

# Elevore<sup>™</sup> Herbicide

with ARYLEX<sup>™</sup> ACTIVE

GROUP 4 HERBICIDE
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## FOR SALE FOR USE IN EASTERN CANADA

Elevore<sup>™</sup> Herbicide is a selective herbicide for pre-plant burndown control of annual broadleaf weeds in field corn and soybean

COMMERCIAL (AGRICULTURAL)

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

ACTIVE INGREDIENT: halauxifen, present as methyl ester 68.5 g/L Contains 1,2-benzisothiazolin-3-one at 0.04 % as a preservative Suspension

REGISTRATION NUMBER 32948 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 0.5 L - bulk

## SHAKE WELL BEFORE USE

## Corteva Agriscience Canada Company

Suite 240, 115 Quarry Park Rd. SE Calgary, AB T2C 5G9 1-800-667-3852

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## PRECAUTIONS KEEP OUT OF REACH OF CHILDREN

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Rinse gloves before removal. Gloves are not required during application within a closed cab.

At completion of spraying or end of the day: Take a shower immediately. Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing at the end of the work session and store and wash separately from household laundry using detergents and hot water before reuse.

## 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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. 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 the 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 PRECAUTIONS**

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

## STORAGE

Store in original containers in a secure, dry, well ventilated storage. Do not allow contamination of seeds, plants, fertilizers or other pesticides. Do not contaminate food, feedstuffs or domestic water supplies. If containers are damaged or spill occurs, use the product immediately or contain the spill with absorbent materials and dispose of waste.

To prevent contamination store this product away from food or feed.

## DISPOSAL

#### **Recyclable Containers**

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.

## **Returnable Containers**

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

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.

## **GENERAL INFORMATION**

Elevore<sup>™</sup> Herbicide is a selective herbicide for pre-plant burndown control of annual broadleaved weeds in field corn and soybean. Any tillage operation after the burndown application and prior to planting could result in crop injury. Elevore Herbicide is mixed with water and applied as a uniform broadcast spray by ground application

Elevore Herbicide must be applied early postemergence, to the main flush of actively growing broadleaved weeds. Warm, moist growing conditions promote active weed growth and enhance the activity of Elevore Herbicide by allowing maximum foliar uptake and activity. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and re-growth may occur. For best results, ensure thorough spray coverage of target weeds. See DIRECTIONS FOR USE section of this label for complete use details.

## MODE OF ACTION

Elevore Herbicide is a systemic auxin-type herbicide that moves within the plant for control of exposed and underground plant tissues. The product controls weeds by disrupting normal plant growth patterns. Symptoms of weeds include epinasty (twisting of the stems) and swollen nodes.

## **GENERAL USE PRECAUTIONS**

## Sensitive Plants

Do not apply Elevore Herbicide directly to, or otherwise permit it to come in direct contact with susceptible crops or desirable plants including alfalfa, edible beans, flax, flowers and ornamentals, lentils, lettuce, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tomatoes or tobacco.

#### **Non-Target Sites**

Do not apply where proximity of susceptible crops (e.g. flax and legumes) or other desirable plants is likely to result in exposure to spray or spray drift. See ENVIRONMENTAL PRECAUTIONS section of this label.

## **Crop Rotation**

Crops	Rotation interval
Winter wheat	4 months
Wheat, barley, dry bean ( <i>Phaseolus vulgaris</i> species including pinto, kidney and white types), alfalfa, oats, canola, flax, Juncea canola, Abyssinian, oriental, brown and yellow mustard, field peas, sunflower, canaryseed, timothy or fields can be summerfallowed	10 months
Lentils	22 months

## **Tank Mixtures**

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Corteva Agriscience Canada Company at 1-800-667-3852 or <u>www.corteva.ca</u> for information before applying any tank mix that is not specifically recommended on this label.

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

## **Spray Equipment Precaution**

Do not apply through any type of irrigation system. DO NOT apply by air.

## To Reduce Spray Drift:

- 1. Use nozzles delivering higher volumes and coarser droplets.
- 2. Use low pressures (200 to 275 kPa).
- 3. Use 100 200 L/ha of spray solution.
- 4. Spray when the wind velocity is 15 km/hr or less.
- 5. Spot treatments should only be applied with a calibrated boom to prevent over-application.

## Sprayer clean-out

To avoid injury to desirable plants, thoroughly clean equipment used to apply this product before re-use or using it to apply other chemicals.

