

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# METSULFURON METHYL

## HERBICIDE

ACTIVE CONSTITUENT: 600 g/kg Metsulfuron Methyl

GROUP **B** HERBICIDE

*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  
as per the Directions for use.*

**IMPORTANT: READ THIS LEAFLET BEFORE USE**



**APVMA Approval No: 68878/5927Z**

\*SUREFIRE METSULFURON METHYL is a registered trademark of PCT INTERNATIONAL PTY LTD  
(PCT Holdings Pty Ltd ABN 11 099 023 962)

5/74 Murdoch Circuit, Acacia Ridge QLD 4110 • <http://pct.au.com>  
CUSTOMER SERVICE FREECALL 1800 630 877 EMERGENCY RESPONSE (ALL HOURS) FREECALL 1800 630 877

**DIRECTIONS FOR USE - BRUSH APPLICATIONS****RESTRAINTS:**

- DO NOT spray if rainfall is expected within 4 hours.
- DO NOT store this prepared spray for more than 2 days.
- DO NOT store tank mixes with other products.
- DO NOT apply to pastures based in *Paspalum notatum* or *Saltaria* 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.

CROP SITUATION	WEEDS CONTROLLED	STATE	RATE*		CRITICAL COMMENTS FOR ALL WEEDS: Apply when target weed is in active growth and not under stress from waterlogging, drought etc
			Hand Gun (g/100L)	Boom (g/ha)	
Native pastures**. Rights of way, commercial and industrial areas	Alligator weed ( <i>Alternanthera philoxeroides</i> )  Apple Box ( <i>Aegiphora 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> )  Australian blackthorn ( <i>Bursaria spinosa</i> )	NSW, Qld only  NSW, Qld, SA only	10  10 + an organosilicone penetrant (200 mL/100L)	80  1+ an organosilicone penetrant (10 mL/L)	Do not apply in aquatic situations. For complete control, follow-up applications are necessary for at least the next two seasons.
Bellyache bush ( <i>Jaropha gossypifolia</i> )	Qld only		10 + an organosilicone penetrant (200 mL/100L)	-	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.
					For handgun applications apply to ensure thorough coverage but not to cause run-off.

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 (telephone 13 11 26). If skin contact occurs remove contaminated clothing and wash skin thoroughly.

#### MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which can be obtained from PCT Holdings Pty Ltd.

#### NOTICE

PCT Holdings Pty Ltd makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

1 Registered Trademarks

Native pastures**. Rights of way, commercial and industrial areas	Blackberry ( <i>Rubus</i> spp.)  Bitiu bush/Boneseed ( <i>Chrysanthemoides monilifera</i> )  Bridal Creeper ( <i>Misopithium asparagoides</i> )	All States & NT  Qld, NSW, Vic, SA only  SA only	10+ mineral crop oil (1L/100L)  10  5	1 + an organosilicone penetrant (10 mL/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. Minimise contact with desirable plants. Apply to the point of run-off.
Common Bracken ( <i>Pteridium excutatum</i> )		All States  Qld, NSW only	10  15		Apply from mid-June to late August. To achieve complete control follow-up applications over at least 2 seasons are required. To minimize damage to native vegetation, water volumes of 200-800L/ha are recommended.
Crofton Weed ( <i>Eupatorium adenophorum</i> )					Apply after 75% of fronds are fully expanded. Spray to thoroughly wet all foliage, but not to cause runoff. For boom application adjust boom height to ensure complete spray overlap.
Darling Pea ( <i>Spiadonia</i> spp.)		NSW only	10		Spray to thoroughly wet foliage but not to cause runoff. When bushes are in thickets ensure good spray penetration. Apply up to early flowering. Best results are obtained on younger plants. Should regrowth occur, retreat in the next growth period.
Fennel ( <i>Foeniculum vulgare</i> )		NSW only	10		Apply as a spot spray to point of run-off at preflowering. Ensure correct coverage of infested area.
Golden Dodder ( <i>Cuscuta australis</i> )		Qld, NSW, Vic, SA only	1		

Native pastures**. Rights of way, commercial and industrial areas	Great Mullein ( <i>Verbascum thapsus</i> ) Haworthia Cactus ( <i>Eriocereus</i> spp.) Hawthorn (Crataegus laevigata) Irkweed ( <i>Phytolacca octandra</i> ) Japanese Sunflower ( <i>Tithonia diversifolia</i> ) Kangaroo Thorn ( <i>Acacia paradoxa</i> ) Mistleflower / Creeping Croton ( <i>Eupatorium riparium</i> ) Noogoro Burr ( <i>Xanthium pungens</i> ) Parthenium weed ( <i>Parthenium hysterophorus</i> ) Patterson's Curse / Salvation Jane ( <i>Echium plantagineum</i> )	NSW only Qld only NSW only Qld, NSW only NSW only NSW only Qld, NSW only NSW only NSW only NSW only All States	20+ an organosilicone penetrant (200 mL/100L) Spray to thoroughly wet using water volumes of 1,000-1,500L/ha. A follow-up treatment may be necessary. Spray to thoroughly wet all foliage but not to cause run-off.  DO NOT apply to bushes greater than 2.5m high.  Spray to thoroughly wet all foliage but not to cause run-off. Apply up to early flowering.  Plants under moisture stress will not be controlled.  Handgun: Spray to thoroughly wet all foliage but not to cause run-off. Boom (Pastures only): Apply up to rosette stage ensuring thorough spray coverage. Adjust boom height to ensure thorough spray overlap.  Handgun: Spray to thoroughly wet all foliage but not to cause run-off. Boomspray: Adjust boom height to ensure correct spray overlap.  WA only: Spray plants at early flowering stage (August-September).	Apply to rosettes before stem elongation during Spring when soil moisture is good. Regrowth may occur if plants are treated when growing conditions are not good.  Spray to thoroughly wet using water volumes of 1,000-1,500L/ha. A follow-up treatment may be necessary. Spray to thoroughly wet all foliage but not to cause run-off.  DO NOT apply to bushes greater than 2.5m high.  Spray to thoroughly wet all foliage but not to cause run-off. Apply up to early flowering.  Plants under moisture stress will not be controlled.  Handgun: Spray to thoroughly wet all foliage but not to cause run-off. Boom (Pastures only): Apply up to rosette stage ensuring thorough spray coverage. Adjust boom height to ensure thorough spray overlap.  Handgun: Spray to thoroughly wet all foliage but not to cause run-off. Boomspray: Adjust boom height to ensure correct spray overlap.  WA only: Spray plants at early flowering stage (August-September).
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Since the occurrence of resistant weeds is difficult to detect prior to use, PCT accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture or local PCT representative.

