CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Roundup BIACTIVE®

Herbicide by Monsanto

ACTIVE CONSTITUENT: 360 g/L GLYPHOSATE (present as the isopropylamine salt)

GROUP	M	HERBICIDE

Water soluble herbicide for non-selective control of many annual and perennial weeds in certain situations.

IMPORTANT: READ THE ATTACHED INSTRUCTION BOOKLET BEFORE USING THIS PRODUCT.

®Roundup Biactive is a registered trademark of Monsanto Technology LLC.

AU20RBA.0

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drumMUSTER eligible container

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APVMA Approval No.: 48518/58484

DIRECTIONS FOR USE

GENERAL WEED CONTROL ALL STATES	
SITUATION	**CRITICAL COMMENTS Read Application Checklist before using**
For general weed control in Domestic areas (Home gardens), Commercial, Industrial and Public Service areas, Agricultural buildings and other farm situations. For specific weeds, brush and woody weeds or unwanted trees, refer to the appropriate **Weeds Controlled** table.	For the control of many grasses and broadleaf weeds. **RATE: 10mL 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.

USE SITUATIONS	**ALL STATES (except where noted)** **For rates of application and weeds controlled, see Weeds Controlled tables**
SITUATION	**CRITICAL COMMENTS Read Application Checklist before using**
NON-AGRICULTURAL AREAS Around buildings, Commercial and Industrial areas, Domestic and Public Service areas, Right-of-ways.	Roundup Biactive® does not provide residual weed control. For residual control of annual weeds, Roundup Biactive® may be tank mixed with certain residual herbicides. See Tank Mixtures/Compatibility.
AGRICULTURAL AREAS	Roundup Biactive® may be used for control of annual and perennial weeds as directed, in agricultural land prior to sowing of any edible or non-edible crop, but not prior to transplanting tomato seedlings.

USE SITUATIONS	**ALL STATES (except where noted)** **For rates of application and weeds controlled, see Weeds Controlled tables**
SITUATION	**CRITICAL COMMENTS Read Application Checklist before using**
AQUATIC AREAS For the control of emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. Also for weeds on margins of streams, lakes and dams and in channels and drains.	Reduction in effectiveness may result if more than 1/4 of the above ground portion of the weed is submerged at treatment. Submerging the treated plants following treatment may result in the spray being washed from the plant surface, thus reducing effectiveness. DO NOT use additional surfactant/wetting agent unless it is approved for use in aquatic situations. DO NOT apply this product within 0.5km up-stream of potable water intake in flowing water (i.e. river or stream, etc.) or within 0.5km of a potable water intake in a standing body of water such as a lake, pond or reservoir. Applications to moving bodies of water should be made while travelling upstream wherever possible to prevent concentration of this herbicide in water. When making any bank side applications, do not overspray more than 0.5m into open water. Avoid spraying across moving bodies of water, or where weeds do not exist. When spraying floating weeds, use a low volume, low pressure boom sprayer, CDA, or sprinkler sprayer. DO NOT submerge the weeds when spraying as this may wash the herbicide off the leaves. When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid sudden impact on habitat.
FORESTS	Roundup Biactive® 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.
PEANUTS, COTTON, SOYBEANS, SUGARCANE, NAVY BEANS and CHICKPEAS Application using selective equipment QLD, NSW only	**Wiper Equipment** Apply Roundup Biactive® to weeds growing between crop rows or to weeds growing at least 15cm above the crop. DO NOT allow wiper to contact crop and ensure operating conditions do not allow solution to drip from applicator since severe injury may result. Refer to **Wiper Equipment** in the **Application** section of the label. **Shielded Sprayers (Cotton only)** Apply Roundup Biactive® to weeds growing between crop rows using a shielded sprayer. Refer to the **Weeds Controlled** tables for rates of application. DO NOT apply in crops less than 20cm high. DO NOT allow spray or spray drift to contact any part of the cotton plant as severe injury or destruction may result.

