

# Extinguish XL Herbicide

with ARYLEX™ ACTIVE

GROUP	2	4	HERBICIDES
GROUP			<b>UEKDICIDES</b>

Extinguish XL Herbicide is a selective herbicide for postemergent control or suppression of annual broadleaf weeds including chickweed, cleavers, lady's thumb, lamb's-quarters, redroot pigweed, volunteer canola, volunteer flax and wild buckwheat and control of barnyard grass in spring wheat (including durum), winter wheat and spring barley.

#### **AGRICULTURAL**

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

#### **ACTIVE INGREDIENT:**

halauxifen, present as methyl ester 6 g ae/L florasulam 6 g/L 2,4-D, present as 2-ethylhexyl ester 300 g ae/L

**Emulsifiable Concentrate** 

# DANGER – CORROSIVE TO EYES POTENTIAL SKIN SENSITIZER

REGISTRATION NUMBER 35112 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 0.5 L - bulk

# **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 APPLY BY AERIAL APPLICATION EQUIPMENT

Danger - Corrosive to eyes. Potential skin sensitizer.

DO NOT get in eyes.

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

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

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

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. 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 the judgment of the physician in response to reactions of the patient.

Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

## **AGRICULTURAL CHEMICAL**

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

#### **ENVIRONMENTAL PRECAUTIONS**

- TOXIC to aquatic organisms, non-target terrestrial plants, and birds and small wild mammals. Observe spray buffer zones specified under DIRECTIONS FOR USE.
- This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this
  product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or
  gardens.
- Do not spray exposed roots of trees and ornamentals.

- 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.
- This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

#### **STORAGE**

Store this product away from food or feed. 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.

#### **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/territorial 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/ territorial regulatory agency. Contact the manufacturer and the provincial/ territorial regulatory agency in case of a spill, and for clean-up of spills.

#### **GENERAL INFORMATION**

Extinguish XL Herbicide is a selective postemergence herbicide for the control of hard-to-kill annual broadleaf weeds such as chickweed, cleavers, lady's thumb, lamb's-quarters, redroot pigweed, and wild buckwheat and control of barnyard grass in spring wheat (including durum), winter wheat, and spring barley, not underseeded with legumes. Extinguish XL Herbicide is mixed with water and applied as a uniform broadcast spray by ground application. It is non-corrosive, nonflammable, and nonvolatile.

Extinguish XL Herbicide must be applied early postemergence, to the main flush of actively growing broadleaf weeds. Warm, moist growing conditions promote active weed growth and enhance the activity of Extinguish XL 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

Extinguish XL Herbicide is a mixture of two systemic auxin-type herbicides (Group 4) and an ALS enzyme inhibitor-type herbicide (Group 2). The product controls weeds by disrupting normal plant growth patterns and/or by inhibiting production of the enzyme essential for production of certain amino acids essential for plant growth.

#### **GENERAL USE PRECAUTIONS**

#### **Sensitive Plants**

Do not apply Extinguish XL 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**

Fields previously treated with Extinguish XL Herbicide can be seeded after a minimum of 10 months to alfalfa, spring wheat, spring barley, canola, fababeans, flax, Juncea canola, field peas, potatoes (except seed potatoes), oriental, brown and yellow mustard, soybeans, oats, sunflower or dry bean (*Phaseolus vulgaris* species including pinto, kidney and white types). Lentils can be planted 22 months after application of **Extinguish XL Herbicide**.

#### **Tank Mixtures**

This product may be tank mixed 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 for information before applying any tank mix that is not specifically recommended on this label.

# **Spray Equipment Precaution**

Do not apply through any type of irrigation system.

# **To Reduce Spray Drift**

- 1. Use nozzles delivering higher volumes and coarser droplets.
- 2. Use low pressures (200 to 275 kPa).
- 3. Use 100 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, 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 all main filter and nozzle 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.

#### **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.

# **APPLICATION METHODS**

#### **Ground Application**

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

### DO NOT APPLY BY AERIAL APPLICATION EQUIPMENT

# 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.

#### **EXTINGUISH XL HERBICIDE ALONE**

# **Crops Registered**

Spring wheat (including durum), winter wheat and spring barley.

### **Field Sprayer Application Directions**

Apply the recommended rate of Extinguish XL Herbicide per hectare in 50-100 L per hectare of water. Add a Non-Ionic Surfactant (NIS) at 0.25 % v/v for control of weeds that are under severe environmental stress, or when applying to weeds at more advanced growth stages, or for heavy weed infestations. See

weeds species controlled under "Weeds Controlled or Suppressed by Extinguish XL Herbicide Alone." Apply to actively growing wheat and barley from the 2 leaf stage to just prior to flag leaf emergence. 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.

# **Application Timing**

Apply to actively growing weeds at the 1-8 leaf stage unless otherwise specified. 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 low crop and high weed density, control may be reduced.

Do not apply more than one application per year.

Applications of Extinguish XL Herbicide are rainfast within 1 hour of application.