#### Sprayer Cleanup

Many plant species are sensitive to SUREFIRE METSULFURON METHYL 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, then flush tank, boom and hoses with clean water for a minimum of 10 minutes.
2. Fill the tank with clean water then add 60mL household chlorine bleach (containing 4% chlorine) per 20L of water. Flush through boom and hoses then allow to stand for 15 minutes with agitation engaged, then drain.
3. Repeat step 2.
4. Nozzles and screens should be removed and cleaned separately.
5. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through 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 can 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 in pasture situations and stock may continue to graze where the product has been used in pasture situations. It is recommended that stock is removed from the pasture for 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, NATIVES 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 spray equipment, that may cause spray to 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 away from children, animals, food and feedstuffs. 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 empty containers and deliver for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the containers below 500 mm 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. Empty containers and product should not be burnt.

#### SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the spray wear elbow length PVC gloves and goggles. If applying by hand wear cotton overalls, over normal clothing, buttoned to the neck and wrist, a washable hat and elbow length PVC gloves. 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 and smoking, wash hands, arms and

	BIOLOGICAL COMPATIBILITY		
	Wild oats	Annual ryegrass	Phalaris
Fenoxaprop-P-ethyl	YES		NO
Diclofop-methyl		Refer to notes on mixtures of Surefire Metsulfuron Methyl Herbicide/Diclofop-methyl based products	-
MATAVEN	NO		-

## Notes on SUREFIRE METSULFURON METHYL HERBICIDE/Diclofop-Methyl 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)
- d) Mixtures of SUREFIRE METSULFURON METHYL HERBICIDE and diclofop-methyl 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 which 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 AW Militia 600 WG 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 recropping intervals are given in the table below. DO NOT rotate crops other than those mentioned below to land previously treated with metsulfuron methyl. It is advisable to determine crop tolerance on a small scale before sowing larger areas.

MINIMUM RECROPPING 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, Sunflower, Subterranean Clover**	Japanese Millet, Maize, Panorama Millet White Millet, French Millet, Sorghum, Soybeans, Safflower
8.6 and above	Tolerance of crops (grown through to maturity) should be determined on a small scale, in the previous season, before sowing into larger areas.			

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

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

**RESISTANT WEEDS WARNING****GROUP B HERBICIDE**

SUREFIRE METSULFURON METHYL HERBICIDE is a member of the Sulfonylurea group of herbicides. The product has the inhibitor of the enzyme acetolactate synthase (ALS) mode of action. For weed resistance management the product is a Group B herbicide. Some naturally occurring weed biotypes resistant to the product and other Group B 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 this product or other Group B herbicides.

Native pastures**. Rights of way, commercial and industrial areas	Privet ( <i>Ligustrum spp.</i> )	Qld, NSW	10	1 + an organosilicone penetrant (10 mL/5L)	DO NOT apply to bushes greater 3m tall. Ensure complete spray coverage. Complete foliar spray coverage is essential for control; partial spray coverage will result in recovery.  Apply to plants at the rosette to cabbage stage.
	Ragwort ( <i>Senecio jacobaea</i> )	NSW, Vic, Tas only	5	15	DO NOT apply to bushes greater 3m tall. Apply October to April, ensuring thorough spray coverage of all foliage and leaders. Incomplete coverage will result in regrowth.  DO NOT treat plants infected with rust.
	Rubber Vine ( <i>Cryptosiegia grandiflora</i> )	Qld only	15		
	Smartweed ( <i>Polygonum spp.</i> )	Qld, NSW only	10	10	-
	Wait-a-While ( <i>Cacalia decapetalia</i> )	Qld only	10		
	Wild Turnip ( <i>Brassica juncea</i> )	NSW only	5		

\* ALWAYS ADD A SURFACTANT/WETTING AGENT

\*\* LEGUMES IN PASTURES WILL BE DAMAGED

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

**AERIAL APPLICATION BY HELICOPTER RESTRAINTS**

- DO NOT spray 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
Pastures**. Rights of way, commercial and industrial areas	Blackberry (Rubus spp.)	NSW, Tas, Vic only	160	Ensure all foliage is thoroughly covered in 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.
Flood plains	<i>Mimosa pigra</i>	NT only	50 or 60	Vic: Apply between December and April Use the higher rate when air temperature exceeds 35°C. Apply in at least 60 L/ha of clean water. Use D6 or D8 nozzles with 4.5 swirl plates pressurised to 210 kPa to give large droplet size. Add a non-ionic surfactant.