USE SITUATIONS	ALL STATES (except where noted) For rates of application and weeds controlled, see Weeds Controlled tables
SITUATION	**CRITICAL COMMENTS Read Application Checklist before using**
TREE AND VINE CROPS Avocado, Banana, Blueberries, Citrus fruit, Custard apples, Duboisia, Figs - dessert, Guava, Kiwifruit, Litchi, Mango, Monstera - fruit, Nuts (including Almond, Pecan, Macadamia, Pistachio and Walnut), Olives, Pawpaw, Persimmons, Pome fruit, Raspberries, Stone fruit, Tea, Vineyards.	Apply as a directed or shielded spray or using wiper equipment. DO NOT apply as a 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 palm. Avoid painting out stumps with this product as injury resulting from root grafting may occur in adjacent trees. **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. **Tea** Apply a maximum of 4L/ha by shielded boom or directed off-centre nozzle or 0.5L/100L by directed handgun 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. For residual control of annual weeds, Roundup Biactive® may be tank mixed with compatible herbicides which are labelled for use in the above crops. See **Tank Mixtures/Compatibility** for directions.
SUGARCANE RATOON SPRAYOUT For control of sugar cane, ratoon regrowth NSW and QLD only	Apply under good growing conditions only to actively growing ratoons 60-120cm tall. DO NOT apply if plants are under stress from low moisture or waterlogging. **RATE** 4-9L/ha Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control.
PASTURE	DIRECTED (SPOT) APPLICATION Roundup Biactive® 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 Biactive® may be used to suppress or kill existing pasture species prior to re-seeding or establishment of other crops. Where 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.
ONIONS Post-plant, pre-emergence application TAS only	For control of annual weeds and suppression of perennial weeds, including Rope Twitch. Apply Roundup Biactive® at 1-3L/ha post-sowing and at least 7 days before crop is due to emerge. DO NOT apply to emerging onion plants as severe injury will result. Use the lower rate on small, actively growing annual weeds. Increase to the higher rate for larger annual weeds (over 15cm tall) and for suppression of perennial weeds.

USE SITUATIONS	ALL STATES (except where noted) For rates of application and weeds controlled, see Weeds Controlled tables
SITUATION	**CRITICAL COMMENTS Read Application Checklist before using**
COTTON PRE-HARVEST For control of Bathurst Burr, Nogoora burr, Winter annual weeds including Sowthistle, Milk thistle and seasonal suppression of Nutgrass NSW and QLD only	DO NOT APPLY TO CROPS INTENDED FOR SEED PRODUCTION. Apply alone or in tank mixtures with Dropp® or Harvade®. Apply when at least 60% of bolls are open and immature bolls cannot be easily cut with a sharp knife. Where a leafy crop canopy limits spray coverage, reduced weed control can be expected. For best results under these conditions, delay application until canopy re-opens following initial conditioning treatment. Where control of Nutgrass or Noogoora burr is required, treatments should be applied prior to the onset of frosts. When tank mixed with defoliants, a slightly higher proportion of cotton leaf may be retained, particularly where the higher rate is used. Read and follow all label directions for the tank mix products. **RATE:** Apply 2.5L/ha for Nutgrass control and 1.25-2.5L/ha for the other weeds. Use the lower rate on light infestations of small weeds, when the crop canopy allows adequate spray coverage of the weeds. Increase to the higher rate when the crop canopy may limit spray coverage, when treating dense infestations, or when treating larger weeds.

STATE REGISTRATION CODE

a-Queensland; b-New South Wales; c-Victoria; d-Tasmania; e-South Australia; f-Western Australia; g-Northern Territory