# Weeds Controlled or Suppressed by Extinguish XL Herbicide Alone at 0.833 L/ha (1-8 leaf stage, unless otherwise specified)

#### Weeds Controlled:

alfalfa, volunteer (up to 25 cm in height) barnyard grass (up to the 5 leaf, 2-tiller stage)

buckwheat, wild canola, volunteer\*\*

chickweed\*

cleavers (1-9 whorl stage)\*

cow cockle

dandelion (seedlings & over-wintered rosettes up

to 30 cm in diameter)

flax, volunteer (up to 15 cm in height) fleabane, Canada (up to 15 cm in height)\*\*\* flixweed (up to 8 leaf & 8 cm in height)

lamb's-quarters\*

mustard, wild

narrow-leaved hawk's-beard (up to bolting & 30

cm in height)

ragweed, common (up to 6-leaf stage)\*\*\*

redroot pigweed

round-leaved mallow (up to the 6-leaf stage) shepherd's-purse (up to bolting & 20 cm in height) smartweed (green smartweed, lady's thumb)

sow-thistle, annual (up to 4 leaf stage)

stinkweed

stork's-bill (up to the 8-leaf stage) velvetleaf (up to the 5-leaf stage)

# Weeds Suppressed:

hemp-nettle (1-8 leaf stage)\*

kochia\*\*\*

night flowering catchfly (up to bolting stage, 15

cm in height)

scentless chamomile (up to bud stage)

sow-thistle, perennial (up to 6-leaf stage) thistle. Canada (up to the bolting stage, 30 cm in

height)

white cockle (spring seedlings and over-wintered plants up to the bud stage)

## Mixing Instructions for Extinguish XL Herbicide Alone

- 1. Fill sprayer tank 1/2 full of water.
- 2. Start sprayer tank agitation.
- 3. Add the required amount of Extinguish XL Herbicide.
- 4. Fill the sprayer tank with sufficient water to spray 50-100 L of spray mixture per hectare.
- 5. Add one of the adjuvants recommended above in the Field Sprayer Application Directions section as the last ingredient.
- 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.

<sup>\*</sup>Including Group 2 resistant biotypes

<sup>\*\*</sup>Including all herbicide-resistant biotypes

<sup>\*\*\*</sup>Including Group 2 and 9 resistant biotypes

#### **Preharvest/Grazing Intervals**

- Livestock may be grazed on treated crops 7 days following application.
- Do not harvest the treated crop within 60 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.
- Do not harvest forage or cut hay within 30 days after application.

# TANK MIX COMBINATIONS – EXTINGUISH XL HERBICIDE + OTHER HERBICIDES FOR ANNUAL GRASS CONTROL

For control of annual grasses (see table below) tank-mix Extinguish XL Herbicide with the following graminicides. Refer to the above table for broadleaf weeds controlled or suppressed with Extinguish XL Herbicide. When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on all product labels.

Tank-Mix Combinations with Extinguish XL Herbicide for Annual Grass Control

Tank-Mix	Crops		Adjuvant	Additional Weeds		
Partner	Registered	Rate/ha	and Rate	Controlled or Suppressed**		
Simplicity GoDRI*	spring wheat, durum wheat winter wheat	70 g/ha	Agral 90 at 0.25% v/v	barnyard grass, downy brome**, flixweed (up to 10 cm in height), green foxtail**, Japanese brome, white cockle**, wild oats, yellow foxtail		
Simplicity*	spring wheat, durum wheat winter wheat	500 ml/ha		barnyard grass, downy brome**, flixweed, green foxtail**, Japanese brome, wild oats, yellow foxtail,		
Tandem A + Tandem B	spring wheat, durum wheat	375 mL/ha + 0.21 L/ha	Not required	wild oats (under low wild oat populations (<75 plants/m²), plus additional broadleaf weeds (refer to Tandem Use Instructions)		
		500 mL/ha + 0.31 L/ha	Not required	barnyard grass, downy brome**, green foxtail**, Japanese brome, wild oats, yellow foxtail, plus additional broadleaf weeds (refer to Tandem Use Instructions)		
Axial Herbicide	spring wheat, spring barley	1200 mL/ha	Not required	barnyard grass, green foxtail, proso millet, volunteer oats, volunteer canary seed, wild oats, yellow foxtail		
Everest 3.0 AG	spring wheat, durum wheat	72-95 mL/ha	Ag-Surf or Agral 90 at 0.25% v/v	green foxtail, volunteer tame oats, wild oats		
Varro Herbicide	spring wheat, durum wheat winter wheat	0.5 L/ha	Not required	barnyard grass, green foxtail, Japanese brome, Persian darnel**, volunteer canary seed, wild oats, yellow foxtail**		
Traxos Herbicide	spring wheat, durum wheat winter wheat	1.2 L/ha	Not required	barnyard grass, green foxtail, Persian darnel, proso millet, volunteer canary seed, volunteer oats, wild oats, yellow foxtail		

<sup>\*</sup>Consult tank-mix partner label for rate-specific claims.

#### TANK MIXING EXTINGUISH XL HERBICIDE + OTHER TANK-MIX PARTNERS

# MIXING INSTRUCTIONS FOR TANK MIXING Extinguish XL Herbicide + OTHER TANK-MIX PARTNERS

- 1. Begin to fill sprayer tank with clean water, and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.
- When the sprayer is three quarters full of water, add Extinguish XL Herbicide and agitate for 2-3 minutes.
- 3. If including an annual grass control tank-mix partner add it next. Agitate for 2-3 minutes.
- 4. Add the Adjuvant indicated in the below tables for the annual grass control product.
- 5. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
- 6. After any break in spraying operations, agitate thoroughly before spraying again.
- 7. Use the spray suspension as soon as it is prepared.

#### **SPRAY BUFFER ZONES**

A spray buffer zone is NOT required for:

• uses with hand-held application equipment permitted on this label.

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) and estuarine/marine habitats.

Method of application	Сгор	Spray Buffer Zones (metres) Required for the Protection of:					
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Habitat:	
Field sprayer	Spring wheat, durum wheat, winter wheat, spring barley	1	1	1	1	2	

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 that are larger than 1m can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Extinguish XL Herbicide is both a Group 2 and a Group 4 herbicide. Any weed population may contain plants naturally resistant to Group 2 and/or Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same fields. 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 Extinguish XL Herbicide or other Group 2 and 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.

**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: Initial Registration