\* ALWAYS ADD A SURFACTANT/WETTING AGENT

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**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**

RE

STRAINS

**GENERAL INSTRUCTIONS - CEREAL CROPS**

SUREFIRE METSULFURON METHYL 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 7.5 cm 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 Milling, Jacup, King or Harrier
- Do not apply to crops undersown with legumes as legumes will be seriously affected by the product.
- Should the crop have been treated with another sulfonylurea herbicide e.g. chlorsulfuron, consult your local representative or Department of Agriculture before application of SUREFIRE METSULFURON METHYL HERBICIDE 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, 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 20 L/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.

NOTE: DO NOT apply tank mixes with diuron by aerial application.

**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 spraying oils is NOT recommended.

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

**TANK MIXES WITH DIURON**

Read and follow all label directions including restraints, spray drift restraints, mandatory no-spray zones, critical comments, withholding periods, regional use restrictions and safety directions for the tank mix products.

**Compatibility**

SUREFIRE METSULFURON METHYL HERBICIDE is compatible with most commonly used broadleaf herbicides including: 2,4-D Amine, bromoxynil/MCPA, cloyralid (500 g/L), diflufenican/MCPA ester, LVE MCPA, LVE MCPA amine, MCPA/picloram K salts, terbutryn, terbutryn/ MCPA K salt, broadstrike, dicamba, diuron flowable, Eclipse, fluoxypyrr, glyphosate, Jaguar, Lontrel, metribuzin.

The product is also compatible with commonly used insecticides such as chloryrifos and Ometotheao. 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 SUREFIRE METSULFURON METHYL HERBICIDE with grass herbicides varies between products and weed species (refer table below). DO NOT mix with Mataven<sup>1</sup>.

**WITHHOLDING PERIODS:****CEREALS**

Surefire Metsulfuron Methyl Herbicide and with Glyphosate

**-NOT REQUIRED WHEN USED AS DIRECTED**

Mixtures with 2,4-D, Difufenican/MCPA/Ester, MCPA, MCPA/Picloram K salts, Terbutryn/MCPA

**-DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER TANK APPLICATION.**

Mixtures with Diuron Flowable

**-DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 3 DAYS AFTER TANK APPLICATION.**

Mixtures with Bromoxynil/MCPA

**-DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER TANK APPLICATION.****PASTURES AND ALL OTHER USE SITUATIONS:****- NOT REQUIRED WHEN USED AS DIRECTED****TABLE 8  
CEREALS - FALLOW/PREPLANT KNOCKDOWN  
- SUREFIRE METSULFURON METHYL HERBICIDE + GLYPHOSATE**

CROP	WEEDS CONTROLLED	STATES	RATE (ha)	CROP STAGE AT APPLICATION		CRITICAL COMMENTS
				Refer to Post Crop and Weed Emergence Section of this label and Glyphosate 450 Directions for Use	Refer to Post Crop and Weed Emergence Section of this label and Glyphosate Directions for Use	
Wheat	Refer to Post Crop and Weed Emergence Section of this label and Glyphosate 450 Directions for Use	All States except WA	5 or 7g + Glyphosate at label rates	Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.	Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.	DO NOT apply less than 10 days prior to sowing as crop injury may occur, particularly under dry, cold conditions. Apply when weeds are actively growing. Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.
		WA only	5 g + Glyphosate at label rates			
Barley Triticale & Cereal Rye	Refer to Post Crop and Weed Emergence Section of this label and Glyphosate 450 Directions for Use	All States except WA	5 or 7g + Glyphosate at label rates	Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.	Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.	DO NOT apply less than 6 weeks prior to sowing as crop injury may occur, particularly if conditions are dry and cold. Apply when weeds are actively growing. Refer to Critical Comments and General Instructions of the respective labels. Use the appropriate rate of each product for the target weed.
		WA only	5 g + Glyphosate at label rates			

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION****WITHHOLDING PERIODS**  
Surefire Metsulfuron Methyl Herbicide, Surefire Metsulfuron Methyl Herbicide + Glyphosate – NOT REQUIRED WHEN USED AS DIRECTED**SUREFIRE METSULFURON METHYL HERBICIDE + GLYPHOSATE 360 HERBICIDE TANK MIX  
(always refer to First Aid, Safety Directions, Resistant Weeds Warning and other restrictions for GLYPHOSATE 360 HERBICIDE)****FOR ALL STATES****RESTRAINTS**

DO NOT spray 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 brown-out may take 3-6 months.

SITUATION	WEEDS	CONTROLLED	RATE			CRITICAL COMMENTS
			BOOM OR AERIAL	ALWAYS ADD AN ORGANOSILICONE PENETRANT	HAND GUN OR KNAPSACK	
Native pastures*, Rights of way, Commercial and Industrial areas, Domestic and Public service areas	Blackberry (Rubus spp.)		60g + 8L Surefire Glyphosate 360 Herbicide per ha..		3g + 400 mL Surefire Glyphosate 360 Herbicide per 100L water.	For All Weeds: Apply when target weed is in active growth and not under stress from waterlogging, drought etc
	Bracken ( <i>Pteridium esculentum</i> )		30g + 4L Surefire Glyphosate 360 Herbicide per ha.			Apply from flowering and before leaf yellowing. Do not apply to bushes bearing mature fruit.
	Gorse ( <i europeus<="" i="" ulex="">)</i>					Apply when fronds are fully expanded but prior to first frost. Refer to boom spraying section if applying by boom spray.
	Lantana ( <i>Lantana camara</i> )					Do not apply in spring. Apply to actively growing plants.
	St John's Wort ( <i>Hypericum perforatum</i> )					Apply to actively growing plants which are not drought stressed.
	Sweet Briar ( <i>Rosa rubiginosa</i> )					Apply in Spring to Summer to actively growing plants.
						Apply when plants are in full leaf. Do not apply once leaf fall has commenced.