ANNUAL WEEDS	Non-Cultivated situations	
WEEDS CONTROLLED (All STATES)	**RATE**	**CRITICAL COMMENTS Read Application Checklist before using**
Amaranth, Barley grass, Barnyard grass, Brome grass, Caltrop, Canary grass, (Annual phalaris), Capeweed, Chickweed, Cobbler's pegs, Deadnettle, Doublegee, Fumitory, Ground cherry, Hedge mustard, Lesser Swinecress, Liverseed grass, Mintweed, Noogoora burr [a,b], Paradoxa grass, Paterson's curse, Pigweed, Potato weed, Ryegrass, Saffron thistle, Silver grass, Sow thistle, Spear thistle, Spiny burrgrass, Spurge, Sub. Clover, Thornapple, Wild mustard, Wild oats, Wild turnip, Winter grass, Variegated thistle, Volunteer cereals	BOOM: 2-3L/ha HANDGUN: 500-700mL/100L KNAPSACK: 75-100mL/15L WIPER EQUIPMENT and CONTROLLED DROPLET APPLICATORS: See **APPLICATION** section	Annual weeds may be sprayed anytime they are actively growing. Use the lower rate on weeds up to 15cm tall; increase to the higher rate where weeds are over 15cm tall. Visible symptoms develop in 3-7 days but complete desiccation may take 20-30 days under cool conditions. Roundup Biactive® does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds. For residual control of annual weeds, Roundup Biactive® may be tank mixed with certain residual herbicides. See **Tank Mixtures/Compatibility** for directions. For aquatic weeds refer to critical comments for aquatic areas to minimise the entry of spray into water.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
Alligator weed	-	10mL/1L	Apply when actively growing, from Summer though Winter. Floating form only. Refer to aquatic areas critical comments to minimise the entry of spray into water
Bamboo	-	10mL/1L	Apply to actively growing foliage and/or regrowth which is between 1m and 2m tall. Cut Stump: Dilute 1:6 ie. mix 1 part Roundup Biactive® plus 6 parts water. Cut stems back to 20cm high, pour mixture down hollow stem or wet the cut.
Bent grass [c,d]	2.5L/ha	5mL/1L	Apply to actively growing plants in late Spring when they have some seedhead development, but before Summer moisture stress. Follow-up management is required. Full disturbance with a tyned implement should follow 10-21 days after spraying. Then follow with a Summer crop and/or re-seeded pasture or crop in the following Autumn.
Black knapweed		10 mL/1L	Apply to actively growing plants from September to May. A follow up treatment may be necessary for complete control and to restrict seedling re-establishment. Spray to ensure full coverage of all plants.
Blady grass [a,b]	9L/ha	13mL/1L	Apply to actively growing plants at the early head stage.
Bracken	9L/ha	15mL/1L	For boom application, always add Pulse®, (200mL/100L spray) otherwise reduced results will occur. Addition of Pulse® (200mL/100L spray) may improve control with handgun application. Wiper application is recommended, see **Wiper Equipment**. Double pass application is required for pipewick equipment. Bracken should be slashed in Winter/Spring prior to treatment. Apply Roundup Biactive® in March/May to fully unfurled actively growing fronds but prior to frosts. Visible symptoms may not be fully apparent until the next season. Complete control will not be achieved from one application. Repeat treatment is recommended, preferably associated with pasture improvement.
Brown Beetle grass [b]	3L/ha	5mL/1L	Apply to actively growing plants. DO NOT apply to partially submerged plants. Refer to aquatic areas critical comments to minimise the entry of spray into water.
Carpet grass	3L/ha	5mL/1L	Apply to actively growing plants at the early head stage.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
Cocksfoot	3L/ha	7mL/1L	Apply to actively growing plants at the early head stage.
Couch	9L/ha	13mL/1L	Apply to actively growing plants when most have reached the early head stage. In SA and WA apply to active plants during Oct/Nov for best results.
Cumbungi	9L/ha	13mL/1L	Apply to actively growing plants at the early head to full head stage (Summer/Autumn). Re-treatment may be required to restrict seedling re-establishment. Wiper application is recommended (not in Tasmania) See **Wiper Equipment**.
Flatweed (Cat's Ear)	3L/ha	7mL/1L	Apply to fully developed rosettes at the early flower stage
Glyceria [d]	6L/ha	10mL/1L	Apply to actively growing plants at the mature head stage in late Summer/Autumn. Add a non-ionic surfactant (50-60% ai) at 200-250mL/100L.
Guinea grass	9L/ha	13mL/1L	Apply to actively growing plants at the early head stage. For wiper application, see **Wiper Equipment**.
Hoary Cress [b,c,d]	1.5/ha	5mL/1L	For maximum long term reduction, apply from late July to September when plants are in late rosette to flowering stage. Plants should be actively growing and not under stress of drought, frost or waterlogging. Application may be integrated with long fallow. Cultivation may start 7 days after spraying. Wiper application may be used where sufficient stem elongation occurs, see **Wiper Equipment**. In Tasmania addition of a non-ionic surfactant (50-60%ai) at 200-250mL/100L spray, is recommended.
Johnson grass Kangaroo grass Kikuyu grass	6L/ha	10mL/1L	Apply to actively growing plants at the early head stage. For wiper application on Johnson grass, off-type and volunteer sorghum, see **Wiper Equipment**.
Lovegrass, African [b,c,f]	6L/ha	10mL/1L	Apply to actively growing plants. Re-treatment and/ or pasture improvement is recommended to restrict seedling re-establishment.
Ludwigia peruviana		10mL/1L	Apply when actively growing and at or beyond the early bloom stage of growth, but before Autumn colour changes occur. Thorough coverage is necessary for best control.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
Nutgrass *Cyperus rotundus* Does not refer to other Cyperus Species which may be locally known as nutgrass	6L/ha	10mL/1L	**Non cultivated Situations:** Apply to actively growing plants in late Summer/Autumn (Feb/Apr) when at least 20% have reached the head stage.
	3L/ha + 3L/ha	7mL/1L + 7mL/1L	**Arable Land:** Make first application to actively growing plants when at least 20% have reached the head stage (normally about Feb.). After allowing maximum re-emergence to occur (normally in 6-8 weeks) it is essential to make a second application. **NOTE** In arable land Nutgrass may rapidly regenerate from isolated nuts. Follow-up treatments should be made as part of a Nutgrass control program.
Pampas grass	-	10mL/1L or 13mL/1L	Apply to actively growing plants during Spring, Summer or Autumn. Ensure complete coverage of the foliage. For best results apply after flowering. For easier access, large plants may be cut or burnt prior to spraying, but first allow re-growth to reach 1m. Use the higher rate on plants over 1m high. **Low Volume Application** Use 1:9 (10%) mixture of Roundup Biactive®: Water. Apply 2 x 2mL per 0.5m height. Ensure spray contacts all foliage.
Paragrass	9L/ha	13mL/L	Apply to actively growing plants at the early head stage.
Paramatta grass [a,b] Giant Rat's Tail [a,b]	6L/ha	10-15mL/L	Apply to actively growing plants at the late vegetative stage to early seed head stage. Apply the higher rate for spot treatment in Qld. Follow up treatments will be required for control of plants germinating following treatment.
	3L/ha + 3L/ha	10mL/1L + 10mL/1L	**Arable land:** (established perennial plants) Apply initial treatment to actively growing plants at the mid vegetative to early seed head stage with a minimum of 20cm of new leaf growth. Seedling plants treated during the season of emergence may be treated at any time. Follow up treatment should be applied on reappearance of at least 20cm new growth from initially treated plants.
Paspalum	6L/ha	10mL/1L	Apply to actively growing plants at the early head stage.
Pellitory [b]	-	10mL/1L	Apply to actively growing plants prior to seeding. Repeat applications may be necessary to control seedlings and/ or re-growth.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
Phalaris [b,c,e]	3-6L/ha	5-10mL/1L	Apply to actively growing plants during Winter-Spring. Use the lower rate where only knockdown is required eg. prior to burning of firebreaks. Burning can usually start 14-21 days after spraying. For long term control increase to the higher rate.
Phragmites, Common reed	9L/ha	13mL/1L	Apply to actively growing, fully developed plants approaching the early head stage. Visible symptoms of control may be slow to develop and may not be fully apparent until the next season. For wiper application, see **Wiper Equipment**. Refer to aquatic areas critical comments to minimise the entry of spray into water.
Plantains	3L/ha	7mL/1L	Apply to actively growing plants at the early head stage. Symptoms may be slow to develop.
Prairie grass Qld Blue grass Red-leg grass Rhodes grass	6L/ha	10mL/1L	Apply to actively growing plants at the early head stage.
Rope Twitch [c,d]	6L/ha	10mL/1L	Apply in late Summer-Autumn to actively growing plants with foliage at least 20cm high. To ensure maximum shoot emergence the area should NOT be cultivated in the period from the preceding Winter until the time of spraying.
Rushes	-	-	Apply by wiper equipment to actively growing plants. Where there is a large proportion of dead foliage, pre-slashing is recommended. Allow adequate re-growth before treatment. See **Wiper Equipment**
Sedge, tall [b,c,d]	2 or 4L/ha	5-10mL/1L	Apply to actively growing plants in flowering to post-flowering period (Oct/April). Use the lower rate only if the stand has been slashed prior to treatment. Re-treatment may be necessary. Visible symptoms may not be fully apparent for up to 3 months. Use of CDA equipment is not recommended.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
Serrated tussock [b,c,d] For control/ suppression prior to establishing crops or improved pasture species	4-6L/ha	7-13mL/1L	Apply to actively growing and stress free plants. Best results May - October. **Application:** Boom spray volume of 70 L/ha or more is recommended to improve plant coverage. Also see **Aerial Equipment. Surfactants:** Addition of 200mL of Wetter TX to 100L of spraying solution may improve control of serrated tussock. **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).
Serrated tussock [b,c,d] For prevention of seed head emergence and seed formation	0.75-1.25L/ha		Apply to actively growing and stress free plants. Best results mid September – mid October. Apply prior to any seed head emergence. Also see **Aerial Equipment**. **Surfactants:** Addition of 200mL of Wetter TX to 100L 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.
Silverleaf nightshade [b]	-	20mL/1L	Use ONLY under good soil moisture conditions. Apply to actively growing plants at the late flowering to berry stage. Repeat spraying will be necessary to restrict re-growth and seedling re-establishment.
Sorrel	6L/ha	10mL/1L	Apply to actively growing plants when most have reached the early bud stage.
Soursob [b,c,d,e,f]	1.5L/ha	5mL/1L	For maximum long term reduction apply from late July to early September but before natural plant yellowing (senescence) occurs. Soursob should be actively growing and not under stress of drought or waterlogging. If heavy frosting has occurred, allow recovery before spraying. If heavy grazing has occurred, allow recovery of foliage to at least 5cm before spraying.

