

ECOTOXIC

Roundup[®] Herbicide **renew**

ACTIVE CONSTITUENT: 360 g/L glyphosate as the isopropylamine salt in the form of a soluble concentrate

For weed control in agriculture, horticulture, drains, aquatic areas, forestry and other uses including general weed control. Recommended prior to sowing pasture, crops and for the control of a wide range of brushweeds.

IMPORTANT: READ THE ATTACHED INSTRUCTIONS BOOKLET BEFORE USING THIS PRODUCT

[®] Roundup is a registered trademark of Monsanto Technology LLC

HAZARD CLASSIFICATION

9.1B

APPROVED HANDLER

This product must be under the control of an approved handler when it is applied directly into or over water.

This product must not be used for any purpose, or in any manner, contrary to this label unless authorised under appropriate legislation.

ECOTOXIC

- Toxic to aquatic organisms with long-lasting effects. Avoid contamination of any water supply with product or empty container.
- Non-selective herbicide – toxic to some plant species.

Beware: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.

HANDLING PRECAUTIONS

STORAGE

- Keep out of reach of children.
- Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, seeds, pesticides and fertilisers. Store in accordance with NZS 8409 Management of Agrichemicals.
- Solutions of Roundup® Renew should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fiberglass, plastic or plastic lined containers. Do not mix or store this product in galvanized or unlined steel (except stainless steel) containers or spray tanks. Roundup® Renew or solutions of Roundup® Renew react with such containers to produce hydrogen gas which may form a highly combustible gas mixture which can flash or explode if ignited.
- Stores containing 1000 litres of Roundup® Renew require secondary containment and signage, and more than 1000 litres require emergency response plans.

PERSONAL PROTECTION

- When handling wear eye protection, waterproof gloves, boots and overalls.
- Do not eat, drink or smoke while using.
- Remove protective clothing and wash hands and face thoroughly before meals and after work.

EQUIPMENT

- Apply using well maintained and accurately calibrated spray equipment.
- Flush equipment thoroughly with clean water after use.

DISPOSAL

- Triple rinse container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in an approved landfill.
- Dispose of product only by using according to the label, or at an approved landfill.

FIRST AID: If swallowed, DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If skin or hair contact occurs remove contaminated clothing and flush skin and hair with running water. If splashed in eyes, wash out immediately with water.



SPILLAGE: Wear appropriate protective clothing and prevent material from entering waterways. Contain and absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.

Registered pursuant to the ACVM Act 1997 No. P5630

See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to the HSNO act 1996 Approval Code HSR000767.

See www.epa.govt.nz for approval controls.

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PROPER SHIPPING NAME	HAZARD CLASS	UN No.	HAZCHEM	PACKING GROUP
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (glyphosate 36%)	9	3082	2x	III

Emergency Phonenumber: For 24 hour specialist emergency advice call 0800 734 607 (freecall) or 04 473 4607.

Note: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

GENERAL INFORMATION

It is an offence for users of this product to cause residues exceeding the relevant MRL in the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards.

Roundup® Renew is a broad spectrum, non-selective, non-residual herbicide that is not volatile and may be used in agriculture, horticulture, drains, aquatic areas, forestry and for other uses including general weed control. Roundup® Renew is recommended prior to sowing pasture, crops and for the control of a wide range of brushweeds.

Roundup® Renew is absorbed by plant foliage and green stems. It is inactivated immediately upon contact with the soil and does not provide residual weed control. Roundup® Renew moves from the point of foliage or stem contact into the root system controlling the plant above and below the ground. Visible effects may take up to 14 days or even longer depending on growing conditions. These effects are a gradual wilting and yellowing of the foliage which advances to deterioration of above and below ground parts.

Avoid contact with foliage or green stems of desirable plants and trees since severe injury or destruction may result. Avoid application in winds which allow drift onto desirable plants.

Rainfall occurring up to 2 hours after application may reduce effectiveness. When Slikka® or Pulse® is added the rain free period may be reduced to 30 minutes. If Roundup® Renew is applied to wet plants, the period between application and rainfall, without affecting performance, will be longer.