**\* LEGUMES IN PASTURES WILL BE DAMAGED**

SITUATION	WEEDS CONTROLLED	STATES	RATE per 100 L HAND GUN OR KNAPSACK Always add 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>Apophyllum floribunda</i> ) <i>Bursaria spinosa</i> ) Australian Blackthorn Bitou Bush/Boneseed ( <i>Chrysanthemoides mollisifera</i> ) Blackberry ( <i>Rubus</i> spp.) Gorse ( <i>Ulex europaeus</i> ) Messmate Stringybark ( <i>E. obliqua</i> ), Peppermint Gum ( <i>E. radiata</i> ), Red Gum ( <i>E. blakelyi</i> ), Yellow Box ( <i>E. melliodora</i> ) Hawthorn ( <i>Crataegus laevigata</i> ) Lantana ( <i>Lantana camara</i> ) Privet ( <i>Ligustrum</i> spp.) St John's Wort ( <i>Hippocratea perforatum</i> ) Sweet Briar ( <i>Rosa rubiginosa</i> ) Tree of Heaven ( <i>Ailanthus altissima</i> )	NSW only NSW, QLD, VIC, TAS only NSW, QLD, VIC, SA only All states NSW only NSW, VIC, TAS, SA only NSW only NSW, VIC, TAS, SA only NSW, VIC, SA, WA only NSW, VIC, TAS, SA only NSW only	10g + 200 mL Glyphosate 360 Herbicide + organosilicone penetrant (200 mL/100L). 10g + 200 mL Glyphosate 360 Herbicide + organosilicone penetrant (200 mL/100L). 10g + 200 mL Glyphosate 360 Herbicide + organosilicone penetrant (200 mL/100L). 10g + 200 mL Surefire Glyphosate 360 Herbicide 10g + 200 mL Surefire Glyphosate 360 Herbicide 10g + 200 mL Clopyralid (300g/L)	Sprays plants up to 4m high ensuring thorough coverage. Plants growing from large lignotubers may not be controlled. Spray to point of runoff. Ensure thorough coverage. Minimise contact with desirable species. 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. Spray plants up to 4m high. Trees growing from large lignotubers may not be controlled. Spray to the point of run-off. Ensure thorough coverage and penetration of spray into the bush. Apply to plants up to 2m tall. Spray to the point of run-off. Ensure thorough coverage and penetration of spray into the bush. Apply to plants up to 2m tall. Spray to wet all foliage, but not to cause run-off. Do not apply after leaf fall has commenced or after the end of February. Spray foliage to point of run-off.
* LEGUMES IN PASTURES WILL BE DAMAGED 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				
Wheat, Barley, Cereal Rye & Triticale	Wild Radish ( <i>Raphanus raphanistrum</i> ) Saffron Thistle ( <i>Carduus lanatus</i> )	NSW, VIC, TAS, SA, WA only NSW, VIC, TAS, SA, WA only NSW, VIC, TAS, SA, WA only	5g + 1.1 to 1.6L MCPA 5g + 1.1 to 1.6L LVE MCPA 5g + 300mL Clopyralid (300g/L)	5 leaf to commencement of flag leaf (Zadoks 15-37) 5 leaf to commencement of flag leaf (Zadoks 15-37) 4 to 5 leaf stage (Zadoks 14-15)
Wheat, Barley, Cereal Rye & Triticale	Variegated Thistle ( <i>Silybum marianum</i> )	TAS only*	5g + 1.5L 2,4-D Amine (500g/L)	5 leaf to early tillering (Zadoks 15-21)
Wheat, Barley, Cereal Rye & Triticale	Slender Thistle ( <i>Carduus tenuiflorus</i> )	NSW only	5g + 700mL to 1.7L 2,4-D Amine Amine (500g/L)	Apply after the first node can be felt at the base of the tiller and before swelling of the head can be felt in the tiller.
Wheat, Barley, Cereal Rye & Triticale	Slender Thistle ( <i>Carduus tenuiflorus</i> , <i>Carduus pycnocephalus</i> )	Tas only*	5g + 1.1L 2,4-D Amine (500g/L)	Mid tillering to before boot (Zadoks 23-29)
Wheat, Barley & Triticale	Black Bindweed/ Climbing Buckwheat ( <i>Polygonum convolvulus</i> )	QLD, NSW only	5g + 840mL LVE MCPA 5g + 2.1L LVE MCPA	Apply from 5 leaf through to commencement of flag leaf (Zadoks 15-37)
Wheat, Barley & Triticale				Apply to weeds at seedling to rosette stage.
				Apply to weeds at seedling to rosette stage.
				Apply to weeds at seedling to rosette stage.
				Spray at pre-cabbage stage.
				Moderately susceptible. Spray young rosettes.
				Apply to weeds at the seedling stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
				Apply to weeds at the seedling stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
				Apply to weeds at seedling to young rosette stage.
				For best control apply at early tillering as this weed becomes increasingly difficult to control as it becomes larger.

