

# **CAUTION**

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



ACTIVE CONSTITUENT: 570 g/L GLYPHOSATE (present as the potassium salt)

GROUP M HERBICIDE

Non-selective herbicide for the control of many annual and perennial weeds.

IMPORTANT: READ LEAFLET BEFORE USING THIS PRODUCT

® Roundup Ultra is a registered trademark of Monsanto Technology LLC

APVMA Approval No.: 68506/106923

# **DIRECTIONS FOR USE**

#### **RESTRAINTS**

DO NOT disturb weeds by cultivation, sowing or grazing for six hours of daylight following treatment of annual weeds and seven days for perennial weeds to ensure herbicide absorption, unless specified otherwise in critical comments.

# **CONSERVATION TILLAGE**

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA FULL SOIL DISTURBANCE	Barley Grass, Brome Grass, Volunteer Cereals, Wild Oats	320—625 mL/ha pre-tillering 625–795 mL/ha post-tillering	Rate Selection Use higher rates for advanced weed growth or when treating under cold/ overcast conditions. Cultivation or planting may proceed from 1 hour of daylight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seedling establishment.  Bentgrass Use a rate of 1.6 L/ha. Apply in late Spring following initiation of seed-head emergence. Follow up with full disturbance with a tyned implement 10-21 days after spraying.  Silvergrass When treating dense infestations of Silvergrass, use higher rate, add Wetter TX™ and use water volumes of 70 L/ha or more to improve coverage.  Perennial Weeds Roundup Ultra <sup>®</sup> MAX will provide seasonal control and reduction in plant numbers. Control of Skeleton weed requires addition of full soil disturbance at planting.  In Tasmania, for perennial weeds use 950 mL−1.9 L/ha.
Prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement	Annual Phalaris, Annual Ryegrass, Silvergrass, Winter Grass	625–795 mL/ha pre-tillering 795–950 mL/ha post-tillering	
	Calomba Daisy, Capeweed, Doublegee/Spiny Emex, Fumitory, Volunteer Lupins, Volunteer Peas	320–625 mL/ha less than 8 cm dia/height 625–950 mL/ha greater than 8 cm dia/height	
	Amsinckia, Dock (seedling), Paterson's Curse, Saffron Thistle, Scotch Thistle, Spear Thistle, Variegated Thistle, Wild Turnip	625–795 mL/ha less than 12 cm dia/height 795–950 mL/ha greater than 12 cm dia/height	
	Bentgrass, Perennial Phalaris, Skeleton Weed, Sorrel, Sub.Clover	950 mL-1.9 L/ha	



SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA MINIMAL SOIL	Barley Grass, Canary Grass, Wild Oats, Volunteer Cereals	625–950 mL/ha	Rate Selection Use the lower rate on young weeds; increase to the higher rate where grasses reach full tillering or where broadleaf weeds commence stem elongation or budding. Use higher rates in Spring and under cold conditions. In Tasmania use
DISTURBANCE To commence a fallow OR Prior to planting a crop or pasture with an implement that gives minimal oil disturbance or prior to surface seeding of pastures	Annual Ryegrass, Brome Grass, Capeweed, Paterson's Curse, Saffron Thistle, Scotch Thistle, Silvergrass, Soursob, Spear Thistle, Variegated Thistle, Wild Mustard, Wild Radish, Wild Turnip, Winter Grass  Bentgrass, Bathurst Burr, Couch, Dock, Erodium, Flatweed, Hoary Cress, Kikuyu, Plantain, Paspalum, Perennial Phalaris, Sorrel, Sub. Clover, Yorkshire Fog	950 mL- 1.25 L/ha 1.2-1.9 L/ha	950 mL-1.9 L/ha with the higher rate for control of perennial weeds.  Pasture or Crop Establishment DO NOT sow into excessive trash. Excessive plant residues may be removed by grazing after treatment. Planting may proceed from 1 hour of daylight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seedling establishment.  Aerial (or Surface) Seeding Delay seeding until trash level is reduced to allow for satisfactory placement of broadcast seed on the soil surface.  Bathurst Burr For mature weeds use the higher rate.  Bentgrass Use a rate of 1.6 L/ha. Apply in late Spring following initiation of seed-head emergence. Follow up with full disturbance with a tyned implement 10-21 days after spraying.  Couch, Kikuyu, Paspalum Use the higher rate on dense infestations. Apply sequential treatments during Summer and Autumn. Repeat applications will be required for full control. For improved control, use in conjunction with cultivation.  Kikuyu, Paspalum Use the low rate for suppression, the high rate for control.  Dock, Flatweed Use the maximum rate for full control.  Hoary cress Treat from late rosette to early flowering.  Silvergrass When treating dense infestations of Silvergrass, use higher rate, add Wetter TX™ and use water volumes of 70 L/ha or more to improve coverage.  Soursob Use at a rate of 950 mL/ha. Treat at tuber exhaustion.
	Poa Tussock	1.9–2.5 L/ha	Timing Treat fresh regrowth (at least 14 days after heavy grazing) after Autumn break and before onset of heavy frosts. Sowing may start from 14 days after spraying.
Pasture Topping	Annual Ryegrass	285–645 mL/ha	Remove livestock prior to application to allow even regrowth. Use
	Barley Grass, Brome Grass, Capeweed, Silvergrass	190-285 mL/ha	lower rate if grasses are flowering and higher rate if at the milky dough stage.  Apply to Capeweed and Calomba Daisy at flowering. DO NOT add
	Calomba Daisy	285 mL/ha	Wetter TX <sup>™</sup> . DO NOT apply to clover or medic crops intended for seed production.
Seed-head Suppression	Bentgrass	225-400 mL/ha	Apply treatments late October to late November, before seedheads have emerged. Add Wetter TX™. Use the higher rate where growth is excessive. Graze hard after spraying.
SOUTHERN AUSTRALIA	Serrated Tussock	2.5-3.8 L/ha	Apply to actively growing and stress free plants. Best results May to October.
NSW, ACT, Vic, Tas only For control/			Application: Boom spray volume of 70 L/ha or more is recommended to improve plant coverage. Also see Aerial Equipment.
suppression prior to			Surfactants: Addition of 200 mL of Wetter TX™ to 100 L of spraying solution may improve control of Serrated Tussock.
establishing crops or improved pasture species			Site Preparation: Burning of Serrated Tussock 10-12 months before spraying or slashing/heavy grazing (cell grazing) 2 weeks before spraying is essential for good results (Note: Serrated Tussock is almost indigestible and prolonged exposure can lead to starvation and death of stock).  Rates: Use lower rate on Serrated Tussock regrowth after burning (no residual dead foliage). Use higher rate on Serrated Tussock that has been slashed or grazed (may contain some residual dead foliage).
For prevention of seed head emergence and seed formation	Serrated Tussock	475–795 mL/ha	Apply to actively growing and stress free plants. Best results obtained during mid September – mid October. Apply prior to any seed head emergence. Also see Aerial Equipment.  Surfactants: Addition of 200 mL of Wetter TX <sup>™</sup> to 100 L of spraying solution may improve results.
			Rates: The lower rates will be less damaging to desirable pasture species. If seed head emergence is imminent then higher rates will give better results.



SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallows or prior to planting a crop Cotton: Shielded Sprayers	Paradoxa Grass, Volunteer Cereals, Wild Oats	320-625 mL/ha	Rate Selection Use the lower rates on young weeds and increase the higher rate where weeds are dense or well developed. Dense infestations of some weeds e.g. Barnyard Grass, Liverseed (Urochloa) grass may need follow up treatments for complete
	African Turnip Weed, Black Pigweed, Boggabri Weed, Caltrop (Yellow vine), Deadnettle, Mintweed, Milk (sow) Thistle, Stinkgrass (Lovegrass), Sweet Summer Grass, Variegated Thistle, Volunteer Sorghum	425–625 mL/ha up to 5 true leaves or 3 cm in dia/height 625 mL–1.3 L/ha greater than 5 true leaves or 3 cm in dia/height	Tank Mixtures Read and follow all label directions, restraints, plant-back and withholding periods, regional use restrictions and safety directions for the tank-mix products. Tank mixes with atrazine may give unacceptable knockdown control of certain weeds. DO NOT apply the tank-mix for control of Barnyard Grass, Liverseed Grass or Milk Thistle. Nufarm Liase may enhance knockdown weed control where tank mixtures of atrazine are used.
	Annual Ground Cherry, Barnyard Grass, Bathurst Burr, Bladder Ketmia, Button Grass, Camel (Afgan) Melon, Caustic Weed, Columbus Grass, Liverseed Grass, Mexican Poppy, Native Millet, New Zealand Spinach, Noogoora Burr, Pigweed (up to 25 cm dia.), Spear Thistle, Stinking Goosefoot, Thornapple (Datura), Turnip Weed, Wild/Prickly Lettuce, Wireweed	625 mL-1.3 L/ha	Shielded Sprayers Apply Roundup Ultra®MAX to weeds growing between crop rows using a shielded sprayer. DO NOT apply in cotton less than 20 cm high. DO NOT allow spray or spray drift to contact any part of the Cotton plant as severe injury may result.  Pasture or crop establishment DO NOT sow into excessive trash. Excessive plant residues may be removed by grazing after treatment. Cultivation or planting may proceed from 1 hour of sunlight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seedling establishment.
	Prickly Paddy Melon	610 mL-1.25 L/ha plus 80 mL Invader® 600 / Garlon* 600	DO NOT add crop oil.
	Climbing Buckwheat (less than 12 leaves), Couch, Johnson Grass	1.2–1.9 L/ha	Use the higher rate on plants at the flowering/seedhead stage. For Johnson Grass apply to plants with a minimum of 30 cm new growth. For long term control of Couch and Johnson Grass, repeat applications will be required.
	Nutgrass (Cyperus rotundus)	1.9 L/ha followed by 1.9 L/ha	Make first application to actively growing plants when the majority of plants have reached at least the 6-8 leaf stage but preferably later. Allow for maximum re-emergence before retreating.
Sugar cane: Inter-row Spraying	Annual and Perennial Grasses and Broadleaf Weeds	1.1–4.7 L/ha	Apply to weeds growing between crop rows using a ground based hooded and shielded sprayer. Apply at early growth stage of crop, before formation of the cane. Apply no more than 3 applications, to a maximum of 11.4 L/ha per crop. DO NOT allow spray or spray drift to contact any part of the crop as severe injury may result.
SUGAR CANE Ratoon spray out Qld, NSW only	Sugar Cane ratoon regrowth	3.8–5.7 L/ha	Apply under good growing conditions only to actively growing ratoons 60-120 cm tall. DO NOT apply if plants are under stress from low moisture or water logging. Use the lower rate for suppression or where cultivation is to follow.  Use higher rate for control.
Sorghum Control	Grain-sorghum (pre- harvest)	945 mL-1.9 L/ha	DO NOT apply if crop is under stress from low moisture, frost, cold or waterlogging. Apply when grain moisture is less than 25%. Use the higher rate where the crop has produced significant number of late tillers or where following crops will be established without further treatment. DO NOT apply to crops intended for seed production. Treatment may increase potential for crop lodging. Under any set of environmental conditions, individual varieties can vary in response to preharvest treatments. In general, varieties with a more "determinant" growth habit are more susceptible than "indeterminant" varieties.
	Grain-sorghum (post- harvest)	625 mL-1.3 L/ha	Slashed/grazed stubble. Apply when fresh regrowth is at least 20 cm high. Use the higher rate on standing stubble or where re-growth from slashed sorghum has advanced beyond 50 cm in height.
Cotton pre-harvest	Bathurst Burr, Noogoora Burr, Winter Annual Weeds	795 mL-1.6 L/ha	Treatments may be applied alone or in a tank mix with Dropp* or Harvade*. Apply when 60% of bolls are open. When tank mixed with conditioner/defoliant treatments, a slightly higher proportion of cotton leaf may be retained particularly where higher rates are used and conditions are unfavourable for defoliation.



SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
PRE-HARVEST APPLICATION	Annual Weeds	850 mL-3.4 L/ha	Apply to mature crop from late dough stage (28% moisture) onwards. The higher rate will be required when crops are heavy and leaf shading effects may occur.
as harvest aid and weed control:			DO NOT harvest within 5 days after application.
Wheat			DO NOT use on crops intended for seed or sprouting.
(Triticum aestivum)			Where Wheat is grown in rotation with any herbicide tolerant crop, management should be consistent with implementation of any management plan for herbicide tolerant crops.
PRE-HARVEST APPLICATION to reduce viable	Annual Ryegrass (Lolium rigidum)	300–645 mL/ha	Use lower rate if Ryegrass is flowering and higher rate if Ryegrass is at milky dough stage. Application should be made at or after crop maturity.
seed set of weeds in:			Application before this time may significantly reduce yields (in practice losses in excess of 25% can occur).
Field Peas			Apply when the average seed moisture content is below 30%.
(Pisum sativum) Faba Beans			For Faba Beans, this is indicated by the pods going black, and for Field Peas by the pods going yellow.
(Vicia faba)			DO NOT harvest within 7 days after application.  DO NOT use on crops intended for seed or sprouting.
PRE-HARVEST APPLICATION To desiccate a	Annual Weeds	645 mL-1.7 L/ha	Apply with boom or by air. Use higher rates where crops or weeds are dense and where faster desiccation is required. Application should be made at or after crop maturity:
crop as a harvest aid and weed			Chickpeas and Lentils - apply when physiologically mature and less than 15% green pods.
control  Adzuki beans,			Faba Beans - apply when pods turn black and average seed moisture content is below 30%.
Chickpeas, Cowpea, Faba Beans, Field			<b>Field Peas</b> - apply when seeds turn yellow and average seed moisture content is below 30%.
Peas, Lentils, Mungbeans,			Mungbeans / Adzuki and Cowpea- apply to mature crops when pods are brown/black.
Soybean (Application to			<b>Soybean</b> -apply only after seed pods have lost all green colour and 80-90% of leaves have dropped.
crops intended for seed production or for sprouting may reduce germination percentage to commercially unacceptable			DO NOT harvest within 7 days of application. Speed of crop desiccation is dependent on crop stage, growing conditions and weather conditions during and after application.
PRE-HARVEST APPLICATION	Annual Weeds	1.2-3.4 L/ha	Apply to mature standing crop from early senescence (minimum of 20% of canola seeds as a random visual sample from various
As harvest aid and weed			heights in the crop canopy from the main stem have changed to a dark brown/black colour) prior to windrowing or direct harvest.
control  Canola (Brassica napus) (including			Application can also be made at the time of windrowing (windrow equipment fitted with spray booms). To avoid shatter losses from ground boom application, apply before complete senescence of the crop.
TruFlex Roundup			Use the higher rate specified in the rate column when crops or weeds are dense and where faster desiccation is required.
Ready <sup>®</sup> , Roundup			DO NOT apply after completion of the windrowing process.
Ready <sup>®</sup> ,			DO NOT use on crops intended for seed.
conventional, triazine tolerant			DO NOT direct error at windrows
and			DO NOT direct spray at windrows.  DO NOT apply to standing crops and again at the time of
CLEARFIELD® varieties)			windrowing.  Speed of crop desiccation is dependent on crop stage, growing
			conditions and weather conditions during and after application.  For application to standing crops a minimum water rate of 80 L/ha is
			recommended to ensure adequate coverage of target weeds below the crop canopy.
			Any subsequent weed management strategies should involve an integrated weed management (IWM) approach to minimise development of glyphosate resistance.



SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS	
Pastures, Forests Commercial and Industrial areas Rights-of-way Domestic and Public Service areas	Blackberry (Rubus spp.) Volunteer Pine wildlings (suppression only)	Handgun or Knapsack 250 mL Roundup Ultra®MAX plus 3 g Associate® per 100 L of water Aerial or Boom For Blackberry and Volunteer Pine wildlings: 5 L plus 60 g Associate® per ha For Bracken: 2.5 L plus 30 g Associate® per ha	For Blackberries, apply from flowering until prior to leaf yellowing. Due to widespread picking of Blackberries by the public, it is not recommended that the product be applied to bushes bearing mature fruit.  Application to Pine wildlings less than 50 cm in height should be controlled when actively growing. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L water.	
	Bracken (Pteridium esculentum)		For Bracken, apply when fronds are fully unfurled but prior to first frosts. For boom application, refer to Boom application section. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L of water.	
	Gorse (Ulex europaeus)		For Gorse, apply when actively growing at any time of year, except Spring. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L of water.	
	Lantana (Lantana camara)		For Lantana, apply when actively growing. DO NOT apply during periods of Summer drought stress. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L of water.	
	St John's Wort (Hypericum perforarum)			For St John's Wort, apply when actively growing from Spring to Summer. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L of water.
	Sweet Briar (Rosa rubiginosa)		For Sweet Briar, apply when in full leaf, prior to leaf fall. Use Pulse® Penetrant at the rate of 200–500 mL per 100 L of water.	



SITUATION	CRITICAL COMMENTS READ APPLICATION CHECKLIST BEFORE USING See Annual, Perennial and Woody Weeds sections below for most appropriate rate.	
GENERAL WEED CONTROL  For General Weed Control in Domestic Areas (Home Gardens), Commercial, Industrial and Public Service Areas, Agricultural Buildings and other Farm Situations.  For Specific Weeds Refer to the appropriate Weeds Controlled Table	For the control of many grasses and broadleaf weeds.  RATE: 6.5mL per litre of water  Apply when weeds are actively growing. Apply to ensure complete and uniform wetting of foliage. Visible symptoms may take from 3 to 7 days to develop.	
Agricultural Areas	Roundup Ultra® MAX may be used for control of annual, perennial and woody weeds as directed, in agricultural land prior to sowing of any edible or non-edible crop, but not prior to transplanting tomato seedlings.	
Dry Drains and Channels only	DO NOT apply to weeds growing in or over water.  DO NOT spray across open bodies of water, and DO NOT allow spray to enter the water.  DO NOT allow water to return to dry channels and drains within 4 days of application.	
Forests	Roundup Ultra® MAX may be used prior to establishment of nurseries, for site preparation prior to planting and amongst established trees using a directed or shielded spray, or using selective wiper equipment.  DO NOT allow wiper surface to contact any part of the tree.  DO NOT allow spray or spray drift to contact foliage or green bark of desirable trees, since severe injury may result.	
Non-Agricultural Areas Around Buildings, Commercial and Industrial Areas, Domestic and Public Service Areas, Right-Of-Ways.	Roundup Ultra® MAX does not provide residual weed control. For residual control of annual weeds, Roundup Ultra® MAX may be tank mixed with certain residual herbicides. See Tank Mixtures/Compatibility.	
Tree and Vine Crops Vineyards, Berries and other Small fruits (excluding Strawberry), Citrus fruits, Tropical and Sub-Tropical fruits, Pome fruits, Stone fruits, Tree nuts, Duboisia,	Apply as a directed or shielded spray or using wiper equipment. DO NOT apply as spray near trees or vines less than 3 years old unless they are effectively shielded from spray and spray drift. DO NOT allow wiper surface to contact any part of the tree, vine or plant.  Citrus Fruit, Nuts, Olives, Pome Fruit & Vineyards DO NOT allow spray or spray drift to contact green bark or stems, canes, laterals, suckers, fresh wounds, foliage or fruit.	
Hops, Tea	Hops Apply in Winter, prior to crop emerging from dormancy.  Tea Apply a maximum of 2.6 L/ha by shielded boom or directed off-centre nozzle or 320 mL/100 L by directed hand-gun or knapsack to avoid application to the crop.	
	All other crops DO NOT allow spray or spray drift to contact any part of the plant including the trunk.  CAUTION Where split bark on Kiwifruit and green stems on Pawpaw occur, extreme care is required.	
Pasture	DIRECTED (SPOT) APPLICATION Roundup Ultra® MAX is non-selective and may damage or kill any plant in the sprayed area. Re-treatment and/or pasture improvement may be necessary to restrict seedling re-establishment.  SELECTIVE APPLICATION See Wiper Equipment.  BOOM APPLICATION Roundup Ultra® MAX may be used to suppress or kill existing pasture species prior to re-seeding or establishment of other crops. When spot application (spray or wiper) is undertaken, grazing stock need not be removed.  CAUTION Certain plants may be naturally toxic to stock. Where known toxic plants are present do not allow stock to graze until complete browning of treated plants has occurred.	



WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
ANNUAL WEEDS  Amaranth, Bathurst Burr, Barley Grass, Brome Grass, Barnyard Grass, Caltrop, Canary Grass, Capeweed, Chickweed, Cobbler's Peg, Deadnettle, Doublegee, Fumitory, Ground Cherry, Hedge Mustard, Lesser Swinecress, Liverseed Grass, Mintweed, Noogoora Burr, Paradoxa Grass, Paterson's Curse, Pigweed, Potato Weed, Ryegrass, Saffron Thistle, Silvergrass, Sow Thistle, Spear Thistle, Spiny Burrgrass, Spurge, Sub clover, Thornapple, Wild Mustard, Wild Oats, Wild Turnip, Winter Grass, Variegated Thistle, Volunteer Cereal	Boom: 1.27–1.9 L/ha Handgun: 310–455 mL per 100 L Knapsack: 45–65 mL per 15 L	Apply to weeds whenever they are not subject to stress due to drought or frost. Use higher rate on weeds over 15 cm in height or diameter or where dense weed cover limits spray coverage. Use higher spot spraying rate when applying less than 5 L spray per 100 sqm. Roundup Ultra® MAX does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds.  For residual control of annual weeds Roundup Ultra® MAX may be tank-mixed with certain residual herbicides. See Tank Mixtures in the General Instructions for directions.  DO NOT use an atrazine tank-mix for control of Barnyard Grass or Liverseed Grass.
PERENNIAL WEEDS  Artichoke Thistle, African Lovegrass, Bentgrass, Carpet Grass, Cocksfoot, Flatweed, Johnson Grass, Kangaroo Grass, Kikuyu, Nutgrass (Cyperus rotundus), Paspalum, Phalaris, Plantains, Poa Tussock, Prairie Grass, Qld Blue Grass, Red-leg Grass, Rhodes Grass, Rope Twitch, Sorrel, Soursob, Yorkshire Fog	Boom: 1.8–3.7 L/ha Handgun: 445–625 mL per 100 L Knapsack: 65–95 mL per 15 L	Control of established perennials is best obtained when plants are at the seedhead stage. In general best control of Winter growing perennials is obtained with application during Winter-Spring. Best control of Summer growing perennials is obtained with application late Summer and Autumn.  For Nutgrass in cultivated situations apply sequential low rate treatments when Nutgrass has a minimum of 6-8 leaves. Use the higher rate in uncultivated situations.  For Rhodes Grass, Rope Twitch, Praire Grass, Qld Blue Grass, Johnson Grass, Kangaroo Grass, Kikuyu, Redleg Grass, Paspalum and Sorrel, use the higher rates only.
Blady Grass, Bracken, Couch, Guinea Grass,  *Paragrass, Silverleaf Nightshade,  *Water Couch  *Use on Dry Drains and Channels ONLY (see Use Situations Critical Comments above)	Boom: 5.6 L/ha Handgun: 825 mL or 1.27 L per 100 L Knapsack: 125 or 190 mL per 15 L	For Bracken add Pulse® at 200–500 mL/100 L spray mix.  Best control of Couch in WA and SA is obtained with Spring treatment. Most effective control of Couch in eastern states is obtained with Summer and Autumn treatments. In cultivated situations use sequential treatments of 1.8–4.0 L/ha for control. Only use higher rate for handgun and knapsack for Silverleaf Nightshade.
WOODY WEEDS Bamboo, Bitou Bush, Boneseed, Boxthorn, Crofton Weed, Gorse, Groundsel Bush, Lantana, Mistflower	Handgun: 310–625 mL per 100 L Knapsack: 45–95 mL per 15 L	Apply to actively growing plants. DO NOT apply to drought stressed plants. Further treatment may be necessary to restrict seedling reestablishment.  Bamboo, apply when foliage/regrowth is 1-2 m tall, use higher rate only.  Bitou Bush/Boneseed, apply higher rate on bushes greater than 1.5m. Best results are achieved when treated at peak flower during Winter.  Boxthorn minimum rate is 450 mL for handgun and 65 mL for knapsack.  Groundsel Bush, apply higher rate on bushes greater than 2 m.  DO NOT apply in Winter. Minimum rate is 450 mL for handgun and 65 mL for knapsack.  Gorse, always add Pulse® at 200–500 mL/100 L of spray mix, use higher rate only.  Lantana, use higher rate only. Addition of Pulse® (200–500 mL/100 L) may improve control.  Boxthorn, Gorse, Lantana Removal of bushes (after complete brownout), pasture improvement or further treatment are recommended to control seedlings and/or regrowth.
Blackberry, Chinese Scrub, Eucalyptus spp. (seedlings less than 2 m), Hawthorn, Pampas Grass, Sifton Bush, Sweet Briar, Willow (less than 2 m)	Handgun: 625–825 mL per 100 L Knapsack: 95–135 mL per 15 L	Apply to actively growing plants. Removal of bushes (after complete brownout), pasture improvement or further treatment are recommended to control seedlings and/or regrowth.  Blackberry, apply from flowering to leaf fall, use higher rate on old dense infestations greater than 2 m high. In Tasmania, DO NOT treat bushes bearing mature fruit.  Chinese Scrub, use higher rates on bushes greater than 1 m.  Eucalyptus spp., add Pulse® at 200–500 mL/100 L of spray mix.  Hawthorn, apply from flowering to leaf fall, use higher rates on bushes greater than 2 m.  Pampas Grass, allow regrowth to reach 1 m, best results-apply after flowering.  Sifton Bush, use higher rates on bushes greater than 1 m.  Sweet Briar, apply from late flowering to leaf fall, use 950 mL – 1.3 L/100 L, and 140–190 mL/15 L, use higher rates on bushes greater than 1.5 m.



