

ECOTOXIC
Not for use in home gardens



Milestone™

HERBICIDE

ACTIVE INGREDIENT: Contains 60 g/L aminopyralid present as the potassium salt and 276 g/L clopyralid present as the monoethanolamine salt in the form of a soluble concentrate.

GROUP 03 HERBICIDE

A selective herbicide for the control of broadleaf weeds in forage brassicas

READ THIS LABEL COMPLETELY BEFORE MIXING OR APPLYING

Dow AgroSciences (NZ) Ltd
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www.corteva.co.nz
Telephone 0800 803 939

HAZARD CLASSIFICATION: 9.1B, 9.2A



QUALIFICATION REQUIREMENTS

Persons mixing, loading, applying, or otherwise handling

MILESTONE must meet qualification requirements set out in the EPA Hazardous Substances (Hazardous Property Controls) Notice 2017.

RECORD KEEPING

Records of use, as described in the EPA Hazardous Substances (Hazardous Property Controls) Notice 2017 and the New Zealand Standard for the Management of Agrichemicals (NZS8409), must be kept if more than 3 L of **MILESTONE** is applied, or discharged within 24 hours in a place where members of the public may be present or where the substance may enter air or water and leave the place.

PROHIBITED USES

Use on turf, including lawns and playing fields is prohibited.

ECOTOXICITY

Ecotoxic in the aquatic environment. **DO NOT** apply directly into or onto water. No person may apply this substance in a manner that results in adverse effects to a water body.

Very toxic to the soil environment. Certain plants may be damaged or killed from contact with this product. No person may apply the substance in a manner that results in adverse effects to non-target vegetation beyond the boundary of the subject property.

Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

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HSNO application restrictions apply: maximum application rate of 1 L/ha and maximum of 1 application to the same crop per year.

HANDLING PRECAUTIONS EQUIPMENT

Apply using accurately calibrated and maintained equipment in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

Flush equipment thoroughly with clean water after use according to Cleaning of Spray Equipment instructions below. Dispose of cleaning water according to the Disposal instructions below. **DO NOT** use equipment to apply other pesticides to susceptible crops and plants – see the Protection of the Environment and the Management of Spray Drift sections.

STORAGE

Store in the original container tightly closed and in a locked, dry, cool, well-ventilated area, away from foodstuffs. Avoid contamination of seeds, fertilisers and other pesticides. Storage must be generally in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

Stores containing more than 1,000 L of **MILESTONE** (or substances of the same hazard class) are subject to signage, secondary containment and emergency response plans. See the EPA Hazardous Property Controls Notice 2017, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the New Zealand Standard for the Management of Agrichemicals (NZS8409) for further information.

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PERSONAL PROTECTION

When opening the container, preparing the product for use and applying the product, wear eye protection, chemical resistant gloves, and cotton overalls buttoned to the neck and wrist (or equivalent clothing). **DO NOT** eat, drink or smoke while using. Remove protective clothing immediately after handling this product and wash hands and face before meals and after work.

SPILLAGE

DO NOT touch or walk through spilled material. Wear the protective equipment recommended above. Stop further spillage occurring and prevent entry into waterways and drains. **Small spills/leaks:** Absorb with material such as sand, soil or sawdust. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the SDS, product label or Corteva Agriscience regarding disposal. **Large spills:** Report large spills to Corteva Agriscience Emergency Services at 0800 844 455.

DISPOSAL

Triple rinse empty container and add rinsate to spray tank. Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues (liquid and dry) and have an intact legible label should be taken to an **Agrecovery** collection site. Otherwise crush and bury in a suitably approved landfill. **DO NOT** burn empty containers.

Dispose of the product only by using according to the label, via Agrecovery (visit www.agrecovery.co.nz or call 0800 AGRECOVERY

(247 326) for information about the type and quantity of chemical acceptable for disposal.), or at an approved landfill. **DO NOT** burn.

Dispose of equipment cleaning water onto ground away from susceptible crops and plants.

DO NOT dispose of this product; spray mix or equipment cleaning water down drains or sewers.