\* In Tasmania, 2,4-D can only be applied from 15 April to 15 September to minimise damage to grape vines through spray or vapour drift.

CROP	MIXTURES - POST CROP AND WEED EMERGENCE BY GROUND AND AERIAL APPLICATION		CROP STAGE AT APPLICATION	CRITICAL COMMENTS
	WEEDS	STATES		
- 16 -	Wheat, Barley, Triticale & Cereal Rye	NSW, Vic only SA only WA only	5g + 500mL Diuron Flowlable (500g/L) + 500mL MCPA, Amine (500g/L) <b>(Ground application only)</b> 5g + 500mL Diuron Flowlable (500g/L) + 350mL MCPA, Amine (500g/L) <b>(Ground application only)</b> 5g + 750mL Diuron Flowlable (500g/L) + 400mL MCPA, Amine (500g/L) <b>(Ground application only)</b> 5g + 550mL Terbutryn + 600mL MCPA Amine (500g/L)	3 to 5 leaf (Zadoks 13-15) NSW only 5 leaf (Zadoks 15) Vic only 3 to 5 leaf (Zadoks 13-15) 3 to 4 leaf (Zadoks 13-14) 3 leaf to early tillering (Zadoks 13-21)
	Wheat, Barley	NSW only	5g + 550mL Terbutryn	Apply when weeds are 2-5 leaf. see Tank Mixes
	Capeweed ( <i>Arcotella caudinalis</i> )	NSW, Vic, SA, WA only	5g + 1L Terbutryn/MCPA	Apply when weeds are 2-6 leaf.
	Capeweed ( <i>Arcotella caudinalis</i> )	QLD, NSW VIC, TAS, SA only	5g + 750mL Bromoxynil/MCPA 5g + 1.4L Bromoxynil/MCPA	Apply when weeds are up to 6 leaf TAS only.
	Wild Radish ( <i>Raphanus raphanistrum</i> )	WA only QLD, NSW, VIC, TAS SA only Qd only	5g + 1.4L Bromoxynil/MCPA 5g + 2.1L Bromoxynil/MCPA 5g + 700mL - 1L MCPA Amine (500 g/L)	5 leaf to tall tillering (WA only) 5 leaf to tall tillering (QLD, NSW, VIC, TAS only) Early tillering to before boot (Zadoks 21-39) Early tillering to before boot (Zadoks 21-39)
	Wild Radish ( <i>Raphanus raphanistrum</i> )	NSW only	5g + 1.4L MCPA Amine (500g/L)	Apply the lower rate to seedling weeds (3 - 6 leaf) and the higher rate to well developed weeds up to rosette stage.
	Wild Radish ( <i>Raphanus raphanistrum</i> )	WA only	5g + 1.2L MCPA Amine (500g/L)	Apply when weeds are seedling to rosette.
	Wheat, Barley	WA only	5g + 250mL MCPA Ester/Diflufenican	5 leaf to late tillering (Zadoks 15-30)
	Wheat, Barley	Barley: 5 leaf to late tillering (Zadoks 15-30)	Wheat: 3 leaf to late tillering (Zadoks 15-30)	Apply, up to the 4 leaf stage and not more than 10cm in diameter.

ESTABLISHED PASTURES OR PASTURE RENOVATION  
DIRECTIONS FOR USE  
RESTRAINTS

DO NOT apply if rainfall is expected within 4 hours.

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

DO NOT store the tank mixes with other products.

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

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

DO NOT use on crops grown for pasture seed.

SITUATION	WEEDS CONTROLLED	STATES	RATE (g/ha)	CRITICAL COMMENTS
ESTABLISHED PASTURES	Annual Clover ( <i>Trifolium</i> spp.) Annual Medics ( <i>Medicago</i> spp.)	All States NSW, Vic, SA, Tas, WA only	5	Apply before flowering. For best results apply before flowering.
TOLERANT GRASS SPECIES	Cape Tulip ( <i>Homeria</i> spp.) One and Two leaf Docks ( <i>Rumex</i> spp.)	NSW, VIC, TAS, SA, WA only	5	Apply at bulb exhaustion usually during July/early August. Repeat application may be required to obtain control.
PERENNIAL PHALARIS AND PERENNIAL COCKFOOT (Stands must be older than 1 year)	Doublegeen ( <i>Eriogonum australis</i> ) Erodium Storksbill / Wild Geranium ( <i>Erodium</i> spp.) Onion Grass/Guildford Grass ( <i>Homolida rosea</i> )	All States NSW, VIC, TAS, SA, WA only	5 - seedlings 10 - established	Best results when applied in Spring prior to bolting.
OR	Peterson's Curse/Salvation Jane ( <i>Lathium planagaeum</i> ) Ragwort ( <i>Senecio jacobaea</i> )	All States NSW, VIC, TAS, SA, WA only	5 or 10	Use the higher rate on dense infestations. Apply up to the 6 leaf stage. Use the higher rate on dense infestations. Apply before flowering.
PASTURE RENOVATION	Sorrel ( <i>Rumex acetosa</i> ) Soursob ( <i>Oxalis pes-caprae</i> ) Wild Garlic ( <i>Allium vineale</i> )	NSW, VIC, TAS, SA, WA only	5 - seedlings 10 - established 15	Apply at bulb exhaustion usually late June/July before the onset of browning off caused by the <i>Helminthosporium</i> fungus. When mixing with glyphosate use 10g/ha. Use the lower rate on small plants and the higher rate before bolting/flowering. Apply at the rosette to cabbage stage when plants are actively growing. For best results apply in spring before seed heads appear. For best results apply before flowering. Use higher rate on dense stands. Application may be required to obtain control.

