tank and flush tank, boom, and hoses for at least 10 minutes.
2. Fill the tank with clean water and add 300mL of household bleach (containing 4% chlorine) per 100L water. Flush through the hoses and boom, allow to stand for 15 minutes with agitation system engaged, then drain.
3. Repeat Step 2.
4. Nozzles and screens should be removed and cleaned separately.
5. Remove traces of chlorine bleach by rinsing the tank thoroughly with clean water and flushing hoses and boom.

**WARNING:** DO NOT use chlorine bleach with ammonia. It is important that liquid fertilisers containing ammonia be rinsed from the application equipment before adding a chlorine bleach solution. If traces of ammonia are present it may react with the chlorine bleach releasing a gas with a musty chlorine odour, which may cause eye, nose, throat and lung irritation. DO NOT clean equipment in an enclosed area.

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

Do not contaminate streams, rivers or waterways with the chemical or used containers. DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water.

#### **PROTECTION OF LIVESTOCK**

There is a nil withholding period for this product and stock may continue to graze where the product has been used in pasture situations. It is recommended that stock are removed from the pasture for about 3 days to ensure product efficacy. Certain plants such as bracken are naturally toxic to stock. When toxic plants are present, it is recommended that grazing be delayed until complete browning of treated plants has occurred.

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

Do not apply or drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots.

Do not apply under weather conditions, or from spraying equipment, that may cause drift onto nearby susceptible plants/crops, cropping lands or pastures.

#### **STORAGE AND DISPOSAL**

Keep out of reach of children.

DO NOT store the prepared spray for more than 2 days.

DO NOT store tank mixes with other products.

Store in the closed original container in a 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.

#### **SAFETY DIRECTIONS**

May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

#### **FIRST AID**

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

#### **MATERIAL SAFETY DATA SHEET**

Additional information is listed in the Material Safety Data Sheet which is available from the supplier.

#### **CONDITIONS OF SALE**

The use of Rygel Metsulfuron 600 WG 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**

**CROP ROTATION GUIDELINES  
PRE-EMERGENT APPLICATION**

**Where the product is applied at the rate of 30-35g/ha:**

Unless otherwise specified (see table below), wheat, barley, oats, triticale and cereal rye can be planted the following season without restrictions.

For other specified crops Rygel Metsulfuron 600 WG Herbicide treated area may be replanted after the interval indicated in the table below. These recommendations are made on the assumption that Rygel Metsulfuron 600 WG Herbicide is applied to a wheat crop that reaches maturity in the season of application.

Soil pH (1:5 Soil: Water Suspension Method)	State	Replanting Interval	Minimum Rainfall Requirements between application and sowing the following crop	Crop
6.5 or less	WA, SA, NSW, Vic, Qld only	12 months	300mm	Field Peas, Linseed, Lucerne, Lupins, Medics**, Subterranean Clover**, Faba Beans, Chickpeas and Canola.
	NSW, Qld only	15 months	700mm	Sorghum, Maize, Soybean, Cotton, Cowpea and Mung Bean.
		18 months	900mm	Sunflowers.
6.6 to 7.5	NSW, Qld only	12 months	500mm	Chickpeas and Canola
		15 months	700mm	Sorghum, Maize, Soybean, Cotton, Cowpea and Mung Bean.
		18 months	900mm	Sunflowers.
	WA, SA, Vic only	22 months	500mm	Field Peas, Linseed, Lucerne, Lupins, Medics**, Subterranean Clover**, Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean and Cotton
	Vic, SA only	12 Months	250mm	Barley, Oats, Cereal Rye for grain crops.
300 mm			Barley, Oats, Cereal Rye for hay crops.	
NSW, Qld only	12 months	500mm	Chickpeas and Canola.	
		18 months	700 mm	Sorghum, Maize, Soybean, Cotton, Cowpea and Mung Bean.
WA, SA, Vic only	24 months	700mm	Field Peas, Linseed, Lucerne, Lupins, Medics**, Subterranean Clover**, Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean and Cotton	
8.6 and above	Vic, SA only	12 months	250 mm	Barley, Oats, Cereal Rye for grain crops.
			300 mm	Barley, Oats, Cereal Rye for hay crops.
	WA, SA, NSW, Vic, Qld only	24 months	700 mm	Field Peas, Linseed, Lucerne, Lupins, Medics**, Subterranean Clover**, Faba Beans, Chickpeas, Canola, Sorghum, Maize, Soybean and Cotton

\*\* Includes natural regeneration of subterranean clover and medics.

