

ECOTOXIC – SHAKE WELL BEFORE USE

**ravensdown**

HERBICIDE

Guardian Plus

For the post emergence control
of perennial and annual grasses,
certain broad leaf weeds in
maize for grain and silage

ACTIVE INGREDIENT:

Contains 40g/litre nicosulfuron
in the form of an oil dispersion.



Registrant: Agri Solutions Ltd
Level 1, 26 Crummer Road,
Grey Lynn, Auckland 1021
New Zealand

Marketed by: Ravensdown Ltd
292 Main South Road
Hornby, Christchurch 8042
New Zealand
Phone: 03 353 4600

BATCH:

D.O.M:

ravensdown.co.nz

NET CONTENTS
10 Litres

ravensdown

GUARDIAN PLUS | READ LABEL CAREFULLY BEFORE USING

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

HAZARD CLASSIFICATION: 6.3B, 6.4A, 9.1A, 9.2A

APPROVED HANDLER: This product must be under the control of an approved handler when it is applied in a wide dispersive manner or used by a commercial contractor.

TOXICITY

Irritant - May cause eye and mild skin irritation.

ECOTOXICITY

Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.

Very toxic to the soil environment.

Selective herbicide - very toxic to some plant species. Decontaminate spray equipment before use on a sensitive crop.

Beware - apply this product carefully. Spray drift may cause serious damage to desirable plants. Do not allow spray drift over aquatic environments.

HANDLING PRECAUTIONS

STORAGE

Keep out of reach of children. Store in accordance with NZS 8409 Management of Agrichemicals. Store in original container tightly closed in a locked, dry, cool, well ventilated area away from foodstuffs, fertilisers and seeds. Stores containing 100L of GUARDIAN PLUS are subject to signage and secondary containment. More than 100L require emergency response plans.

PERSONAL PROTECTION

Avoid contact with skin, eyes and inhalation of spray mist. When mixing and applying wear protective clothing such as impervious gloves, eye protection, face shield, overalls and boots. Wash splashes of concentrate from skin and eyes immediately. Remove protective clothing and wash hands and face thoroughly before meals and after work. Do not eat, drink or smoke while using.

EQUIPMENT

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

RECORD KEEPING

Records of use as described in NZS 8409 Management of Agrichemicals must be kept.

DISPOSAL

Triple rinse container and add rinsate to spray tank. Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues and have an intact legible label may be taken to an Agrecovery collection site for disposal. Otherwise crush or puncture and bury in an approved landfill. Do not burn container. Do not use container for any other purpose. Dispose of product only by using according to label directions or dispose of safely at a managed landfill.

FIRST AID

If swallowed, DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or call 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

In case of spillage, wear appropriate protective clothing and prevent material from entering waterways. Exclude non-essential people from the area. Contain liquid spills and absorb with inert material such as soil or sand etc. and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.

EMERGENCY RESPONSE

In transport emergency call 111, Police or Fire Brigade. For 24hr specialist advice in an emergency only call **0800 CHEMICAL (0800 243 622)**.

SAFETY DATA SHEET

If additional safety information is required, refer to the Safety Data Sheet. For a copy, contact the customer centre on 0800 100 123.

SHELF LIFE

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

SPRAYER DECONTAMINATION

Always wash tank and flush equipment thoroughly with clean water after use. To avoid subsequent injury to sensitive crops, immediately after spraying thoroughly remove all traces of GUARDIAN PLUS from mixing and spraying equipment as follows:

1. Drain tank, then flush tank, booms and hoses with clean water for a minimum of 10 minutes.
2. Fill the tank with clean water and add 1L of chlorine bleach (containing 3% sodium hypochlorite) per 100L of water. Flush through booms with agitation then drain.
3. Repeat step 2.
4. Nozzles and filters should be removed and cleaned separately.
5. To remove traces of chlorine bleach, rinse tank thoroughly with clean water and flush through hoses and boom.

RESISTANCE MANAGEMENT

GUARDIAN PLUS contains nicosulfuron, a **GROUP B HERBICIDE** from the sulfonylurea chemical group with the inhibition of acetate synthase ALS mode of action. Naturally occurring weed biotypes resistant to sulfonylurea herbicides are known to exist. These become more prevalent after many years of continuous use of the product. To prevent or delay development of resistant biotypes, use GUARDIAN PLUS in tank mixture or rotation with herbicides of a different mode of action against the weed. Consult www.resistance.nzpps.org/ for alternative modes of action and details of resistance management strategies (if any) for the crops listed on the label.

WEEDS CONTROLLED

Grasses	Barnyard grass, bristle grass, couch, crowfoot grass, kikuyu, pasture grasses (volunteers), rough bristle grass, smooth witchgrass, summer grass, wild oats.
Broadleaf weeds	Bathurst burr, black nightshade, groundsel, fathen, fumitory, redroot, sow thistle, thorn apple, twincrest, water pepper, wild portulaca, willow weed.

WEEDS SUPPRESSED

Grasses	Mercer grass
Broadleaf weeds	Apple of Peru, bindweed, buttercup, Californian thistle, chicory, dock, clover oxalis, potatoes (volunteers), Scotch thistle.

