

CAUTION

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

UNITED FARMERS

METSULFURON METHYL

600
HERBICIDE

ACTIVE CONSTITUENT: 600g/kg METSULFURON METHYL

GROUP **B** HERBICIDE

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

**Note: This information has been adapted from the UFCC
Metsulfuron-Methyl 600 label.
Please consult the label on the pack before use.**

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE



UNITED FARMERS
CO-OPERATIVE

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Phone 08 9430 2222 Fax 08 9430 2233

D.O.M.:
BATCH NO:
APVMA Approval no: 51715/...



PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Injury to or loss of desirable trees or vegetation may result from the failure to observe the following :

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 or allow spray to drift onto adjacent crops and non-target desirable plants, or onto agricultural land scheduled to be planted to other crops as injury to the crop may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate any body of water by spraying, cleaning of equipment or disposal of waste.

PROTECTION OF LIVESTOCK

Anil withholding period is applicable for United Farmers Metsulfuron Methyl Herbicide. It is recommended, however, not to graze treated areas for 2 to 3 days to ensure product efficacy.

STORAGE AND DISPOSAL

KEEP OUT OF REACH OF CHILDREN. Store in the closed, original container in a dry, well-ventilated area, as cool as possible, but out of direct sunlight. Keep from contact with fertilisers, fungicides and seeds.

DO NOT re-use container. Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture or bury empty containers in a local authority landfill. If not available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and products 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. For further information refer to the Material Safety Data Sheet or phone the Poisons information centre on 131126.

CONDITIONS OF SALE

The use of United Farmers Metsulfuron Methyl Herbicide being beyond control of the manufacturer, no warranty, expressed or implied is given by United Farmers regarding its suitability, fitness or efficacy for any purpose for which it is used by the buyer whether in accordance with the directions or not and United Farmers accepts no responsibility for any consequence whatsoever resulting from the use of this product.

DIRECTIONS FOR USE

RESTRAINTS

DO NOT apply before the three leaf stage of the crop when used for post emergent weed control.

DO NOT apply to crops under stress.

DO NOT apply if rainfall is expected within 2 hours.

DO NOT use on furrow or flood irrigated crops.

DO NOT store a suspension of United Farmers Metsulfuron Methyl Herbicide for more than 2 days otherwise significant breakdown will occur.

DO NOT store tank mixes of United Farmers Metsulfuron Methyl Herbicide.

Table 1: United Farmers Metsulfuron Methyl Herbicide only – post crop and weed emergence by ground and aerial application.

CROPS	WEEDS CONTROLLED	STATE	RATE g/ha	Weed Growth at Application	Critical Comments
Wheat, Barley, Triticale & Cereal Rye	African Turnip Weed <i>Sisymbrium thellungii</i>	Qld only	5	Apply before the 6 leaf stage	General Where the two rates are specified, use the higher rate for larger weeds, and/or under heavy weed pressures. Where weed growth stage is not specified in the adjacent column, apply when weeds are small (ie. no greater than 5cm in height or diameter) and actively growing. Refer to General Instructions and Crop Safety Directions for further application instructions.
	Amsinckia/Yellow Burweed <i>Amsinckia spp.</i>	WA only SA, Vic, NSW, Tas only	5 or 7		
	Ball Mustard <i>Neslia paniculata</i>	SA only	5		
	Boggabri weed/ Dwarf Amaranth <i>Amaranthus macrocarpus</i>	Qld only	7	Apply at cotyledon to 10cm height or diameter stage	
	Calomba Daisy <i>Pentzia suffruticosa</i>	SA only	5		
	Cape Tulip <i>Homeria spp.</i>	WA only			
	Charlock <i>Sinapsis arvensis</i>	Vic, NSW, SA, Tas only			
	Chickpeas (Volunteer) <i>Cicer arietinum</i>	Qld, NSW, Vic, SA only			
	Chickweed <i>Stellaria media</i>	NSW, Vic, Tas, SA only			
	Chicory <i>Cichorium intybus</i>	Qld only			
	Clover (Subterranean) <i>Trifolium subterraneum</i>	All states			