PERENNIAL WEEDS			
WEEDS CONTROLLED	**Boom**	**Handgun/ Knapsack**	**CRITICAL COMMENTS Read Application Checklist before using**
St John's wort	3L/ha	5mL/1L	Apply to actively growing plants in the flowering to post-flowering, procumbent stem stage (generally November/May). Re-treatment, or oversowing with improved pasture species may be necessary to restrict seedling re-establishment.
Thistle, Artichoke [c,e]	3L/ha	5mL/1L	Apply at the rosette-early head stage.
Thistle, Californian [c,d]	3L/ha	10mL/1L	Apply to actively growing plants at the flowering stage. To ensure maximum shoot emergence the area should NOT be cultivated prior to spraying. Re-treatment and/ or pasture improvement may be necessary to restrict seedling re-establishment. Vic and Tas only
Water couch	9L/ha	13mL/1L	Apply to actively growing plants in late Summer-Autumn (Feb/Mar). DO NOT treat after March because of the onset of Winter dormancy. Full results may not be visible until the following spring. Not more than 1/4 of the weed should be submerged at the time of treatment. Refer to aquatic areas critical comments to minimise the entry of spray into water.
Water hyacinth	6-9L/ha	10-13mL/1L	Apply when actively growing and at or beyond the early bloom stage of growth. Use the higher rate on dense infestations. Refer to aquatic areas critical comments to minimise the entry of spray into water.
Water lettuce	-	10-13mL/1L	Best results are obtained from mid-Summer through to Winter. Use the higher rate on dense infestations. Refer to aquatic areas critical comments to minimise the entry of spray into water.
Waterlily, yellow	6L/ha	10mL/1L	Apply when there is a maximum emergence of floating leaves. Allow 2-3 weeks for symptoms to develop and then retreat any unaffected plants. Use low volume sprayer Refer to aquatic areas critical comments to minimise the entry of spray into water.
Yorkshire fog	3L/ha	7mL/1L	Apply to actively growing plants at the early head stage.