RESISTANT WEEDS WARNING

Resistance to this herbicide could develop from excessive use. Roundup® Renew contains a **GROUP G HERBICIDE** and belongs to the glycine group of herbicides. Roundup® Renew has the inhibition of EPSP synthase mode of action. Some naturally occurring weed biotypes resistant to Roundup® Renew and other Group G 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.

PRE-TREATMENT CHECKLIST

- Do not apply in conditions where drift may occur e.g. wind.
- Apply Roundup® Renew only to healthy, actively growing plants with adequate leaves for herbicide uptake. Avoid treating plants that are drought affected, frost damaged, silt laden, water logged, or suffering from the effects of previous herbicide application.
- Do not apply Roundup® Renew if rainfall is likely within 2 hours. Slikka® or Pulse® may be used to reduce this period to 30 minutes.
- Ensure sufficient leaf is present for uptake of Roundup® Renew.

POST-TREATMENT MANAGEMENT

- A withholding period for grazing stock is not required (except where ragwort is present – see 'WEEDS CONTROLLED' table – 'Ragwort'). It is, however, recommended that grazing or cultivating treated plants is delayed for 3 days for annual weeds and 7 days for perennial weeds to ensure absorption and translocation of Roundup® Renew.
- With brushweeds wait for stem dehydration to occur prior to burning or slashing.

MIXING INSTRUCTIONS

Roundup® Renew mixes readily with water. Reduced results may occur if dirty water is used (e.g. water from ponds or unlined ditches) or if hard water containing calcium salts is used. Ensure the spray tank is free from any residue of previous spray materials.

Procedure

Half fill the tank with clean water. Add the required amount of Roundup® Renew, agitate and continue filling the tank. Avoid foaming by keeping the filler nozzle below water level. Do not store mixed solutions for longer than 5 days. If adding other herbicides add prior to adding Roundup® Renew to the tank. Use tank mixtures promptly.

USE RECOMMENDATIONS

Refer to 'WEEDS CONTROLLED' table for rates of application.

General Weed Control:

Handgun – mix 1 litre of Roundup® Renew with 100 litres of water (1% solution).

Knapsack – mix 150 mL of Roundup® Renew with 15 litres of water.

Smaller sprayers – mix 10 mL of Roundup® Renew with every 1 litre of water.

Apply to completely wet the foliage but not to run-off.

Brushweed Control:

Roundup® Renew may be used to control a wide range of brushweeds and woody plants.

Agricultural Areas:

Roundup® Renew may be used for the control of annual and perennial weeds in agricultural land prior to sowing any edible or non-edible crop or pasture.

Where white clover control is required, tank mix with a suitable white clover herbicide and observe recommended waiting periods prior to planting legumes.

Cultivation may start from 7 days after spraying perennial weeds and 3 days for annual weeds.

Pasture: Direct (Spot) Application

Roundup® Renew is non-selective and may damage or kill any plant in the sprayed area. Apply as a directed low pressure spray. Re-treatment and/or pasture improvement may be necessary to restrict seedling re-establishment.

Orchards/Vines: Citrus, Apples, Pears, Stonefruit, Kiwifruit, Grapevines

Apply as a directed or shielded spray or with wiper equipment. For long term control of annual weeds Roundup® Renew may be tank mixed with a suitable residual herbicide.

Do not apply near unprotected trees less than 3 years old. Do not allow spray or spray drift to contact any part of stonefruit trees, or green bark, suckers, buds, foliage or fruit of other trees. Do not allow wiper surfaces to contact any part of the trees. Weed foliage coated in copper or calcium based compounds may reduce the activity of Roundup® Renew.

Market Gardens:

Roundup® Renew can be applied before or after seeding and prior to crop emergence. Roundup® Renew can be applied prior to transplanting or as a post harvest clean-up. For longer term control of seedling weeds, Roundup® Renew may be tank mixed with Ramrod® or other suitable residual herbicides. Use in accordance with the label recommendations for these products.

Asparagus: Roundup® Renew can be applied:

- Following the final harvest and immediately after removal of all spears but before crop regrowth occurs.
- Prior to planting or crop emergence. Do not treat emerging spears.

