Batch number

Date of manufacture

CAUTION

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

Infopest ✓ Verified

Roundup Ready®

HERBICIDE by MONSANTO

ACTIVE CONSTITUENT: 690 g/kg GLYPHOSATE (present as the mono-ammonium salt)

GROUP M HERBICIDE

Herbicide for the control of many annual and perennial weeds in Roundup Ready® and Roundup Ready Flex® crops and other situations as per the Directions for Use.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT.

The inner bag must not be sold separately.
DO NOT destroy box while product still remains.

Nufarm

Distributed by
Nufarm Australia Limited ACN 004 377 780
103-105 Pipe Road, Laverton North, VIC 3026
Tel: (03) 9282 1000 Fax: (03) 9282 1001

NET CONTENTS: 12 kg

APVMA APPROVED LABEL

Roundup Ready®

HERBICIDE by MONSANTO

ACTIVE CONSTITUENT: 690 g/kg GLYPHOSATE (present as the mono-ammonium salt)

Herbicide for the control of many annual and perennial weeds in Roundup Ready® and Roundup Ready Flex® crops and other situations as per the Directions for Use.

DIRECTIONS FOR USE
For specific rates of application and complete directions for use, read the enclosed booklet before using this product. Sections of this booklet refer to all applications of Roundup Ready Herbicide, while other sections deal with applications specific to each of the Roundup Ready and Roundup Ready Flex Crops. Please read these instructions carefully and seek further information from Nufarm if required.

STORAGE AND DISPOSAL
Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Shake empty bag into spray tank. Single rinse bag before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture or shred empty containers in a local landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

SAFETY DIRECTIONS
Harmful if swallowed. 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. If product in eyes, wash it out immediately with water. 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.

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

MATERIAL SAFETY DATA SHEET
For further information refer to the Material Safety Data Sheet (MSDS), which can be obtained from your supplier or from the Nufarm website – www.nufarm.com.au

In case of emergency: Phone 1800 033 498
Ask for shift supervisor. Toll free 24 hours.

CONDITION OF SALE
"Any provisions or rights under the Trade Practices Act 1974 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

APVMA Approval No: 54112/12kg/0210

Nufarm

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103-105 Pipe Road, Laverton North, VIC 3026
Tel: (03) 9282 1000 Fax: (03) 9282 1001

Barcode

OOO23787

CAUTION

KEEP OUT OF REACH OF CHILDREN
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Roundup Ready®

HERBICIDE by MONSANTO

ACTIVE CONSTITUENT: 690 g/kg GLYPHOSATE (present as the mono-ammonium salt)

GROUP M HERBICIDE

Herbicide for the control of many annual and perennial weeds in Roundup Ready® and Roundup Ready Flex® crops and other situations as per the Directions for Use.

BEFORE USING THIS PRODUCT, READY DIRECTIONS ON OUTER PACK.

Sale of this Bag except in outer pack is illegal.
The inner bag must not be sold separately.
DO NOT destroy box while product still remains.

NET CONTENTS: 12 kg

STORAGE AND DISPOSAL
Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Shake empty bag into spray tank. Single rinse bag before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture or shred empty containers in a local landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

SAFETY DIRECTIONS
Harmful if swallowed. 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. If product in eyes, wash it out immediately with water. 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.

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

MATERIAL SAFETY DATA SHEET
For further information refer to the Material Safety Data Sheet (MSDS), which can be obtained from your supplier or from the Nufarm website – www.nufarm.com.au

In case of emergency: Phone 1800 033 498
Ask for shift supervisor. Toll free 24 hours.

APVMA Approval No: 54112/12b/0210

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OD023787

APPROVED
LABEL

CAUTION

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Roundup Ready®

HERBICIDE by MONSANTO

ACTIVE CONSTITUENT:
690 g/kg GLYPHOSATE
(present as the mono-ammonium salt)

GROUP M HERBICIDE

Herbicide for the control of many annual and perennial weeds in Roundup Ready® and Roundup Ready Flex® crops and other situations as per the Directions for Use.

DIRECTIONS FOR USE – ROUNDUP READY FLEX® COTTON

RESTRAINTS:

DO NOT disturb weeds by cultivation, sowing or grazing for six hours following treatment of annual weeds and seven days for perennial weeds.

DO NOT use as the only method of weed control.

FOR APPLICATIONS MADE IN ROUNDUP READY FLEX® COTTON FROM CROP EMERGENCE TO HARVEST

No more than 4 applications may be made OVER THE TOP in any one crop. Any single application MUST NOT exceed 1.5 kg /ha. **Applications MUST NOT be made between 22 NODES and 60% BOLL OPEN STAGE.** **A single (1) application may be made OVER THE TOP in any one crop between 60% BOLL OPEN STAGE and HARVEST. Application at this stage MUST NOT exceed 1.5 kg/ha.**	**NO MORE THAN FOUR (4) APPLICATIONS MAY BE MADE IN ANY ONE CROP** **AND** **TOTAL OF ALL APPLICATIONS IN ANY ONE CROP MUST NOT EXCEED 6.0 kg/ha**

Tank-mixtures with other herbicides or insecticides are not recommended for over-the-top applications of this product due to the potential for reduced weed control or crop injury to result.

Tank mixes with Dropp* may be used providing the crop is 60% open and immature bolls can not be cut with a sharp knife, alternatively where the seed coat in bisected bolls is black in colour.

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COLOUR. CMYK | DESIGNER. Khoa Tran

SITUATION – Cotton with Roundup Ready Flex® Technology
IN CROP UP TO 22 NODES
NO MORE than FOUR (4) applications are permitted in crop up to 22 nodes.
Any single application in crop up to 22 nodes MUST NOT exceed 1.5 kg/ha.
Total of all applications in crop through all growth stages MUST NOT exceed 6.0kg/ha.

WEEDS CONTROLLED		RATE	CRITICAL COMMENTS
Annual Ryegrass African Turnip weed Annual ground cherry Barnyard grass Bathurst Burr Black pigweed Bladder ketmia Boggabri weed Button grass Caltrop (Yellow vine) Camel (Afgan) melon Caustic Weed Columbus grass Deadnettle Liverseed grass Mexican poppy Milk (sow) thistle Mintweed	Native Millet New Zealand Spinach Noogoora burr Paradoxa grass Pigweed (up to 25cm diam.) Spear thistle Stinkgrass (Lovegrass) Sweet Summer grass Thornapple (Datura) Turnip weed Variegated thistle Volunteer cereals Volunteer sorghum Wild oats Wild/Prickly lettuce Wireweed	**520g–1.5kg/ha**	**Rate Selection** Use the lower rates on young weeds and increase to 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 control.
Climbing buckwheat (less than 12 leaves) Couch Johnson grass		**980g–1.5kg/ha**	Use the higher rate on plants at the flowering/seed head stage. For Johnson grass apply to plants with a minimum of 30cm new growth. For long term control of Couch and Johnson grass, repeat applications will be required.
Nutgrass		**1.5kg/ha followed by 1.5kg/ha**	Make first application to actively growing plants when the majority of nutgrass plants have reached at least the 6–8 leaf stage but preferably later. Allow for maximum re-emergence before retreating.

