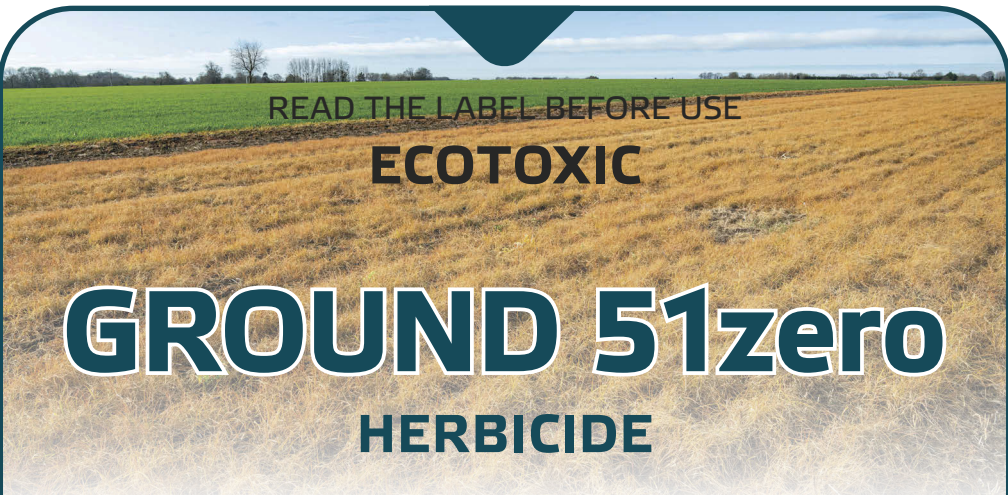




READ THE LABEL BEFORE USE

ECOTOXIC

GROUND 51zero

HERBICIDE

A non-selective herbicide for the control of many annual and perennial weeds in a wide range of situations.

ACTIVE INGREDIENT: Contains 510g/litre glyphosate as the isopropylamine salt in the form of a soluble concentrate.

20L

Registered pursuant to the ACVM Act 1997, No. P10375
See www.foodsafety.govt.nz for registration conditions.
Approved pursuant to the HSNO Act 1996, No. HSR101103.
See www.epa.govt.nz for approval conditions.

Registered to and distributed by:
AGPRO (N.Z.) Limited
10 Polaris Place, East Tamaki, Auckland 2013
PO Box 58-963, Botany, Auckland 2163
Ph: 09 273 3456 www.agpro.co.nz

LBLG51ZERO.1

AGPRO



HAZARD CLASSIFICATION: Hazardous to the aquatic environment (chronic) Category 2.

ECOTOXICITY

Toxic to aquatic organisms and with long-lasting effects.

QUALIFIED HANDLER

Where **GROUND 51zero** is applied onto or into water and the water has the potential to leave the place containing the application area, clauses 62, 63 and 64 of the Hazardous Property Controls Notice 2017 apply as if the substance has a hazard classification of hazardous to the aquatic environment acute Category 1.

PRECAUTIONS

Non-Selective Herbicide – very toxic to some plant species.

Beware: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

PERSONAL PROTECTION

Avoid contact with eyes and skin and inhalation of spray mist. When mixing or applying this product, overalls, boots, gloves and eye protection should be worn. Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Clean protective equipment daily after work.

EQUIPMENT

Apply only with appropriate, well maintained and calibrated equipment in accordance with current version of NZS 8409.

STORAGE

Keep out of reach of children. Store in the original, tightly closed container, in a secure cool, dry place out of direct sunlight and away from seed, fertilizers, feed or foodstuffs. Stores containing more than 1000 L of **GROUND 51zero** are subject to signage, secondary containment and require an emergency response plan.

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

DISPOSAL

Avoid contamination of any water supply with chemical or empty container.

Product Disposal: Dispose of this product only by using in according to label directions, or at a suitable landfill.

Container Disposal: Triple rinse container and add rinsate to the spray tank. Recycle clean container at an Agrecovery depot, or puncture and dispose at an approved landfill. Do not burn. Do not use container for any other purpose.