UNWANTED TREES Roundup Biactive® may be used for control of many tree species. Ensure trees are actively growing at time of treatment and not under stress of drought, waterlogging or cold. Qld, NSW, Vic, WA, Tas and NT only.

METHOD	UNWANTED TREES	TREE SIZE	Mixture product : water	CRITICAL COMMENTS
Cut Stump	Jarrah, Longleaf box, Marri, Messmate stringybark, Narrowleaf peppermint	0-10cm basal dia.	1:15	Dilute Roundup Biactive® with water in the recommended ratio. Cut tree close to ground and immediately wet stump surface thoroughly using splatter gun, spray, swab or brush. Remove any branches on the stump and treat cut surface.
	Privet, Rhus	0-30cm basal dia.	1:1	
	Willows	<10cm basal dia.	Undiluted	
Foliar Application: Low Volume (Gas gun or Splatter gun)	Bullich, Marri, Jarrah	0-1.5m height	1:15 Add Pulse® at 200mL/100L spray mixture	Dilute Roundup Biactive® in the recommended ratio. Calibrate splatter gun to apply 5mL of Roundup Biactive® solution per dose, as a fine spray. Apply 5mL per 0.5m tree height. Ensure spray contacts all foliage.
	Eucalyptus spp.	0-1.5m height	1:5 Add Pulse® at 200mL/100L spray mixture	
Foliar Application: High Volume (Knapsack or Handgun)	Eucalyptus spp., Willows	0-2.0m height	1.0-1.3L/100L For Eucalyptus Add Pulse® at 200mL/100L spray mixture	Spray to wet all foliage. Use the higher rate for trees 1.0 to 2.0m high.

UNWANTED TREES Roundup Biactive® may be used for control of many tree species. Ensure trees are actively growing at time of treatment and not under stress of drought, waterlogging or cold. Qld, NSW, Vic, WA, Tas and NT only.

METHOD	UNWANTED TREES	TREE SIZE	Mixture product : water	CRITICAL COMMENTS
Stem Injection	Flooded gum, Ghost gum, Gum topped bloodwood, Messmate stringybark, Narrowleaf ironbark, Pink bloodwood, Poplar box, Privet, Rhus, Silverleaf ironbark, Silvertop ash [Ironbark], Spotted gum, Swamp mahogany, White mahogany, Willows	Basal dia. 0-25cm	Undiluted 1mL/cut	Use an applicator calibrated to deliver 1 or 2mL per cut. Make 5cm cuts at an oblique angle to penetrate the sapwood beneath the bark. Space cuts at 13cm centres around tree circumference below any branching, otherwise remove or treat all branches below cuts. On multiple trunk trees ensure each trunk is treated.
		Basal dia. 25-60cm	Undiluted 2mL/cut	
	Camphor laurel	Basal dia. 0-25cm	Mixture 1:1 2mL/cut	
		Basal dia. over 25cm-60cm	Undiluted 2mL/cut	

BRUSH AND WOODY WEEDS			
WEEDS CONTROLLED	**Handgun or Knapsack**	**Low Volume Product : Water**	**CRITICAL COMMENTS Read Application Checklist before using**
Bitou bush Boneseed [a,b,c,d]	5 or 10mL/L	1: 29 or 1:19	Apply to actively growing plants. Spray to wet all foliage. Best results are achieved when treated at peak flowering during Winter. DO NOT apply during periods of drought stress. Use the higher rate on bushes over 1.5m. Further treatment may be necessary to restrict seedling re-establishment. **Low Volume Application** (eg. Gas gun and Splatter gun). Ensure spray contacts all foliage. Use the higher rate (1:19) on bushes over 1.5m high.
Boxthorn, African	7-10mL/L	-	Use the lower rate for young bushes; increase to the higher rate for large, mature bushes. Spray to wet all foliage. DO NOT spray during hot, dry Summer periods. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended.
Blackberry	10-13mL/L	-	Apply from flowering to leaf fall (generally Jan-May). Plants should not be under stress of high temperature, drought or frost. Spray to wet all foliage. Use the higher rate on old, dense infestations over 2m high. Visible symptoms may not be fully apparent until the next season. Burning (after complete brownout) pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended. In Tasmania, DO NOT treat bushes bearing mature fruit.
Crofton weed [a,b]	5mL/L	-	Apply to actively growing plants with full foliage. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment.
English broom	10-13mL/L		Spray to wet foliage. When using the low rate add Pulse® (2mL/L spray solution) to improve coverage. At full leaf only the high rate can be used without Pulse®.
Gorse (Furze)	10mL/L plus Pulse® 2mL/L	-	Apply all year round, but only to actively growing plants. Always add Pulse®, otherwise reduced results will occur. Spray to wet all foliage. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth.