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

WITHHOLDING PERIODS:

GRAZING: WHEAT: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 5 DAYS AFTER APPLICATION.

FOR OTHER CROPS: NOT REQUIRED WHEN USED AS DIRECTED

HARVEST: WHEAT: DO NOT HARVEST WITHIN 5 DAYS AFTER APPLICATION

SORGHUM AND LEGUMES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION

ALL OTHER USES: NOT REQUIRED WHEN USED ASDIRECTED

TANK MIXTURES: REFER TO TANK MIX PARTNER LABEL AND FOLLOW ACCORDINGLY

#### **EXPORT OF TREATED PRODUCE**

Growers should note that MRL's or import tolerances do not exist in all markets for produce treated with Roundup Ultra® MAX Herbicide. If you are growing produce for export, please check with Monsanto Australia Limited for the latest information on MRL's and import tolerance before using Roundup Ultra® MAX Herbicide.

# **GENERAL INSTRUCTIONS**

#### PRODUCT INFORMATION

Roundup Ultra® MAX is a non-volatile, non-selective, water soluble liquid herbicide for the control of annual and perennial grasses and broadleaf weeds in a wide range of agricultural and non-agricultural use situations. Roundup Ultra® MAX may be used for weed control on agricultural land prior to planting any edible or non edible crop but not prior to transplanting tomatoes. When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 20 mm of natural rainfall or by applying water via a sprinkler irrigation system.

Roundup Ultra® MAX is absorbed by plant foliage and green stems. It is inactivated on clay and organic matter in soil and does not provide residual weed control. Roundup Ultra® MAX moves throughout the plant from the point of contact to and into the root system. Initial visible effects on annual weeds take 3-7 days but may not be noticeable for 2 to 3 weeks under cool cloudy conditions or on some perennial weeds. Roundup Ultra® MAX Herbicide will not control Roundup Ready® canola volunteers at any leaf stage.

## **RESISTANT WEEDS WARNING**

Roundup Ultra® MAX Herbicide is a member of the Glycines group of herbicides. Roundup Ultra® MAX has the inhibition of EPSP synthase mode of action. For weed resistance management Roundup Ultra® MAX is a Group M herbicide. Some naturally occurring weed biotypes resistant to Roundup Ultra® MAX and other Group M herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the

Group M 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 Roundup Ultra® MAX or other Group M herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Monsanto Australia Limited accepts no liability for any losses that may result from the failure of Roundup Ultra® MAX to control resistant weeds.

To minimise the risk of weeds developing resistance to Roundup Ultra® MAX Herbicide, use in conjunction with herbicides from alternative mode of actions groups and/or non-chemical weed control measures.

#### **CROP ESTABLISHMENT**

Roundup Ultra® MAX is recommended for control of emerged weeds prior to crop establishment. Cultivation and/or planting operations which provide conditions suitable for crop emergence and establishment are required following herbicide application. Where heavy weed growth is present or soil conditions are unsuitable, planting should be delayed to allow for decay of weeds and/or development of more favourable soil conditions for the formation of a suitable seedbed. Incorporation of green or decaying vegetation may retard crop emergence under cold, wet conditions. Vegetation may be reduced by grazing and weed decay may be assisted by cultivation to leave trash on the surface.

#### **GRAZING**

A grazing withholding period is required for wheat but for other crops a withholding period for grazing is not required. However, it is recommended that grazing of treated plants be delayed to ensure herbicide uptake. Certain plants such as Soursob, Variegated thistle, Sorghum and Johnson grass may be naturally toxic to stock when eaten in large quantities under certain conditions. Where plants are known to be toxic, grazing should be delayed until complete desiccation of treated plants has occurred.



#### MIXING

Roundup Ultra® MAX mixes readily with water. Reduced results may occur if water is used containing suspended clay or organic matter e.g. from dams, streams and irrigation channels, or high levels of calcium, magnesium or bicarbonate ions.

DO NOT mix, store or apply this product in galvanized steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic lined containers or spray tanks. Spray tanks, pumps, lines and nozzles should be thoroughly cleaned with clean water following application. Ensure that the spray tank is free of any residue of other spray solutions prior to mixing. Use spray solutions promptly as a gradual loss of activity may occur over a period of days following spray preparation.

#### Mixing Instructions: General Uses

- 1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
- 2. If adding Liase™ (ammonium sulphate), use a 2% v/v and mix thoroughly.
- 3. If tank-mixing, add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
- 4. Add Roundup Ultra® MAX and the remaining water. Mix thoroughly.
- 5. Add Pulse<sup>®</sup> Penetrant or Wetter TX<sup>™</sup>, if required, near the end of the filling process.
- 6. Always maintain adequate agitation during application and use the tank mix promptly. Clean all equipment after use by washing thoroughly with water.

#### **TANK MIXTURES**

Roundup Ultra® MAX may be tank-mixed with the following herbicides, insecticides and adjuvants. Read and follow all label directions, restraints, plantback and withholding periods, and safety directions for the tank-mix products. In multiple product tank mixes a minimum water volume of 50 L/ha is recommended and local advice should be sought. Correct mixing order is important as is good in-tank agitation when application/spraying is occurring.