FIRST AID

If exposed, or if you feel unwell, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If medical advice is needed, have the product container or label at hand. If swallowed, **DO NOT** induce vomiting. If splashed in the eyes, wash out immediately with water. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

TRANSPORT

No restrictions for carriage on a passenger service vehicle apply.

SAFETY DATA SHEET

A Safety Data Sheet for **MILESTONE** is available from Corteva Agriscience on request. Call Customer Service Toll Free on 0800 803 939.

RE-ENTRY

DO NOT allow entry into treated areas until the spray has dried. If prior entry is necessary, wear personal protective equipment as described above.

NOTICE

Important: You **must** read the warning and conditions given on this label. If they are not acceptable, or if you are in doubt as to the proper handling of this product (including its transport, storage, use, disposal, and requirements for approved handlers [if applicable]) then return the unopened product to the supplier at once.

Warning: This product is subject to controls and could be hazardous if handled incorrectly. The **user is responsible** for ensuring that the handling of this product is in accordance with the law (including the *Hazardous Substances and New Organisms Act 1996* and the *Agricultural Compounds and Veterinary Medicines Act 1997*) and with the directions provided. The Registrant declines all liability (whether in contract, tort (including but not limited to negligence), or otherwise) to the maximum extent permitted by law in relation to the handling of this product in a manner which is contrary to the directions given or to any applicable Acts, Regulations or Guidelines.

Further information regarding the applicable Acts, Regulations and Guidelines for the proper handling of this product may be obtained by contacting EPA New Zealand (www.epa.govt.nz) or the Ministry for Primary Industries (MPI) (www.foodsafety.govt.nz).

This product is warranted to contain the specified active ingredients within accepted analytical tolerance when packed.

DIRECTIONS FOR USE

MIXING

Pour the measured quantity of **MILESTONE** into a partially filled spray tank before adding the required adjuvants or tankmix partners and then add the remainder of the water. Ensure thorough agitation throughout filling and spraying.

APPLICATION

MILESTONE can be applied using conventional ground and aerial spraying equipment.

IMPORTANT: In order to select the appropriate nozzles for the required spray quality and operate the equipment to minimize spray drift, this product must be applied in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409). Refer to the Management of Spray Drift section.

Ground boom spraying: Apply **MILESTONE** in 100 – 200 L/ha water as a medium quality spray as defined by the British Crop Protection Council (BCPC) Guideline or the American Society of Agricultural and Biological Engineers Standard (ASABE – S572).

Aerial spraying: Apply **MILESTONE** in 60 – 100 L/ha water as a coarse quality spray as defined by the British Crop Protection Council (BCPC) Guideline or the American Society of Agricultural and Biological Engineers Standard (ASABE – S572).

CDA application: Use the large (250 – 300 micron) droplet size and apply **MILESTONE** in minimum 30 L/ha water.

Use of higher water rates generally improves coverage and weed control, especially where weeds are dense.

PROTECTION OF THE ENVIRONMENT

DO NOT use on turf.

DO NOT apply into or onto water.

DO NOT apply close to, or on, areas where treated soil or surface water may run off to areas containing, or to be planted with, susceptible plants.

DO NOT use for the treatment of forage brassicas where these will be used for making compost; or where the crop will be made available for collection for, or deposited at, a municipal green waste recycling depot.

MANAGEMENT OF SPRAY DRIFT

Before applying this product a site specific risk assessment that considers the potential movement of spray drift downwind to sensitive areas must be conducted and recorded. This includes assessment of the weather conditions, application equipment, topography and species of plants downwind.

Exposure to **MILESTONE** may injure or kill susceptible agricultural crops and native vegetation. Sensitive species include, but are not limited to, members of the *Fabaceae* family (e.g. lupins, legume pasture species such as lucerne, clovers, medics, chicory, legume crops such as beans, peas and other pulses), the *Solanaceae* family (e.g. tomatoes, potatoes), the *Asteraceae* family (e.g. lettuce, sunflower), cucurbits, vines (grapes and kiwifruit), fruit trees, vegetables as well as aquatic and ornamental plants.