BRUSH AND WOODY WEEDS			
WEEDS CONTROLLED	**Handgun or Knapsack**	**Low Volume Product : Water**	**CRITICAL COMMENTS Read Application Checklist before using**
Groundsel bush [a,b]	7-10mL/L	1:9	Apply to actively growing plants. DO NOT apply during Winter, nor during periods of Summer drought stress. Use the higher rate on bushes over 2m tall. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to control seedlings and/or regrowth. **Low Volume Application** (eg. Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of Roundup Biactive®: water. Apply 2 x 2mL dose per 0.5m bush height. Ensure spray contacts all foliage. Use of CDA equipment is not recommended.
Hawthorn [b,c,d,e,f]	10-13mL/L	1:9	Apply to actively growing plants from flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 2m tall. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. **Low Volume Application** (eg. Splatter Gun and Gas Gun): Use 1:9 (10%) mixture of Roundup Biactive®: water. Apply 2 x 5mL dose per 0.5m bush height. Ensure spray contacts all foliage.
Lantana [a,b,g]	10mL/L	1:9	Apply to actively growing plants with full foliage. Ensure complete treatment of individual plants. DO NOT spray during periods of Summer drought stress. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Addition of Pulse® (200mL/100L) may improve control. **Low Volume Application** (eg. Splatter Gun and Gas Gun): Apply 2 x 2mL dose per 0.5m bush height. Ensure spray contacts all foliage. **Sprinkler Sprayer** Apply 6mL of a 1:9 (10%) solution to every square metre of treated area. Use of CDA equipment is not recommended.
Mistflower [a,b]	5mL/L	1:9	Apply to actively growing plants with full foliage. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment. **Sprinkler Sprayer** Apply 3mL of a 1:9 (10%) solution to every square metre of treated area.

BRUSH AND WOODY WEEDS			
WEEDS CONTROLLED	**Handgun or Knapsack**	**Low Volume Product : Water**	**CRITICAL COMMENTS Read Application Checklist before using**
Sifton bush/ Chinese scrub [a,b]	10 or 13mL/L	1:9	Apply when actively growing. Ensure complete coverage of the bush. Pasture improvement and/or re-treatment is recommended to control seedlings and/or regrowth. **High Volume** Use the higher rate on bushes over 1m. **Low Volume** Apply 40mL per 0.5m height. **Wiper Application** Double pass application is required. Application is best made to small (less than 1m) green bushes.
Sweet briar [b,c,d,e,f]	15-20mL/L	1:9	Apply to actively growing plants from late flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 1.5m high. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. **Low Volume Application** (eg. Splatter Gun and Gas Gun): Apply 2 x 5mL dose per 0.5m bush height. Ensure spray contacts all foliage.

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

GENERAL INSTRUCTIONS

Roundup Biactive® is a non-volatile, water soluble liquid product with non-selective herbicidal activity against many annual and perennial broadleaf weeds and grasses.

Roundup Biactive® may be used for weed control in agricultural land prior to sowing any edible or non-edible crop, but not prior to transplanting tomato seedlings.

Roundup Biactive® is absorbed by plant foliage and green stems. It is inactivated immediately in the soil and does not provide residual weed control. Roundup Biactive® moves through the plant from the point of contact to and into the root system. Visible effects on annual weeds take 3-7 days but on perennial weeds may be not be obvious for 2-3 weeks or longer in some cases. Visible effects of control may be delayed by cool or cloudy weather at and following treatment.

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 2cm of natural rainfall or by applying water via a sprinkler irrigation system.

RESISTANT WEEDS WARNING

GROUP	M	HERBICIDE

Roundup Biactive® is a member of the Glycines group of herbicides. Roundup Biactive® has the inhibition of EPSP synthase mode of action. For weed resistance management Roundup Biactive® is a Group M herbicide. Some naturally occurring weed biotypes resistant to Roundup Biactive® and other 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 Biactive® or other Group M herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Monsanto accepts no liability for any losses that may result from the failure of Roundup Biactive® to control resistant weeds.

MIXING

Roundup Biactive® mixes readily with water. Note: Reduced results may occur if water containing soil is used, eg. water from ponds and unlined ditches, or if hard water containing calcium salts is used.

