

ECOTOXIC



Roundup[®]

360 PRO

Active ingredient: 360g/litre of 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.



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Roundup® 360 Pro

READ THIS BEFORE USING

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® 360 Pro 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® 360 Pro is recommended prior to sowing pasture, crops and for the control of a wide range of brushweeds.

Roundup® 360 Pro 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® 360 Pro 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 Pulse® is added the rain free period may be reduced to 30 minutes. If Roundup® 360 Pro 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® 360 Pro contains a **[GROUP G HERBICIDE]** and belongs to the glycine group of herbicides. Roundup® 360 Pro has the inhibition of EPSP synthase mode of action. Some naturally occurring weed biotypes resistant to Roundup® 360 Pro 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® 360 Pro 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® 360 Pro if rainfall is likely within 2 hours. Pulse may be used to reduce this period to 30 minutes.
- Ensure sufficient leaf is present for uptake of Roundup® 360 Pro.

POST-TREATMENT MANAGEMENT

- A withholding period for grazing stock is not required (except where ragwort is present – see Ragwort weed control section). 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® 360 Pro.
- With brushweeds wait for stem dehydration to occur prior to burning or slashing.

MIXING INSTRUCTIONS

Roundup® 360 Pro 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® 360 Pro, 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® 360 Pro 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® 360 Pro with 100 litres of water. (1% solution).

Knapsack – mix 150ml of Roundup® 360 Pro with 15 litres of water.

Smaller sprayers – mix 10ml of Roundup® 360 Pro with every 1 litre of water.

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

Brushweed Control:

Roundup® 360 Pro may be used to control a wide range of brushweeds and woody plants.

Agricultural Areas:

Roundup® 360 Pro 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 day for annual weeds.

Pasture: Direct (Spot) Application.

Roundup® 360 Pro 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.

Selective Wiper Application:

For the control of erect weeds in pastures.

Pasture Renovation:

Roundup® 360 Pro may be used to control existing pasture species prior to re-seeding pasture or establishing other crops.

Pre-Harvest: Wheat, Barley, Oats, Peas.

For wheat, barley and oats – Apply 7-12 days prior to harvest when the grain moisture content is less than 30%.

Peas – Apply 7-14 days prior to harvest when the pods have dried. Use only on peas for threshing. Do not harvest within 7 days after treatment to allow time for the herbicide to translocate into the weed roots.

Do not apply to undersown crops including clovers as they may be severely damaged.

Do not apply to crops which will be harvested for seed.

Use rates up to 4 litres/ha depending on the specific weeds to be treated. Avoid treating drought stressed plants.

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® 360 Pro 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® 360 Pro.

Market Gardens:

Roundup® 360 Pro can be applied before or after seeding and prior to crop emergence. Roundup® 360 Pro can be applied prior to transplanting or as a post harvest clean-up. For longer term control of seedling weeds, Roundup® 360 Pro may be tank mixed with Ramrod® or other suitable residual herbicides. Use in accordance with the label recommendations for these products.

Asparagus: Roundup® 360 Pro 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® 360 Pro can be used for the control of annual and perennial weeds as directed. For residual control Roundup® 360 Pro 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® 360 Pro 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® 360 Pro can be applied for the control of grasses and a wide range of brushweeds. The addition of 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.

Pasture Seedhead Suppression (Unimproved Pasture)

Use in unimproved pasture to delay onset of flowering and to maintain pasture grasses in a vegetative growth phase. Treat spring pastures at early grass seedhead emergence with 250ml Roundup® 360 Pro/ha. Temporary pasture brownout will occur. Use no added surfactant. Accurate spray calibration is important. Grazing can be carried out at any time after 3 days from treatment, but for optimum results graze from 21 days after treatment.

DO NOT USE ON RYEGRASS OR OTHER IMPROVED PASTURES, AS YIELD SUPPRESSION MAY OCCUR. IT IS ADVISABLE NOT TO TREAT MORE THAN 10-15% OF THE FARM IN ANY ONE YEAR.