CROPS	WEEDS CONTROLLED	STATE	RATE g/ha	Weed Growth at Application	Critical Comments	
/cont Wheat, Barley, Triticale & Cereal Rye	Common Sowthistle <i>Sonchus oleraceus</i>	Qld, NSW, Tas, Vic only		Apply up to the 4 leaf stage		
	Cutleaf Mignonette <i>Reseda lutea</i>	SA, Tas 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>	SA, NSW only				
	Dock (Broadleaf) <i>Rumex obtusifolius</i>	WA only				
		Qld, NSW, Vic, SA, Tas only	5 or 7			
	Faba Beans <i>Vicia faba</i>	Vic, SA only	5	Apply after the 3 node stage		
	Field Peas <i>Pisum sativum</i>	Vic, SA, WA, Tas only				
		NSW only	7			
	Hare's Ear/Treacle Mustard <i>Conringia orientalis</i>	Vic only	5	Apply before the 5 leaf stage		
	Hogweed/Wireweed <i>Polygonum aviculare</i>	WA only			Apply before the 4 leaf stage	
		Vic, SA, NSW, Tas only	5 or 7			Use the higher rate when weed populations are dense and majority of weeds are 4 leaf.
		Qld only	7	Apply when weeds are cotyledon – 3 leaf stage		
	Indian Hedge Mustard <i>Sisymbrium orientale</i>	All states	5		Heavy populations and/or those suffering cold or moisture stress may not be completely controlled – a tank-mix with LVE or MCPA is recommended.	
Lincoln Weed <i>Diploaxis tenuifolia</i>	SA only	7		Apply to actively growing plants from late winter to spring. Plants emerging after spraying may not be controlled.		
Lupins <i>Lupinus albus</i>	WA, SA, NSW, Vic only	5				
Mallee Catchfly <i>Silene apetala</i>	SA only					

CROPS	WEEDS CONTROLLED	STATE	RATE g/ha	Weed Growth at Application	Critical Comments
/cont Wheat, Barley, Triticale & Cereal Rye	Medic <i>Medicago spp.</i>	All states			
	New Zealand Spinach <i>Tetragonia tetragonioides</i>	Qld only	7	Apply before the 4 leaf stage	
	Parthenium weed <i>Parthenium hysterophorus</i>		5		
			7	Apply at the 4 leaf to rosette stage	
	Paterson's Curse / Salvation Jane <i>Echium plantagineum</i>	WA, Tas only	5		
		SA, NSW only	5 or 7		
	Prickly Lettuce <i>Lactuca serriola</i>	Qld, SA, Vic, Tas only			
		WA only	5		
	Red Pigweed <i>Portulaca oleracea</i>	Qld only		Apply before the 6 leaf stage	
			7	Apply when weed populations are dense and majority of weeds are 6 leaf stage	
	Rough Poppy <i>Papaver hybridum</i>	NSW, Vic, Tas, SA only	5		
	Saltbush <i>Atriplex muelleri</i>	Qld only		Apply up to the 4 leaf stage	
			7	Apply 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	7		
	WA only	5			
Slender Celery <i>Apium leptophyllum</i>	Qld only				
Smallflower Fumitory <i>Fumaria parviflora</i>	SA only				
Sorrell <i>Rumex acetosella</i>	SA, Vic, NSW, WA, Tas only			Some regeneration from underground rootstocks and new germinations may occur later in the season	

CROPS	WEEDS CONTROLLED	STATE	RATE g/ha	Weed Growth at Application	Critical Comments
/cont Wheat, Barley, Triticale & Cereal Rye	Soursob <i>Oxalis pes-caprae</i>	Vic, SA , WA, Tas, NSW only			Apply after majority of soursobs have emerged and are actively growing.
	Spiny Emex / Doublegee / Three Cornered Jack <i>Emex australis</i>	WA only			
		SA, Vic, NSW, Tas, Qld only	5 or 7		
	Stagger Weed <i>Stachys arvensis</i>	All states	5		
	Storksbill/Wild Geranium <i>Erodium spp.</i>	Vic, SA, WA, Tas only			
	Turnip Weed <i>Rapistrum rugosum</i>	All states			
	Volunteer Sunflower <i>Helianthus annuus</i>	Qld only			Apply at cotyledon to 4 leaf stage
		NSW only		7	Apply at 4 to 8 leaf stage
					Apply at cotyledon to 8 leaf stage
Wild / Crow Garlic <i>allium vineale</i>	Vic, Tas only			Apply at the 1-2 leaf stage	
Wild Turnip <i>Brassica tournefortii</i>	All states	5			

Table 2) United Farmers Metsulfuron Methyl Herbicide only.
Control of Blackberry, Bracken Fern, Rubbervine and other Brush Weeds.

RESTRAINTS : DO NOT apply if rainfall is expected within 4 hours.