FIRST AID

For advice call the National Poisons Centre 0800 POISON (0800 764 766) (24 hours)

or a doctor. If medical advice is needed, have product container or label to hand.

If swallowed: do NOT induce vomiting.

Rinse mouth. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor.

If skin or hair contact occurs: remove contaminated clothing and flush skin and hair with running water. Get medical advice if irritation occurs. Wash contaminated clothing before re-use.

If in eyes: wash out immediately with water. Get medical attention if eye irritation persists.

If inhaled: move the person to fresh air immediately. Begin artificial respiration if breathing has stopped.

Maintain half upright position if breathing is difficult. Carry out artificial respiration if necessary.



AGPRO®
(N.Z.) LIMITED

FREE RECYCLING



AGRECOVERY

www.agrecovery.co.nz

Batch Number:

Date of Manufacture:

LBLG51ZERO.1

Safety Data Sheet

If additional safety information is required, refer to the Safety Data Sheet available from www.agpro.co.nz.

EMERGENCY RESPONSE

In a transport emergency call 111, Police or Fire Brigade.

For specialist advice in a chemical emergency call 0800 CHEMCALL (0800 243 622).

SPILLAGE

Exclude non-essential people from the area. Wear protective clothing and prevent material from entering waterways. Absorb spill with inert material such as soil, sand, etc, and place in labelled waste container that can be sealed. Wash area with water, and absorb with further inert material. Dispose of safely to a suitable landfill.

GENERAL INFORMATION

GROUND 51zero is a non-selective glyphosate herbicide for use in agriculture and horticulture

- Before planting crops and trees
- In pasture renovation and reduced tillage systems
- For pre-harvest weed control
- In vineyards, orchards and market gardens
- On turf and recreational areas
- In drains and waterways.

GROUND 51zero does not have adverse ecotoxic effects on fish or crustacea.

GROUND 51zero is water soluble and is absorbed by green plant tissue. It is then translocated throughout the plant, including the root system, to kill the entire plant. Plants should be actively growing, and not under drought stress, with clean foliage at the time of spraying. The product degrades in the soil and has no residual weed control activity.

Rainfall within 2 hours of application may reduce effectiveness. Application to foliage which is already wet will increase the time required for rainfastness.

Visible effects may not be apparent for 14 days depending on weather conditions and weed. Some perennial weeds may not show effects for 2 - 3 weeks.

DIRECTIONS FOR USE

GROUND 51zero must not be applied at rates exceeding 14 L of formulated product/ha per application (equivalent to 7.14 kg glyphosate acid/ha).

Application Methods

GROUND 51zero must only be placed in equipment made from stainless steel, fibreglass, plastic, aluminium, brass or copper. Other types of container may cause a reaction in which flammable hydrogen gas is generated. All spray equipment including pumps, spray tanks, lines and nozzles, and landing gear of aircraft should be thoroughly washed with water after each spraying day.

Boom equipment: Application can be made in spray volumes up to 200 litres/ha using fan nozzles at pressures in the range of 200-280kPa. Boom height should be set so that a double overlap of nozzle pattern is achieved at the top of the target plants.

Aerial equipment: Applicable to forest and non-crop areas only. Can be applied by aircraft in spray volumes of up to 100 litres/ha. Increase spray volumes in hilly terrain to ensure maximum target contact. Do not use in intensive horticultural cropping areas.

Handgun and Knapsack: Ensure a fine spray pattern to give complete coverage. For handguns, use pressures of 1000 – 2000 kPa and No. 4 and No. 6 spray tips

Wiper Equipment: Pre-mix 1 part **GROUND 51zero** in 3 parts clean water to make a 25% solution. Mix only enough for immediate use. Plants must be clean and dry and the wiper fully saturated. Apply up and down slopes for effective applications.

Mistblow: Refer to table.