#### **TANK MIXTURES - HERBICIDES**

KELPIE® A-ZINE 900, KELPIE® Amine 625, Nufarm Amicide Advance 700 Selective Herbicide®, Statesman® 720, Sharpen® WG, Nufarm Estercide® 800, Nufarm Estercide® Xtra 680 (2,4-D ester), Nufarm Surpass® 475, Associate®, Boxer Gold®, Hammer® 400 EC, Avadex® Xtra, Simazine Flowable or Granular, Nufarm Kamba® 500 (dicamba), Eclipse®, Flame®, Garlon® 600, GoalTender®, Hotshot®, Invader®, 750 g/kg chlorsulfuron, 240 g/kg oxyfluorfen, Logran® 750WG, Logran® B Power (ensure fully dispersed prior to addition of Roundup Ultra® MAX), 750 g/kg clopyralid, Nufarm LVE Agritone® (MCPA LVE), MONZA®, Mako®, Rifle® 440 , Sakura® 850WG, Comet® 400, Starane® Advanced, Stomp®, Stomp® Xtra, Surflan® 500 SC, TriflurX®, Triflur® 600 and Yield®.

Other brands have not been tested.

The addition of 240 g/L oxyfluorfen at 75 mL/ha to recommended rates of Roundup Ultra® MAX prior to planting Winter cereals will improve knockdown of certain weeds.

## **TANK MIXTURES - INSECTICIDES**

This product is compatible with the following insecticides. Astound® Duo, Imidan®, Chlopyrifos 500, Lorsban® 500, Nufarm Dimethoate, Karate® Zeon, Sumitomo Sumithion® ULV, Talstar® and emulsifiable concentrates of dimethoate and fenitrothion. Other insecticides have not been tested.

## **TANK MIXTURES - ADJUVANTS**

## **Nufarm LI700 Surfactant**

At rates of 300 mL-500 mL per 100 L, LI700 may modify the droplet spectrum produced by CP and flat fan nozzles. This may reduce the proportion of FINE droplets produced by these nozzles. LI700 can be used to reduce pH in hard water situations, assisting uptake.

#### Wetter TX

Wetter TX is recommended for the control of silver grass and annual ryegrass in late Winter and Spring. Wetter TX is not a general purpose surfactant and should only be used where recommended.

Rate: 200 mL/100 L spray solution.

# Pulse® Penetrant or Brushwet Organosilicone Surfactant

Pulse® Penetrant is recommended for the control of Bracken and many woody weeds.

Rate: 200-500 mL/100 L spray solution.

### 417 g/L crystalline ammonium sulfate

A 417 g/L crystalline ammonium sulfate may be used as an adjuvant to alleviate the adverse effects of high levels of calcium, magnesium and bicarbonate ions in water.

Rate: 2 L/100 L spray solution.

DO NOT use adjuvants, surfactants or other pesticides other than those recommended on this label.

**DO NOT** use crop oil except when tank mixing with a herbicide for which an oil adjuvant is recommended to be used. The addition of a crop oil can reduce control of some grass weeds, particularly in Summer.



#### **APPLICATION**

#### **Boom Equipment**

For Broadacre boom application, a spray volume of 80 L/ha or less is recommended for broadacre uses and 200 L/ha or less for treeline and vineline spraying in orchards and vineyards. Glyphosate works better when it is present at a higher concentration in the spray solution provided sufficient coverage of the target is achieved. Nozzles and pressure settings should be selected to deliver a COARSE to VERY COARSE spray quality (as defined by ASAE S572) at the target. The use of nozzles and/or pressure settings that produce VERY FINE or FINE spray quality should be avoided as these are prone to loss or drift. In multiple product tank mixes a minimum water volume of 50 L/ha is recommended and local advice should be sought. Correct mixing order is important as is good in-tank agitation when application isoccurring.

For shielded applications a spray volume of 80 L/sprayed ha is recommended using nozzle types and pressure settings to deliver a COARSE ASAE S572 spray quality at the target. Crop damage may result if spray drift occurs through incorrect nozzle and/or pressure selection, inadequate shielding and/or wind strength, high evaporation rates or excessive ground speed.

#### High Volume Application (e.g. Knapsack, Handgun Equipment)

The dilution rate varies depending on the use situation and weeds controlled - see Weeds Controlled tables for specific rates and use recommendation. Adjust equipment to achieve an even spray pattern with a COARSE spray quality at the target. Apply to ensure complete and uniform wetting of all foliage.

#### Wiper Equipment

Wiper equipment (e.g. Ropewick, canvas, felt or carpet applicators) may be used to apply Roundup Ultra® MAX. Avoid contact with desirable vegetation. Operate wiper equipment a minimum of 10 cm above the crop or pasture. Weeds should be at least 15 cm above the crop or pasture at time of application. Speed of travel should be no greater than 8 km/h. Best results are achieved at lower speeds and where two applications are made in opposite directions (double pass). Where weeds are of variable height, or occur in dense infestations or clumps, some plants may not be contacted by the herbicide solution. In these cases repeat treatment may be necessary.

RATE: Mix 665 mL Roundup Ultra® MAX with 2.3 L clean water. Adjust flow rate to suit equipment.

