

2012-0171  
2012-01-30

GROUP	5	15	28	HERBICIDES
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## LUMAX™ SE

SELECTIVE HERBICIDE

SUSPENSION

AGRICULTURAL

A Herbicide for Preemergent Field Corn, Production Seed Corn, and Sweet Corn and Postemergent use in Field Corn for Control of Annual Grass and Broadleaf Weeds

FOR SALE FOR USE IN EASTERN CANADA

**GUARANTEE:**

S-Metolachlor\* ..... 320 g/L

\* and R-enantiomer

Atrazine ..... 120 g/L

Mesotrione ..... 32 g/L

Contains Proxel GXL at 0.11% as a preservative.

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

**CAUTION: EYE AND SKIN IRRITANT  
POTENTIAL SKIN SENSITIZER**

NET CONTENTS: **10 L – Bulk**

REGISTRATION NO.: **28891**  
PEST CONTROL PRODUCTS ACT

**Syngenta Canada, Inc.**  
140 Research Lane, Research Park  
Guelph, Ontario  
N1G 4Z3  
Telephone: 1-877-964-3682

LABEL

## 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.

## FIRST AID

**IF POISONING IS SUSPECTED** call **1-800-327-8633 (FASTMED)**, or contact a physician or a poison control centre **IMMEDIATELY**. 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 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.

**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.

## TOXICOLOGICAL INFORMATION

Treat symptomatically. If gastric lavage is considered necessary, prevent aspiration of gastric material. Administration of activated charcoal may also be considered.

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

May irritate eyes. Avoid contact with eyes. May irritate the skin. Potential skin sensitizer.

Avoid contact with skin or clothing. When mixing/loading, wear a face shield in addition to chemical-resistant gloves, shoes with socks, coveralls over a long-sleeved shirt, and long pants. Wash the outside of the gloves before removing. Wash splashes from skin and eyes **IMMEDIATELY** with plenty of water. During application, clean up and repair activities, wear chemical-resistant gloves, shoes with socks, and coveralls over a long sleeved shirt and long pants.

Avoid breathing product and working in spray mist. Avoid all drift or contact with other vegetation. After spraying, wash hands and shower thoroughly with soap and water. While using product, do not eat, drink or use tobacco (including smoking). Thoroughly wash hands and exposed skin with soap and water before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Wear freshly laundered clothes daily. Do not wear contaminated shoes. Wash clothing in detergent and hot water before reuse. Store and wash all protective clothing separately from household laundry. Keep away from food, drink, and animal feed. Store in original container, tightly closed and in a safe place.

**DO NOT** re-enter treated areas within 12 hours of treatment.

**DO NOT** use or store near heat or open flame. **DO NOT** apply beyond the field boundary.

## **SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**

### **GENERAL INFORMATION:**

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for applications.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitats must be avoided. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### **ENVIRONMENTAL HAZARDS**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil and poorly draining soil (e.g., soils that are compacted, fine textured or low in organic matter such as clay). Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip (buffer zone) between the treated area and the edge of the water body. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow. Avoid applying this product when heavy rain is forecast.

Toxic to non-target terrestrial plants and aquatic organisms. Observe the buffer zones and precautionary measures listed. Do not overspray non-target terrestrial or aquatic habitats. Do not contaminate aquatic habitats when cleaning and rinsing spray equipment or containers.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

**DO NOT APPLY BY AIR.**

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 website at [www.croplife.ca](http://www.croplife.ca).

**STORAGE CONDITIONS**

Always store in original container with top closed in a cool, dry place. To prevent contamination, store this product away from food or feed. Avoid storing LUMAX SE Selective Herbicide below -10 °C. If frozen, mix product thoroughly prior to use. Do not use or store near heat or open flame.

**DECONTAMINATION AND DISPOSAL**

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.

**CONTAINER DISPOSAL:**

**FOR DISPOSAL OF PLASTIC JUGS:**

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 REFILLABLE BULK CONTAINERS:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not use this container for any other purpose.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,  
CALL 1-800-327-8633 (FASTMED)***

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PAMPHLET

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## TOXICOLOGICAL INFORMATION

Treat symptomatically. If gastric lavage is considered necessary, prevent aspiration of gastric material. Administration of activated charcoal may also be considered.