Situation	Weeds Controlled	State	Rate			Critical Comments
			Boom g/ha	Hand Gun g/100L	Gas Gun g/L	
Pastures* rights of way, commercial and industrial areas	Alligator Weed (<i>Alternanthera philoxeroides</i>)	NSW only	80			Apply in terrestrial situations only. Follow-up applications over at least two seasons are essential for complete control.
	Apple Box (<i>Angophora floribunda</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>)			10 + Pulse ¹ (200mL /100L)	1 + Pulse ¹ (10mL/5L)	Apply to plants up to 4m high. Avoid spraying when plants are stressed. Ensure thorough foliage cover. Results cannot be guaranteed where suckers originate from large lignotubers.
	Australian Blackthorn (<i>Bursaria spinosa</i>)	NSW, Qld, Tas, Vic only		10	15 + Pulse ¹ (10mL/5L)	Apply when bushes are actively growing. Avoid spraying when bushes are stressed. Hand Gun – spray to thoroughly wet all foliage, but not cause run-off.
	Bathurst Burr (<i>Xanthium spinosum</i>)	NSW only		5 or 7.5		Apply to actively growing plants up to early flowering. Use the higher rate when plants are beyond early flowering. Plants under moisture stress will not be controlled.
	Bellyache Bush (<i>Jatropha gossypifolia</i>)	Qld only		15 + Pulse ¹ (200mL /100L)		
	Blackberry (<i>Rubus spp.</i>)	All states and NT		10	1 + Pulse ¹ (10mL/5L)	Apply when bushes are actively growing. Tas only: apply after petal fall Vic only: apply between Dec and April. Spray to thoroughly wet all foliage and canes. Ensure peripheral runners are sprayed. In Tas DO NOT apply to bushes carrying mature fruit.
	Bitou Bush Boneseed (<i>Chrysanthemoides monilifera</i>)	NSW, Qld, Vic, SA only		10	1 + Pulse ¹ (10mL/5L)	Spray to thoroughly wet all foliage. Minimise contact with desirable species.
	Bridal Creeper (<i>Myrsiphyllum asparagoides</i>)	SA only		5		Apply during mid June to late August. Follow-up applications over at least 2 seasons will be required for complete control. Water volumes of 500-800L/ha are recommended to minimise the risk of damage to native vegetation.

Situation	Weeds Controlled	State	Rate			Critical Comments
			Boom g/ha	Hand Gun g/100L	Gas Gun g/L	
/Cont Pastures* rights of way, commercial and industrial areas	Common Bracken (<i>Pteridium esculentum</i>)	All States and NT	60	10		Spray after full frond expansion. Spray to thoroughly wet foliage, but not to cause run-off. For boom application, adjust boom height to ensure correct spray overlap. Avoid spraying when plants are stressed or in conditions of prolonged dry weather when soils are dry.
	Crofton Weed (<i>Eupatorium adenophorum</i>)	NSW, Qld only		15		Spray to thoroughly wet all foliage but not to cause run-off. Extra care should be taken to get good spray coverage when spraying bushes situated in thickets. Apply to actively growing weeds up to early flowering. Best results are obtained on younger plants. If regrowth occurs, retreat in the subsequent growth period.
	Darling Pea (<i>Swainsona spp.</i>)	NSW only	10			Apply during spring.
	Fennel (<i>Foeniculum vulgare</i>)	NSW only		10		Apply to actively growing plants.
	Golden Dodder (<i>Cuscuta australis</i>)	SA, NSW, Qld, Vic only		1		Apply as spot spray to point of run-off. Ensure correct coverage of infested area. Apply pre- flowering.
	Gorse (<i>Ulex europaeus</i>)	Vic, Tas, SA, NSW only		15 + Pulse ¹ (200mL /100L)		Apply to bushes up to 2m tall. Ensure thorough spray penetration and coverage of the whole plant.
	Great Mullein (<i>Verbascum thapsus</i>)	NSW only	200+ Pulse (200mL /100L)			Regrowth may occur if growing conditions are not good. Apply during spring at times of good soil moisture to rosettes before stem elongation.
	Hawthorn (<i>Crataegus laevigata</i>)	Qld, NSW only		10		Apply when bushes are actively growing. Avoid spraying when bushes are stressed. Spray to thoroughly wet foliage, but not to cause run-off
	Inkweed (<i>Phytolacca octandra</i>)			5		Spray to thoroughly wet foliage, but not to cause run-off.
	Japanese Sunflower (<i>Tithonia diversifolia</i>)	NSW only		10		Spray to thoroughly wet foliage, but not to cause run-off.
	Kangaroo Thorn (<i>Acacia paradoxia</i>)			10		Apply to bushes up to 2.5m tall when actually growing.

