

WARNING

KEEP OUT OF REACH OF CHILDREN
READ THE LABEL COMPLETELY BEFORE OPENING OR USING

Frontier[®]-P

A selective pre-emergence herbicide for the control of annual grasses and broadleaf weeds in maize, squash, sweet corn, dwarf green beans, onions, and forage brassica.

Contains 720 g/litre dimethenamid-P in the form of an emulsifiable concentrate.
Also contains 112 g/litre of a polymeric amine phosphate preparation.

10 L

Registered to and distributed by:
BASF New Zealand Limited
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 **BASF**
We create chemistry

FRONTIER®-P

Hazard Classification

6.1D, 6.3B, 6.4A, 6.5B, 6.7B, 9.1A, 9.2A, 9.3C



WARNING

HARMFUL. This material may be harmful if swallowed, inhaled or absorbed through the skin. May cause mild skin irritation. May cause eye irritation. May cause sensitization from prolonged skin contact. Suspected carcinogen. **VERY TOXIC TO AQUATIC LIFE.** May cause long-term adverse effects in the aquatic environment. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. **VERY TOXIC TO THE SOIL ENVIRONMENT.** Selective herbicide - very toxic to some plant species (certain plants may be killed or damaged from root uptake of this product). **HARMFUL TO TERRESTRIAL VERTEBRATES.**

PRECAUTIONS

HANDLING: This product must be under the personal control of an APPROVED HANDLER when applied in a wide dispersive manner or by a commercial contractor.

STORAGE: Store in original container, tightly closed away from foodstuffs. Stores containing more than 100 litres require emergency response plans and secondary containment systems, and are subject to signage.

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

TRANSPORT: Do NOT carry this product on a passenger service vehicle.

SPILLAGE: Prevent any product from entering drains. Wear appropriate protective clothing. Absorb spill with an inert material (such as vermiculite, clay granules or synthetic absorbent) and place in a labelled, sealable container for disposal. Wash the spill area with water and detergent, then absorb the washings and place in the same sealable container. Dispose of the container in an approved landfill or under at least 50 cm of soil in a non-crop, non-pasture area away from water sources and homes.

PERSONAL PROTECTION: When mixing or applying, wear cotton overalls buttoned to the neck and wrist, washable hat, impervious gloves, and goggles.

GENERAL SAFETY AND HYGIENE MEASURES: Avoid contact with eyes, skin or clothing and inhalation of spray mist. Wash splashes of concentrate from skin and eyes immediately. Do NOT eat, drink or smoke while using this product. Remove protective clothing and wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing immediately after use. Store work clothing separately.

APPLICATION: Remove domestic animals from the operating area. Apply with well-maintained and accurately calibrated equipment. Do NOT allow spray drift outside the target area to occur. Do NOT spray over, or allow drift over, surface water such as ponds, waterways or drains. Clean out application equipment thoroughly after use. Do NOT contaminate water when disposing of equipment wash waters.

RECORD KEEPING: Records of use must be kept.

NOTE: Storage, application and record keeping must be as described in the current version of the New Zealand Standard for the Management of Agrichemicals NZS8409.

DISPOSAL: Container: Triple rinse empty container and add residue to the spray tank. Recycle the rinsed container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Product: Dispose of this product only by using according to the label or at an approved landfill. Do NOT burn. Do NOT contaminate any water supply with product or used container.

FIRST AID

If swallowed, do not induce vomiting. For advice contact the National Poisons Centre 0800 POISONS (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Do NOT scrub the skin. If splashed in eyes, wash out immediately with water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Do NOT scrub the skin. Wash clothing before reuse. If irritation persists get medical attention.

GENERAL INFORMATION

BEWARE

APPLY THIS PRODUCT CAREFULLY. SPRAY DRIFT MAY CAUSE SERIOUS DAMAGE TO OTHER DESIRABLE PLANTS.

FRONTIER®-P is a selective pre-emergence herbicide recommended for weed control in maize, sweetcorn, squash, dwarf green beans, onions, and forage brassica. FRONTIER P is taken up by the shoots of emerging weed seedlings and provides 6-8 weeks residual control of many annual grasses and some broadleaf weeds.

WEEDS CONTROLLED

Grasses: Barnyard grass, bristle grass, rough bristle grass, crowfoot grass, smooth witch grass and summer grass.

Broadleaf Weeds: Apple of Peru, black nightshade, seedling dock, redroot, spurrey, twincrest, willow weed. Fathen may be controlled on light soils (low CEC values) under ideal conditions.

DIRECTIONS FOR USE

Note: Spray volumes that will provide adequate coverage are 300-400 litres per hectare.