When applied using ground-based application methods, the nozzle must be set to deliver at least a medium droplet quality spray, as defined by the American Society of Agricultural and Biological Engineers ASABE Standard (S572) or the British Crop Production Council guideline.

When applied using aerial methods, the nozzle must be set to deliver at least a coarse droplet quality spray, as defined by the American Society of Agricultural and Biological Engineers ASABE Standard (S572) or the British Crop Production Council guideline.

DO NOT apply when wind speeds are less than 3 km/h or more than 20 km/h as measured at the application site.

DO NOT apply by air if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise. A surface temperature inversion is likely to be present if:

- mist, fog, dew or a frost have occurred
- smoke or dust hangs in the air and moves sideways, just above the ground surface
- cumulus clouds that have built up during the day collapse towards evening
- wind speed is constantly less than 11 km/hr in the evening and overnight
- cool off-slope breezes develop during the evening and overnight
- distant sounds become clearer and easier to hear
- aromas become more distinct during the evening than during the day.

Aerial application is not recommended for crops in proximity of native vegetation, sensitive agricultural crops, landscaped gardens, or where application is likely to cause contamination of plant or livestock commodities. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

For the protection of threatened non-target plants the following buffer zones are recommended from any DOWNWIND area which may contain threatened plants:

- ≥ 40 metres for ground applications
- ≥ 200 metres for aerial applications.

ADJUVANTS

ALWAYS apply **MILESTONE** in a mixture with Uptake Spraying Oil at 1 L/ha. The only oil recommended for use with **MILESTONE** is Uptake Spraying Oil.

COMPATIBILITY

MILESTONE is compatible with most insecticides and grass weed herbicides recommended for use in forage brassicas. Consult your Corteva Agriscience representative for more information.

PRE-EMERGENCE HERBICIDES

MILESTONE can be used following pre-emergent applications of trifluralin herbicide. Application of some other herbicides prior to **MILESTONE** may result in injury to forage brassicas and suppression of yield. Consult Corteva Agriscience prior to application of other (pre or post-emergent) herbicides if **MILESTONE** is to be applied to forage brassicas.

CLEANING OF SPRAY EQUIPMENT

Before applying MILESTONE:

If MCPA, MCPB, 2,4-D or other herbicides that may damage forage brassicas have been used at any time prior to **MILESTONE**, ensure the spray equipment is decontaminated according to the relevant herbicide label directions prior to using the equipment to apply **MILESTONE**.

After using MILESTONE:

Always rinse equipment thoroughly with clean water after use of **MILESTONE**.

Rinsing

- Empty the spray tank completely and drain the whole system. Thoroughly wash inside the unit using a pressure hose. Drain spray unit and clean any filters in the tank, pump, lines, hoses and nozzles.
- After cleaning the spray unit as described above, quarter fill with clean water and circulate the water through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

Decontamination

After any previous use of **MILESTONE**, decontaminate before using the spray equipment for applications to crops that are sensitive to **MILESTONE** (see Soil Residues section).

Decontaminate using the following procedure:

- Quarter fill the tank and add a standard alkali based laundry detergent at 500 g (or mL)/100 L of water and circulate throughout the system for at least 15 minutes. If using a concentrated laundry detergent use 250 g (or mL)/100 L water. **DO NOT** use chlorine based cleaners.
- Drain the whole system. Remove filters and nozzles and clean them separately.
- Finally, flush the system with clean water and allow to drain.

The effectiveness of decontamination should be checked by applying water from the decontaminated sprayer to sensitive plants such as beans or peas, and observing after 10 days for symptoms.

Cleaning water should be discharged onto a designated disposal area, or onto unused land away from desirable plants, drains, sewers and water sources.

WARNING: If a sulphonylurea has been used any time prior through the same equipment, decontamination using the method provided on the sulphonylurea product label must be undertaken before adding **MILESTONE** and Uptake Spraying Oil to the spray tank.

RAINFASTNESS

DO NOT apply if rain is likely within one hour.

CROP SAFETY

Some transient cupping of leaves and height reduction may be observed after application of **MILESTONE** to some brassica varieties. Typically yield of kale, bulb turnips, leafy turnips, swedes and rape is not affected when good growing conditions occur before and after application.