In established ferns as a directed or shielded spray or with wiper equipment.

Do not allow spray, spray drift or the wiper surface to contact any part of the asparagus plants.

Industrial and Non-Agricultural Areas:

Roundup® Renew can be used for the control of annual and perennial weeds as directed. For residual control Roundup® Renew can be tank mixed with simazine or another suitable residual herbicide.

Exercise caution when using residual herbicides prior to planting trees, shrubs or other ornamental plants.

Turfgrass and Recreational Areas:

Apply before establishing lawns, parks, reserves and ornamentals. Roundup® Renew can also be applied around the base of established trees as a directed or shielded spray or by wiper equipment. Do not allow spray or spray drift, or the wiper surface to contact any part of the tree. In mown areas, allow sufficient re-growth before spraying.

Aquatic Areas: Drains and Waterways:

Ensure that 75% of the weed to be treated is above water level or efficacy may be reduced. Following spray application do not submerge the treated plant as this will cause the herbicide to be washed off. Avoid treating silt laden plants.

Forestry:

Roundup® Renew can be applied for the control of grasses and a wide range of brushweeds. The addition of Slika® or Pulse® is required for the control of bracken and gorse.

Do not allow spray, spray drift or the wiper surface to contact the foliage or green bark of desirable trees as severe injury can occur.

APPLICATION INSTRUCTIONS

- Ensure the equipment is in good operating order and correctly calibrated.
- Wash thoroughly with water before use, and ensure filters and nozzles are free of pesticide residue.
- Avoid spray drift; care must be used when applying this product to prevent injuring desirable plants and crops.
- To clean equipment after use, flush thoroughly with water.

Boom Application

Water volumes up to 200 litres/ha of clean water are desirable. For broadacre boom application, flat fan, wide angle nozzles (e.g. 110°) using pressures of 200-280 kPa are preferred. Set the boom height to ensure a double overlap of the spray pattern at the top of the weed canopy.

For orchard application wide angle, even spray nozzles are preferred.

Knapsack and Handgun Application

- For knapsack or handgun applications adjust equipment to apply a fine spray. Use the minimum spray volume necessary to achieve uniform and complete coverage. Handgun spraying pressures of 1,000-2,000 kPa and No. 4 to No. 6 spray tips are recommended.

SLIKKA® / PULSE® PENETRANT

Slikka® or Pulse® Penetrant may be used with Roundup® Renew to improve the rate of uptake and shorten the rain free period on certain weeds. Refer to Slikka® or Pulse® Penetrant label before using.

Always use Slikka® or Pulse® Penetrant when treating gorse, broom, bracken, ryegrass and sweet brier.

Shelf Life:

When stored appropriately this product should show no significant degradation for 5 years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

CAUTION: 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 New Zealand law 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 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). To the extent permitted by law, all warranties, guarantees, representations and conditions, whether expressed or implied by law, trade, customer or otherwise are expressly excluded.

Remedy for failure to comply with warranty or guarantee

If there has been a failure to comply with a warranty or guarantee that cannot be excluded by law, the liability of Monsanto and Sinochem is limited to a replacement of the good or the supply of an equivalent good.