SITUATION – Cotton with Roundup Ready Flex® Technology
IN CROP Between 60% BOLL OPEN STAGE and HARVEST; QLD, NSW ONLY
NOT More than ONE (1) Application.
DO NOT use on crops intended for seed production
Application made between 60% open stage and harvest MUST NOT exceed 1.5 kg/ha and total of all applications in crop through all growth stages MUST NOT exceed 6.0kg/ha.

WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Bathurst burr Noogoora burr Winter annual weeds including Sowthistle / Milkthistle	**710g–1.5kg/ha**	Use the lower rate on light infestations of small weeds, where 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. Apply alone or in tank mixtures with Dropp*. Apply when at least 60% of bolls are open and immature bolls cannot be easily cut with a sharp knife, alternatively where the seed coat in bisected bolls is black in colour. Where a leafy 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.

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

WITHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

WARNING: THE APPLICATIONS RECOMMENDED ABOVE ARE FOR USE ONLY WITH IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUNDUP READY FLEX® TECHNOLOGY.

SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY FLEX® TECHNOLOGY ARE SPRAYED WITH THIS PRODUCT.

EXTREME CARE MUST BE TAKEN TO AVOID CONTACT WITH CROPS OR DESIRABLE PLANTS WITHOUT THE ROUNDUP READY TECHNOLOGY, OR WITH NATIVE VEGETATION, SINCE SEVERE INJURY OR DESTRUCTION WILL RESULT.

Note: This label applies to the use of Roundup Ready Herbicide on Roundup Ready Flex® Cotton, including Roundup Ready Flex®/Bollgard® II Cotton varieties.

DIRECTIONS FOR USE – ROUNDUP READY COTTON

RESTRAINTS:

DO NOT disturb weeds by cultivation, sowing or grazing for six hours following treatment of annual weeds and seven days for perennial weeds.

DO NOT use as the only method of weed control.

CROP SAFETY

FOR APPLICATIONS MADE IN ROUNDUP READY COTTON FROM CROP EMERGENCE TO CANOPY CLOSURE:

Up to 3 applications may be made in any one crop up to canopy closure. Any single application must not exceed 1.5kg/ha.

Sequential applications must not be less than 10 days apart and/or cotton must have at least 2 nodes of incremental growth between applications.

Applications as an over-the-top treatment may be made up to the **4th true leaf** stage of cotton (before 5th true leaf has unfolded). Over-the-top applications made after the 4th true leaf stage of development may result in boll loss, delayed maturity and/or yield loss.

No more than two over-the-top applications may be made from crop emergence through to and including the 4th true leaf stage of development.

Applications beyond the 4th true leaf stage (before the 5th true leaf has unfolded) to canopy closure should be made using post-directed or hooded/shielded sprayers. Spray plume should be targeted at the cotyledons, minimising contact with the higher cotton foliage. Applications that contact the cotton foliage may result in boll loss, delayed maturity and/or yield loss. For best results, make applications while weeds are small (less than 8cm).

No more than two directed / shielded applications should be made from after the 4th true leaf (before the 5th true leaf is unfolded) through to canopy closure.

Roundup Ready Herbicide applications can cause some reduction of fruit retention in the first position bolls on the bottom 5 fruiting branches. Whole plant fruit retention is generally unaffected.

Tank-mixtures with other herbicides are not recommended for over-the-top applications of this product due to the potential for reduced weed control or crop injury that may result. Pre harvest application tank mixes with Dropp* maybe used providing the crop is 60% open and immature bolls can not be cut with a sharp knife, alternatively where the seed coat in bisected bolls is black in colour.

SITUATION – COTTON WITH ROUNDUP READY® TECHNOLOGY – IN CROP

WEEDS CONTROLLED		RATE	CRITICAL COMMENTS
Annual Ryegrass African Turnip weed Annual ground cherry Barnyard grass Black pigweed Bladder ketmia Boggabri weed Button grass Caltrop (Yellow vine) Camel (Afgan) melon Caustic Weed Columbus grass Deadnettle Liverseed grass Mexican poppy Milk (sow) thistle Mintweed	Native Millet New Zealand Spinach Noogoora burr Paradoxa grass Pigweed (up to 25cm diam.) Spear thistle Stinkgrass (Lovegrass) Sweet Summer grass Thornapple (Datura) Turnip weed Variegated thistle Volunteer cereals Volunteer sorghum Wild oats Wild/Prickly lettuce Wireweed	**520g–1.5kg/ha**	**Rate Selection** Use the lower rates on young weeds and increase to 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 control.
Climbing buckwheat (less than 12 leaves) Couch Johnson grass		**980g–1.5kg/ha**	Use the higher rate on plants at the flowering/seed head stage. For Johnson grass apply to plants with a minimum of 30cm new growth. For long term control of Couch and Johnson grass, repeat applications will be required.
Nutgrass		**1.5kg/ha followed by 1.5kg/ha**	Make first application to actively growing plants when the majority of nutgrass plants have reached at least the 6–8 leaf stage but preferably later. Allow for maximum re-emergence before retreating.

SITUATION – PRE-HARVEST CONVENTIONAL COTTON OR COTTON WITH ROUNDUP READY® TECHNOLOGY – QLD, NSW ONLY
DO NOT USE ON CROPS INTENDED FOR SEED PRODUTION

WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Bathurst burr Noogoora burr Winter annual weeds including Sowthistle / Milkthistle	**710g–1.42kg/ha**	Use the lower rate on light infestations of small weeds, where 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. Apply alone or in tank mixtures with Dropp*. Apply when at least 60% of bolls are open and immature bolls cannot be easily cut with a sharp knife, alternatively where the seed coat in bisected bolls is a black colour. Where a leafy 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 direction for the tank mix products.
Nutgrass (seasonal suppression only)	**1.42kg/ha**	