## PRECAUTIONS

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Avoid breathing product and working in spray mist. Avoid all drift or contact with other vegetation. After spraying, wash hands and shower thoroughly with soap and water. While using product, do not eat, drink or use tobacco (including smoking). Thoroughly wash hands and exposed skin with soap and water before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Wear freshly laundered clothes daily. Do not wear contaminated shoes. Wash clothing in detergent and hot water before reuse. Store and wash all protective clothing separately from household laundry. Keep away from food, drink, and animal feed. Store in original container, tightly closed and in a safe place.

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## **SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**

### **GENERAL INFORMATION:**

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for applications.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitats must be avoided. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### **ENVIRONMENTAL HAZARDS**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil and poorly draining soil (e.g., soils that are compacted, fine textured or low in organic matter such as clay). Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip (buffer zone) between the treated area and the edge of the water body. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow. Avoid applying this product when heavy rain is forecast.

Toxic to non-target terrestrial plants and aquatic organisms. Observe the buffer zones and precautionary measures listed. Do not overspray non-target terrestrial or aquatic habitats. Do not contaminate aquatic habitats when cleaning and rinsing spray equipment or containers.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

NOTE: One application of LUMAX SE Selective Herbicide provides 0.525 - 0.6 kg ai/ha of atrazine. Do not apply more than 1.5 kg ai/ha of atrazine per year either as a pre- or post-emergent application before corn reaches 30 cm in height. An additional treatment of a product containing atrazine can be made as long as the amount of atrazine applied does not exceed 0.9 kg ai/ha. Atrazine may be applied alone or as a registered tank mix partner. Refer to the tank mix partners for further instructions.

### Buffer Zones

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

The 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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Buffer Zones (metres) Required for the Protection of:		
	Freshwater Aquatic habitat	Marine/estuarine habitat	Terrestrial habitat
Field sprayer*	29	10	10

\*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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.

### DO NOT APPLY BY AIR.

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 website at [www.croplife.ca](http://www.croplife.ca).

### STORAGE

Always store in original container with top closed in a cool, dry place. To prevent contamination, store this product away from food or feed. Avoid storing LUMAX SE Selective Herbicide below  $-10^{\circ}\text{C}$ . If frozen, mix product thoroughly prior to use. Do not use or store near heat or open flame.

## **DECONTAMINATION AND DISPOSAL**

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***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING  
CALL 1-800-327-8633 (FASTMED)***

## GENERAL INFORMATION

LUMAX SE Selective Herbicide is a preemergence suspension emulsion herbicide that provides selective control of annual grass and broadleaf weeds in corn. LUMAX SE Selective Herbicide has a high level of crop safety to allow for flexibility in application timing in corn. To ensure weed control during the critical weed free period, LUMAX SE Selective Herbicide may be applied surface preplant, preemergent and early postemergent (up to the 2-leaf corn stage). LUMAX SE Selective Herbicide will not provide control of emerged grass weeds that are past the 2 leaf stage.

LUMAX SE Selective Herbicide contains three active ingredients and is a one-pass broad-spectrum weed control product for use in corn. In surface preplant applications, LUMAX SE Selective Herbicide may also be tank-mixed with non-selective herbicides to control a wide range of emerged perennial weeds prior to crop emergence. Consult the tank mix partner labels for precautions, use rates and weeds controlled.

LUMAX SE Selective Herbicide provides residual weed control by moving from the soil into the weed seeds, shoots and roots.

LUMAX SE Selective Herbicide will control:

Broadleaf Weeds*		Grasses
American Nightshade	Lamb's-quarters	Barnyard Grass
Eastern Black Nightshade	Redroot Pigweed	Crabgrass (smooth, hairy)
Common Ragweed	Velvetleaf	Fall Panicum
Lady's thumb	Wild Buckwheat	Foxtail (green, yellow, giant)
	Wild Mustard	Witchgrass

\*includes triazine and group 2 tolerant biotypes

**NOTE:** LUMAX SE Selective Herbicide contains benoxacor, which has been shown to enhance S-metolachlor metabolism in corn.

## USE DIRECTIONS

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.