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WEEDS CONTROLLED				
WEED	Boom or litres/ha	Handgun Vol/100 litres	Knapsack mL/10 litres	CRITICAL COMMENTS
OLD MAN'S BEARD	-	1-2 litres	200	Apply Nov. to Mar. prior to leaf senescence. Vines too high for complete coverage should be cut at ground level in Winter or Spring and the regrowth sprayed in Mar when plants are at least 0.5 metres long. Follow up treatment will be necessary to control seedlings. Use the low rate for small vines.
PAMPAS GRASS / TOETOE	-	1 litre	100	Apply Spring-Autumn. Ensure complete coverage. Best results are achieved when applied after flowering.
RING FERN	1-3	300 mL	35	Control: Apply 3 litres/ha in Jan to Apr.
SWEET BRIER SLIKKA® OR PULSE® MUST BE USED	12 litres + Slikka® or Pulse® 250 mL/100 litres (min 500 mL/ha)	1 litre + Slikka® or Pulse® 200 mL/100 litres	100 + Slikka® or Pulse® 20 mL	Apply from later flowering to early leaf yellowing. Best results achieved with full coverage.
WILLOW	9-18 + Slikka® or Pulse®	1 litre	-	Apply from Jan to Apr before leaf fall begins. Total spray coverage is essential for best results.
ANNUAL WEEDS (General)	1-2	200 mL	20	Use higher rate for larger weeds.
BARLEY GRASS	1	200 mL	20	
CLEAVERS	1.5	500 mL	50	
AUSTRALIAN SEDGE	6	1 litre	100	Apply from Nov to Mar
BROWNTOP	6	500 mL	50	Apply to 5-10 cm high actively growing plants.
CALIFORNIAN THISTLE	4	1 litre	100	Apply at flower bud development but before Autumn browning. To ensure maximum shoot emergence do not cultivate for 6 months prior to treatment.
COUCH	3-6	1 litre	100	For suppression use 3 litres/ha; for control use 4-6 litres/ha, when growing conditions are satisfactory. Use the high rate in late spring. Apply to plants with at least 4-5 leaves and active shoot and root growth. Do not cultivate for 6 months prior to application to ensure maximum shoot emergence. See the Use Recommendations section for control of Couch in a pre-harvest situation. In areas of dense infestation, a repeat application may be necessary.
DOCK	4-9	1 litre	100	Treat plants in Spring or Summer when actively growing and in full leaf. Use low rate for seedlings and young plants. Use high rate for control of established plants.
FLOATING SWEET GRASS REED SWEET GRASS	6	1 litre	100	Apply to actively growing plants when most have reached early seedhead.
INDIAN DOAB	9	1 litre	100	Apply when most plants have reached early seedhead.
JOHNSON GRASS	6	1 litre	100	Apply to actively growing plants.



WEEDS CONTROLLED				
WEED	Boom or litres/ha	Handgun Vol/100 litres	Knapsack mL/10 litres	CRITICAL COMMENTS
KIKUYU	6	1 litre	100	Apply to actively growing plants. Under dense growth conditions silorate and allow regrowth before treatment to improve control levels.
MERCER GRASS				
Aquatic	9	1.5 litres	150	
Non-Aquatic	6	1 litre	100	
NODDING THISTLE	-	1 litre	100	Apply when actively growing when at least 10 cm of the weed can be wiped. In heavy infestations a double pass is recommended.
PASPALUM	4-6	1 litre	100	Use the low rate from Jan to Apr (early seedhead) prior to frosts. Use 6 litres/ha on vegetative plants.
POTATO (SELF SET)	3	500 mL	50	
PRAIRIE GRASS	1.5	-	-	
RAGWORT	6	1 litre	100	Apply when actively growing. Caution: Ragwort plants may become more palatable following spraying and stock should be removed until the treated plants brown out.
RATSTAIL	5	-	-	Apply to actively growing plants in Autumn.
RAUTAHI (CUTTY GRASS)	6	1 litre	100	Apply to actively growing plants from Jan to Mar. Burning or slashing may take place from 30 days after treatment following brown out.
RUSHES	6	1 litre	100	
RYEGRASS PERENNIAL	3-4 + Slikka® or Pulse®	500 mL + Slikka® or Pulse®	50 + Slikka® or Pulse®	Apply any time plants are actively growing and 3-10 cm high. Use low rate Jan to Jul when cultivation is to follow spraying. Use 3 litres/ha Aug to Dec. Add Slikka® or Pulse® at all times.
Slikka® or Pulse® must be used	100 mL/100 litres	100 mL/100 litres	20 mL	
TALL FESCUE	6	1 litre	100	Apply to actively growing plants Jan to Mar.
YARROW	3-6	-	-	Apply to plants with 5-10 cm of leaf. Cultivate with a minimum of 2 grubblings from 10 days after treatment. Use the 3 litre rate when a competitive crop to yarrow is to be drilled. Use the 6 litre rate when the crop to be drilled is a poor competitor.