Crop	Rate Per Hectare	Remarks
Dwarf Green Beans	0.5 to 0.65 litres	Apply immediately after sowing. Do NOT use on sandy or coarse open seed beds. Use the lower rate if tank mixed with MAGISTER ^{®1} for a broader spectrum of weed control.
Forage Brassica (Swede, Turnip, Rape, Kale, Pasja)	0.65 to 0.8 litres	Use the 0.65 litres/ha rate for swedes and the 0.8 litres/ha rate for turnips, rape, kale and pasja. Apply immediately after drilling seed. For a broader spectrum of weed control FRONTIER [®] -P may be tank mixed with Trifluralin (40% ai) and soil incorporated pre-drilling. Alternatively, FRONTIER-P may be applied to the soil surface in sequence following soil incorporation of trifluralin and drilling of the seed. Do NOT allow spray to come into direct contact with the seed. Do NOT broadcast seed on the sprayed soil surface. Do NOT use on forage brassica crops drilled under cool, wet or slow growing conditions as crop damage may result.
Maize	1.1 to 1.3 litres	Apply immediately after sowing. If dry conditions prevail, FRONTIER-P may be soil incorporated to a depth of 2.5-5 cm pre-sowing. Use the lower rate on light, low organic matter soils. Where broadleaf weeds require treatment, either tank mix with atrazine or pendimethalin, or apply atrazine or dicamba post-emergence. Dicamba may be required post-emergence for control of triazine-resistant (including atrazine-resistant) fathen.
Onions	0.65 to 1.0 litres	Post-crop emergence: Apply FRONTIER-P to onions at the 2-4 true leaf stage. Use the 0.65 litre/ ha rate at early growth stages and under cool, wet conditions. FRONTIER-P post-emergence applications will not control established weeds but will extend the period of residual weed control.
Squash	0.65 to 1.0 litres	Apply immediately after sowing to a freshly worked seed bed free of clods. If dry conditions prevail FRONTIER-P may be soil incorporated pre-sowing. Use the higher rate on soils with medium to high organic matter. Use FRONTIER-P when conditions favour good germination and growth. Crop suppression could otherwise occur in unfavourable growing conditions. Minimum soil temperature for good squash germination is 15°C. Cold temperatures in combination with wet soils and/or stale seed beds, or shallow seeding under dry conditions may cause crop injury.
Sweetcorn (see varietal note)	1.1 litres	Apply immediately after sowing. If dry conditions prevail FRONTIER-P may be soil incorporated pre-sowing. Where broadleaf weeds require treatment, either tank mix with atrazine or apply atrazine post-emergence. Varietal Note: The variety Honey & Pearl has been tested and shown tolerance to FRONTIER-P. Do NOT use on the varieties Golden Sweet, Terrific and Early-Buy. Crop tolerance of other varieties has not been established.

Withholding Period:

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.

Mixing: Add the required amount directly into the partly filled spray tank with agitation running. Complete filling and maintain agitation until spraying is complete.

Compatibility: FRONTIER-P may be mixed with appropriate herbicide tank mix partners (e.g. atrazine, pendimethalin, MAGISTER^{®1} or trifluralin depending on the crop).

Irrigation: At least 7.0 mm of moisture is required within 10 days of application to activate the herbicide.

Soil: Soil texture and organic matter content affect the rate requirement of FRONTIER-P. Use the lower rate of the recommended rate range with soils that are relatively coarse textured or low in organic matter content. Use the higher rate of the range on soils that are relatively fine textured (high clay content), high in organic matter content, or in fields with severe weed infestations. Applications must be made before weed emergence onto fine, moist soil, free of trash or clods.

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CEC values are a more precise measurement for determination of use rate. THESE ARE AVAILABLE ON MOST SOIL FERTILITY TEST RESULTS AND SHOW THE ABILITY OF THE SOIL TO LOCK UP NUTRIENTS AND HERBICIDES.

CEC Rate Guide

CEC Value of Soil	Suggested Rate of Use
CEC < 10	Low rate
CEC > 20	High rate

Soils with CEC values above 30 may significantly reduce efficacy of FRONTIER-P.

CONDITIONS OF SUPPLY



Read conditions of supply before buying and using. If these conditions are unacceptable, return at once unopened. All goods supplied by BASF New Zealand Ltd. are of a high grade and conform to the chemical description of the label. However, to the extent permitted by law, neither BASF nor any of its Distributors accept any liability or responsibility whatsoever for any loss, damage or injury whether direct, indirect or consequential howsoever arising in connection with the supply of those goods including without limitation their storage, application, handling or use. BASF New Zealand Ltd. nor any of its Distributors, make no warranties of any kind, express or implied, with respect to fitness for purpose (including crop injury, ineffectiveness or any other unintended consequence), merchantable quality or any other matter with respect to these goods. When you are a consumer as defined in the Consumer Guarantees Act 1993 (the "Act") these conditions will be subject to the provisions of the Act. However the Act will not apply to goods supplied to you for business purposes.

Approved pursuant to the HSNO Act 1996. Code HSR100030.

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

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

Date of Manufacture: Batch No.:		 
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