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WITHHOLDING PERIOD - NOT REQUIRED WHEN USED AS DIRECTED

**GENERAL INSTRUCTIONS**  
**BRUSH APPLICATIONS, ESTABLISHED PASTURES AND PASTURE RENOVATION**

SUREFIRE METSULFURON METHYL HERBICIDE is a selective herbicide which is rapidly absorbed by roots and leaves.

- Always add a surfactant/wetting agent.
- Best results are achieved when:
  - Application is made to actively growing plants which are not stressed by any factors such as dry weather conditions, waterlogging etc. Application to weeds that are not actively growing due to adverse conditions may result in weeds only being stunted or suppressed.
  - Plants to be treated must be thoroughly covered. This is essential to achieve maximum herbicide uptake
- Regrowth may occur if the product is applied when plants are stressed or if complete spray coverage is not achieved. If regrowth does occur, re-treatment at the rates recommended on this label is recommended. For blackberries re-treatment should only be undertaken if plants are at least 1 m tall. This may not be until 2 years after the initial application.
- Legumes will be removed from pasture if oversprayed with SUREFIRE METSULFURON METHYL HERBICIDE.
- If weeds have been previously sprayed with other herbicides or if the weeds have been burned or slashed ensure 2 years have elapsed before treating with SUREFIRE METSULFURON METHYL HERBICIDE.
- It is recommended that this product not be applied to bushed bearing mature blackberries due to the collection of blackberries for food purposes.
- Introduced grass species may be severely damaged if oversprayed.
- Legumes are extremely sensitive to SUREFIRE METSULFURON METHYL HERBICIDE and will be removed from the pasture if over sprayed.
- Some grasses will be damaged in pasture sprayed with this product and biomass production may be reduced for several months.
- Some temporary yellowing and some stunting may occur when used on perennial phalaris and/or established perennial cocksfoot.
- ALL grasses and legumes can be damaged and/or removed by a SUREFIRE METSULFURON METHYL HERBICIDE/Glyphosate mixture.
- The following weeds will not be controlled: barley grass (*Hordeum leporinum*), brome grass (*Bromus unioloides*), Silvergrass (*Vulpia spp.*), winter grass (*Poa annua*).
- Best results will be achieved if weeds are allowed to recover from grazing prior to herbicide application to allow for adequate uptake of the product. Sorrel and docks particularly require new leaf growth.

**INSTRUCTIONS SPECIFIC TO ESTABLISHED PASTURES AND PASTURE RENOVATION**

- Some sorrel seedlings may germinate after the break in the following year.
- Ungerminated clover will not be affected but seed set in the year following application will be significantly reduced. If seed banks are not large, it may be necessary to re-sow clover.
- For Pasture Topping situations this product may be mixed with glyphosate but ensure crop rotation recommendations are observed. Refer to the directions for use for each target weed on each product label.

**Spray Preparation**

SUREFIRE METSULFURON METHYL HERBICIDE is a dry flowable granule which must be mixed with clean water. Always add a wetting agent/surfactant. (See "Use of surfactant/wetting agent" below)

1. Partially fill the spray tank with water.
2. With the agitation system engaged, add the required amount of product (as per the 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 SUREFIRE METSULFURON METHYL HERBICIDE 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.

**Use of Surfactant/Wetting Agent**

SUREFIRE METSULFURON METHYL HERBICIDE alone – It is important that a surfactant/wetting agent is **ALWAYS** used with this product. If no specific wetting agent/surfactant is recommended in the Directions For Use table, use a non-ionic surfactant (100%) at 100 mL/100L of final spray volume.

Barley, Cereal Rye, Trifoliate & Wheat	Paterson's Curse/Salivation Jane ( <i>Echium plantagineum</i> ) Prickly Lettuce ( <i>Lactuca serriola</i> ) WA only	TAS, WA only NSW, SA only OLD, VIC, TAS, SA only WA only	5 5 or 7 5 or 7	Use the higher rate for large weeds or heavy weed populations.
	Red Pigweed ( <i>Roridula glabraeau</i> )	QLD only	5	Apply before the 6 leaf stage.
			7	Apply rate when weed populations are dense and majority of weeds are 6 leaf stage.
	Rough Poppy ( <i>Papaver hybridum</i> ) Salsify ( <i>Atriplex micrantha</i> )	NSW, VIC, TAS, SA only QLD only	5 5 or 7	Use the low rate up to the 4 leaf stage and the higher rate at the 4-6 leaf stage.
	Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )	NSW, VIC, TAS, SA only	5	
	Skeleton Weed (Suppression only) ( <i>Chondrilla juncea</i> )	NSW, VIC, SA only WA only	7 5	
	Slender Celery ( <i>Anthriscus leptophyllum</i> )	QLD only SA only	5 5	
	Smallflower Fumitory ( <i>Fumaria parviflora</i> )	NSW, VIC, SA, TAS, WA only	5	Some regeneration from underground rootstocks and new germinations may occur late in the season.
	Sorrel ( <i>Oxalis pes-caprae</i> )	NSW, VIC, TAS, SA, WA only	5	Apply after majority of sorrels have emerged and are actively growing.
	Spinifex/Doublegee/Three cornered Jack (s) ( <i>Eremex australis</i> )	WA only OLD, NSW, VIC, TAS, SA only	5	
	Stagger Weed ( <i>Stachys arvensis</i> )	ALL STATES	5	Use higher rate under heavy weed pressure.
	Storksbill/Wild Geranium ( <i>Erodium spp.</i> )	VIC, TAS, SA, WA only	5	
	Turnip Weed ( <i>Rapistrum rugosum</i> )	ALL STATES QLD only	5 or 7	Apply at the low rate at cotyledon to 4 leaf stage and the higher rate at the 4-8 leaf stage.
	Volunteer Sunflower ( <i>Helianthus annus</i> )	NSW only	7	Apply at the cotyledon to 8 leaf stage.
	Wild/Crow Garlic ( <i>Allium vineale</i> )	VIC, TAS only ALL STATES	7 5	Apply at the 1-2 leaf stage.
	Wild Turnip ( <i>Brassica napae/erecta</i> )	ALL STATES		