Situation	Weeds Controlled	State	Rate			Critical Comments
			Boom g/ha	Hand Gun g/100L	Gas Gun g/L	
/Cont Pastures* rights of way, commercial and industrial areas	Lantana (<i>Lantana camara</i>)	Qld, NSW only		10	2 + Pulse ¹ (10mL/5 L)	Apply to bushes 2m tall. Spray to thoroughly wet all foliage and stems. Spray should penetrate throughout the bush. Should regrowth occur, re-treatment will be necessary.
	Mistflower (<i>Eupatorium riparium</i>)	Qld NSW Only		5		Spray to thoroughly wet foliage, but not to cause run-off. Apply to actively growing weeds up to early flowering.
	Noogoora Burr (<i>Xanthium pungens</i>)	NSW only		7.5		Apply to actively growing plants. Plants under moisture stress will not be controlled.
	Parthenium (<i>Parthenium hysterophorus</i>)	Qld Only	7	5		Hand gum: spray to thoroughly wet foliage, but not to cause run-off. Boom spray: (Pasture only) Apply to rosette stage. Spray to thoroughly wet foliage. Adjust boom height to
	Paterson's Curse Salvation Jane (<i>Echium plantagineum</i>)	NSW only		5		Boom spray: Spray to thoroughly wet all foliage. Adjust boom height to ensure correct spray overlap. Hand gun: Spray to thoroughly wet foliage, but not to cause run-off. WA ONLY spray plants early flowering stage (Aug-Sept)
		All states	15	5		
	Privet (<i>Ligustrum spp.</i>)	Qld, NSW Only		10	1 + Pulse ¹ (10mL/5 L)	Apply to bushes up to 3m high. Complete foliage spray coverage is essential for control; partial spray coverage will result in recovery. DO NOT spray when bushes are stressed.
	Ragwort (<i>Senecio jacobaea</i>)	Vic, Tas, NSW only		15	5	Apply to actively growing plants at rosette to cabbage stage.
Rubber Vine (<i>Cryptostegia grandiflora</i>)	Qld only		15		Apply to bushes up to 3m high. Apply from Oct through to April when bushes are actively growing. Ensure thorough spray coverage of all foliage and leaders. Incomplete coverage will result in regrowth.	

Situation	Weeds Controlled	State	Rate			Critical Comments
			Boom g/ha	Hand Gun g/100L	Gas Gun g/L	
/Cont Pastures* rights of way, commercial and industrial areas	Sweet Briar (<i>Rosa rubiginosa</i>)	NSW, Tas, SA, Vic only		10	1 + Pulse ¹ (10mL/5 L)	Apply when bushes are actively growing. Avoid spraying when bushes are stressed, when leaf fall has commenced, or after the end of Feb. Hand gun: spray to thoroughly wet all foliage, but not to cause run-off. VIC ONLY : Gas gun: apply to bushes less than 2m high as application to bushes in excess of 2m may produce variable results. Apply with shots of 25mL of dilute product.
	Tree of Heaven (<i>Ailanthus altissima</i>)	NSW only		10	1 + Pulse ¹ (10mL/5 L)	Apply to actively growing plants.
	Wait-a-While (<i>Caesalpinia decapetala</i>)	Qld only		10		
	Wild Turnip (<i>Brassica tournefortii</i>)	NSW only		5		

*Will damage legumes in pasture

¹ Not a United Farmers Trademark

Table 3) United Farmers Metsulfuron Methyl Herbicide only. Control of brush weeds by aerial application by helicopter.

Situation	Weeds Controlled	State	Rate g/ha	Critical Comments
Pastures* rights of way, commercial and industrial areas	Blackberry (<i>Rubus spp.</i>)	NSW, Tas, Vic only	160	Apply when bushes are actively growing. Tas Only : Apply before petal fall. DO NOT apply to bushes carrying mature fruit. Vic Only : Apply between Dec and April. Use not less than 100L prepared spray/ha.
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 of clean water. Use nozzles and pressure to give a large droplet size and add non ionic surfactant. Apply when plant is actively growing. Avoid spraying when plants are stressed.

*Will damage legumes in pasture.

4) United Farmers Metsulfuron Methyl Herbicide mixtures – post crop and weed emergence by ground and aerial application.

For the control of weeds in addition to those listed above the following mixtures with their appropriate timings are recommended.

For mixing instructions, refer to “Spray Preparation” section.