DO NOT mix, store or apply this product or spray solutions of this product in galvanised steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. Use stainless steel, brass, copper, fibreglass, plastic or plastic-lined containers or spray tanks. Aluminium is susceptible to corrosion by Roundup Biactive® and should not be used. Ensure the spray tank is free of any residue or previous spray materials.

Use spray solutions promptly and certainly within 5 days, since a gradual loss of activity will occur. Fill the spray tank with one half the required amount of clean water and add the proper amount of Roundup Biactive®. Mix well before adding the remaining portion of water. Placing the filling hose below the surface of the spray solution will prevent excessive foaming. Removing hose from tank immediately after filling will prevent back siphoning into water source. DO NOT use mechanical agitators as these may cause excessive foaming, Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

TANK MIXTURES/COMPATIBILITY

Roundup Biactive® may be tank-mixed with the following herbicides, insecticides and additives.

Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products.

MIXING INSTRUCTIONS FOR ALL TANK MIXTURES

1. Fill the spray tank 1/3 to 1/2 full will clean water and start agitation.
2. Where crystalline ammonium sulphate is recommended, wash 2% w/v (2kg/100L spray solution) through a top mesh-screen into the tank and mix thoroughly.
3. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
4. Add Roundup Biactive® and the remaining water Mix thoroughly.
5. Add surfactant, if required, near the end of the filling process to minimise foaming.
6. Always maintain adequate agitation during application and use the tank mix promptly.

TANK MIXTURES – HERBICIDES

Atrazine flowable (Agricultural uses only DO NOT apply the tank mix for Barnyard grass control.), 2,4-D ester, dicamba, Glean®, Simazine flowable, Oust®, Yield®, Stomp® 330, Ally®, Logran® 750G, L.V.E. MCPA, and Striker®.

The addition of Striker at 75 mL/ha to recommended rates of Roundup Biactive® prior to planting wheat or barley will improve knockdown and increase the speed at which treated weeds develop visible signs of phytotoxicity.

Add crystalline ammonium sulphate as per directions below.

TANK MIXTURES - ADDITIVES

Crystalline Ammonium Sulphate.

RATE: 2% w/v (2kg/100L spray solution). (DO NOT apply the tank mix for Barnyard grass control).

The addition of crystalline ammonium sulphate to Roundup Biactive®, when used to control ANNUAL weeds, MAY improve the performance of Roundup Biactive® under adverse environmental conditions such as cool, cloudy weather, and assist in minimising the antagonism in tank mixes of Roundup Biactive® and flowable triazine herbicides. Use only crystalline ammonium sulphate, NOT prilled or granulated forms. Ammonium sulphate may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

Pulse® Penetrant

RATE: 200mL/100L spray solution. Add when treating bracken (boom application), Gorse, Eucalypt suckers and Lantana.

Wetter TX Surfactant

RATE: 200mL/100L spray solution. Add when treating Annual ryegrass in Spring (from beginning August to end October). Wetter TX is not a general purpose surfactant and should be used only where recommended.

Tank Mixtures - Insecticides

This product is compatible with the following insecticides: Imidan®, Le-mat®, and emulsifiable concentrates of dimethoate and fenitrothion. Other insecticides have not been tested.

APPLICATION

Roundup Biactive® is a non-selective translocated herbicide. Direct spray contact, or even slight drift, may cause severe injury or destruction of any growing crop or other desirable plants including trees. Clean all equipment after use by thoroughly washing with water.

BOOM EQUIPMENT

Use recommended rates of Roundup Biactive® in 75 to 200 litres of clean water per hectare. When using Roundup Biactive® at 500mL-1.5L/ha spray volumes in the range 25-100L/ha are preferred. Fan nozzle equipment is recommended, using pressures in the range 240-280kPa. Boom height must be set to ensure double over lap of nozzle patterns at the top of the weed canopy.

High Volume Application

(eg. Knapsack/Handgun Equipment)

The dilution rate is given as vol/1 litre eg: 10mL Roundup Biactive® per litre of water. This is equal to 150mL Roundup Biactive® per 15 litres of water or 1 litre per 100 litres of water. Adjust equipment to achieve an even spray pattern.
Apply to ensure complete and uniform wetting of all foliage. For handgun equipment, a D6 spray tip (Spraying Systems Australia P/L) or equivalent, and an operating pressure of 400-700kPa are recommended.

Low Volume Application (eg. Gas Gun or Splatter Gun) Apply as an even spray to cover all foliage.

Refer to **Weeds Controlled** for the dilution and volume of mixture to be applied. The dilution is specified as "Low volume mixture, Roundup Biactive®: Water". For example, a 1:9 mixture equals one part Roundup Biactive® plus 9 parts water.

Wiper Equipment

Wiper Equipment (eg. ropewick, canvas, felt or carpet applicators) may be used to apply Roundup Biactive® onto weeds growing in oilseed crops, sugarcane, cotton, seed and pod vegetables, tree and vine crops specified in this label, pasture and non-crop areas. Avoid contact with desirable vegetation.