DIRECTIONS FOR USE IN MAIZE

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.

DO NOT use on sweetcorn or popcorn. GUARDIAN PLUS can be used safely on maize grown for seed on existing NZ varieties already tested for crop safety in NZ.

Interaction with Insecticides: DO NOT apply to maize previously treated with a soil applied organophosphate insecticide or to maize that has been treated within 7 days before or after with a foliar applied organophosphate insecticide, as severe crop injury may result.

RATES OF APPLICATION

Weed	Rate	Critical Comments
Annual grasses	1-1.5L/ha	Use the low rate if application is made following a pre-emergence herbicide and if weed pressure is low. Add a suitable tank mix herbicide in soil areas where the soil organic matter is low to medium.
Couch	1.5L/ha	Apply when sufficient foliage is present for good coverage.
Mercer grass (suppression)	2L/ha	Apply when sufficient foliage is present for good coverage. Shading from a good crop canopy will improve control. In the following season a further application will improve overall Mercer grass control.
Broadleaf weeds	1-1.5L/ha	Use the low rate if application is made following a pre-emergence herbicide and if weed pressure is low. Mature weeds will not be adequately controlled. Add a suitable tank mix herbicide in soil areas where the soil organic matter is low to medium.
Oxalis (suppression)	1.5-2L/ha	The higher rate will improve control.

Note: GUARDIAN PLUS already contains a surfactant system, DO NOT add any additional surfactant.

APPLICATION TIMING

Broadleaf Weeds: For best results, GUARDIAN PLUS should be applied before weeds have reached the 4 true leaf stage. (75 to 100mm). Weeds larger than 4 true leaves may only be suppressed.

Grass Weeds: Apply when there is sufficient leaf area for good uptake but before the grass has formed a thick layer. Apply to summer grass at a maximum of three tillers or 75mm in length. Applications to maize crops greater than 500mm risks crop injury. To avoid injury GUARDIAN PLUS is best applied from 2nd leaf through until the 8th leaf stage of the maize, when the crop is growing vigorously without moisture stress.

APPLICATION

Apply evenly to the weed canopy using ground based spray equipment at a minimum water rate per hectare of 200L. Position the boom nozzles between the rows of the maize for direct coverage of weeds. The use of nozzles on droppers from the boom will improve target weed coverage. DO NOT apply GUARDIAN PLUS into the maize whorls as crop damage may occur.

Registered pursuant to the ACVM Act 1997, No.P7927. See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to the HSN0 Act 1996, Code: HS5R000237. See www.epa.govt.nz for approval controls.

Agrecovery is available on plastic containers up to 60L and for plastic or steel large drums from 6L - 1000L.



GENERAL INFORMATION

Before opening, carefully read warning statement, precautions, first aid instructions and directions for use. GUARDIAN PLUS is rapidly absorbed by foliage and translocated throughout the weed. This stops the synthesis of vital plant growth chemicals. Weeds stop growing immediately and discoloration of leaves occurs, followed by dieback that spreads slowly throughout the weed.

NOTE: GUARDIAN PLUS already contains a surfactant system, DO NOT add any additional surfactant.

MIXING

Prior to mixing GUARDIAN PLUS, thoroughly rinse sprayer, tank, booms, hoses, and nozzles with water. Shake container well before pouring. Pour GUARDIAN PLUS into the spray tank half filled with water, and add the remainder of the water while agitating. If adding other post-emergence herbicides, add after GUARDIAN PLUS is thoroughly mixed in the half filled tank. Apply the spray mix within 24 hours of mixing.

COMPATIBILITY

GUARDIAN PLUS is compatible in tank mixtures with atrazine eg Atracat and Atraflo. DO NOT tank mix with products containing mesotrione.

WEATHER CONDITIONS

Warm moist conditions and adequate soil moisture, both before and after application, will improve control. Maize stressed due to weather conditions may show a temporary yellowing or crop stunting. GUARDIAN PLUS is rain fast 6 hours after application.

WITHHOLDING PERIOD

For silage maize 56 days.

CULTIVATION

Do not cultivate during the 10 days before an application of GUARDIAN PLUS as this may decrease weed control by placing weeds under stress. The optimum timing for cultivation or side dressing of fertilizer is 7 - 14 days after an application of GUARDIAN PLUS.

SOIL RESIDUES

To minimise soil residues, treated area should be deeply cross cultivated to ensure maximum dispersal of residues. Ryegrass and small grains should not be sown in areas treated with GUARDIAN PLUS within the previous 5 months.

WARRANTY AND LIMITATION

IMPORTANT: Read this notice before opening the container.

The registrant warrants that when packed the active ingredient of this product is as specified on this label within accepted analytical tolerances. The registrant gives only those other warranties that are required by the law in relation to this product and limits its liability to the cost paid by the claimant for the product. The registrant declines all liability for damage resulting from the handling, storage or use of this product. The user bears the risk from the handling, storage or use of this product. The registrant is not liable for any use of this product which is contrary to the label directions given or any Act or Regulation.

PHONE 0800 100 123