Mixing

Fill the clean spray tank with half the required amount of clean water. Add **GROUND 51zero** as required and mix well before adding the remaining water. If surfactant is required, add this last to minimise foaming. Agitate well before spraying. When tank-mixing with other chemicals, add **GROUND 51zero** after other water-soluble concentrates, but before suspension concentrates. Soil particles and hard water containing calcium salts deactivate **GROUND 51zero**. If hard water cannot be avoided, the addition of a surfactant such as pH Buffer is recommended.

Compatibility

GROUND 51zero is compatible with commonly used herbicides.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the

Food Notice: Maximum Residue Levels for Agricultural Compounds.

Withholding Periods

Wheat, barley and oat grain: 7 days

ANIMAL SAFETY

Poisonous plants, such as ragwort, may become more palatable to stock after spraying, and livestock should be kept away until plants have died down. Otherwise, withholding is not required for stock grazing. However, it is recommended that grazing is delayed for 3 days for annual weeds, and 7 days for perennial weeds. This will allow **GROUND 51zero** to penetrate the weeds for maximum effectiveness.

WEED CONTROL NOTES

Agricultural Areas: May be used for the control of annual and perennial weeds as indicated in the Weeds Controlled Table prior to sowing any crop.

Asparagus: Pre-crop emergence and post-harvest applications. Apply prior to planting or crop emergence. Do not treat emerging spears. Application can also be made after removal of all spears but before crop regrowth occurs. In established ferns, apply 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 plant.

Broad-acre Crops: Wheat, barley, oats.

Can be used to control weeds prior to cultivation or prior to harvest. Spray 7-12 days prior to harvest when the grain moisture is less than 30%.

Do NOT apply more than 2.8 L/ha. Do NOT harvest within 7 days after spraying. Do NOT spray undersown crops. Do NOT spray crops that will be harvested for seed. Do NOT use as a preharvest desiccant.

Brushweeds: Refer to table.

Drains and Waterways: For best results ensure that 75% of the weed to be sprayed is above water level. Avoid treating silt-laden weeds. Following spraying do not submerge the weed, as this will cause the herbicide to be washed off.

Forestry: For the control of grasses and weeds as listed in the table. Can be applied for weed control prior to burning or planting of forest or nursery or around already established trees. Do not allow spray drift or spray contact with foliage or green bark of desirable trees.

Market Gardens: Apply before or after seeding but prior to crop emergence. Spraying can also be made prior to transplanting or as a post-harvest clean up.

Minimum Tillage: For total weed control prior to seeding in a reduced tillage system. Weeds should be actively growing and not under stress from frost, drought or

waterlogging. For the improved control of white clover, tank mix with Dicamba 500SL as DMA salt, or HIPRO (Tribenuron-methyl 750WG) products. Do within 28 days of applying dicamba. If using with HIPRO - Do not sow crops within 14 days of application, or sow brassicas if the soil pH exceeds 6.5, or use within 2 months after applying time. Consult partner product label for further directions. Cultivation may start from 3 days after spraying annual weeds, and 7 days after spraying perennial weeds. Cultivation should occur within 21 days after spraying. Do not sow until a satisfactory seedbed is formed.

Non-Agricultural Areas: Treat specific problem weeds as indicated in the Weeds Controlled Table.

Orchards/Vines: Crops: citrus, apple, pear, stonefruit, kiwifruit, grapes.

Apply as a directed or shielded spray. Do not apply near unprotected trees less than 3 years old. Do not allow spray or spray drift to contact any part of the stonefruit tree, or green bark, suckers, buds, foliage or fruit of other trees. Spray before crops bud, sucker or bloom.

Pasture (grasses, clover) : May be applied as a spot application to control a wide range of weeds in pasture. It is non-selective and may damage or kill any plant in the spray area.

Recreational Areas: Lawns, turf, parks, reserves and ornamentals. Apply before the sowing and planting of these areas, or use as a spot application. In mown areas, allow sufficient regrowth before spraying. Can also be sprayed around the base of established trees or shrubs, as a directed or shielded spray. Avoid contact with any part of the shrub or tree.