For all other crops a replanting interval of 24 months has to be observed.

**Where the product is applied at 10-15g/ha plus 830mL of 480g/L trifluralin:**

Where the pH is less than 7.5 the following crops can be replanted from 9 months after application providing 300mm of rainfall has been recorded; field peas, canola, chickpeas, medics, clover, lucerne, safflower, lupins, cereal rye, barley, oats, wheat, Triticale. Where rainfall is less than 300mm for this period further advice should be sought from Rygel.

Where the pH is above 7.5 the following crops can be replanted 9 months after application of Rygel Metsulfuron – cereal rye, wheat, oats, barley, triticale.

Where the pH is above 7.5 the following crops can be replanted 12 months after application of Rygel Metsulfuron providing 350mm of rainfall has been recorded; field peas, canola, chickpeas, medics, clover, lucerne, safflower, lupins. Where less than 350mm of rain has fallen between application and sowing the crop, further advice should be sought from a Rygel representative.

**CROP ROTATION GUIDELINES  
POST-EMERGENT APPLICATION**

Soil pH (1:5 Soil: Water Suspension Method)	State	Re-planting Interval	Crop
<b>6.5 or less</b>	WA, SA, NSW, Vic only	7 months	Field Peas, Linseed, Lucerne, Lupins, Medics**, Subterranean Clover**, Faba Beans, Chickpeas and Canola.
		14 months	Sorghum, Maize, Soybean and Cotton,
<b>6.6 to 8.0</b>	WA, SA, NSW, Vic only	20 months	Chickpeas, canola, sorghum, maize, soybean, cotton, field peas, linseed, lucerne, medics**, subterranean clover**, faba beans.

\*\* Includes natural regeneration of Subterranean Clover and Medics.

For all other crops a replanting interval of 24 months has to be observed.

These recommendations are made on the assumption that Rygel Metsulfuron 600 WG Herbicide is applied to a wheat crop that reaches maturity in the season of application.

Where Rygel Metsulfuron 600 WG Herbicide is used on soil types with pH greater than 8 (1:5 soil: water suspension method), further advice should be sought from Rygel regarding crop rotation guidelines, except for barley, cereal rye, oats, triticale and wheat.

**CROP ROTATION GUIDELINES (tank mixture of Rygel Metsulfuron 600 WG Herbicide and terbutryn)**

The following crops can be planted after an application of Rygel Metsulfuron and terbutryn.

In areas where pH is less than 7.5 -

**9 months** after an application: barley, cereal rye, chickpeas, faba beans, field peas, lupins, medics, oats, canola, safflower, subclover, Triticale, wheat.

In areas where pH is greater than 7.5 -

**9 months** after an application: barley, cereal rye, oats, Triticale, wheat.

**14 months** after an application: cotton, maize, sorghum, soybeans, and sunflowers. Where residual herbicides are applied following an application, the crop rotational guidelines for these products must be followed.

**22 months** after an application: chickpeas, faba beans, field peas, lupins, medics, canola, safflower, and subclover.

For all other crops, advice should be sought from Rygel Australia Pty Ltd.