#### **Controlled Droplet Application Equipment (CDA)**

Roundup Ultra® MAX can be applied through hand held and machine mounted CDA sprayers. See Weeds Controlled tables for specific rates and use recommendations. Due to the range of CDA equipment available, dilution rates, flow rates and travel speeds will need to be determined for individual sprayers to ensure labelled rates are applied. Use of Roundup Ultra® MAX at concentrations recommended for Roundup® can result in uneven droplet distribution. Spray units need to be cleaned thoroughly preferably after each application to ensure optimum performance.

DO NOT add oils to Roundup Ultra® MAX/water mixture, otherwise difficulty in application and reduced weed control may occur.

Because CDA units may deliver relatively low spray volumes per hectare, use on large weeds may result in insufficient coverage resulting in inadequate weed control.

CAUTION: CDA equipment produces a fine spray pattern which is not easily visible. Ensure spray pattern or drift does not contact foliage or any other green tissue of desirable plants, since severe injury or destruction may result.

#### **Aerial Equipment**

Roundup Ultra® MAX may be applied by aircraft for control of weeds in forests, cropland or pasture prior to establishment of crops, new pastures or new forest plantings and for pre-harvest applications, up to a maximum rate of 2.6 L/ha where specified by this label. DO NOT apply treatments by aircraft in situations where drift onto sensitive crops and pastures is likely to occur.

Apply treatments using boom or Micronair equipment using a spray volume not less than 20 L/ha and using settings to produce a COARSE to VERY COARSE spray quality (as defined by ASAE S572). In multiple product tank mixes a minimum water volume of 50 L/ha is recommended and local advice should be sought. Correct mixing order is important. Swath width should be set to take into account aircraft type, wind conditions and target height. Swath width will need to be reduced to avoid striping under light wind conditions and/or application to tall, dense targets eg, preharvest application, treatments in heavy crop stubble. Thoroughly wash aircraft after each day of spraying to remove herbicide residues.

When applying this product by helicopter in combination with Associate for the control of Blackberry and Pine wildling suppression in forestry and other specific situations, the higher rate of Roundup Ultra® MAX may be applied. Refer to the Associate label for specific recommendations and application recommendations.

# Application on hilly terrain

For aerial application on hilly terrain, increase water volume to 30-80 L/ha and use a COARSE spray quality to optimise spray coverage.

# Air temperature and relative humidity

DO NOT apply Roundup Ultra® MAX by aircraft at temperatures above 30°C. Increase spray output to at least 30 L/ha when temperatures rise above 25°C. Avoid application when relative humidity falls below 35%.



#### Wind speed and inversions

- DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour (ground application) as measured at the application site.
- DO NOT apply when wind speed is less than 3 or more than 15 kilometres per hour (aerial application) as measured at the application site.
- · You must check, determine and record the weather conditions immediately prior to, and immediately after the spray application is made.
- Record
  - -Temperatures
  - Relative Humidity
  - Delta T
  - Wind speed
  - Is there a temperature inversion?

Night Spraying - Extra care is required to ensure that inversion conditions are not present. Use smoke generator to determine wind direction and presence of inversion conditions.

Application should be avoided in wind speeds below 3 km per hour (1.5 knots) due to variable wind direction and high inversion potential.

DO NOT apply if wind is blowing towards a sensitive crop or situation and off-target damage cannot be avoided.

#### **Environmental factors**

- DO NOT treat weeds under poor growing conditions due to moisture stress, waterlogging, severe frosting, insect damage etc.
   Reduced performance may also occur where weeds are covered with dust or silt.
- Rain within 1 hour of application which causes runoff may require re-treatment. Rainfastness is reduced if weeds are not actively growing, under stress or conditions of low light intensity/darkness. The addition of Wetter TX may improve rainfastness on Winter annual weeds.
- Apply treatments to weeds which have at least one true leaf (broadleaf weeds) or two leaves (grasses) to provide an adequate surface area for herbicide uptake.
- If heavy grazing has occurred, allow regrowth to 6–8 cm before spraying and use the higher rates recommended.

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

Avoid contact with foliage, green bark or stems, canes, laterals, suckers, fresh wounds, exposed non-woody roots, flowers or fruit of crops, desirable plants and trees, since severe injury or destruction may result.

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

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

DO NOT contaminate dams, rivers or streams with the product or used container.

DO NOT apply to weeds growing in or over water.

DO NOT spray across open bodies of water.

#### STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

#### For REFILLABLE containers:

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

### **SAFETY DIRECTIONS**

Will irritate the eyes. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) elbow-length PVC gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

## **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26

Causes skin irritation.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

## **MATERIAL SAFETY DATA SHEET**

For further information refer to the Safety Data Sheet (SDS), which can be obtained from your supplier or the Sinochem International Australia website - www.sinochem.com.au

In case of emergency: Phone 1800 033 111



#### CAUTION: PLEASE READ THIS NOTICE BEFORE OPENING THE CONTAINER

The results obtained from using this product may be affected by factors beyond Monsanto's control, including mixing, use, climatic conditions, time of application, crop or crop stage and the possible development of resistance to the active ingredient.

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## Remedy for failure to comply with consumer guarantees

If there has been a failure to comply with a consumer guarantee (other than a guarantee under sections 51, 52 or 53 of Australian Consumer Law or corresponding provisions in the relevant State legislation) in relation to a good which is not a good of a kind ordinarily acquired for personal, domestic or household use or consumption, the liability of Monsanto and Sinochem is limited to a replacement of the good or the supply of an equivalent good.

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