RESISTANCE MANAGEMENT

GROUP	9	HERBICIDE
-------	---	-----------

GROUND 51zero contains the **GROUP 9 herbicide** glyphosate. Rotate or alternate herbicide types during or between seasons to avoid resistance in some weed species. Some naturally occurring weeds may become resistant when excessive use of the same herbicide occurs. To prevent or delay the development of resistance, use in tank mixes and/or rotate use with herbicides with a different mode of action. Consult <http://nzpps.org> for alternative modes of action and details of resistance management strategies (if any).

CLEANING AND DECONTAMINATION

Take careful precautions with regard to washing all spray equipment after each day of spraying. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion. Aircraft should be thoroughly washed, especially landing gear, after each day's spraying.

CONDITIONS OF SALE

As the use of this product is beyond the control of AGPRO NZ Ltd, no warranty expressed or implied, beyond that covered under the Fair Trading Act is given by AGPRO NZ Ltd regarding its suitability, fitness, or efficacy for any purpose for which it is used by the user, whether in accordance with the directions or not. AGPRO NZ Ltd accepts no responsibility for any consequence whatsoever resulting from the use of this product.

WEEDS CONTROLLED TABLE

Weed	Boom/Aerial litres/ha	Handgun vol mL/100 litres	Knapsack mL/15 litres	Mistblower mL/10 litres	When to Apply
Annual weeds	0.7-1.4	140	20	40	Use the higher rate for larger weeds.
Australian sedge	4.2 - 6.3 (aerial)	700	105	210	Apply from November to March. Burn or slash from 30 days after treatment.
Barberry	-	700	105	210	Apply from flowering to late fruit stage (January - April). Regrowth should be 1,5m tall before spraying is carried out.
Barley grass	0.7	140	20	40	Apply when plants are at early seed head stage. (September - December).
Blackberry	6.3-14	1060	105	210	Apply from flowering-fruiting stage (December - April), before frosts occur. For hard to kill blackberry, aerial application, or no follow-up action planned, use the higher rate. Allow 6-10 weeks before slashing or burning.
Boxthorn	-	880	105	-	Apply to actively growing plants (November - April). Ensure complete coverage of dense thickets. Do not use extra surfactant, or treat salt damaged bushes.
Bracken/ Broom	6.3 + 250 mL surfactant/100L	700 + 750 mL surfactant	105 + 30 mL surfactant	210 + 20 mL surfactant	Apply after bracken fronds have unfurled (mid-Jan-June), but before frosts occur. For ground application to broom anytime, but for aerial application when broom is in full leaf.
Browntop	2.1	500	75	210	Apply when plants are 5-10cm high. For taller plants, graze or burn and allow regrowth of 5-10 cm height before treatment.
Buddleja	6.3	700	105	-	Apply using handgun anytime. Aerial-treat buddleja up to 2 metres high (February-April) using spray volume of 200-300 litres/ha.
Californian thistle	2.8	700	105	210	Apply after flower bud development. Retreatment and/or cropping or pasture improvement may be necessary to restrict re-establishment from seed. Mowing thistles 10 days after spraying may assist control.
Cleavers	1	350	50	105	Spray actively growing plants after most reach early seedhead.
Couch	2.1 -4.2	700	105	210	For suppression, apply 2.1 litres/ha in spring and repeat in autumn. For best results, apply 2.8 - 4.2 litres/ha in autumn to active growth of at least 10cm where no previous cultivation has occurred for at least 6 months.
Docks	2.8 - 6.3	700	105	-	Spray plants in spring or summer when actively growing and before seedheads have formed. Use the lower rate for seedlings and the higher rate for mature plants. In pasture situations boom spray prior to re-seeding or establishing crops to restrict seedling re-establishment. Under trees or vines may be tank-mixed with a Simazine 500 SC product at label rates for residual seedling control.
Floating sweet grass	4.2	700	105	210	Spray actively growing plants after most reach early seedhead. Spraying plants under drought stress may give reduced results.
Gorse	-	700 + 200 mL surfactant	-	-	Apply anytime ensuring complete coverage of plants not stressed by drought, grazing or previous herbicide treatment.
Indian doab	6.3	700	105	-	Apply at early seedhead stage before frosts occur.
Johnson grass	4.2	700	105	-	Apply to actively growing plants
Kikuyu/Mercer grass	4.2	700	105	210	Apply at early seedhead stage. On dense infestations, cut and spray the regrowth.