## DIRECTIONS FOR USE – BRUSH APPLICATIONS (All States)

### RESTRAINTS:

**DO NOT** spray if rainfall is expected within 4 hours.

**DO NOT** store the prepared spray for more than 2 days.

**DO NOT** store tank mixes with other products.

**DO NOT** apply to pastures based on *Paspalum notatum* or *Setaria spp.* as their vegetative growth will be reduced.

**DO NOT** treat newly sown pastures as severe damage may occur.

**DO NOT** use on pasture seed crops.

Situation	Weeds Controlled	Rate*			Critical Comments <b>FOR ALL WEEDS: Apply when target weed is in active growth and not under stress from waterlogging, drought etc</b>
		Handgun (g/100L)	Ground Boom (g/ha)	Gas Gun (g/L)	
Native Pastures **, Rights of Way, Commercial and Industrial Areas	Alligator Weed ( <i>Alternanthera philoxeroides</i> )	10	80		Do not apply in aquatic situations. For complete control, follow-up applications are necessary for at least the next two seasons.
	Apple Box ( <i>Angophora floribunda</i> ), Messmate Stringybark ( <i>E. obliqua</i> ), Narrowleaf Peppermint ( <i>E. radiata</i> ), Blakely's Red Gum ( <i>E. blakelyi</i> ), Yellow box ( <i>E. melliodora</i> )	10 + Rygel Organowe tt (200mL/100L)		1 + Rygel Organowe tt (10mL/5L)	Apply to plants up to 4m high. Ensure thorough coverage. Avoid spraying when plants are stressed. Results cannot be guaranteed where suckers originate from large lignotubers.
	Australian Blackthorn ( <i>Bursaria spinosa</i> )	10		1 + Rygel Organowe tt (10mL/5L)	Handgun - apply to ensure thorough coverage but not to cause run-off.
	Bellyache Bush ( <i>Jatropha gossypifolia</i> )	10 + Rygel Organowe tt (200mL/100L)			
Native Pastures **, Rights of Way, Commercial and Industrial Areas	Blackberry ( <i>Rubus spp.</i> )	10 + a mineral crop oil (1L/100L)		1 + Rygel Organowe tt (10mL/5L)	Spray to thoroughly wet all foliage and canes. Ensure peripheral runners are sprayed. Tas: Apply after petal fall. Do not apply to bushes bearing mature fruit. Vic: Apply between December and April
	Bitou Bush/ Boneseed ( <i>Chrysanthemoides monilifera</i> )	10			Minimise contact with desirable plants. Apply to point of run-off.
	Bridal Creeper ( <i>Myrsiphyllum asparagoides</i> )	5			Apply from mid-June to late August. To achieve complete control follow-up applications over at least 2 seasons are required. To minimise damage to native vegetation, water volumes of 500-800L/ha are recommended.

Situation	Weeds Controlled	Rate*			Critical Comments FOR ALL WEEDS: Apply when target weed is in active growth and not under stress from waterlogging, drought etc
		Handgun (g/100L)	Ground Boom (g/ha)	Gas Gun (g/L)	
	Common Bracken ( <i>Pteridium esculentum</i> )	10	60		Apply after 75% of fronds are fully expanded. Spray to thoroughly wet all foliage but not to cause run-off. For boom application adjust boom height to ensure complete spray overlap.
	Crofton Weed ( <i>Eupatorium adenophorum</i> )	15			Spray to thoroughly wet all foliage but not to cause run-off. When bushes are in thickets ensure good spray penetration. Apply up to early flowering. Best results are obtained on younger plants. Should regrowth occur, re-treat in the next growth period.
	Darling Pea ( <i>Swainsona spp.</i> )		10		Spray during spring.
	Fennel ( <i>Foeniculum vulgare</i> )	10			
	Golden Dodder ( <i>Cuscuta australis</i> )	1			Apply as a spot spray to point of run-off at pre- flowering. Ensure correct coverage of infested area.
Native Pastures **, Rights of Way, Commercial and Industrial Areas	Great Mullein ( <i>Verbascum thapsus</i> )		20 + Rygel Organo wett (200mL /100L)		Apply to rosettes during stem elongation during spring when soil moisture is good. Regrowth may occur if plants are treated when growing conditions are not good.
	Harrisia Cactus ( <i>Eriocereus spp.</i> )	20			Spray to thoroughly wet using water volumes of 1,000 —1,500 litres per hectare. A follow-up treatment may be necessary.
	Hawthorn ( <i>Crataegus spp</i> )	10			Spray to thoroughly wet all foliage but not to cause run-off.
	Inkweed ( <i>Phytolacca octandra</i> )	5			
	Japanese Sunflower ( <i>Tithonia diversifolia</i> )	10			
	Kangaroo Thorn ( <i>Acacia paradoxa</i> )	10			Do not apply to bushes greater than 2.5m high.
	Mistflower/ Creeping Crofton ( <i>Eupatorium riparium</i> )	5			Spray to thoroughly wet all foliage but not to cause run-off. Apply up to early flowering.
	Noogoora burr ( <i>Xanthium pungens</i> )	7.5			Plants sprayed under moisture stress will not be controlled.
	Parthenium Weed	5	7		Handgun - Spray to thoroughly wet