APPLICATOR 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:

Adjust the equipment to achieve a fine spray. Use the minimum spray volume necessary to achieve uniform and complete coverage without runoff. Handgun spraying pressures of 1000-2000 kPa and No. 4 to No. 6 spray tips are recommended.

Wiper Application:

Pre-mix 1 part of Roundup® 360 Pro and 2 parts of clean water to prepare a 33% solution. Mix only enough herbicide for immediate needs and allow the wiping area to become fully saturated before commencing. The wiping area must remain moist and clean otherwise reduced results will occur. In heavy weed infestations or when treating perennial weeds such as Californian thistle or multi-crown ragwort, a double pass in opposite directions on the same day will give the best results. As weed density increases, decrease ground speed.

Drain thoroughly and wash immediately after use.

Aircraft Application:

Roundup® 360 Pro may be applied by aircraft in forestry and non-cropping areas only. Aerial application of Roundup® 360 Pro is not recommended on cropping land or near desirable plant species as even slight drift may cause severe injury or destruction. Do not apply in gusty or windy conditions, or in other conditions conducive to drift e.g. still air and inversion conditions.

Mistblower Application:

Use a solution of 300ml of Roundup® 360 Pro in 10 litres of water. For the micron attachment increase to 2 litres of Roundup® 360 Pro in 10 litres of water. Provide complete coverage and spray to wet but not to runoff.

THE ADDITION OF PULSE® PENETRANT

Pulse® Penetrant may be used with Roundup® 360 Pro to improve the rate of uptake and shorten the rain free period on certain weeds. Refer to Pulse® label before using.

Always use Pulse® 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

BRUSHWEEDS					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
BARBERRY	-	1L	100	300	Apply Jan. to Apr. from flowering to late fruit. Where bushes have been cut, regrowth should be 1.5m tall before spraying
BLACKBERRY	9-20	1-1.5L	100	300	Apply to healthy plants from blossom to ripe fruit stage prior to Autumn frosts (Dec. to Apr.). Only bushes with a well developed canopy of leaves should be treated. Early treatment (Dec. to Jan.) may be preferred in drought prone areas. Leave sprayed blackberry for 40-60 days before burning or slashing and oversow the area. Where treatment has been carried out under marginal conditions some regrowth can be expected within 1-2 years. For aerial application of hard to kill blackberry or where no follow-up pasture management is anticipated, use the higher rate.
BOXTHORN	-	1.25L	-	-	Apply Nov. to Apr. to actively growing plants. Avoid salt damaged plants. Spray to ensure complete coverage of dense thickets. DO NOT use additional surfactant as poor results may occur.
BRACKEN PULSE® MUST BE USED	9 + Pulse® 250ml/100L (min 500ml/ha)	1L + Pulse® 200ml/100L	100 + Pulse® 20ml	-	Apply when fronds are unfurled (mid Jan. to Jun.) but prior to frost browning. DENSE VIRGIN BRACKEN WITH HIGH TRASH CONTENT AND LOW LEAF TO ROOT RATIO SHOULD BE BURNT IN SPRING AND THE UNFURLED FROND REGROWTH SPRAYED THE FOLLOWING MARCH TO JUNE.
BROOM PULSE® MUST BE USED	9 + Pulse® 250ml/100L (min 500ml/ha)	1L + Pulse® 200ml/100L	100 + Pulse® 20ml	300 + Pulse® 20ml	Aerial Application: Best results are obtained when plants are in full leaf. Handgun Application: Apply all year round. Ensure full coverage.
BUDDLEJA	9	1L	100	-	Handgun: If actively growing treat all year. Aerial: Treat buddleja up to 2 metres high during Feb. to Apr.