DO NOT apply **MILESTONE**:

- Prior to the 3-leaf growth stage of the crop
- If forage brassicas are stressed at application or if stress is probable after application. Stress factors include low soil moisture, extreme temperatures, nutritional deficiencies or high pest and disease pressure.

Test MILESTONE on small areas of newly released forage brassica varieties and cultivars until experience has shown that application is safe.

DO NOT apply to Raphanobrassicacae.

SOIL RESIDUES

MILESTONE is injurious to legumes and other broadleaf plants. Residues in the soil may prevent their early re-establishment after treatment. Susceptible crops and plants include but are not limited to, flowers, fruit trees, legumes, ornamentals, potatoes, shade trees, squash, tomatoes, vegetables, or vine crops. Susceptible crops and plants may be damaged by **MILESTONE** during both growing and dormant periods. If in doubt regarding other crops, or for further information consult a Corteva Agriscience representative.

The rate of decline of soil residues is dependent on several factors (including soil type and rainfall) and will vary from district to district. Breakdown of residue in plant material or manure is more rapid in warm, moist, aerobic soil with good organic matter and may be enhanced by supplemental irrigation. Under low rainfall conditions (less than 800 mm per year) or in heavy, poor draining soil, delay planting of susceptible crops for at least 2 years. To promote herbicide decomposition, plant residues from the treated crop should be evenly incorporated in the surface soil.

Following Crop	Comments
Clovers	To minimize potential damage to clovers from soil residues allow a minimum of 6 months after application of 250-500 mL/ha, 8 months after application of 750 mL/ha and 12 months after application of 1 L/ha. Deep ploughing to completely invert the soils, followed by surface cultivation is recommended before sowing clover. If over-sowing clovers allow a minimum of 6 months and then conduct a bioassay as described below.
Cereals, maize, annual or perennial ryegrass and forage brassicas	May be sown at any time following forage brassica crops treated with MILESTONE .
Potatoes, peas, lucerne, beans, cucurbits, tomatoes, vegetable crops (other than brassicas and sweet corn), vine and tree crops and other crops which are highly susceptible to MILESTONE .	<p>DO NOT sow for at least 18 months after applying MILESTONE and not until after the bioassay described below has demonstrated that it is safe to do so.</p> <p>DO NOT use MILESTONE if it is necessary to sow these susceptible crops within the above-suggested periods.</p> <p>Avoid repeat treatments of MILESTONE to successive brassica crops as this can increase the potential for soil residues.</p>

Following Crop	Comments
	<p>SOIL BIOASSAY</p> <p>A simple bioassay can be conducted by collecting at least 10 spade spits of soil to a depth of 200 mm from throughout the paddock and thoroughly mixing the soil together. Place some of this soil in a shallow container to a depth of 3-5 cm and sow 100 seeds of the susceptible crop to be grown into the soil. Subterranean or white clover is a good indicator plant where it is not practical to use the susceptible crop. Keep in a warm place with good light and ensure the soil does not dry out. After crop emergence, check the number of plants that have germinated and seedling vigour. Symptoms of MILESTONE residues include low or non-germination and emergence, leaf cupping, leaf yellowing, stem elongation and twisting. If these symptoms occur, DO NOT plant the susceptible crop. Repeat the bioassay again after a further time interval.</p>

WITHOLDING PERIODS

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 graze or cut for animal feed for 7 days after application. After this period, animals may graze forage brassicas and be sent for slaughter or used for milk production.

ANIMAL WASTE

Unless fed on clean feed for 4 days, the purchaser of animals grazing on forage brassicas treated with **MILESTONE** within the last 10 weeks must be advised that paunch grass, manure and slurry from these animals may contain residues and hence the purchaser must follow the relevant animal waste restrictions on this label. Clean feed is a paddock

where there is no grazing restriction in force at the time of grazing. This restriction is no longer required once 10 weeks has elapsed from treatment to grazing.

Dairy and feed pad effluent. Effluent from animals grazing forage brassicas treated with **MILESTONE** within the last 10 weeks may contain residues for 4 days after removal of the animals from treated crops. Disposal of this effluent by irrigation may cause damage to clover and other sensitive crops during this 4 day period.