Situation	Weeds Controlled	Rate*			Critical Comments <b>FOR ALL WEEDS: Apply when target weed is in active growth and not under stress from waterlogging, drought etc</b>
		Handgun (g/100L)	Ground Boom (g/ha)	Gas Gun (g/L)	
Native Pastures **, Rights of Way, Commercial and Industrial Areas	<i>(Parthenium hysterophorus)</i>	5			all foliage but not to cause run-off. Boom - For pastures only - Apply up to the rosette stage ensuring thorough spray coverage. Adjust boom height to ensure thorough spray overlap.
	Paterson's Curse/ Salvation Jane <i>(Echium plantagineum)</i>	5	15		Handgun - Spray to thoroughly wet all foliage but not to cause run-off. Boom - Adjust boom height to ensure correct overlap. WA only: Apply up to early flowering i.e. August - September.
	Privet ( <i>Ligustrum spp.</i> )	10		1 + Rygel Organo-wett (10mL/5L)	Do not apply to bushes more than 3 m tall. Ensure complete spray coverage. Complete foliar spray coverage is essential for control; partial spray coverage will result in recovery.
	Ragwort ( <i>Senecio jacobaea</i> )	5	15		Apply to plants at the rosette to cabbage stage.
	Rubber vine <i>(Cryptostegia grandiflora)</i>	15			Do not apply to bushes more than 3 m tall. Apply October to April, ensuring thorough spray coverage of all foliage and leaders. Incomplete coverage will result in re-growth. DO NOT treat plants infected with rust.
	Smartweed <i>(Polygonum spp.)</i>	10	10	-	
	Sweet Briar ( <i>Rosa rubiginosa</i> )	10		1 + Rygel Organo-wett (10mL/5L)	Do not apply when bushes are stressed, when leaf fall has commenced or after the end of February. Handgun - Spray to thoroughly wet all foliage but not to cause run-off. Vic only - Gasgun: Do not apply to bushes more than 2 m tall. Apply with shots of 25mL of dilute product.
	Wait-A-While <i>(Cesalpinia decapeltata)</i>	10			
Wild Turnip <i>(Brassica tournefortii)</i>	5				

#### WITHHOLDING PERIOD – NOT REQUIRED WHEN USED AS DIRECTED

\* Always add a surfactant/wetting agent

\*\* Legumes in the pasture will be damaged

#### AERIAL APPLICATION BY HELICOPTER

##### RESTRAINTS:

DO NOT apply if rainfall is expected within 2 hours of spraying.

DO NOT store tank mixes with other products.

DO NOT store the prepared spray for more than 2 days.



Situation	Weeds Controlled	States	Rate * (g/ha)	Critical Comments <b>FOR ALL WEEDS: Apply when weeds are actively growing and not stressed by conditions such as waterlogging, moisture etc</b>
Pastures **, Rights of Way, Commercial and Industrial Areas	Blackberry ( <i>Rubus spp.</i> )	NSW, Tas, Vic only	160 g/ha	Ensure all foliage is thoroughly covered including peripheral runners. Use at least 100L of prepared spray per hectare. Tas: Apply after petal fall. Do not apply to bushes bearing mature fruit. Vic: Apply between December and April
Flood plains	<i>Mimosa pigra</i>	NT only	50 or 60	Use the higher rate when air temperature exceeds 35°C. Apply in at least 60L/ha of clean water. Use D6 or D8 nozzles with 45 swirl plates pressurised to 210 kPa to give large droplet size. Add a non-ionic surfactant.

\* Always add a surfactant/wetting agent

\*\* Legumes in the pasture will be damaged

#### WITHHOLDING PERIOD – NOT REQUIRED WHEN USED AS DIRECTED

**RYGEL METSULFURON 600 WG HERBICIDE + GLPHOSATE 360 TANK MIX (always refer to First Aid, Safety Direction, Resistant Weeds Warning and any other restrictions for Glyphosate 360)**

#### RESTRAINTS: FOR ALL STATES

DO NOT apply if rainfall is expected within 6 hours of spraying.

DO NOT store tank mixes with other products.

DO NOT store the prepared spray for more than 2 days.

DO NOT apply to plants wet with dew or rain or if droplets run-off when plants are disturbed.

Results may be slow to appear and may not be visible for 3-6 weeks. Full brownout may take 3-6 months.