- 1. Immediately after spraying, completely drain the sprayer tank. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
- 2. First rinse:
  - Spray the inside of tank with clean water and fill the sprayer with at least one tenth of the spray tank volume.
  - Agitate and circulate for 15 minutes, and flush through booms and hoses.
  - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
  - Drain tank completely.
- 3. Second rinse:
  - Fill the tank with clean water.

- Add All Clear Spray Tank Decontaminator, or Clean-Out Spray Tank Cleaner, or 1 L of household ammonia (containing a minimum of 3 % ammonia) per 100 L of water, or similar tank cleaning agent as per manufacturer's recommendations while filling the tank with clean water.
- Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full. Allow to stand for 15 minutes with agitation. Flush the solution out of the spray tank through the spray booms. Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
- If possible, let the solution stand in the sprayer tank and booms for an extended period of time, overnight if possible.
- After flushing the boom and hoses, drain tank completely.
- Remove nozzles and screens and clean separately with a cleaning agent or an ammonia solution (100 mL in 10 L water).
- 4. Third rinse:
  - Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume.
  - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
  - Drain tank completely.

**Caution: Do not** use ammonia with chlorine bleach. Using ammonia with chlorine bleach will release a gas with a musty chlorine odour which may cause eye, nose, throat, and lung irritation. Do not clean equipment in an enclosed area.

## DIRECTIONS FOR USE

READ THE ENTIRE LABEL BEFORE USE. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. DO NOT APPLY TO CROPS UNDERSEEDED WITH LEGUMES.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Apply only to agricultural crops when the potential for drift to areas of human habitation and areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

## **APPLICATION METHOD**

## **Ground Application**

Using ground equipment, apply Elevore Herbicide as a broadcast treatment at the recommended rate as specifically listed in the DIRECTIONS FOR USE section of this label.

## Field sprayer application

**DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) coarse classification. Boom height must be 60 cm or less above the crop or ground.

## **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

## ELEVORE HERBICIDE ALONE

## Crops Registered

Field corn and soybean

## **Application Timing**

Field corn:5 or more days before plantingSoybean:7 or more days before plantingSeeding/planting depth: minimum 4 cm (1.6 inches) or injury may occur

Apply to actively growing weeds at the 1-8 leaf stage unless otherwise specified. Extreme growing conditions such as drought or near freezing temperature prior to, at or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds which are emerged at the time of application will be affected. If foliage is wet at the time of application control may be decreased. Under conditions of high weed density, control may be reduced.

Application of Elevore Herbicide on very coarse-textured soils, low in organic matter (soils <3%), or in fields with poor soils conditions may increase the risk of crop injury. Ensure field has proper fertility. Severe environmental factors alone or in combination over extended periods such as cold waterlogged-soil conditions, drought or seedling disease can delay seedling development, emergence and vigor that may result in unacceptable crop response.

Applications of Elevore Herbicide are rainfast within 1 hour of application.

## Weeds Controlled or Suppressed by Elevore Herbicide alone at 73 mL/ha

 Weeds Controlled:
 lamb's quarters

 cleavers (1-9 whorl stage)
 lamb's quarters

 flax, volunteer (up to 15 cm in height)
 ragweed, common (up to 6-leaf stage)\*\*

 fleabane, Canada \*\*
 \*\*

 \*\*including Group 9 (glyphosate) and Group 2 (ALS inhibiting herbicides) resistant biotypes

Weeds Suppressed:

hemp-nettle

redroot pigweed

## Field Sprayer Application Directions

Apply Elevore Herbicide at 73 mL/ha in 100-200 L of water per hectare. Add a methylated seed oil (or an equivalent crop oil concentrate) at 0.5-1.0% v/v (5 -10 L per 1000 L of spray volume). Use the higher rate of methylated seed oil (or crop oil concentrate) under adverse conditions, such as dense weed populations, late weed growth stages, or poor environmental conditions. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be controlled. Best results are obtained from applications made to seedling weeds.

## Mixing Instructions for Elevore Herbicide Alone

- 1. Fill sprayer tank 1/2 full of water.
- 2. Start sprayer tank agitation.
- 3. Add the required amount of Elevore Herbicide
- 4. Fill the sprayer tank with sufficient water to spray 100-200 L of spray mixture per hectare.
- 5. Add the methylated seed oil (or an equivalent crop oil concentrate) as the last ingredient at the rate of 0.5-1.0% v/v (5-10 L per 1000 L of spray volume).