**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) medium classification. Boom height must be 60 cm or less above the crop or ground.

**DO NOT** apply by air.

DO NOT apply more than 4.4 L/product/ha/season.

**FIELD CORN****1.) Surface Preplant Application:**

LUMAX SE Selective Herbicide may be applied to the soil surface up to 7 days before planting for minimum and no-till systems in corn. Apply LUMAX SE Selective Herbicide at 4.4 L per hectare in a spray volume of 100 - 200 L per hectare and a minimum pressure of 200 kPa (refer to the “*MIXING AND SPRAYING INSTRUCTIONS*” section of this label). If possible, do not move the treated soil out of the row or move untreated soil to the surface during planting or weed control will be diminished.

**LUMAX SE Selective Herbicide tank-mixed with TOUCHDOWN® iQ, Roundup<sup>†</sup> Transorb<sup>†</sup>, or Roundup Weathermax<sup>†</sup> will provide residual control of annual weeds listed above and burndown of emerged annual and perennial weeds.**

**Use Rates for Surface Preplant Application:**

<b>WEEDS CONTROLLED</b>	<b>RATE/HA LUMAX SE SELECTIVE HERBICIDE</b>	<b>RATE/HA TANK MIX PARTNER<sup>1</sup></b>
Annual Grasses and Broadleaf Weeds	4.4 L	
Annual Grasses and Broadleaf Weeds, Emerged Annual or Perennial Weeds	4.4 L	2.5 – 5 L TOUCHDOWN iQ
		2.5 – 5 L Roundup Transorb
		1.7 – 3.3 L Roundup Weathermax

<sup>†</sup> Consult the label of the product(s) tank mixed with LUMAX SE Selective Herbicide for specific instructions regarding product rates, weeds controlled, soil-type variations, and rotational crop, grazing or other restrictions.

**2.) Preemergent Application:**

Apply LUMAX SE Selective Herbicide at 4.4 L per hectare in a spray volume of 100 - 200 L per hectare and a minimum pressure of 200 kPa (refer to the “*MIXING AND SPRAYING INSTRUCTIONS*” section of this label) for the control of weeds listed on label.

**3.) Early Postemergent Application:  
Up to 2 leaf stage of Field Corn**

Apply LUMAX SE Selective Herbicide at 4.4 L per hectare in a spray volume of 100 - 200 L per hectare and a minimum pressure of 200 kPa (refer to the “*MIXING AND SPRAYING INSTRUCTIONS*” section of this label) for the control of weeds listed on label. Apply LUMAX SE Selective Herbicide before grass weeds pass the 2 leaf stage.

**SEED AND SWEET CORN****1) Preemergent Application:**

Apply LUMAX SE Selective Herbicide at 4.4 L per hectare in a spray volume of 100 - 200 L and a minimum pressure of 200 kPa (refer to the “*MIXING AND SPRAYING INSTRUCTIONS*” section of this label) for the control of weeds listed on label.

**PRE-HARVEST INTERVALS:**

Crops	PHI (days)
Field corn grain/stover	100
Field corn forage	90
Sweet corn	50

**USE PRECAUTIONS:**

LUMAX SE Selective Herbicide may be used surface preplant, preemergent or early postemergent on Field Corn and preemergence in production Seed Corn and Sweet Corn. Please refer to seed company recommendations before using LUMAX SE Selective Herbicide on production Seed Corn in-breds and Sweet Corn varieties.

Although LUMAX SE Selective Herbicide has a flexible recropping profile, certain crops may be sensitive to low concentrations in the soil. Therefore, careful consideration should be given to crop rotation plans prior to using LUMAX SE Selective Herbicide (refer to "RECROPPING GUIDELINES").

Do not apply when weather conditions may cause drift to non-target areas. To avoid spray drift, do not apply when wind speed is greater than 10 mph or during periods of temperature inversions. Use of larger droplet sizes will also reduce spray drift.

Do not apply under conditions which favour runoff or wind erosion of soil containing LUMAX SE Selective Herbicide to non-target areas.

Make only one application of LUMAX SE Selective Herbicide per year. Do not apply other mesotrione-containing products (CALLISTO 480SC) to ground that has been treated with LUMAX SE Selective Herbicide in the same season.