Situation	Weeds Controlled	Rate Always add Rygel Organowett Penetrant		Critical Comments <b>For All Weeds:</b> Apply when target weed is in active growth and not under stress from water logging, drought etc.
		Ground Boom or Helicopter	Handgun or Knapsack	
Native Pastures **, Rights of Way, Commercial and Industrial Areas, Domestic and Public Service Areas	Blackberry ( <i>Rubus spp.</i> )	60g + 8L glyphosate (360g/L)	3g + 400mL glyphosate (360g/L) per 100L water	Apply from flowering and before leaf yellowing. Do not apply to bushes bearing mature fruit.
	Bracken ( <i>Pteridium esculentum</i> )	30g +4L glyphosate (360g/L)		Apply when fronds are fully expanded but before first frosts. Refer to boom spraying section if applying by boom spray.
	Gorse ( <i>Ulex europaeus</i> )			Do not apply in spring. Apply to actively growing plants.
	Lantana ( <i>Lantana camara</i> )			Apply to actively growing plants, which are not drought stressed.
	St Johns Wort ( <i>Hypericum perforatum</i> )			Apply in Spring to Summer to actively growing plants.
	Sweet Briar ( <i>Rosa rubiginosa</i> )			Apply when plants are in full leaf. Do not apply once leaf fall has commenced.

#### WITHHOLDING PERIOD – NOT REQUIRED WHEN USED AS DIRECTED

\*\* Legumes in the pasture will be damaged

**RYGEL METSULFURON 600 WG HERBICIDE + GLYPHOSATE 360 TANK MIX (CONTINUED) (always refer to First Aid, Safety Direction, Resistant Weeds Warning and any other restrictions for Glyphosate 360)**  
FOR ALL STATES

**RESTRAINTS:**

DO NOT apply if rainfall is expected within 6 hours of spraying.

DO NOT store tank mixes with other products.

DO NOT store the prepared spray for more than 2 days.

DO NOT apply to plants wet with dew or rain or if droplets run-off when plants are disturbed.

Results may be slow to appear and may not be visible for 3-6 weeks. Full brownout may take 3-6 months.

Situation	Weeds Controlled	States	Handgun or Knapsack Rate per 100 Litres Always add a non-ionic surfactant unless otherwise specified	Critical Comments
Native Pastures **, Rights of Way, Commercial and Industrial Areas, Domestic and Public Service Areas	Apple box ( <i>Angophora floribunda</i> )	NSW only	10g + 200mL glyphosate (360g/L) + Rygel Organowett (200mL/100L)	Spray plants up to 4m high ensuring thorough coverage. Plants growing from large lignotubers may not be controlled
	Australian blackthorn ( <i>Bursaria spinosa</i> )	NSW, Qld, Vic, Tas only	10g + 200mL glyphosate (360g/L)	Spray to point of run off.
	Bitou Bush/ Boneseed ( <i>Chrysanthemoides monilifera</i> )	NSW, Qld, Vic, SA only		Ensure thorough coverage. Minimise contact with desirable species.
	Blackberry ( <i>Rubus spp.</i> )	All States		Ensure thorough coverage. Peripheral runners must also be covered to minimise regrowth. Apply between January and April. TAS ONLY: Apply after petal fall. Do not apply to bushes bearing mature fruit.
	Messmate Stringybark ( <i>E. obliqua</i> ) Narrowleaf Peppermint ( <i>E. radiata</i> ) Blakely's Red Gum ( <i>E. blakelyi</i> ) Yellow box ( <i>E. melliodora</i> )	NSW only	10g + 200mL glyphosate (360g/L) + Rygel Organowett (200mL/100L)	Spray plants up to 4 m high. Trees growing from large lignotubers may not be controlled.
	Gorse ( <i>Ulex europaeus</i> )	NSW, Vic, Tas, SA only		Ensure thorough coverage and penetration of spray into the bush. Apply to plants up to 2m tall.
	Hawthorn ( <i>Crataegus leavigata</i> )	NSW only		10g + 200mL glyphosate (360g/L)
	Lantana ( <i>Lantana camara</i> )	NSW, Qld only	NSW, Qld only	Ensure thorough coverage and penetration of spray into the bush. Apply to plants up to 2m tall.
	Privet ( <i>Ligustrum spp.</i> )	NSW, Qld only		Apply to bushes up to 3m high. Ensure thorough coverage. If plants are not adequately covered plants may not be controlled.
	St Johns ns Wort (Hypericum perforatum)	NSW, Vic, SA, WA only		Always add a non-ionic surfactant at the rate of 100mL/100L. Spray to wet all foliage, but not to cause run-off.