Crops	Weeds Controlled	State	Rate g/ha	Crop Stage at Application	Critical Comments
Wheat, Barley, Cereal Rye and Triticale	<i>Capeweed</i> <i>Arctotheca calendula</i> and Wild Radish <i>Raphanus raphanistrum</i>	NSW, Vic only	5g + 500mL Diuron 500 (500g/L) + 500mL MCPA Amine (500g/L)	3 to 5 leaf (Zadoks 13-15) NSW only 5 leaf (Zadoks 15) Vic only	DO NOT apply to Kamilaroi, Shortim or Olympic Wheat. Apply when weeds are 2-5 leaf.
		SA only	5g + 500mL Diuron 500 (500g/L) +3 50mL MCPA Amine (500g/L)	3 to 5 leaf (Zadoks 13-15)	
		WA only	5g + 350mL Diuron 500 (500g/L) + 400mL MCPA Amine (500g/L)	3 to 4 leaf (Zadoks 13-14)	
Wheat and Barley	<i>Capeweed</i> <i>Arctotheca calendula</i>		5g + 550mL Terbutryn + 600mL MCPA Amine (500g/L)	3 leaf – early tillering (Zadoks 13-21)	Apply when weeds are 2-6 leaf
		SA only	5g + 550mL Terbutryn		
		NSW only	5g + 850mL Terbutryn		
Wheat, Barley, Cereal Rye and Triticale		NSW, Vic, SA, WA only	5g + 1L Agtryne	3 to 5 leaf (Zadoks 13-15)	Spray actively growing weeds at the 2-6 leaf stage.
		WA only	5g + 750mL Brominil M	3 leaf to full tillering (SA, WA only)	Apply when weeds are up to 6 leaf stage
		Qld, NSW, Vic, Tas, SA only	5g + 1.4L Brominil M	5 leaf to full tillering (QLD, NSW, Vic, Tas only)	
		WA only		3 leaf-full tillering (SA, WA only)	
	QLD, NSW, Vic, Tas, SA only	5g + 2.1L Brominil M	5 leaf to full tillering (Qld, NSW, Vic, Tas only)		
	<i>Wild Radish</i> <i>Raphanus raphanistrum</i>	Qld only	5g + 700mL to 1L MCPA Amine (500g/L)	Early tillering to before boots (Zadoks 21-39)	Apply the lower rate to seedling weeds (3-6 leaf) and the higher rate on well developed weeds up to rosette.
		NSW only		Apply 700mL rate after crop has reached 5 leaf stage. Use higher rates 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	
SA only		5g + 1.4L MCPA Amine (500g/L)	Early tillering to before boot (Zadoks 21-39)	Apply when weeds are seedling to rosette.	

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Crops	Weeds Controlled	State	Rate g/ha	Crop Stage at Application	Critical Comments
	Wild Radish <i>Raphanus</i> <i>Raphanistrum</i>	WA only	5g + 1.2L MCPA Amine (500g/L)	5 leaf – tillering (Zadoks 15-30)	Apply when weeds are seedling to rosette.
Wheat and Barley			5g + 250mL Tigrex	Wheat: 3 leaf to late tillering (Zadoks 13-30) Barley: 5 leaf to tillering (Zadoks 15-30)	Apply up to the 4 leaf stage and not more than 10cm in diameter. Do not use wetter with this tank mixture.
Wheat, Barley, Cereal Rye and Triticale		NSW, Vic, Tas, SA, WA only	5g+ 1.1 to 1.6L LVE MCPA	5 leaf to commencement of flag leaf (Zadoks 15-37)	Apply up to 2-3 leaf stage only.
	Saffron Thistle <i>Carthamus</i> <i>lanatus</i>	NSW, Vic, Tas, SA, WA only			Spray young rosettes before leaves become spiny.
Wheat, Barley, Cereal Rye and Triticale	Saffron Thistle <i>Carthamus</i> <i>lanatus</i>	Qld only	5g + 1.4L to 2.1L MCPA Amine	Early tillering to before boot (Zadoks 21-39). Higher rates (above 1.5L/ha) of MCPA Amine only to be used on crops from mid tillering to before boot stage (Zadoks 23-39)	Apply to weeds at seedling stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
Wheat, Barley and Triticale		NSW, Vic, Tas, SA, WA only	5g + 300mL UFCC Clopyralid	4 to 5 leaf stage (Zadoks 14-15)	Spray when weeds are young and actively growing. DO NOT apply Lontrel L to cereal crop if field peas are to be sown the following season unless the cereal stubble is burnt.
Wheat, Barley, Cereal Rye and Triticale	Variegated Thistle <i>Silybum</i> <i>marianum</i>	Tas only	5g+ 1.5L 2,4-D Amine (500g/L)	5 leaf to early tillering (Zadoks 15-21)	Apply to weeds at seedling to rosette stage.
		NSW only	5g + 700mL to 1.7L 2,4-D 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.	Apply to weeds at seedling to rosette stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
		Qld only	5g + 1.1L 2,4-D Amine (500g/L)	Mid tillering to before boot (Zadoks 23-39)	Apply to weeds at seedling to rosette stage.
			5g + 1.5L MCPA Amine	Early tillering to before boot (Zadoks 21-39)	Apply to weeds at seedling to rosette stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
		NSW, Vic, Tas, SA, WA only	5g + 840mL to 1.1L LVE MCPA	Apply from 5 leaf through to commencement of flag leaf (Zadoks 15-37)	Spray at pre-cabbage stage.
Wheat	Slender Thistle <i>Carduus</i> <i>tenuiflorus</i>		5g + 2.1L LVE MCPA		Moderately susceptible. Spray young rosettes.
Wheat, Barley, Cereal Rye and Triticale		NSW only	5g + 1L to 1.7L 2,4-D 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.	Apply to weeds at seedling to rosette stage. Use the lower rate on seedling weeds and the higher rate on well developed weeds.
	Slender Thistles <i>Carduus</i> <i>tenuiflorus</i> and <i>Carduus</i> <i>pycnocephalus</i>	Tas only	5g + 1.7L 2,4-D Amine (500g/L)	5 leaf to early tillering (Zadoks 15 to 21)	Apply to weeds at seedling to young rosette stage.
Wheat, Barley and Triticale	Climbing Buckwheat/ Black Bindweed <i>Fallopia</i> <i>convolvulus</i>	Qld, NSW only	5 or 7g + 1L Tordon 242	Apply from early tillering (when the main shoot has 4 to 5 leaves plus 2 more new tillers have formed) to start of jointing (first node)	For best control apply at early tillering as this weed becomes increasingly difficult to control as it becomes larger.