SITUATION – IN FALLOWS OR PRIOR TO SOWING A COTTON CROP WITH ROUNDUP READY® TECHNOLOGY		
WEEDS CONTROLLED	**RATE**	**CRITICAL COMMENTS**
Annual phalaris (Canary grass), Barley grass, Volunteer cereals, Wild oats	**260–520g/ha**	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6–8 cm before spraying. Note that under Summer (hot) conditions, dense infestations of Barnyard grass and Liverseed grass may require follow-up treatment for complete control. In Winter (cold) conditions symptoms on Deadnettle may be slow to develop. **RATE SELECTION** Use the lower rate on young weeds; increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/budding. At more advanced stages of growth certain broadleaf weeds require a higher rate range or the addition of Nufarm Surpass® 475 or Nufarm Estercide® Xtra 680. **CROP ESTABLISHMENT** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. **TANK MIXTURES** Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for tank-mix products. **Take into account plant back periods when considering tank mixes.**
Barnyard grass Button grass Columbus grass (seedling) Liverseed grass Native Millet Stinkgrass (Lovegrass) Volunteer sorghum	**520–980g/ha**	
Australian bluebell (QLD only) Cudweed Fumitory Mexican poppy New Zealand spinach Saffron thistle Spear thistle Spurge Stinking goosefoot	**520–770g/ha**	
Black (giant) pigweed Boggabri weed Caltrop (Yellowvine) Indian hedge mustard Mintweed Summer grass	**260–520g/ha** up to 5 true leaves or 3cm dia/height **520–770g/ha** greater than 5 true leaves or 3cm dia/height	
African turnip weed Deadnettle Sweet summer grass Variegated thistle Volunteer sunflower	**390–520g/ha** up to 5 true leaves or 3cm dia/height **520–980g/ha** greater than 3cm dia/height	
Annual ground cherry (Gooseberry) Bladder ketmia Camel melon False castor oil plant (Thornapple) Noogoora burr Turnip weed Wild lettuce Wild turnip Wireweed	**520–770g/ha** prior to stem elongation/budding. After stem elongation/budding use **260–770g/ha** plus **1.1–1.7L/ha** Surpass 475 or **770–980g/ha** of Roundup Ready Herbicide alone	
Pigweed	**520–980g/ha**	Use a higher rate on larger weeds. Control of pigweed over a wide range of growth stages can be obtained with the addition of Associate®. Observe re-cropping intervals.
Sowthistle, Milkthistle	**390–520g/ha** rosettes up to 3cm dia **520–980g/ha** greater than 3cm dia.	Previously grazed plants may be difficult to control without allowing full recovery.

SITUATION – IN FALLOWS OR PRIOR TO SOWING A COTTON CROP WITH ROUNDUP READY® TECHNOLOGY (CONTINUED)		
WEEDS CONTROLLED	**RATE**	**CRITICAL COMMENTS**
Couch	**770–1.5kg/ha**	Use the higher rate for dense infestations. Apply sequential treatments during Summer and Autumn, with Autumn being most effective. Repeat applications will be required for full control. For improved control use in conjunction with cultivation.
Johnson grass	**980–1.5kg/ha**	Use the higher rate on plants approaching seed head stage. Apply to plants with a minimum of 30cm new growth. Sequential treatments will be required for long term control.
Nutgrass	**1.5+1.5kg/ha**	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:** Follow-up treatments should be made as part of a Nutgrass control program.

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

WITHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

WARNING: THE APPLICATIONS RECOMMENDED ABOVE ARE FOR USE ONLY WITH IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUNDUP READY® TECHNOLOGY. SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY TECHNOLOGY ARE SPRAYED WITH THIS PRODUCT. EXTREME CARE MUST BE TAKEN TO AVOID CONTACT WITH CROPS OR DESIRABLE PLANTS WITHOUT THE ROUNDUP READY TECHNOLOGY, OR WITH NATIVE VEGETATION, SINCE SEVERE INJURY OR DESTRUCTION WILL RESULT.

Note: This label applies to the use of Roundup Ready Herbicide on Roundup Ready Cotton, including Roundup Ready/Bollgard® II Cotton varieties.

DIRECTIONS FOR USE – ROUNDUP READY CANOLA

RESTRAINTS:
DO NOT use as the only method of weed control if glyphosate resistant weeds are suspected or present.

CROP SAFETY
Applications may be made in Roundup Ready canola from crop emergence to the 6 leaf stage (prior to bud formation).

Sequential applications must be at least 14 days apart and canola must have incremental growth of at least 2 new leaves between applications.

Some short-term, visual yellowing may occur when Roundup Ready Herbicide is applied. This effect is temporary and will not influence crop growth or yield.

No additional surfactant is required for use in Roundup Ready canola.

This product should NOT be applied in tank mixtures with other products over Roundup Ready canola crops, with the exception of Nufarm Liase which may increase the performance of this product on annual and perennial weeds, particularly under hard water conditions (high levels of calcium, magnesium or bicarbonate ions) or drought conditions. Roundup Ready Herbicide should be applied alone with the exception of Nufarm Liase.

SITUATION – ROUNDUP READY® CANOLA

Before use in this situation is carried out users should consult the Roundup Ready Canola Resistance Management Plan which has been developed to minimise the evolution of herbicide resistance in weed populations.

WEEDS CONTROLLED	GROWTH STAGE OF CROP	RATE	CRITICAL COMMENTS
Annual ryegrass **Barley grass** **Brome grass** **Canary grass** **Capeweed** **Patersons curse** **Saffron thistle** **Scotch thistle** **Silvergrass** **Spear thistle** **Volunteer cereals** **Variegated thistle** **Wild mustard** **Wild oats** **Wild radish** **Wild turnip** **Winter grass**	cotyledon to 6 leaf (prior to bud formation)	**0.9kg/ha**	**Up to 2 applications only may be made in any one crop. Each application must be 0.9kg/ha.** Repeat applications may be required if a second flush of weeds germinates but DO NOT apply after the 6–leaf stage of the crop. For sequential applications, applications must be at least 14 days apart and the canola crop must have incremental growth of two leaves between applications. The canola crop must have not advanced beyond the latest recommended growth stage (i.e. 6 leaf). Ensure broadleaf weeds have at least one true leaf, and grasses two leaves before application.

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

WITHOLDING PERIODS:
Harvest: NOT REQUIRED WHEN USED AS DIRECTED.
Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

WARNING: THE APPLICATIONS RECOMMENDED ABOVE ARE FOR USE ONLY WITH IMPROVED CANOLA VARIETIES THAT ARE DESIGNATED AS CANOLA WITH THE ROUNDUP READY® TECHNOLOGY.

SEVERE INJURY OR DEATH OF CANOLA WILL RESULT IF ANY CANOLA VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY TECHNOLOGY ARE SPRAYED WITH THIS PRODUCT.

EXTREME CARE MUST BE TAKEN TO AVOID CONTACT WITH CROPS OR DESIRABLE PLANTS WITHOUT THE ROUNDUP READY TECHNOLOGY, OR WITH NATIVE VEGETATION, SINCE SEVERE INJURY OR DESTRUCTION WILL RESULT.

DIRECTIONS FOR USE – GENERAL USE SITUATIONS

ALL STATES (EXCEPT WHERE NOTED)

SITUATION	**CRITICAL COMMENTS** READ APPLICATION CHECKLIST BEFORE USING
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: 5g 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.
NON – AGRICULTUAL AREAS Around buildings, Commercial and industrial areas, Domestic and Public Service areas, Right-of ways.	Roundup Ready does not provide residual weed control. For residual control of annual weeds, Roundup Ready may be tank mixed with certain residual herbicides. See **Tank Mixtures/Herbicides.**
AGRICULTURAL AREAS	Roundup Ready 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.
DRY DRAINS AND CHANNELS, DRY MARGIN OF DAMS, LAKES AND STREAM SITUATION	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 water. DO NOT allow water to return to dry channels and drains within 4 days of application.
FORESTS	Roundup Ready may be used prior to establishment of nurseries, for site preparation prior to planting and amongst established trees using a directed or shielded spray. DO NOT allow spray or spray drift to contact foliage or green bark of desirable trees, since severe injury may result.
COTTON Shielded sprayers, Qld & NSW only For cotton with Roundup Ready technology see **Directions for Use – Roundup Ready Cotton or Roundup Ready Flex Cotton as appropriate.**	SHIELDED SPRAYERS Apply Roundup Ready to weeds growing between crop rows using a shielded sprayer. Refer to the **Weeds Controlled** tables for rates of application. DO NOT apply in crop 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.
TREE 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. 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. **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 2kg/ha by shielded boom or directed off-centre nozzle or 3g/L 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 Ready may be tank mixed with compatible herbicides which are labeled for use in the above crops. See **Tank Mixtures/Herbicides** for directions.