BRUSHWEEDS (continued)					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
GORSE PULSE® MUST BE USED	-	1L + Pulse® 200ml/100L	-	-	Apply all year round. Spray to ensure complete coverage.
OLD MAN'S BEARD	-	1-2L	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 0.5m long. Follow-up treatment will be necessary to control seedlings. Use the low rate for small vines.
PAMPAS GRASS / TOETOE	-	1L	100	-	Apply spring-autumn. Ensure complete coverage. Best results are achieved when applied after flowering.
RING FERN	1-3	300ml	35	-	Control: Apply 3L/ha in Jan. to Apr.
SWEET BRIAR PULSE® MUST BE USED	12L + Pulse® 250ml/100L (min 500ml/ha)	1L + Pulse® 200ml/100L	100 + Pulse® 20ml	-	Apply from late flowering to early leaf yellowing. Best results achieved with full coverage.
WILLOW	9-18 + Pulse® 250ml/100L (min 500ml/ha)	1L	-	-	Apply from Jan. to Apr. before leaf fall begins. Total spray coverage is essential for best results.

ANNUAL WEEDS					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
ANNUAL WEEDS* General *Wiper	1-2	200ml	20	60	Use higher rate for larger weeds.
BARLEY GRASS	1	200ml	20	60	
CLEAVERS	1.5	500ml	50	150	

PERENNIAL WEEDS					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
AUSTRALIAN SEDGE *Wiper	6 9 Aerial	1L	100	300	Apply from Nov. to Mar. Where rank growth is present the area should be burnt 12-18 months prior to aerial application to ensure adequate spray coverage.
BROWNTOP	6	500ml	50	150	Apply to 5-10cm high actively growing plants.
CALIFORNIAN THISTLE *Wiper	4	1L	100	300	Apply after flower bud development but before autumn browning. To ensure maximum shoot emergence do not cultivate for 6 months prior to treatment. Wiper: A double pass at low speed is recommended in heavy infestations. Mowing thistles 10 days after treatment may assist control. Re-treatment may be necessary in the following season.
COUCH	3-6	1L	100	300	For suppression use 3L/ha; for control use 4-6L/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	1L	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	1L	100	300	Apply to actively growing plants when most have reached early seedhead.
INDIAN DOAB	9	1L	100	-	Apply when most plants have reached early seedhead.
JOHNSON GRASS	6	1L	100	300	Apply to actively growing plants.

PERENNIAL WEEDS (continued)					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
KIKUYU	6	1L	100	300	Apply to actively growing plants. Under dense growth conditions silorate and allow regrowth before treatment to improve control levels.
MERCER GRASS Aquatic	9	1.5L	150	450	
Non-Aquatic	6	1L	100	300	
NODDING THISTLE *Wiper	-	1L	100	-	Wiper Application (see Application Instructions). Apply when actively growing when at least 10cm of the weed can be wiped. In heavy infestations a double pass is recommended.
PASPALUM	4-6	1L	100	300	Use the low rate from Jan. to Apr. (early seedhead) prior to frosts. Use 6L/ha on vegetative plants.
POTATO (SELF SET)	3	500ml	50	150	
PRAIRIE GRASS	1.5	-	-	-	
RAGWORT *Wiper	6	1L	100	-	Apply when actively growing. Wiper: Apply when plants are 10-15cm above the pasture. In heavy infestations a double pass is recommended. 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.
RAUTAHU (CUTTY GRASS)	6	1L	100	300	Apply to actively growing plants from Jan. to Mar.
RUSHES *Wiper	6	1L	100	300	Burning or slashing may take place from 30 days after treatment following brown-out. Wiper (Rushes only). Apply Nov. to May.
RYEGRASS PERENNIAL PULSE® MUST BE USED	3-4 + Pulse® 100ml/ 100L	500ml + Pulse® 100ml/100L	50 + Pulse® 20ml	-	Apply any time plants are actively growing and 3-10cm high. Use low rate Jan. to Jul. when cultivation is to follow spraying. Use 3L/ha Aug. to Dec. Add Pulse® at all times.

PERENNIAL WEEDS (continued)					
Weed	Boom or Aerial L/ha	Handgun vol/100L	Knapsack ml/10L	Mistblower ml/10L	Critical Comment
TALL FESCUE	6	1L		300	Apply to actively growing plants Jan. to Mar.
YARROW	3-6	-	100 -	-	Apply to plants with 5-10cm of leaf. Cultivate with a minimum of 2 grubblings from 10 days after treatment. Use the 3L 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.

*Wiper - See Application Instructions for directions.