Situation	Weeds Controlled	States	Handgun or Knapsack Rate per 100 Litres Always add a non-ionic surfactant unless otherwise specified	Critical Comments
	Sweet Briar ( <i>Rosa rubiginosa</i> )	NSW, VIC, Tas SA only		Do not apply after leaf fall has commenced or after the end of February. Spray foliage to point of run-off.
	Tree of Heaven ( <i>Ailanthus altissima</i> )	NSW only		

**WITHHOLDING PERIOD – NOT REQUIRED WHEN USED AS DIRECTED**

**\*\* LEGUMES IN THE PASTURE WILL BE DAMAGED**

## ESTABLISHED PASTURES AND PASTURE RENOVATION

### DIRECTIONS FOR USE

#### RESTRAINTS:

DO NOT spray if rainfall is expected within 4 hours.

DO NOT store the prepared spray for more than 2 days.

DO NOT store tank mixes with other products.

DO NOT apply to newly sown pastures as severe damage may result.

DO NOT use on crops grown for pasture seed.

DO NOT apply to weeds under stress or that are not actively growing.

Crops	Weeds Controlled	States	Rate (g/ha)	Critical Comments
<b>ESTABLISHED PASTURES</b> TOLERANT GRASS SPECIES - Perennial phalaris and Perennial Cocksfoot (Stands must be older than 1 year)  <b>or</b>  <b>PASTURE RENOVATION</b> Use to reduce weeds in established pastures before sowing a new pasture the following season	Annual Clover ( <i>Trifolium sp.</i> )	All States	5g	Apply before flowering
	Annual Medics ( <i>Medicago sp.</i> )	NSW, Vic, SA, Tas, WA only	5g	For best results apply before flowering
	Cape Tulip ( <i>Homeria sp.</i> ) One and Two leaf	NSW, Vic, SA, Tas, WA only	5g	Apply at bulb exhaustion usually during July/ early August. Repeat application may be required to obtain control.
	Docks ( <i>Rumex spp.</i> )	All States	5g - seedlings 10g - established	For best results apply in spring prior to bolting.
	Doublegee ( <i>Emex australis</i> )	WA only	5 or 10g	Use the higher rate on dense infestations. Apply up to the 6 leaf stage.
	Erodium/ Storksbill/ Wild Geranium ( <i>Erodium spp.</i> )	NSW, Vic, SA, Tas only		Use the higher rate on dense infestations. Apply before flowering.
<b>ESTABLISHED PASTURES</b> TOLERANT GRASS SPECIES - Perennial phalaris and Perennial Cocksfoot (Stands must be older than 1 year)  <b>or</b>  <b>PASTURE RENOVATION</b> Use to reduce weeds in established pastures before sowing a new pasture the following season (cont)	Onion Grass/ Guildford Grass ( <i>Romula rosea</i> )	NSW, Vic, Tas, SA, WA only	15g	Apply at bulb exhaustion usually late June/ July before the onset of browning off caused by <i>Helminthosporium</i> fungus. If mixing with glyphosate use 10g/ha.
	Paterson's Curse/ Salvation Jane ( <i>Echium plantagineum</i> )	All States	10 or 15 g	Use the lower rate on small plants and the higher rate before bolting/ flowering.
	Ragwort ( <i>Senecio jacobaea</i> )	NSW, Vic, SA, Tas only	15g	Apply at the rosette to cabbage stage when plants are actively growing.
	Sorrel ( <i>Rumex acetosella</i> )	NSW, Vic, SA, Tas, WA only	5g - seedlings 10g - established	For best results apply in spring before seed heads appear.
	Soursob ( <i>Oxalis pes-caprae</i> )		5 or 10g	For best results apply before flowering. Use the higher rate on dense stands.
	Wild Garlic ( <i>Allium vineale</i> )		15g	Apply at bulb exhaustion usually during July/ early August. Repeat application may be required to obtain control.

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

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