SITUATION	CRITICAL COMMENTS
PASTURE	**DIRECTED (SPOT) APPLICATION:** Roundup Ready 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. **BOOM APPLICATION:** Roundup Ready may be used to suppress or kill existing pasture species prior to re-seeding or establishment of other crops. Where spot application 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 Ready at 530g–1.6kg/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.

ANNUAL WEEDS

REGISTRATION IN ALL STATES/TERRITORIES UNLESS OTHERWISE SPECIFIED

WEEDS CONTROLLED	BOOM RATE	HANDGUN/ KNAPSACK	CRITICAL COMMENTS
Annual ryegrass Amaranth Barley grass Barnyard grass Bent grass Brome grass Caltrop Canary grass Capeweed Cereals Chickweed Cobbler's peg Deadnettle Doublegee Fumitory Ground cherry Hedge mustard Hoary cress Lesser Swinecress Liverseed grass Mintweed Noogoora burr Paradoxa grass Paterson's Curse Pigweed Potato weed Saffron thistle Silvergrass Sowthistle Spear thistle Spiny burrgrass Spurge Thornapple Wild oats Wild turnip Winter grass Variegated thistle	**1–1.6kg/ha**	**3–5g/L**	Apply to weeds whenever they are not subject to stress due to drought or frost. Use higher rate on weeds over 15cm in height or diameter or where dense weed cover limits spray coverage. Use higher spot spraying rate when applying less than 5L spray per 100sqm. Roundup Ready does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds. For residual control of annual weeds Roundup Ready 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 WEED REGISTRATION IN ALL STATES/TERRITORIES UNLESS OTHERWISE SPECIFIED

WEEDS CONTROLLED	BOOM RATE	HANDGUN/ KNAPSACK	CRITICAL COMMENTS
Artichoke thistle African lovegrass Carpet grass Cocksfoot Flatweed Johnson grass Kikuyu Nutgrass *(Cyperus rotundus)* Paspalum Phalaris Plantain Prairie grass Rhodes grass Rope twitch Sorrel Soursob #Tall sedge Yorkshire fog	**1.5–3kg/ha**	**5g/L**	Control of established perennials is best obtained when plants are at the seedhead stage. (Early flower flatweed). 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 treatments when Nutgrass has a minimum of 6–8 leaves. Use the higher rate in uncultivated situations. For Rhodes grass, Rope twitch, Prarie grass, Qld Blue grass, Johnson grass, Kangaroo grass, Kikuyu, Redleg grass, Paspalum and Sorrel, use the higher boom rate only.
Blady grass Bracken Couch #Cumbungi #Glyceria Guinea grass #Paragrass Silver nightshade #Water couch **#See Dry Drains and Channel Use situation**	**4.5kg/ha**	**7g/L**	For Bracken add Pulse® at 200mL/100L 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 1.5–3 kg/ha for control.

WOODY WEEDS REGISTRATION IN ALL STATES/TERRITORIES UNLESS OTHERWISE SPECIFIED

WEEDS CONTROLLED	HANDGUN/ KNAPSACK	CRITICAL COMMENTS
Bamboo Bitou bush Boneseed Boxthorn Crofton weed Gorse Groundsel bush Lantana Mistflower	**5g/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 1–2m tall. Bitou bush/Boneseed, best results are achieved when treated at peak flowering during Winter. Groundsel bush: DO NOT apply in Winter. Gorse: Always add Pulse at 200mL/100L of spray mix, use higher rate only. Lantana: Addition of Pulse (200mL/100L) may improve control. Boxthorn, Gorse, Lantana: Removal of bushes (after complete brownout), pasture improvement or further treatments are recommended to control seedlings and/or regrowth.
Blackberry Eucalyptus spp. (seedlings <2m) Hawthorn Pampas grass Sifton bush Sweet briar Willow (<2m)	**5–7g/L**	Apply to actively growing plants. Removal of bushes (after complete brownout), pasture improvement or further treatments are recommended to control seedlings and/or regrowth. Blackberry: Apply from flowering to leaf fall. In Tasmania, DO NOT treat bushes bearing mature fruit. Eucalyptus spp: Add Pulse at 200mL/100L of spray mix. Hawthorn: Apply from flowering to leaf fall. Pampass grass: Allow regrowth to reach 1m, best results – apply after flowering. Sweet Briar: Apply from late flowering to leaf fall.

CONSERVATION TILLAGE

RESTRAINTS: To ensure herbicide absorption, DO NOT disturb weeds by cultivation, sowing or grazing for 1 day after treatment of annual weeds and 7 days for perennial weeds, except where noted

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with **FULL SOIL DISTURBANCE** by cultivation or sowing with a tyned implement.	Barley grass Brome grass Volunteer cereals Wild oats	**265–530g/ha** pre-tillering **530–660g/ha** post-tillering	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6–8cm before spraying and use the higher rate. **Rate Selection** Increase to higher rates late in the season or when treating under cold/overcast conditions. Full disturbance with cultivation or sowing with a tyned implement may start one day after treatment (7 days if Dock, Phalaris, Skeleton weed, Soursob or Sorrel are present) and should occur within 21 days after treatment. Where cultivation or sowing does not occur within 21 days, new weed growth may require further treatment. When treating light infestations of seedling annual grasses (pretillering) and annual broadleaved weeds (less than 8cm dia/height), cultivation or sowing may start 6 hours after treatment and should occur within 21 days. **Crop Establishment** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See **Crop Establishment** for directions. **Annual Ryegrass, Silvergrass and perennial grasses** Addition of Wetter TX, 200mL/100L spray solution, may improve control. When treating dense infestation of Silver grass, use nozzles designed to give a COARSE spray quality (ASAE S572) and a spray volume of 70mL/ha or more is recommended to improve plant spray coverage. Good coverage of Silver grass is critical for control. **Tank Mixtures** For improved control of clover add Kamba® 500 (dicamba). Read and follow all label directions, restraints, plantback periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See **Tank Mixtures** for directions. **Perennial Weeds** For Perennial phalaris, Soursob, Skeleton weed and Sorrel, Roundup Ready will provide knockdown, seasonal suppression and reduction in treated plant numbers.
	Annual phalaris (Canary grass) Annual ryegrass Silvergrass Winter grass	**530–660g/ha** pre-tillering **660–790g/ha** post-tillering	
	Calomba daisy Capeweed Doublegee/Spiny emex	**265–530g/ha** less than 8cm diam/ height **530–790g/ha** greater than 8cm diam/ height	
	Amsinckia Fumitory Paterson's curse Saffron thistle Scotch thistle Spear thistle Variegated thistle Volunteer lupins Wild turnip	**530–660g/ha** less than 12cm diam/ height **660–790g/ha** greater than 12cm diam/height	
	Dock (seedling)	**530–790g/ha**	
	Perennial phalaris Sorrel Sub clover Soursob	**790g/ha**	
	Skeleton weed – fully emerged rosettes NSW only		
	All the above weeds TAS only	**790g–1.6kg/ha**	**Tasmania** Use 790g/ha on annual weeds. Increase to 1.6kg/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 400mL/ha Kamba® 500. Observe label directions and plantback periods.

