

**(Container)**



# **Broadstrike\* Dual<sup>®</sup> Magnum<sup>®</sup>**

## **Soybean Herbicide**

A selective soil applied liquid herbicide for broad spectrum weed control in soybeans for sale for use in Eastern Canada only.

AGRICULTURAL

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

GUARANTEE:	S-Metolachlor <sup>†</sup>	879.4 g/L
	†and R-enantiomer	
	flumetsulam	45.3 g/L

REGISTRATION NO. 26628 PEST CONTROL PRODUCTS ACT



**WARNING: EYE AND SKIN IRRITANT**

NET CONTENTS 6.3 L

**Dow AgroSciences Canada Inc.**  
Suite 2100, 450 - 1st Street S.W.  
Calgary, Alberta  
T2P 5H1  
1-800-667-3852

\*Trademark of Dow AgroSciences LLC

®Trademark of Novartis Crop Protection Canada Inc./Novartis AG

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

### **WARNING: EYE AND SKIN IRRITANT**

Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing. Harmful if swallowed, inhaled or absorbed through the skin.

Avoid breathing spray mist. S-Metolachlor may cause skin sensitization reactions in certain individuals.

## **PERSONAL PROTECTIVE EQUIPMENT**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eye wear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

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**

Warning: Eye And Skin Irritant

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:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

### **TOXICOLOGICAL INFORMATION**

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

### **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. **Do not store below -34°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.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

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.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

(Booklet)



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## **GENERAL INFORMATION**

SHAKE WELL BEFORE USING.

Broadstrike Dual Magnum Soybean Herbicide is a selective soil applied herbicide for the control of annual grass and broadleaved weeds in soybeans. Broadstrike Dual Magnum Soybean Herbicide may be applied surface preplant, preplant incorporated or preemergence. Broadstrike Dual Magnum Soybean Herbicide controls broadleaved weeds during germination or soon after emergence and grass weeds during germination. Susceptible weeds exposed to Broadstrike Dual Magnum Soybean Herbicide either die or remain non-competitive with the crop. Because the herbicidal activity of Broadstrike Dual Magnum Soybean Herbicide weeds involves uptake and movement to weed growing points, adequate soil moisture is necessary for optimal activity. Broadstrike Dual Magnum Soybean Herbicide may provide residual control of susceptible broadleaved weeds which emerge after application.

## **GENERAL USE PRECAUTIONS**

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

Uneven application or incorporation of Broadstrike Dual Magnum Soybean Herbicide can result in erratic weed control or crop injury. Over-application may result in crop injury or rotational crop damage from soil residue.

When applications are made under adverse (dry or cold) conditions or when less susceptible species are treated, weed suppression may be observed. Weed suppression is a visual reduction in weed competition (reduced population, size and/or vigour) as compared to an untreated area. If these conditions exist, a cultivation can provide enhanced control.

### **• DO NOT APPLY BROADSTRIKE DUAL MAGNUM SOYBEAN HERBICIDE BY AIR.**

- If Broadstrike Dual Magnum Soybean Herbicide is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.
- Dry weather following preemergence applications of Broadstrike Dual Magnum Soybean Herbicide may reduce effectiveness. Cultivate when weeds develop.
- Make only 1 application per year.
- 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.
- Do not apply to areas where the soil organic matter is less than 1%.
- Do not repeat application of Broadstrike Dual Magnum Soybean Herbicide to the same field in the following season as there is a potential for residue build-up.
- If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

## **Sprayer Clean-up**

To avoid injury to or exposure of non-target crops thoroughly clean and drain spray equipment used to apply Broadstrike Dual Magnum Soybean Herbicide after use. Cleaning should occur as soon as possible after Broadstrike Dual Magnum Soybean Herbicide application. All rinse 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 used to apply Broadstrike Dual Magnum Soybean Herbicide 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 the boom.

**ROTATIONAL CROP RESTRICTIONS**

When tank mixing with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The table below outlines the interval required between the application of Broadstrike Dual Magnum Soybean Herbicide 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

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

Following application of Broadstrike Dual Magnum Soybean Herbicide 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.

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 Dual Magnum Soybean Herbicide. Plant the strips perpendicular to the direction Broadstrike Dual Magnum Soybean Herbicide 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 Dual Magnum Soybean Herbicide is for use on soybeans in Eastern Canada only.

#### **Weeds Controlled**

##### **Broadleaved Weeds**

American nightshade  
Canada fleabane<sup>\*\*\*\*</sup>  
common chickweed<sup>\*\*\*</sup>  
common lamb's-quarters<sup>†</sup>  
common ragweed  
Eastern black nightshade  
lady's-thumb  
redroot pigweed<sup>†</sup>  
velvetleaf  
wild mustard  
wild carrot<sup>†</sup>  
wormseed mustard

##### **Grasses**

barnyard grass  
crabgrass (smooth, hairy)  
foxtail (green, yellow, giant)  
fall panicum  
old witchgrass  
yellow nutsedge<sup>\*\*</sup>

<sup>†</sup>Includes triazine tolerant biotypes.