Weed	Boom/Aerial litres/ha	Handgun vol mL/100 litres	Knapsack mL/15 litres	Mistblower mL/10 litres	When to Apply
Nodding thistle	-	700	105	-	When applying by wiper ensure plants are actively growing (October - April) when at least 10cm of the plant can be wiped. A double pass is recommended and follow-up with spot treatments if necessary.
Old mans beard	3.5	700 - 1400	210	-	Apply Nov-March prior to first leaf browning. Use higher rates on stems over 1cm in diameter. If complete coverage is not possible plants should be cut at ground level in winter and the regrowth sprayed with the higher rate when plants are at least 50cm long (March).
Pampas grass/ Toetoe	-	700	105	-	Spray Spring-Autumn. Reduced control may result if plants are in flower at the time of spraying. Ensure complete coverage.
Paspalum	2.8-4.2	700	105	210	Spray at low rate if plants are at early seedhead stage. Use 4.2 litres/ha on mature vegetative plants, before onset of frosts.
Potato (self set)	2.1	350	55	105	Spray actively growing plants after most reach early seedhead.
Prairie grass	1	140	20	-	Apply at early seedhead stage.
Ragwort	4.2	700	105	-	Spray when actively growing and ensure there is sufficient leaf area for herbicide uptake. When applying by wiper use on plants 10-15cm above the pasture. For best results, a double pass is recommended with a follow-up spot treatment if necessary. Caution: Ragwort becomes more palatable after treatment. Keep stock away from treated areas until plants brown-off.
Ratstail	3.5	700	105	-	Apply at a spray volume of 135 litres/ha in autumn. In dry conditions, delay spraying until sufficient green foliage is present.
Rautahi (cutty grass)	4.2	700	105	210	Spray to actively growing plants from January - March. Burning or slashing may begin 30 days after treatment following brown-off.
Rushes	4.2	700	105	210	Burning or slashing may begin 30 days after treatment following brown-off. Wiper application to be carried out in November - May.
Ring fern	0.7-2.1	210	35	-	For effective control, apply 2.1 litres/ha. For pasture manipulation, apply 0.7 -1.4 litres/ha from December - April. Use higher rates for dense infestations. Burn 4-6 weeks after treatment.
Ryegrass (annual Italian short rotation hybrids)					
Established < 8months	2.1-2.8 + 100 mL surfactant/100L	700 + 100 mL surfactant/100L	105 + 15 mL surfactant	210 + 10 mL surfactant	Spray to actively growing plants with at least 5 -10cm of green leaf. A higher rate may be necessary that reflects the weed spectrum present
Established > 8 months	2.8 + 100 mL surfactant/100L	700 + 100 mL surfactant/100L	105 + 15 mL surfactant	210+ 10 mL surfactant	
Ryegrass (Perennial)	2.8 + 100 mL surfactant/100L	700 + 100 mL surfactant/100L	105 + 15 mL surfactant/100L		Spray to actively growing plants with at least 5 -10cm of green leaf. A higher rate may be necessary that reflects the weed spectrum present
Sweet brier	8.5 + 250 mL surfactant/100L	700 + 100 mL surfactant/100L	105 + 30 mL surfactant	-	Spray when plant is in late flowering to early leaf yellowing stage. Ensure full coverage.
Tall fescue	4.2	700	105	210	Apply January - March to active growth.
Willow	6.3	700	-	-	Apply before leaf fall begins (January - April). Total spray coverage is essential for best results.
Yarrow	2.1 -4.2	-	-	-	Apply to plant with 5-10cm of leaf. For best results cultivate 10 days after treatment. Use the low rate when a crop to be drilled is competitive to yarrow. Use higher rate when it is a poor competitor.