

2001/2003

(Container)



Broadstrike* Treflan*

Soybean Herbicide

A selective liquid herbicide for broad spectrum preplant incorporated weed control in soybeans in Eastern Canada only.

AGRICULTURAL

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: flumetsulam 30 g/L
 trifluralin 408 g/L

REGISTRATION NO. 24454 PEST CONTROL PRODUCTS ACT



DANGER: EYE IRRITANT
CAUTION: SKIN IRRITANT
POTENTIAL SKIN SENSITIZER

NET CONTENTS: 9.46 L

Dow AgroSciences Canada Inc.
Suite 201, 1144 - 29 Avenue N.E.
Calgary, Alberta
T2E 7P1
1-800-667-3852

*Trademark of Dow AgroSciences LLC
Dow AgroSciences Canada Inc. is a licenced user.

PRECAUTIONS

Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. May cause skin sensitization reactions in certain individuals. Avoid breathing vapours or spray mist and contact with skin, eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eye wear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment. If no such instructions for washables, use detergent and hot water. Keep and wash personal protective equipment separately from other laundry.

OPERATOR USE PRECAUTIONS

DANGER: EYE IRRITANT

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POTENTIAL SKIN SENSITIZER

When handling this product, users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the washroom.
- If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

FIRST AID

Take container label or product name and Pest Control Product registration number with you when seeking medical attention.

If swallowed: Do not induce vomiting. If individual is conscious, give 30 to 40 mL of activated charcoal with a large quantity of water to drink and transport to a medical facility at once or contact a poison control centre.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention or contact a poison control centre.

If inhaled: Remove individual to fresh air. If breathing difficulty occurs, get medical attention at once or contact a poison control centre.

If on skin: Immediately wash with plenty of soap and water. Get medical attention if irritation develops or contact a poison control centre.

TOXICOLOGICAL INFORMATION

This product contains an aromatic hydrocarbon solvent. In case of ingestion the decision of whether to induce vomiting or not should be made by the attending physician. If lavage is performed, endotracheal and/or oesophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Employ supportive care. Treatment should be based on the judgment of the physician in response to reactions of the patient.

For further information consult the Material Safety Data Sheet.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL HAZARDS

Buffer Zone: Overspray or drift into important wildlife habitats such as shelterbelts, wetlands, woodlots, vegetated ditch, pond and lake banks and other cover on the edges of fields should be avoided. A 50 m buffer zone should be observed adjacent to aquatic habitats, such as streams, ponds, rivers and lakes.

Do not contaminate water when disposing of equipment washwaters.

Caution should be exercised when handling this product at mixing and loading sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placing of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Do not contaminate water used for domestic purposes.

STORAGE

Store in original container only. Store in a dry location. Do not contaminate other pesticides, fertilizers, water, food or feed during storage or disposal. **Avoid freezing. Store above 4°C.** Do not store near heat or flame. In case of a leak or spill use absorbent materials to contain liquids and dispose as waste. For minor spills, leaks, etc., follow all precautions on this label and clean up immediately.

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

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For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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(Booklet)



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CAUTION  **POISON**

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GENERAL INFORMATION

SHAKE WELL BEFORE USING.

Broadstrike Treflan is a selective preplant incorporated herbicide for the control of certain annual broadleaved and grass weeds in soybeans. To prevent loss of herbicidal activity, Broadstrike Treflan must be incorporated within 24 hours after application. Broadstrike Treflan controls grass weeds during germination and broadleaved weeds during germination or soon after emergence. Susceptible weeds may emerge from the soil but are stunted and plant death occurs in a short period of time. Because herbicidal activity of Broadstrike Treflan on broadleaved weeds involves uptake and movement to growing points, adequate soil moisture is necessary for optimal activity.

GENERAL USE PRECAUTIONS

FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING.

When applied according to directions and under normal growing conditions, Broadstrike Treflan will not harm the treated crop. Uneven application or improper incorporation of Broadstrike Treflan can result in erratic weed control or crop injury. Over-application may result in crop injury or rotational crop damage from soil residue. Conditions such as seedling disease, cold weather, deep planting, excessive moisture, high soil salinity or drought may weaken crop seedlings and increase the possibility of damage from Broadstrike Treflan. Under these conditions delayed crop development or reduced yields may result.