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Barley, Cereal Rye, Triticale & Wheat	Cutleaf Mignonette ( <i>Reseda lutea</i> )	TAS, SA only	7	Spray actively growing large plants, up to the early flowering stage. Plants emerging after spraying may not be controlled.
	Deadnettle ( <i>Lamium amplexicaule</i> )	ALL STATES	5	
	Denseflower Fumitory ( <i>Fumaria densiflora</i> )	NSW, SA only	5	
	Dock (Broadleaf) ( <i>Rumex obtusifolia</i> )	WA only	5	Use the higher rate under heavy weed pressure. Apply after the 3 node stage.
	Faba Beans ( <i>Vicia faba</i> )	OLD, NSW, VIC, TAS, SA only	5 or 7	
	Field Peas ( <i>Pisum sativum</i> )	VIC, SA only	5	
	Hare's Ear/Treacle Mustard ( <i>Brassica orientalis</i> )	VIC, TAS, SA, WA only	5	
	Hogweed/Witeweed ( <i>Polygonum aviculare</i> )	NSW only	7	Apply after 5 leaf stage.
		WA only	5	Apply before the 4 leaf stage
		NSW, VIC, TAS, SA only	5 or 7	Apply before the 4 leaf stage. Use the higher rate when weed populations are dense and majority of weeds are 4 leaf.
	Indian Hedge Mustard ( <i>Sisymbrium orientale</i> )	ALL STATES	7	Apply when weeds are cotyledon to 3 leaf.
	Lincoln Weed ( <i>Diplaxis tenuifolia</i> )	SA only	5	Heavy populations and/or those suffering cold or moisture stress may not be completely controlled – a tank mix with LVE/ MCPA is recommended.
	Lupins ( <i>Lupinus albus</i> )	NSW, VIC, SA, WA only	5	
	Mallow Catchfly ( <i>Silene apetala</i> )	SA only	5	
	Medic ( <i>Medicago</i> spp.)	ALL STATES	5	
	New Zealand Spinach ( <i>Tenagomia tetragonoides</i> )	QLD only	7	Apply before the 4 leaf stage.
	Parthenium Weed ( <i>Parthenium hysterophorus</i> )		5 or 7	Apply the lower rate before the 4 leaf stage and the higher rate at 4 leaf to rosette stage.

**SUREFIRE METSULFURON METHYL HERBICIDE tank mixed with glyphosate** – Use a non-ionic surfactant when mixing with glyphosate. In some tank mix situations the use of an organosilicone penetrant (eg PCT REACTOR) is recommended. This recommendation must be strictly followed in order to achieve adequate weed control.

**Gas Gun Applications** – An organosilicone penetrant (eg PCT REACTOR) should be added at the rate of 10 mL/5L or 200 mL/100 L of final spray volume.

Where a mineral spray oil is recommended use 1L/100L of final spray volume (ie 1% volume/volume). A non-ionic surfactant should still be used with this mixture.

Always read the instructions on the companion product label when tank mixing.

#### Application Equipment

**SUREFIRE METSULFURON METHYL HERBICIDE** may be applied by air, hand gun, boom spray or gas gun according to the Directions For Use table.

**Hand Gun** – Ensure complete and uniform coverage of all canes and foliage. Pressures of 550-750 kPa (80-100 psi) are recommended depending on the size of bushes and target species. As an example:

Use No 4 or 5 spray nozzle for individual bushes or broadleaf weeds less than 1m high. Use No. 5 or 6 spray nozzle for bushes 1-2m high and No. 7 or 8 spray nozzle for large bushes 2-3m high or for bushes with a large diameter. When using 3g SUREFIRE METSULFURON METHYL HERBICIDE + 400 mL of Surefire Glyphosate 360 Herbicide pressures of greater than 800 kPa should be used to assist penetration.

**NOTE:** For blackberry regrowth use the large spray nozzle/high water volume with as wide a cone setting as possible. Use even, side by side spray pattern moving from the base to the top of the bush. For blackberries it is important that runners at the side and top of the bush are treated and that spray penetrates larger bushes to wet the foliage and canes.

**Boom Spray** – Ensure the boom is properly calibrated to a constant speed or rate of delivery for thorough coverage and uniform spray pattern. Fan nozzles using pressures of 280 to 280 kPa are recommended. Adjust the boom height to ensure correct spray overlap. Apply in a minimum of 150L prepared spray per hectare. Increase to 200L/ha or more for dense stands.