DO NOT send off-farm any effluent (or compost made from it) from animals that have grazed on crops treated with **MILESTONE** within the last 10 weeks until the animals have grazed for 4 days on clean feed (see above for clean feed explanation). This restriction is no longer required once 10 weeks has elapsed from treatment to grazing.

DO NOT plant a susceptible crop in fields treated in the previous year with animal waste that may contain **MILESTONE** until a field bioassay shows soil residues are not harmful (see Soil Residues section).

RESISTANCE MANAGEMENT

GROUP 03 HERBICIDE

MILESTONE contains two pyridine carboxylic-acid herbicides (Group 03). Some naturally occurring individual weeds may become resistant with excessive use of the same herbicide. To maximize the effectiveness of herbicides, products containing alternate modes of action should be used in spray programs and crop rotations. Consult <http://resistance.nzpps.org/> for alternate modes of action and the details of resistance management strategies (if any) for the crops listed on the label.

CROPS AND WEEDS

MILESTONE controls many herbaceous broadleaf weeds.

Best results are achieved by spraying weeds during active vegetative growth stages. All spray applications should ensure complete coverage of the target weed.

IMPORTANT: DO NOT apply MILESTONE to any forage plantain or brassica seed crop.

See Cleaning of Spray Equipment, Application Comments for Forage Brassicas, Soil Residues and Withholding Periods sections of the label before all applications to forage brassicas.

WEEDS CONTROLLED	RATE	COMMENTS
Black nightshade (2-4 leaf) Hairy nightshade (2-4 leaf) Willow weed (2-4 leaf) Wireweed (4-6 leaf) Clovers (seedling and regrowth) Thistles (seedling and rosette) other than Californian thistle	500 mL/ha	Apply MILESTONE to small, actively growing, seedling weeds as soon as possible after weed emergence is largely complete. Weeds at later growth stages will be suppressed. MILESTONE is best applied to actively growing 3-4 leaf forage brassicas. See Crop Safety section above. Crop competition will increase control of weeds only moderately susceptible to MILESTONE . Thorough cultivation pre planting will improve control of Californian thistle. All spray applications should ensure complete coverage of the target weed.
Moderately susceptible: Fathen (2-4 leaf) Water pepper (2-4 leaf)		

IMPORTANT: DO NOT apply MILESTONE to any forage plantain or brassica seed crop.

See Cleaning of Spray Equipment, Application Comments for Forage Brassicas, Soil Residues and Withholding Periods sections of the label before all applications to forage brassicas.

WEEDS CONTROLLED	RATE	COMMENTS
Fathen (2-6 leaf) Narrow leaf plantain (seedling) Thistles (up to early flowering) including Californian thistle Black nightshade (4-8 leaf) Hairy nightshade (4-8 leaf) Willow weed (4-8 leaf) Wireweed (4-8 leaf) Moderately susceptible: Spurrey (1-2 leaf, pre 1st whorl) Amaranthus/Redroot (2-4 leaf) Fumitory (2-4 leaf)	750 mL/ha	Apply MILESTONE to small, actively growing, seedling weeds as soon as possible after weed emergence is largely complete. Weeds at later growth stages will be suppressed. MILESTONE is best applied to actively growing 3-4 leaf forage brassicas. See Crop Safety section above. Crop competition will increase control of weeds only moderately susceptible to MILESTONE . Thorough cultivation pre planting will improve control of Californian thistle. All spray applications should ensure complete coverage of the target weed.
Spurrey (1-2 leaf, pre 1st whorl) Ragwort	1.0 L/ha	

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Registered pursuant to the ACVM Act 1997, No P009629
See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to HSNO Act 1996, EPA Approval Code HSR101385
See www.epa.govt.nz for approval controls.

**Registered to:
Dow AgroSciences (NZ) Ltd**

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Telephone 0800 803 939

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EMERGENCY RESPONSE

(All hours)
Ring from anywhere in New Zealand
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**IN A TRANSPORT EMERGENCY
DIAL 111
FOR POLICE OR FIRE**

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