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA To commence a fallow or prior to establishing a crop or pasture with an implement that gives minimal or no soil disturbance.	Barley grass Wild oats Volunteer cereals	**530g–790g/ha**	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6–8cm before spraying and use the higher rate. **Rate Selection** Use the **lower rate** on young weeds or where cultivation is to follow within 21 days; increase to the **higher rate** where grasses reach full tillering or where broadleaf weeds commence stem elongation/ budding. Increase to higher rates in Spring and under cold conditions. **Aerial application** Use higher rates. See **Aerial Equipment.** **Annual Ryegrass, Silvergrass and perennial grasses** Addition of Wetter TX, 200mL/100L spray solution, may improve control. When treating dense infestation of Silver grass, use nozzles designed to give a COARSE spray quality (ASAE S572) and a spray volume of 70mL/ha or more is recommended to improve spray coverage. Good coverage of Silver grass is critical for control. **Hoary cress** Treat from late rosette to early flowering. **Soursob** Treat at tuber exhaustion. **Couch** Use the higher rate on dense infestations. Apply sequential treatments during Summer and Autumn, with Autumn being most effective. Repeat applications will be required for full control. For improved control, use in conjunction with cultivation. **Tank Mixtures** For improved control of clover add Nufarm Kamba 500. Read and follow all label directions, restraints, plantback periods, withholding periods, regional use restrictions and safety directions for the tank mix products. See **Tank Mixtures** for directions. Addition of Nufarm Liase, 2L/100L, may improve control when treating under adverse environmental conditions. **Pasture or Crop Establishment** DO NOT sow into excessive trash. Excessive plant residues may be removed by grazing after treatment. Grazing may commence one day after treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for three days where annual weeds are large. Sowing may proceed when excessive trash is removed, but not sooner than one day after treatment of annual weeds and 7 days for perennial weeds. See also **Crop Establishment.** **Aerial (or Surface) Seeding** Delay seeding until trash level is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertilizer and insecticides and follow up management is undertaken as required.
	Brome grass Canary grass Capeweed Variegated thistle Winter grass	**660g–1kg/ha**	
	Annual ryegrass Paterson's curse Saffron thistle Scotch thistle Spear thistle Silvergrass Wild mustard Wild radish Wild turnip	**790g–1kg/ha**	
	Hoary Cress Soursob	**790g/ha**	
	Couch	**790g–1.6kg/ha**	
	Erodium Plantain Perennial-Phalaris Sorrel Sub. clover Yorkshire fog	**990g–1.3kg/ha**	
	Dock Flatweed	**1.3kg/ha**	
	All the above weeds TAS only	**790g–1.6kg/ha**	**Tasmania** Use 790g/ha on annual weeds. Increase to 1.6kg/ha where perennial weeds are being treated. To control White clover and improve control of Sorrel and Dock, add 400mL/ha Nufarm Kamba 500. Observe label directions and plantback periods.

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
SOUTHERN AUSTRALIA **Pasture topping** For annual grass, Capeweed and Calomba daisy seed-set reduction	Barley grass Brome grass Capeweed Silvergrass	**160g–240g/ha**	Remove stock prior to treatment to allow even regrowth. Apply to Capeweed and Annual ryegrass at FLOWERING. For other grasses, apply from HEAD to MILKY DOUGH stage. Use higher rate for dense infestations or where Annual ryegrass is present. Apply before signs of plants "haying off". Reduction in pasture legume population may occur as a result of treatment. DO NOT apply to clover or medic crops intended for seed or hay.
	Annual ryegrass Calomba daisy	**240g/ha**	
Seed-head suppression of Perennial grasses	Bentgrass	**200–330g/ha**	**Timing** Treat from late October to late November. Apply before seedheads have emerged. Use the higher rate where growth is excessive and renovation is intended the following Autumn. **Follow up management** Graze hard after spraying.
Poa Tussock infested pasture For reduction of ground cover allowing pasture renovation.	Most annual weeds and suppression of Poa tussock	**1.6–2.1kg/ha**	**Timing** Graze heavily, then remove at least 14 days before spraying to allow fresh regrowth. Apply to actively growing plants after the Autumn break but before heavy frosts (March–May). **Application** Increase to the higher rate may give more effective reductions. If aerial spraying, see **Aerial Equipment** **Follow up management** Sowing may start from 14 days after spraying. It is essential that correct follow up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestation.
Serrated Tussock For control/ suppression prior to establishing crops or improved pasture species NSW, Vic, Tas only	Serrated Tussock	**2.1–3.2 kg/ha**	Apply to actively growing and stress free plants. Best results May to October. **Application:** Boom spray volume of 70L/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 For prevention of seed head emergence and seed formation	Serrated Tussock	**360–710g/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 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.

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallow or prior to planting a crop. Qld, NSW only	Annual phalaris (Canary grass) Barley grass Volunteer cereals Wild oats	**265–530g/ha**	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred, allow regrowth to 6–8cm before spraying and use the higher rate. Note that under Summer (hot) conditions, dense infestations of Barnyard grass and Liverseed grass may require follow up treatment for complete control. In Winter (cold) conditions symptoms on Deadnettle may be slow to develop. **Rate Selection** Use the lower rates on young weeds; increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation/ budding. At more advanced stages of growth certain broadleaf weeds require a higher rate range or the addition of Nufarm Surpass® 475 or Nufarm Estercide® Xtra 680. **Crop Establishment** Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See **Crop Establishment** for directions. **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. DO NOT tank mix with atrazine when spraying Barnyard grass or Liverseed grass. **Aerial Application** For instructions on aerial application under hot conditions see **Aerial Equipment.** DO NOT apply by aircraft when ambient temperature is above 30C.
	Barnyard grass, Button grass, Columbus grass (seedling), Liverseed grass, Native millet, Stinkgrass (lovegrass), Volunteer sorghum	**530g–1kg/ha**	
	Australian bluebell (Qld only) Cudweed Fumitory Mexican poppy New Zealand spinach Saffron thistle Spear thistle Spurge Stinking goosefoot	**530–790g/ha**	
	Black (giant) pigweed Boggabri weed Caltrop (Yellow vine) Indian hedge mustard Mintweed Summer grass	**265–530g/ha** up to 5 true leaves or 3cm dia/height **530–790g/ha** greater than 5 true leaves or 3cm dia/ height	
	African Turnip weed Deadnettle Sweet summer grass Variegated thistle Volunteer sunflower	**400–530g/ha** up to 5 true leaves or 3cm dia/height **530g–1kg/ha** greater than 5 true leaves or 3cm dia/ height	
	Annual ground cherry (gooseberry) Bladder ketmia Camel melon False castor oil plant (Thornapple) Noogoora burr Turnip weed Wild lettuce Wild turnip Wireweed	**530–790g/ha** prior to stem elongation/ budding. After stem elongation/ budding use **265–790g/ ha** plus **1.1–1.7L/ha** Surpass® 475 or **790g–1kg/ ha** of Roundup Ready Herbicide alone	
	Pigweed	**530g–1kg/ha**	Use higher rates on larger weeds. Control of pigweed over a wide range of growth stage can be obtained with the addition of Nufarm Associate. Observe re-cropping intervals.