Operate wiper equipment a minimum of 10cm above the crop or pasture. Weeds should be at least 15cm above the crop or pasture at time of application. Speed of travel should be no greater than 8km/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.

Mix only enough herbicide solution for immediate requirements. DO NOT store mixed solution for more than a few days. Flush out equipment with water after use.

RATE: Mix 1 litre Roundup Biactive® with 2 litres clean water to prepare 33% solution.

Roundup Biactive® may be used according to the above directions for suppression or control of many annual and perennial weeds. See Weeds Controlled tables for specific use recommendations.

CONTROLLED DROPLET APPLICATION EQUIPMENT (CDA)

Use the following table as a guide for achieving the correct application rates using the Micron Herbi or similar equipment. See WEEDS CONTROLLED tables for specific rates and use recommendations. For hand held equipment a walking speed of approximately 1m/sec (4km/h) is recommended.

Rate of Roundup Biactive® delivered at 1m/sec	3L/ha	6L/ha	9L/ha
Mixture (by volume) Roundup Biactive®:water	1:3	1:1	2:1
Micron Herbi*, nozzle	Blue	Blue	Yellow

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

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

Aerial equipment may be used to apply Roundup Biactive® only in pasture or fallow situations prior to establishment of field crops, fodder crops, or new pasture, and for pre-harvest application to cotton and sorghum crops. DO NOT use in intensive horticultural cropping areas. Use recommended rates of Roundup Biactive® specified in this label up to a maximum limit of 4L/ha.
For Micronair and boom equipment, apply in a minimum spray volume of at least 20L/ha. Droplets with an average size (or VMD) of 250-350 micron dia. are recommended. Swath width should be 15-17m. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

Application on hilly terrain

As spraying height may vary, to maximise target contact, increase water volume to 30-80L/ha and increase droplet size to at least 300 micron VMD.

Application under Summer conditions

High temperatures and/or low relative humidity cause excessive evaporation of spray droplets which may reduce results. When temperature reaches 25ºC, increase water volume to at least 30L/ha, and increase droplet size to at least 300 micron VMD. DO NOT apply Roundup Biactive® by aircraft when temperature is above 30ºC.

AVOID DRIFT

DO NOT use with spraying equipment or under meteorological conditions which could be expected to cause spray drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. Equipment settings which produce fine droplets (150 microns or less), winds over 8km/h, inversion conditions, still air and hot dry days all contribute to drift.

APPLICATION CHECKLIST

- DO NOT treat weeds under poor growing or dormant conditions (such as occur in drought, waterlogging, disease, insect damage or following frosts) as reduced weed control may result. Reduced efficacy may also occur when treating weeds heavily covered with dust or silt.
- DO NOT add additional surfactant, or mix with any other agricultural chemicals, herbicide oils, or other materials except as specifically directed on this label.
- Roundup Biactive® is absorbed by plant foliage and stems. Rainfall soon after application may wash the herbicide off the weeds, particularly if the weeds are not growing actively, under stress, or under conditions of low light intensity or darkness.
- Delay treatment of plants wet with dew or rain, if water droplets run-off when plants are disturbed.
- DO NOT disturb treated weeds by cultivation, sowing or grazing for one day after treatment of annual weeds and 7 days for perennial weeds, to ensure herbicide absorption.
- A Withholding Period for grazing stock is not required. However, it is recommended that grazing of treated plants be delayed (as recommended above) to ensure herbicide absorption. Certain plants such as Soursob, St. John's wort and Bracken, may be naturally toxic to stock. Where known toxic plants are present, grazing should be delayed until complete browning of treated plants has occurred.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Avoid contact with foliage, green stems, exposed non-woody roots 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, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate dams, rivers or streams with the product or used container. When controlling weeds in aquatic situations, refer to label directions to minimise the entry of spray into the water.

DIRECTIONS FOR USE

For specific rates of application and complete directions for use read this removable booklet.

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 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, triple rinse, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500mm 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.
Empty containers and product must not be burnt.

1000L Mini Bulk Returnable Container

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

Product will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing product for use wear elbow-length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash contaminated clothing, gloves and face shield or goggles. When using controlled droplet applicator, wear protective waterproof clothing and impervious footwear.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. **Phone 13 1126**

SAFETY DATA SHEET

For further information refer to the Safety Data Sheet (SDS), which can be obtained from your supplier or the Sinochem 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.

Limitation of liability

With the express exception of liabilities created by the *Competition and Consumer Act* 2010 (Cth) (including the Australian Consumer Law) or relevant State legislation which cannot be excluded, restricted or modified, none of Monsanto Australia Limited or any of its affiliates ("Monsanto"), or any manufacturer of any component of the product or Sinochem International Australia Pty Ltd or any of its affiliates ("Sinochem") shall be liable for any loss or damage (including consequential loss or damage), injury or death connected with, or arising out of, the product, regardless of the way in which it arises (including by way of negligence).

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