- 6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. flax and legumes).
- 7. Follow sprayer clean-up directions.

## **Preharvest/Grazing Intervals**

- Livestock may be grazed on treated field corn 76 days following application.
- Livestock may be grazed on treated soybeans 40 days following application.
- Do not harvest the treated field corn within 100 days after application.
- Do not harvest the treated soybeans within 125 days after application.
- Do not cut the treated field corn for hay or silage within 100 days after application.
- Do not cut the treated soybeans for hay or silage within 48 days after application.

## TANK-MIX COMBINATIONS – ELEVORE HERBICIDE + BROADSTRIKE RC HERBICIDE + GLYPHOSATE HERBICIDE

Hybrid field corn and soybean only

## **Field Sprayer Application Directions**

For control of a wide spectrum of weeds apply Elevore Herbicide tank mixed with Broadstrike RC plus a glyphosate herbicide at the rates listed below in 100 - 200 L of water per hectare. Add a methylated seed oil (or an equivalent crop oil concentrate) at 0.5-1.0% v/v. Use the higher rate of methylated seed oil (or crop oil concentrate) under adverse conditions, such as dense weed populations, late weed growth stages, or poor environmental conditions.

**Soil Insecticides:** Organophosphate granular insecticides must not be used on a corn crop to be treated with BroadStrike RC Herbicide. Serious crop injury may occur.

Crop	Rate	Application timing	
Soybean		7 or more days before	
,	Elevore Herbicide at 73 mL/ha	planting	
	plus		
	Broadstrike RC at 87.5 g/ha		
	plus		
	Glyphosate <sup>†</sup> at 270 – 1260 g ae/ha,		
	equivalent to:		
	0.54 – 2.52 L/ha (500 g ae/L) or		
	0.56 – 2.63 L/ha (480 g ae/L) or		
	0.60 – 2.80 L/ha (450 g ae/L) or		
	0.75 – 3.50 L/ha (360 g ae/L)		
	plus		
	Methylated seed oil (or an equivalent crop		
	oil concentrate) at 0.5-1.0% v/v		
	,		

† Present as isopropylamine salt, diammonium salt, potassium salt or dimethylamine salt. The product application rate is dependent upon the guarantee of the product.

## Weeds Controlled or suppressed by Elevore Herbicide + Broadstrike RC Herbicide + glyphosate herbicide

All weeds controlled by Elevore Herbicide alone plus all other weeds controlled and suppressed by Broadstrike RC Herbicide and glyphosate herbicide (see label of tank mix partners for a complete list of weeds).

## Mixing Instructions for Elevore Herbicide with + Broadstrike RC Herbicide and glyphosate herbicide

- 1. Begin to fill sprayer tank with clean water, and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.
- 2. When the sprayer is three quarters full of water, add Broadstrike RC and agitate for 2-3 minutes.
- 3. Add Elevore Herbicide next. Agitate for 2-3 minutes.
- 4. Add glyphosate herbicide. Agitate for 2-3 minutes.
- 5. Add Methylated seed oil (or an equivalent crop oil concentrate) as the last ingredient at the rate of 0.5-1.0% v/v (5-10 L per 1000 L of spray volume).
- 6. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
- 7. After any break in spraying operations, agitate thoroughly before spraying again.
- 8. Use the spray suspension as soon as it is prepared.

## Preharvest/Grazing Interval (Elevore + Broadstrike RC Herbicide and glyphosate herbicide)

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

## SPRAY BUFFER ZONES

Use of the following spray methods or equipment **DO NOT** require a spray buffer zone: hand-held or backpack sprayer and spot treatment.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

	Сгор	Spray Buffer Zones (metres) Required for the Protection of:		
Method of application		Freshwater Habitat of Depths:		Terrestrial
		Less than 1 m	Greater than 1 m	Habitat
Field sprayer	soybean, corn	1	1	4

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Elevore Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Elevore Herbicide and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed. To delay herbicide resistance:

- Where possible, rotate the use of Elevore Herbicide or other Group 4 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates, precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Corteva Agriscience Canada Company at 1-800-667-3852 or www.corteva.ca.

**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.

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Specimen Label Notes Update to address and tank mix phrases