5) United Farmers Metsulfuron Methyl Herbicide/glyphosate – fallow/preplant knockdown weed control.

Crop	Weeds Controlled	State	Rate g/ha	Weed Growth Stage at Application	Critical Comments
Wheat	Refer to Post Crop and Weed Emergence section of this label (Table 1) and the United Farmers glyphosate Directions for Use	All states except WA	5 or 7g+ Glyphosate at label rates	Refer to Post Crop and Weed Emergence section of this label (Table 1), and the United Farmers Glyphosate Directions for Use	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 General Instructions and Critical Comments of the respective labels. Use the appropriate rate of each product for the target weed spectrum.
		WA only	5g + Glyphosate at label rates		
Barley, Cereal Rye or Triticale		All states except WA	5g or 7g+ Glyphosate at label rates		DO NOT apply less than 6 weeks prior to sowing as crop injury may occur, particularly under dry, cold conditions. Apply when weeds are actively growing. Refer to General Instructions and Critical Comments of the respective labels. Use the appropriate rate of each product for the target weed spectrum.
		WA only	5g + UFCC Glyphosate at label rates.		

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

WITHHOLDING PERIODS

United Farmers Metsulfuron Methyl Herbicide:

- **NOT REQUIRED WHEN USED AS DIRECTED**

United Farmers Metsulfuron Methyl in herbicide mixtures :

- **Tank mixes with Agtryne, MCPA, 2,4-D, Tigrex¹, Tordon 242¹, or Terbutryn**
- **DO NOT graze or cut for stock food for 7 days after application.**

Tank mixes with Bromoxynil & MCPA

- **DO NOT graze or cut for stock feed for 14 days after application**

GENERAL INSTRUCTIONS

With the exception of the pre-plant weed control recommendations, apply at the early post emergence stage of the crop (3 leaf to before booting) when weeds are small (ie. no greater than 5cm in height or diameter) and actively growing.

Best weed control is obtained when rainfall wets the soil to a depth of 5 to 7.5cm within 4 weeks of application. Where treatment is delayed or when weeds are not actively growing due to adverse conditions, results may be slow to appear and weeds may be only stunted or suppressed (eg. Indian Hedge Mustard).

United Farmers Metsulfuron Methyl Herbicide will remain in the soil for a period of time (see Crop Rotation Recommendations). The persistence of United Farmers Metsulfuron Methyl Herbicide in the soil is dependent on various environmental conditions eg. soil pH,

temperature, soil moisture and organic matter. Wet, warm, acid soils high in organic matter favour breakdown of United Farmers Metsulfuron Methyl Herbicide in the soil. It should be noted that United Farmers Metsulfuron Methyl Herbicide does NOT provide a commercially acceptable level of soil residual weed control.

Crops other than wheat, barley, triticale and cereal rye may be extremely sensitive to low concentrations of United Farmers Metsulfuron Methyl Herbicide residues in the sprayer or in the soil. See "Sprayer Clean-Up" and "Crop Rotation Recommendations".

The recommendation of the addition of United Farmers Metsulfuron Methyl Herbicide to United Farmers Glyphosate as a pre-plant knockdown is to enhance the control of certain broadleaf weeds (eg. doublegee, sorrel, erodium, clover, medic and soursob) and to help prevent (or at least minimise) the risk of resistant weeds occurring. Its purpose is not to provide residual control of weeds.

CROP SAFETY

DO NOT USE in winter cereal crops undersown with legume pasture species eg. medics and clovers.

DO NOT apply to wheat varieties King, Jacup, Miling and Harrier.

Care should be taken if it is intended to apply United Farmers Metsulfuron Methyl Herbicide in the same season to a crop already treated with another sulfonylurea herbicide such as United Farmers Chlorsulfuron 750 Cereal Herbicide, as crop damage may occur.

Consult your local agronomist or United Farmers representative.

DO NOT apply United Farmers Chlorsulfuron 750 Herbicide in a tank mix with United Farmers Metsulfuron Methyl Herbicide as a pre-plant application.

Use of this product on land having a soil pH of 5.5 or less may result in some crop retardation, particularly if the crop is stressed – see comment in point below.