SITUATION	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
NORTHERN AUSTRALIA In fallow or prior to planting a crop. Qld, NSW only	Sowthistle Milkthistle	**400–530g/ha** rosettes up to 3cm dia **530g–1kg/ha** greater than 3cm dia	Previously grazed plants may be difficult to control without allowing full recovery.
	Couch	**790g–1.6kg/ha**	Use the higher rate for dense infestations. Apply sequential treatments during Summer and Autumn, with Autumn being most effective. Repeat applications will be required for full control. For improved control use in conjunction with cultivation. The use of LI 700 at 500mL/100L may improve control.
	Johnson grass	**1–1.6kg/ha**	Use the higher rate on plants approaching seedhead stage. Apply to plants with a minimum of 30cm new growth. Sequential treatments will be required for long term control.
	Nutgrass	**1.6+1.6kg/ha**	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 6–8 weeks), it is essential to make a second application. Note Follow up treatments should be made as part of a Nutgrass control program.
SORGHUM CONTROL (pre-harvest) QLD, NSW only	Sorghum (grain–sorghum) – DO NOT apply to varieties intended for seed production or varieties prone to lodging	**790–1kg/ha**	DO NOT apply if crop is under stress from low moisture, frost, cold or water logging. 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. Pre-harvest treatments may increase the likelihood of crop lodging. Apply post-harvest treatments to previously slashed/ grazed stubble when least 20cm of new growth has occurred. Use the higher rate on standing stubble or where re-growth from slashed sorghum has advanced beyond 50cm in height. **Caution** Sorghum may be naturally toxic to stock.
SORGHUM CONTROL (post-harvest) QLD, NSW only	Sorghum stubble (grain–sorghum)	**530–790g/ha** for fresh regrowth from slashed stubble. **790g–1kg/ha** for standing stubble if sufficiently green and for fresh Spring regrowth.	
SUGARCANE Ratoon Spray out QLD, NSW only	Sugarcane ratoon regrowth	**2.1–4.8kg/ha**	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. Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control.
RICE Direct drilling NSW only	Annual phalaris (Canary grass) Annual ryegrass Barley grass Burr medic Sub. Clover Winter grass	**530g–660g/ha**	Roundup Ready is less effective in drought-stressed plants. In drought conditions a pre-watering prior to spraying is recommended. In grazed situations, if heavy grazing has occurred allow regrowth to 6–8cm before spraying. **Annual ryegrass** Add Wetter TX at 200mL/100L of spray solution and where dominant, use the higher rate. **Sowing** Direct drilling may take place 1–14 days after spraying. Roundup Ready does not provide residual weed control. Permanent water and approved selective herbicides should be used to provide continuing control of weeds.

SITUATION	WEEDS CONTROLLED	BOOM RATE	CRITICAL COMMENTS
PRE-HARVEST APPLICATION to reduce viable seed set of weeds in: Field Peas (*Pisum sativum*) Faba Beans (*Vicia faba*)	Annual ryegrass (*Lolium rigidum*)	**250–530g/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. Application before this time may significantly reduce yields (in practice losses in excess of 25% can occur). Apply when the average seed moisture content is below 30%. For Faba Beans, this is indicated by the pods going black, and for Field Peas by the pods going yellow. DO NOT harvest within 7 days after application. DO NOT use on crops intended for seed or sprouting. Glyphosate resistant biotypes have been detected in Australia. If glyphosate resistant weeds are known to be present, apply an additional method of control.
PRE-HARVEST APPLICATION as harvest aid and weed control: Wheat (*Triticum aestivum*)	Annual weeds	**710g–1.4kg/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. DO NOT harvest within 7 days after application. DO NOT use on crops intended for seed or sprouting. 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 desiccate a crop as a harvest aid and weed control Adzuki beans Chickpeas Cowpea Faba beans Field peas Lentils Mungbeans Soybean (Application to crops intended for seed production or for sprouting may reduce germination percentage to commercially unacceptable levels.)	Annual Weeds	**530g–1.4kg/ha**	Apply with boom or by air. Use higher rates where crops or weeds are dense and where faster dessication is required. Application should be made at or after crop maturity: Chickpeas and Lentils – apply when physiologically mature and less than 15% green pods. Soybean – apply only after seed pods have lost all green colour and 80–90% of leaves have dropped. Use only on soybean crops grown for crushing. Mungbeans/ Adzuki and Cowpea – apply to mature crops when pods are brown/black Field peas – apply when seeds turn yellow and average seed moisture content is below 30%. Faba beans – apply when pods turn black and average seed moisture content is below 30%. **DO NOT harvest within 7 days of application. Speed of crop desiccation is dependant on crop stage, growing conditions and weather conditions during and after application. This use should be part of an Integrated Weed Management strategy which incorporates herbicides with different modes of action and alternative cultural weed control practices.**

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

WITHOLDING PERIOD
WHEAT AND LEGUMES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.
ALL OTHER USES: NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INFORMATION

There are three colour-coded parts to this label.

Black: General information including general annual and perennial weed control, spot spraying, fallow weed control and conservation tillage.

Blue: Specific information and directions for use for Roundup Ready cotton and Roundup Ready Flex cotton crops.

Brown: Specific information and directions for use for Roundup Ready canola.

PRODUCT INFORMATION

Roundup Ready Herbicide is a non-volatile, water soluble herbicide for the control of annual and perennial grasses and broadleaf weeds in Roundup Ready Flex® cotton, Roundup Ready cotton, Roundup Ready canola and certain other situations. Roundup Ready Herbicide is absorbed by plant foliage and green stems. Roundup Ready Herbicide is inactivated on clay and organic matter in soil and does not provide residual weed control. Roundup Ready Herbicide moves throughout the weed 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 Ready Herbicide will not control Roundup Ready cotton, Roundup Ready Flex cotton or Roundup Ready canola volunteers at any leaf stage.

RESISTANT WEEDS WARNING

GROUP M HERBICIDE

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

Growers of Roundup Ready Flex® cotton must practice preventative resistance management strategies that have been endorsed by the TIMS Herbicide Tolerant Crop Technical Panel. Practices are detailed in the Roundup Ready Flex® Cotton Integrated Weed Management Strategy included in the relevant Monsanto Crop Management Plan approved for the area in which the Roundup Ready Flex cotton is being grown. Growers must follow the Crop Management Plan approved for their area. The approved Crop Management Plan will be provided with the Technology User Agreement signed by the Grower with Monsanto for the use of Roundup Ready Flex® Cotton seed, and copies are also provided on the website www.monsanto.com.au. As a Part of the CMP growers must also allow Monsanto or its' agent to undertake the Weed Management Audit which is endorsed by the TIMS Herbicide Tolerant Crop Technical Panel.