- **DO NOT APPLY BROADSTRIKE TREFLAN BY AIR.**
- **Broadstrike Treflan must be incorporated within 24 hours after application.**
- Do not apply to natto soybean varieties as serious crop injury may occur.
- Make only 1 application per year.
- **CAUTION:** Do not graze the treated immature crop or cut for hay; sufficient data are not available to support such use.
- Do not apply to areas where (both apply) the soil pH is greater than 7.8 and organic matter is less than 2% as this may result in decreased crop tolerance.
- Do not apply to peat or muck soils or any soil containing more than 5% organic matter as this may result in decreased weed control.
- If Broadstrike Treflan is to be applied to fields spread with manure, ensure that the manure has been thoroughly disintegrated and mixed into the soil to a depth of 10 to 15 cm before application of Broadstrike Treflan.

- Do not apply Broadstrike Treflan to soils that are wet or are subject to prolonged periods of flooding as poor weed control may result.
- Do not repeat application of Broadstrike Treflan to the same field in the following season as there is a potential for residue build-up.

Sprayer Clean-up

To avoid injury to or exposure of non-target crops thoroughly clean and drain spray equipment used to apply Broadstrike Treflan after use. Cleaning should occur as soon as possible after application of Broadstrike Treflan. All rinsate material should be collected in a suitable container and disposed of according to label directions (i.e., applying it to cropland to be planted to crops recommended on this label) or in a locally approved manner (see Disposal section). Spray equipment use to apply Broadstrike Treflan should be cleaned after use by the following procedure:

1. Drain the sprayer tank.
2. Hose down the interior surfaces of the tank. Flush tank, hoses, boom and nozzles with clean water for 10 minutes. Fill the tank with water and recirculate for 15 minutes. Spray part of the mixture through the hoses, boom and nozzles and drain the tank.
3. Remove the nozzles and screens and clean them separately.
4. If the spray equipment will be used on crops other than soybeans, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and boom.

ROTATIONAL CROP RESTRICTIONS

The table below outlines the interval required between the application of Broadstrike Treflan and the seeding of rotational crops.

Crop	Crop Rotation Interval (months)
winter wheat*	4
spring wheat, spring barley, soybeans, common beans (dry, snap), lima beans, processing peas, field corn, seed corn	10

*winter wheat planted 4 months after soybeans may sustain injury from Broadstrike Treflan residues on light-textured soils and soils containing less than 2% organic matter.

Rotational crops except field corn and soybeans may sustain injury if dry conditions, not favourable to herbicide breakdown, persist.

Following application of Broadstrike Treflan in a dry year, the risk of injury to rotational crops may increase in light-textured soils containing less than 2% organic matter because of a higher bioavailability of herbicide residues for plant uptake.

Sugar beets or small seeded grasses (such as Timothy, canary seed grass and creeping red fescue) should not be grown in rotation following a crop treated with Broadstrike Treflan.

A field bioassay should be conducted before planting other crops not listed above. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year.

Field Bioassay

Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop across the field previously treated with Broadstrike Treflan. Plant the strips perpendicular to the direction Broadstrike Treflan was applied. The strips should also be located so that different field conditions are encountered, including soil texture, drainage and compacted areas. If the crop does not show visible symptoms of injury or stand reduction, the field can be seeded with the test crop in the growing season following the bioassay. If visible injury or stand reduction occurs, the test crop should not be seeded and the bioassay must be repeated the next growing season.

PREHARVEST/GRAZING INTERVALS

Do not graze the treated soybean crop or cut for hay; sufficient data are not available to support such use.

DIRECTIONS FOR USE

Broadstrike Treflan is for use on soybeans in Eastern Canada only.

Weeds Controlled

Annual Broadleaved Weeds

velvetleaf
common lamb's-quarters*
redroot pigweed*
Eastern black nightshade
common ragweed

Annual Grasses

barnyard grass
crabgrass (smooth, hairy)
foxtail (green, yellow)
fall panicum
annual bluegrass
loose silky bentgrass
brome grass

*Includes triazine tolerant biotypes.