DO NOT apply to crops that are stressed by any cause (such as severe weather conditions, drought, waterlogging, excessive soil acidity or alkalinity, poor nutrient status, disease, nematode or insect damage) as crop injury may result. When treatment is followed by severe stress (such as drought, prolonged cold, waterlogging or frosty conditions) crop yellowing and growth retardation may occur. Crops normally recover without loss in yield. Disease, nematode or insect damage following application may also result in crop injury.

SPRAY PREPARATION

United Farmers Metsulfuron Methyl Herbicide is to be mixed with water and applied as a spray. Partially fill the spray tank with water. Calculate the amount of United Farmers Metsulfuron Methyl Herbicide required for the area to be sprayed. Add the correct quantity of United Farmers Metsulfuron Methyl Herbicide to the spray tank with the agitation system engaged. Top up to the correct volume with water. **THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.**

In tank mixes, United Farmers Metsulfuron Methyl Herbicide must be in suspension before adding the companion herbicide or surfactant.

For application of United Farmers Metsulfuron Methyl Herbicide in liquid fertiliser, slurry the product in water then thoroughly mix the slurry into the liquid fertiliser. Check compatibility before mixing United Farmers Metsulfuron Methyl Herbicide in fertiliser solutions. DO NOT add a surfactant/wetting agent.

COMPATIBILITY

United Farmers Metsulfuron Methyl Herbicide is compatible with the commonly used broadleaf herbicides, Agtryne¹, Brominil M¹, Dicamba, Diuron 500, UFCC Diuron 900 WG, Jaguar¹, UFCC Clopyralid, UFCC MCPA Amine, UFCC LVE MCPA, UFCC Metribuzin, Starane¹, Terbutryn, Tigrex¹, Tordon 242¹, Tordon 50-D¹, UFCC 2,4-D-Amine, and non-selective glyphosate herbicides eg. United Farmers Glyphosate 450.

United Farmers Metsulfuron Methyl Herbicide is compatible with the commonly used insecticides UFCC Chlorpyrifos and omethoate (eg. Le-mat¹) Some increased temporary

crop yellowing may occur when United Farmers Metsulfuron Methyl Herbicide is applied as a tank mix with these insecticides.

To extend the weed range, add UFCC MCPA Amine, UFCC 2,4-D-Amine, Diuron 500, UFCC Diuron 900 WG and Terbutryn at label rates (Vic only).

The compatibility of United Farmers Metsulfuron Methyl Herbicide with grass herbicides varies between products and weeds species (refer following table).

¹ Not trade marks of United Farmers Cooperative.

United Farmers Metsulfuron Methyl Herbicide PLUS	Biological Compatibility		
	Wild Oats	Annual Ryegrass	Phalaris
Puma ¹	Yes		NO
UFCC Diclofop Methyl	Refer to notes on United Farmers Metsulfuron Methyl Herbicide with Diclofop Methyl based products or mixed with Tristar ¹	Refer to notes on United Farmers Metsulfuron Methyl Herbicide with Diclofop Methyl based products or mixed with Tristar ¹	-
Tristar ¹			No
Achive ¹	No	No	No
Mataven L ¹	No	-	-

Notes on United Farmers Metsulfuron Methyl Herbicide/Diclofop Methyl based products or United Farmers Metsulfuron Methyl Herbicide/Tristar mixtures.

- United Farmers Metsulfuron Methyl Herbicide and Diclofop Methyl based products or Tristar can be tank mixed, but when this mixture is used, some reduction in grass weed control can be expected
- For heavy infestations of grass weeds, control may be inadequate – Vic and Tas only
- Significant reduction in grass weed control should be expected – SA only
- United Farmers Metsulfuron Methyl Herbicide and Diclofop Methyl based products or Tristar¹ are not a recommended mixture because they result in significant reduction in grass weed control and/or crop damage – WA only
- Consult company representatives for further information or advice.

¹ Not trade marks of United Farmers Cooperative.

USE OF SURFACTANT/WETTING AGENT

Always add a non ionic surfactant (1000g ac/L) at 100mL/100L of final spray volume (0.1% volume/volume). The use of spraying oils is NOT recommended.

NOTE : DO NOT add a surfactant/wetting agent when United Farmers Metsulfuron Methyl Herbicide is tank mixed with Terbutryn or Diuron 500.

GROUND SPRAYING

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

AERIAL SPRAYING

For weed control in crops

Apply in a minimum of 20L/ha water. Application in a higher water volume of 30L/ha will improve the reliability of weed efficacy. Avoid spraying in still conditions and in winds likely to cause drift onto adjacent sensitive crops or fallow areas likely to be planted to these crops – see Crop Rotation Recommendations. Turn off spray boom whilst passing over creeks and dams.

DO NOT apply when a temperature air inversion is likely to occur.

Use of Micronair equipment is not recommended due to greater drift potential.