Growers of Roundup Ready cotton must practice preventative resistance management. Practices are detailed in the specific Roundup Ready Cotton Integrated Weed Management Strategy included in the Monsanto Crop Management Plan. Growers must also allow Monsanto or its' agent to undertake the Weed Management Audit which is endorsed by the TIMS Herbicide Tolerant Crop Technical Panel.

To minimise the risk of weeds developing resistance to Roundup Ready Herbicide, use in conjunction with herbicides from alternative mode of actions groups and/or non-chemical weed control measures such as chipping and inter-row cultivation.

Growers must practice preventative resistance management as detailed in the Roundup Ready Canola Resistance Management Plan included in the Monsanto Crop Management Plan for Roundup Ready canola, which is mandatory under the Terms and Conditions of the Roundup Ready Canola License and Stewardship Agreement.

RESISTANT WEEDS REPORTING

It is recommended that growers collect seed samples where weeds that are normally sensitive to glyphosate become resistant, or are thought to be resistant.

Roundup Ready Flex® cotton related incidents should be reported as part of the Weed Management Audit to Monsanto and the Australian Pesticides and Veterinary Medicines Authority.

Roundup Ready cotton related incidents should be reported as part of the Weed Management Audit to Monsanto and the Australian Pesticides and Veterinary Medicines Authority.

Roundup Ready canola related incidents should be reported to the Technology Service Provider, Monsanto and the Australian Pesticides and Veterinary Medicines Authority as part of the Roundup Ready Canola Resistance Management Plan. Details of incidents must be recorded in the Compliance and Monitoring Assessment reporting forms.

MIXING

Roundup Ready Herbicide 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 galvanised 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. Good agitation is required, particularly under cold conditions, to ensure all of the Roundup Ready Herbicide dissolves when first added to the tank. Use spray solutions promptly as a gradual loss of activity may occur over a period of days following spray preparation.

Mixing the ROUNDUP READY HERBICIDE using one of the two methods below.

Full agitation in part-filled spray tank

1. Fill the tank with one-half the required amount of clean water and set the pump on full agitation.
2. Add the required amount of Roundup Ready Herbicide slowly to ensure that it is well dispersed throughout the tank and none collects on the bottom. Suggested rate is 10kg in 2–3 minutes.
3. Continue water addition and fully agitate until all the Roundup Ready Herbicide is completely dissolved.

External Pre-Slurry

1. Fill the spray tank with one-half the required amount of clean water.
2. Pre-mix the required amount of Roundup Ready in a separate container until it is completely slurried by adding one part Roundup Ready to a minimum 3 parts water.
3. Add to vigorously agitating tank and continue water addition.
4. Fully agitate until all the Roundup Ready is completely dissolved.

Tank Mixing Procedure

DO NOT use for "over the top" applications in Roundup Ready cotton or Roundup Ready canola crops. Consider carefully any plant back periods to cotton or other crops.

1. Fill the spray tank 1/3 or 1/2 full with clean water and start agitation.
2. Add Roundup Ready Herbicide. Mix thoroughly and continue water addition.
3. Where Nufarm Liase is recommended, add 2L/100L spray solution into the tank and mix thoroughly.
4. Add recommended herbicide/additive to the spray tank and mix thoroughly.
5. Add surfactant near the end of the filling process to minimise foaming.
6. Always maintain adequate agitation during application and use the tank-mix promptly.

Clean all equipment after use by washing thoroughly with water or recommended decontaminant.

TANK MIXTURES

NOT FOR USE OVER THE TOP OF ROUNDUP READY FLEX COTTON, ROUNDUP READY COTTON OR ROUNDUP READY CANOLA

HERBICIDES

Nufarm Estercide® 800, Nufarm Estercide® Xtra 680, Nufarm Surpass® 475, Ally*, Associate®, Affinity®, Hammer®, Nu-trazine 600, Nu-trazine 900 DF, Avadex® Xtra, Flowable Simazine, Nufarm Simazine 900 DF, Nufarm Kamba® 500, Express*, Eclipse*, Flame®, Flandor*, Garlon* 600, Invader®, Glean*, Striker®, Logran* 750WG, Nugran*, Lontrel, Nufarm LVE MCPA, MONZA®, Oust*, Rifle®, Solicam, Comet® 400, Stomp®, Surflan, TriflurX®, Triflur Xcel® and Yield*. Other brands have not been tested.

The addition of Striker at 75mL/ha to recommended rates of Roundup Ready prior to planting Winter cereals or cotton will improve knockdown of certain weeds.

INSECTICIDES

This product is compatible with the following insecticides. Imidan*, Le-Mat*, Lorsban* 500, Perfekthion EC 400, Pirate® 300, Karate*, Sumithion ULV and emulsifiable concentrates of dimethoate and fenitrothion. Other insecticides have not been tested.

SURFACTANT ADDITION

Additional surfactant is not required except where the rate of Roundup Ready is less than 6g/L (eg. 600g/100L water) when applied by boom.

Nufarm LI700® Surfactant

RATE: 250mL–500mL per 100L

The addition of Nufarm LI700 surfactant MAY improve weed control. At rates of 300mL–500mL per 100L, Nufarm 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.

ADDITIVES

Nufarm Liase (Ammonium Sulfate liquid 417g/L)

RATE: 2L per 100 litres spray solution.

Liase may be used as an adjuvant to alleviate the adverse effects of high levels of calcium, magnesium and bicarbonate ions in water.

Pulse® Penetrant

RATE: 20mL/10L spray solution.

Add when treating Bracken (boom application).

Wetter TX Surfactant

RATE: 20 mL/10L 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.

APPLICATION

Ground Boom

For broadcast (over-the-top) application, a spray volume of 50–80 litres per sprayed hectare is recommended for optimum performance. Nozzles and pressure settings must be selected to deliver a minimum of COARSE spray quality (American Society of Agricultural Engineers (ASAE) S572) at the target. Depending on prevailing temperature, relative humidity, delta T, wind speed, travel speed and boom height the spray quality produced at the nozzles may need to be coarser than this. In sensitive areas avoid using nozzles and/or pressure settings that produce a VERY FINE to MEDIUM spray quality, as these droplets are more prone to drift off-target.

Directed / Shielded Ground Application Equipment

Equipment should be used which directs the spray plume to the base of the cotton plants minimising contact with the foliage. Total application volume of 80L/ha should be used. Select nozzle types that produce a minimum COARSE spray quality (ASAE S572). Be aware of operational factors such as ground speed, nozzle height and row integrity. Monitor the application using water sensitive paper if uncertain. Monitor environmental conditions that may influence off target droplet movement such as temperature, relative humidity and wind speed.

High Volume Application

(e.g. Knapsack/Handgun Equipment) The dilution rate is given as g/litre e.g. 5 grams Roundup Ready per 1 litre of water. This is equal to 75g Roundup Ready per 15 litres of water or 500g per 100 litres of water. Adjust equipment to achieve an even spray pattern with a minimum of a COARSE spray quality at the target. Apply to ensure complete and uniform wetting of all foliage.