Weeds Suppressed▼

cocklebur
wild oats

▼ Weed suppression is a visual reduction in weed competition (reduced population, size and/or vigour) as compared to an untreated area.

Land Preparation

Cultivate and destroy existing weeds before application of Broadstrike Treflan. When applying to stubble fields, chop and thoroughly mix crop residues into soil to a depth of 10 cm. Broadstrike Treflan should not be sprayed on soil surface with more than 25% trash cover.

Incorporation

Uniformly incorporate Broadstrike Treflan with equipment set to work at a depth of 5 to 8 cm. **Broadstrike Treflan must be incorporated within 24 hours after application.** For heavy weed infestations or coarse textured soils a second incorporation is recommended. The second incorporation should be done any time in a cross direction at the same depth or shallower. Use a C or S shank field cultivator equipped with a levelling device such as harrows or rolling basket attachment. The cultivator must have a minimum of 4 rows of sweeps spaced at 18 cm or less intervals and staggered so that no soil is left unturned. Tandem discs may also be used providing the blades are less than 50 cm in diameter and spaced 22 cm or less apart. Equipment design including any drag attachments must be adequate to avoid soil ridging which may result in streaked or reduced weed control. Operate disc implements at 7 to 10 km/hr and cultivators at 10 to 13 km/hr.

RATES OF APPLICATION

Apply Broadstrike Treflan up to 21 days before planting as a preplant soil incorporated treatment. Apply Broadstrike Treflan at one rate of application for all soil types as listed below:

Component	Rate
Broadstrike Treflan	2.33 L/ha (9.46 L jug treats 4 ha)

MIXING AND APPLICATION

Spray Preparation

Broadstrike Treflan is a suspension concentrate liquid formulation that mixes readily in water. SHAKE CONTAINER THOROUGHLY BEFORE POURING. Ensure that spray tank is clean before beginning filling operation. Fill the spray tank with 1/4 to 1/3 of the total amount of water required for the load and begin agitation. Agitation of the spray tank should be maintained during all phases of the spraying operation to keep the mixture in a uniform suspension. Add the required amount of Broadstrike Treflan to the tank and then complete filling of the tank.

Spray Application

Apply Broadstrike Treflan in sufficient spray volume to provide uniform coverage using only properly calibrated ground equipment. Apply in a total spray volume of 100 to 400 L/ha using low pressure (135 to 270 kPa). Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. Apply Broadstrike Treflan to the soil surface in a uniform spray and incorporate in the same operation if possible. Ensure that large clods are broken. **Do not delay incorporation more than 24 hours after application.**

WEED RESISTANCE MANAGEMENT

Flumetsulam is an ALS/AHAS enzyme inhibitor. Some naturally occurring populations of certain weeds listed on this label may not be controlled by Broadstrike Treflan or other herbicides with the same mode of action. These resistant populations are able to survive use rates several times higher than required to control susceptible populations. To delay selection for resistant populations, rotate the use of ALS/AHAS inhibitor herbicides with other herbicides effective on the same weeds. Avoid the use of ALS/AHAS inhibitor herbicides repeatedly in the same field. Contact your local Dow AgroSciences Canada Inc. representative for more information.

ALS/AHAS inhibitor herbicides registered for use in Eastern Canada are: Elim¹ EP, Muster¹, Pinnacle¹, Pursuit², Refine Extra¹, Ultim¹, Fieldstar*, Striker* and Broadstrike* Dual[®].

Other sound weed resistance management strategies are:

1. Rotate to different crops and to herbicides in different chemical families.
2. Use an integrated weed management system, including cultivation to control weeds that escape herbicide treatment.
3. Monitor fields regularly for resistant weed populations.
4. Prevent the spread of weeds from contaminated areas.
5. Use tank-mixes or formulated mixtures.
6. Keep accurate records of crops and herbicides used in each field.

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¹Elim EP, Muster, Pinnacle, Refine Extra and Ultim are registered trademarks of DuPont Canada Inc.

²Pursuit is a registered trademark of Cyanamid Canada Inc.

[®]Dual is a registered trademark of Novartis.

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