For brush control – (by helicopter only)

Apply in a minimum of 100L/ha on Blackberries or 60L/ha on Mimosa pigra, and up to a maximum of 200L prepared spray per ha. Higher water volumes may be necessary to ensure adequate coverage where bushes are large and terrain is steep. Spray with a properly calibrated helicopter using the half overlap opposite pass technique. Avoid spraying in still conditions and where conditions favour temperature inversions. Avoid spraying where drift can move onto crops, areas likely to be planted to crops and non-target pastures, as injury may occur. Turn off spray booms whilst passing over creeks and dams.

Sprayer Cleanup

To avoid subsequent injury to crops other than wheat, barley, triticale, or cereal rye, immediately after spraying thoroughly remove all traces of United Farmers Metsulfuron Methyl Herbicide from mixing and spray equipment as follows :

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 300mL household chlorine bleach (containing 4% chlorine) per 100L water. Flush through boom and hoses then allow to stand for 15 minutes with agitation engaged, and then drain.
3. Repeat step 2
4. Nozzles and screens should be removed and cleaned separately. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.

CAUTION : DO NOT use chlorine bleach with ammonia. All traces of liquid fertiliser containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding chlorine bleach solutions. Failure to do so will release a gas with a musty chlorine odour which can cause, eye, nose and lung irritation. DO NOT clean equipment in an enclosed area.

RESISTANT WEEDS WARNING

United Farmers Metsulfuron Methyl Herbicide is member of the sulfonylurea group of herbicides and has the inhibitor of the enzyme acetolactate synthase (ALS) mode of action. For weed resistance management United Farmers Metsulfuron Methyl Herbicide is a Group B herbicide.

Some naturally occurring weed biotypes resistant to United Farmers Metsulfuron Methyl 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 United Farmers Metsulfuron Methyl Herbicide or other ALS inhibitor herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, United Farmers accepts no liability for any losses that may result from the failure of United Farmers Metsulfuron Methyl Herbicide to control resistant weeds. To prevent, or at least minimise

the risk of resistant weeds can be an indication that resistance is developing. Efforts should be taken to prevent seed set of these survivors.

DO NOT apply United Farmers Metsulfuron Methyl Herbicide alone for fallow and preplant knockdown weed control.

DO NOT make more than one application of an ALS inhibitor herbicide to a crop, either preplant, incorporated by sowing or post crop and weed emergence.

If the user suspects that an ALS inhibitor resistant weed is present, United Farmers Metsulfuron Methyl Herbicide or other ALS inhibitor herbicides should not be used.

Strategies to minimise the risk of herbicide resistance are available.

Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local United Farmers representative.

CROP ROTATION RECOMMENDATIONS

Land previously treated with United Farmers Metsulfuron Methyl Herbicide should not be rotated to crops other than those listed in the table below.

Tolerance of other crops (grown through to maturity) should be determined on a small scale before sowing into larger areas.

The United Farmers Metsulfuron Methyl Herbicide treated area may be replanted to any of the specified crops after the interval indicated in the following table.

Soil pH*	MINIMUM RECROPPING INTERVAL			
	10 days	6 weeks	9 months	14 months
5.6-8.5	Wheat	Barley Cereal Rye Triticale	Chickpeas Faba Beans Linseed Lucerne Lupins Medics** Oats Peas Rapeseed Safflower Subterranean** Clover	Japanese Millet Maize Panorama Millet White French Millet Sorghum Soybeans Sunflower
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.

**Involves natural regeneration of subterranean clover and medics.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Injury to or loss of desirable trees or vegetation may result from the failure to observe the following:

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 or allow spray to drift onto adjacent crops and non-target desirable plants, or onto agricultural land scheduled to be planted to other crops as injury to the crop may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate any body of water by spraying, cleaning of equipment or disposal of waste.

PROTECTION OF LIVESTOCK

A nil withholding period is applicable to United Farmers Metsulfuron Methyl Herbicide. It is recommended, however, not to graze treated areas for 2 to 3 days to ensure product efficacy.

STORAGE AND DISPOSAL

KEEP OUT OF REACH OF CHILDREN. Store in the closed, original container in a dry, well-ventilated area, as cool as possible, but out of direct sunlight.

DO NOT re-use container. Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and products 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.

For further information refer to the Material Safety Data Sheet or phone the Poisons information centre on 131126.

CONDITIONS OF SALE

The use of United Farmers Metsulfuron Methyl Herbicide being beyond control of the manufacturer, no warranty, expressed or implied is given by United Farmers regarding its suitability, fitness or efficacy for any purpose for which it is used by the buyer whether in accordance with the directions or not and United Farmers accepts no responsibility for any consequences whatsoever resulting from the use of this product.

¹ Not trademark of United Farmers Cooperative.

IN EMERGENCY DIAL 000 POLICE OR FIRE BRIGADE	FOR SPECIALIST ADVICE IN AN EMERGENCY CALL 1800 705 766 (24 HOURS)
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