**Gas Gun** – Ensure thorough coverage. The use of a suitable dye is recommended to allow the operator to see which plants have been treated.

**Aerial Application (Helicopter only)** – Use a properly calibrated helicopter using the half overlap opposite pass techniques. Apply in a minimum of 100L/ha on blackberries or 60L per ha on *Mimosa pigra* and up to a maximum of 200L prepared spray per hectare. Use a VMD of 300 microns. High temperatures and/or low humidity may cause excessive evaporation of droplets and may reduce results. Where bushes are large and/or terrain is steep higher water volumes are necessary to ensure adequate coverage. Avoid spraying in conditions which favour temperature inversions or in still conditions. Turn off spray booms whilst passing over creeks, dams or waterways. Avoid spraying where drift can move onto crop areas that are likely to be planted to crops and non target pastures as injury may occur. Do not apply when temperatures exceed 30°C (except when treating *M. pigra*).

**Tank mixtures with Surefire Glyphosate 360 Herbicide:** In certain situations such as the presence of harder to kill species or in follow-up treatment situations a tank mix with Surefire Glyphosate 360 Herbicide may provide improved weed control (see Directions For Use table).

#### Compatibility

This product is compatible with glyphosate formulations and commonly used pasture herbicides such as MCPA Amine, MCPA Ester, 2,4-D Amine, dicamba, Clopyralid 300, Fluroxypyr 200, and commonly used insecticides such as chlordiphenos and omethoate. Always refer to the companion product label for instructions/ restrictions.

#### CROP ROTATION RECOMMENDATIONS

Many crop species are sensitive to metsulfuron methyl. The product is broken down in the soil mainly by chemical hydrolysis and to a lesser degree by soil microbes. Other factors which affect breakdown are soil pH, soil moisture and temperature. Breakdown is faster in warm, wet acid soils and slowest in alkaline, cold, dry soils.

Legumes will be removed from pasture if they are over sprayed with the product.

Other species which are sensitive to metsulfuron methyl are:

Barley, Canola, Cereal Rye, Chickpeas, Faba Beans, Japanese Millet, Linseed, Lupins, Lucerne, Maize, Medics, Oats, Panorama Millet, Peas, Safflower, sorghum, soybeans, sub clover, sunflower, triticale, wheat, white French millet.

The area sprayed with SUREFIRE METSULFURON METHYL HERBICIDE may be replanted to the specified pasture species after the interval in the following table:

<b>Soil pH</b>	<b>Pasture Species</b>	<b>Rate g/ha</b>	<b>Minimum rainfall</b>	<b>Minimum recrop interval</b>
5.5 and below	Sub Clover (a) and Halfa White Clover	5 10	150mm	12 weeks 20 weeks
	Cocksfoot and Phalaris	15 5 10		20 weeks 8 weeks 8 weeks
	Perennial Ryegrass spp. and Fescue spp	15 5 10	100mm	16 weeks 16 weeks 16 weeks
5.6-6.5	Sub Clover <sup>(a)</sup> , Halfa White Clover, Perennial Ryegrass spp. and Fescue spp	15	150mm	20 weeks
6.6 and above	Cocksfoot and Phalaris	5, 10 15	175mm Bioassay <sup>(b)</sup>	12 weeks
	Cocksfoot and Phalaris	15	Bioassay	

(a) Sub Clover varieties: Junee, Karridale, Seaton Park, Trikkala.

(b) Tolerance of species should be determined on a small scale before sowing commercial areas

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

For rates higher than 15g/ha the following applies:

- For soils with a pH below 7 (1:5 soil:water method) a minimum of 12 months should elapse before oversowing treated areas with grasses or legumes. It is suggested that small areas to be oversown 1-2 months prior to the planned time for sowing to check for possible harmful residues.
- For soils with pH greater than 7 DO NOT replant until a company representative has been contacted.

#### APPLICATION IN WINTER CEREAL CROPS DIRECTIONS FOR USE:

##### RESTRAINTS:

- DO NOT apply to crops under stress.
- DO NOT spray if rainfall is expected within 2 hours.
- DO NOT store the prepared spray for more than 2 days.
- DO NOT store tank mixes with other products.
- DO NOT apply to crops before the three leaf stage when used post emergent.
- DO NOT use on flood or furrow irrigated crops.

#### Post Crop and Weed Emergence by Ground and Aerial Application - SUREFIRE METSULFURON METHYL HERBICIDE ONLY

<b>CROPS</b>	<b>WEEDS CONTROLLED</b>	<b>STATES</b>	<b>RATE (g/ha)</b>	<b>CRITICAL COMMENTS</b>
Bailey, Cereal Rye, Triticale & Wheat	African Turnip Weed ( <i>Syimbrium theellungi</i> ) Amsinckia/Yellow Burweed ( <i>Amsinckia</i> spp.)	Qld only WA only NSW, VIC, TAS, SA only SA only Qld only SA only WA only NSW, VIC, TAS, SA only Qld, NSW, VIC, SA only NSW, VIC, TAS, SA only Qld, NSW, VIC, SA only NSW, VIC, TAS, SA only Qld only All STATES	5 5 5 or 7 5 7 5 5 5 5 5 5 5 5 5 5	Apply before the 6 leaf stage.  Use the higher rate for larger weeds or heavy weed pressure.  Apply at cotyledon to 10cm height or diameter.  Apply at 10cm height or diameter.  Use the higher rate for larger weeds or heavy weed pressure.  Apply at cotyledon to 10cm height or diameter.  Apply up to the 4 leaf stage.