<sup>\*\*</sup>Preplant incorporated applications only.

<sup>\*\*\*</sup>Surface preplant applications only

<sup>\*\*\*\*</sup>Surface preplant and preemergence applications only

#### **Weeds Suppressed<sup>†</sup>**

cocklebur

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

#### **Surface Preplant Application**

Broadstrike Dual Magnum Soybean Herbicide may be surface applied in minimum or no-tillage systems. Apply up to 21 days before planting. Broadstrike Dual Magnum Soybean Herbicide must be tank mixed with Roundup<sup>1</sup> for control of emerged annual, winter annual or perennial weeds. To the extent possible do not move treated soil out of the row or move untreated soil to the surface during planting or weed control will be diminished.

**Preplant Incorporated Application**

Apply up to 15 days before planting. Incorporate Broadstrike Dual Magnum Soybean Herbicide in a uniform manner with equipment set to work at a depth of 5 to 8 cm. 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 18 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 6 to 10 km/hr and cultivators at 10 to 13 km/hr.

**Preemergence Application**

Preemergence applications may be made in conventional tillage as well as reduced tillage, ridge tillage and no-till systems. Apply during (behind the planter) or after planting but prior to crop or weed emergence. Adequate soil moisture is required for optimum herbicidal activity. Rainfall is necessary to move Broadstrike Dual Magnum Soybean Herbicide into the weed germination zone. Sufficient rainfall to moisten the soil to a depth of 5 cm is generally adequate. If adequate rainfall is not received within 7 to 10 days after a surface application, a shallow cultivation or use of a rotary hoe is recommended to control established weeds and move the herbicide into the weed germination zone. When adequate rainfall is received following dry conditions, activity on established weeds will depend on the weed species and the location of its root system in the soil.

**RATES OF APPLICATION**

**Broadstrike Dual Magnum Soybean Herbicide Applied Alone**

Apply Broadstrike Dual Magnum Soybean Herbicide at one rate of application for all soil types as follows:

Component	Amount
Broadstrike Dual Magnum Soybean Herbicide	1.56 L/ha (6.3 L jug treats 4 ha)

**Broadstrike Dual Magnum Soybean Herbicide Tank-Mix with Roundup**

Broadstrike Dual Magnum Soybean Herbicide at 1.56 L/ha may be tank mixed with Roundup at 2.5 L/ha for control of existing annual weeds and certain perennial weeds including quackgrass. This tank-mix may be applied surface preplant or preemergence in minimum-till or no-till conditions. See the Roundup label for weeds controlled, recommended rates for specific weeds and application instructions. Add the different components of the spray solution in the following order:

Component	Amount
1. Broadstrike Dual Magnum Soybean Herbicide	1.56 L/ha (6.3 L jug treats 4 ha)
2. Roundup	2.5 L/ha

**MIXING AND APPLICATION**

**Spray Preparation**

Broadstrike Dual Magnum Soybean Herbicide is a liquid suspension concentrate formulation. SHAKE CONTAINER THOROUGHLY BEFORE POURING. Fill the spray tank with 1/4 to 1/3 of the total amount of water required for the load and begin agitation. Add the required amount of Broadstrike Dual Magnum Soybean Herbicide and allow for complete mixing and dispersion. Then add Roundup (if applicable). Finish filling the spray tank. Maintain continuous agitation during mixing and application to maintain a uniform suspension.

### **Spray Application**

Apply Broadstrike Dual Magnum Soybean Herbicide in sufficient spray volume to provide uniform coverage using properly calibrated ground equipment. A total spray volume of 100 to 400 L/ha using low pressure (135 to 270 kPa) application is recommended. Maintain sufficient agitation in the sprayer tank during mixing and spraying to ensure a uniform spray mixture.

### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

Flumetsulam is an ALS/AHAS enzyme inhibitor. Some naturally occurring populations of certain weeds listed on this label may not be controlled by Broadstrike Dual Magnum Soybean Herbicide 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: Elim<sup>2</sup> EP, Muster<sup>2</sup>, Pinnacle<sup>2</sup>, Pursuit<sup>3</sup>, Refine Extra<sup>2</sup>, Ultim<sup>2</sup>, Fieldstar\*, Striker\* and Broadstrike\* Treflan\*.

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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<sup>1</sup> Roundup is a registered trademark of Monsanto Canada Inc.

<sup>2</sup> Elim EP, Muster, Pinnacle, Refine Extra and Ultim are registered trademarks of DuPont Canada Inc.

<sup>3</sup> Pursuit is a registered trademark of Cyanamid Canada Inc.

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