Aerial Equipment

When applying Roundup Ready Herbicide by air over the top (OTT) of Roundup Ready Flex cotton, Roundup Ready cotton or Roundup Ready canola, nozzles and pressure settings must be selected to deliver a minimum of a COARSE spray quality (ASAE S572) at the target. Depending on prevailing temperature, relative humidity, delta T, wind speed, travel speed and boom height the spray quality produced at the nozzles may need to be coarser than this. In sensitive areas avoid using nozzles and/or pressure settings that produced a VERY FINE to MEDIUM spray quality as these droplets are more prone to drift off-target. A minimum total application volume of 40L per hectare needs to be used.

DO NOT apply Roundup Ready Herbicide by aircraft at temperatures above 30ºC. Avoid application when relative humidity falls below 35%.

DO NOT apply during low-level inversion conditions, when winds are gusty or under any other conditions which favour drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

PREVAILING ENVIRONMENTAL CONDITIONS MUST BE CONSIDERED.

ANY AERIAL APPLICATION TO COTTON SHOULD BE DONE IN ACCORDANCE WITH THE AUSTRALIAN COTTON INDUSTRY'S BEST MANAGEMENT PRACTICES MANUAL.

AVOID DRIFT – EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE APPROPRIATE ROUNDUP READY TECHNOLOGY, AND TO NATIVE VEGETATION, AND TO PREVENT CONTAMINATION OF OPEN BODIES OF WATER AND WATERWAYS.

APPLICATION CHECK LIST

- 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 2 hours of application which causes run-off will require re-treatment. Rainfastness is reduced if weeds are not actively growing, under stress or conditions of low light intensity/darkness.
- Delay treatment of plants wet with dew or rain, if water droplets run off when plants are disturbed.
- 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.
- Be aware of any crops that may be in the vicinity of the application that are sensitive to Roundup Ready Herbicide.
- When applying Roundup Ready Herbicide by air over the top of Roundup Ready Flex cotton up to the 22nd node, nozzles and pressure settings must be selected to deliver a minimum COARSE spray quality (ASAE S572) at the target. A minimum total volume of 40L per hectare must be used.
- When applying Roundup Ready Herbicide by air over the top of Roundup Ready cotton up to the 4th true leaf (5th node), nozzles and pressure settings must be selected to deliver a minimum COARSE spray quality (ASAE S572) at the target. A minimum total volume of 40L per hectare must be used.
- If glyphosate resistant weeds are known to be present, use an alternative method of control before these weeds set seed.
- Be aware of native and other non-target vegetation in the vicinity of application, as such vegetation may be severely affected or destroyed by Roundup Ready Herbicide.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS AND LIVESTOCK

Avoid contact with foliage, green stems 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, pasture, native vegetation or any other non-target vegetation.

PROTECTION OF WILDLIFE, FISH CRUSTACEA 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 dry, cool, well ventilated area out of direct sunlight. Shake empty bag into spray tank. Single rinse bag before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture or shred empty containers in a local landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

SAFETY DIRECTIONS

Harmful if swallowed. 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. If product in eyes, wash it out immediately with water. 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.

FIRST AID

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

For Technical Enquiries phone 1800 639 899

MATERIAL SAFETY DATA SHEET

For further information refer to the Material Safety Data Sheet (MSDS), which can be obtained from your supplier or the Nufarm website – www.nufarm.com.au

IMPORTANT MANUFACTURER'S NOTICE

ROUNDUP READY FLEX COTTON

ROUNDUP READY FLEX COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORISED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY FLEX", INDICATES THE COTTON VARIETY CONTAINS A PATENTED, PROPRIETARY TRAIT. IT IS UNLAWFUL TO SELL OR PLANT SAVED SEED.

COTTON WITH THE ROUNDUP READY FLEX TECHNOLOGY MAY ONLY BE USED FOR PLANTING A COMMERCIAL CROP IN A SINGLE SEASON. SEED MAY NOT BE SAVED FOR REPLANTING AND SAVED SEED MAY NOT BE SUPPLIED TO OTHERS FOR REPLANTING. MONSANTO DOES NOT WARRANT THE SAFETY OR PERFORMANCE OF THIS PRODUCT WHEN USED ON FARMER-SAVED SEED.

ROUNDUP READY COTTON

ROUNDUP READY COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORISED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY", INDICATES THE COTTON VARIETY CONTAINS A PATENTED, PROPRIETARY TRAIT. IT IS UNLAWFUL TO SELL OR PLANT SAVED SEED.

COTTON WITH THE ROUNDUP READY TECHNOLOGY MAY ONLY BE USED FOR PLANTING A COMMERCIAL CROP IN A SINGLE SEASON. SEED MAY NOT BE SAVED FOR REPLANTING AND SAVED SEED MAY NOT BE SUPPLIED TO OTHERS FOR REPLANTING. MONSANTO DOES NOT WARRANT THE SAFETY OR PERFORMANCE OF THIS PRODUCT WHEN USED ON FARMER-SAVED SEED.

ROUNDUP READY CANOLA

ROUNDUP READY CANOLA VARIETIES MAY ONLY BE PURCHASED FROM AN AUTHORISED LICENSED SEED SUPPLIER FOLLOWING THE EXECUTION OF A ROUNDUP READY CANOLA LICENSE AND STEWARDSHIP AGREEMENT. THE DESIGNATION, "ROUNDUP READY", INDICATES THE CANOLA VARIETY CONTAINS A PATENTED, PROPRIETARY TRAIT AND USE OF A ROUNDUP READY CANOLA VARIETY WITHOUT ENTERING INTO A LICENSE AND STEWARDSHIP AGREEMENT AMOUNTS TO PATENT INFRINGEMENT.

ADDITIONALLY, UNLESS AUTHORISED BY MONSANTO, SELLING SEED THAT HAS BEEN DERIVED FROM A CROP OF CANOLA WITH THE ROUNDUP READY TECHNOLOGY WILL AMOUNT TO PATENT INFRINGEMENT AND IF YOU HAVE ENTERED INTO A ROUNDUP READY CANOLA LICENSE AND STEWARDSHIP AGREEMENT, WILL ALSO AMOUNT TO A BREACH OF THAT AGREEMENT.

ROUNDUP READY CANOLA SEED MAY ONLY BE SAVED FOR REPLANTING IN CERTAIN CIRCUMSTANCES AS SET OUT IN THE LICENSE AND STEWARDSHIP AGREEMENT. UNDER NO CIRCUMSTANCES MAY SAVED SEED BE SUPPLIED TO OTHERS FOR REPLANTING.

MONSANTO DOES NOT WARRANT THE SAFETY OR PERFORMANCE OF THE ROUNDUP READY TECHNOLOGY OR ROUNDUP READY HERBICIDE WHEN SAVED SEED OF ROUNDUP READY CANOLA IS USED.

CONDITION OF SALE

"Any provisions or rights under the Trade Practices Act 1974 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

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