Dry conditions following application may reduce the preemergent activity of LUMAX SE Selective Herbicide. If an activating rain is not received within 7-10 days after a preemergent application, rotary hoeing is suggested to activate the herbicide.

Do not apply to soils that contain less than 1% or more than 10% organic matter.

Temporary crop injury (bleaching) may occur under extreme weather conditions or when the crop is under stress due to inadequate or abnormally high moisture levels or extreme temperatures as well as under conditions of insect or plant disease attack, carryover of pesticide residues, use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides. The symptoms are most visible where excessive rates have been applied, such as sprayer overlaps. Corn quickly outgrows these effects and continues to grow normally.

Do not make a foliar postemergent application of any organophosphate or carbamate insecticide within 7 days before or 7 days after a LUMAX SE Selective Herbicide application or severe corn injury may occur. Syngenta Canada, Inc. will not be held responsible for losses or damage resulting from such use.

Severe corn injury and crop yield loss may occur if LUMAX SE Selective Herbicide is applied to corn crops that are treated with Lorsban<sup>†</sup>.

LUMAX SE Selective Herbicide may be applied prior to or following a pyrethroid-type insecticide such as FORCE<sup>®</sup> or MATADOR<sup>®</sup>

Do not apply LUMAX SE Selective Herbicide through any type of irrigation system

#### **APPLICATION IN LIQUID FERTILIZERS:**

Nitrogen solutions (such as 28-0-0 UAN), excluding suspension fertilizers, may replace water as a carrier for surface preplant or pre-emergence application of LUMAX SE Selective Herbicide in corn. Do not use nitrogen solutions as a carrier to corn that has emerged. Always predetermine the compatibility of LUMAX SE Selective Herbicide tank mixes with your liquid fertilizer carrier by mixing small proportional quantities in advance. Even if LUMAX SE Selective Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

#### **MIXING AND SPRAYING INSTRUCTIONS:**

Protect sprayer operators from drift or mist. Additional information on spray drift management for GROUND APPLICATIONS is provided in the section "SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS". When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your local agricultural authorities for specific use information.

#### **GROUND APPLICATION ONLY:**

##### **Water Volume:**

Apply in 100 – 200 litres per hectare.

##### **Spray Pressure:**

200 - 275 kPa

##### **Spray Nozzles:**

Flat Fan with 50 mesh or larger screens. Do not use floodjet or controlled droplet application equipment for postemergent application.

##### **Mixing Procedure:**

1. Ensure that the sprayer is totally clean.
2. Fill the sprayer half full with water. Engage gentle agitation. All return lines to the spray tank must discharge below the liquid level.
3. Ensure that the agitation system is working properly and that it creates a rippling or rolling action on the water surface.
4. Add LUMAX SE Selective Herbicide slowly and agitate until completely dispersed. To ensure complete dispersion, wait 2 or 3 minutes after LUMAX SE Selective Herbicide has been added to the tank.
5. Fill the tank to three quarters full with water.

6. Add TOUCHDOWN iQ, Roundup Weathermax, or Roundup Transorb if required.
7. Continue agitation while completing the filling of the sprayer with water.
8. **Always ensure that agitation is maintained until spray ing is completed** , even if stopped for brief periods of time. Reduce agitation once tank volume is reduced to about one third of capacity.
9. If agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. **LUMAX SE Selective Herbicide must be sprayed the same day as mixing**. Do not allow spray solution to remain in tank overnight.
10. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

#### **RECRIPPING GUIDELINES:**

Certain crops have been shown to be sensitive to low residues of LUMAX SE Selective Herbicide in the soil. The minimum recropping interval is the time between the last application of LUMAX SE Selective Herbicide and the anticipated date of planting of the next crop.

To avoid injury to subsequent crops after an application at the recommended rate of LUMAX SE Selective Herbicide, the following recropping intervals should be observed.

<b>CROP</b>	<b>MINIMAL RECRIPPING INTERVAL</b>
Field Corn, Production Seed Corn, Silage Corn and Sweet Corn.	Immediately (no restriction)
Winter Wheat	4.5 months
Spring Wheat.	10 months
Soybeans, White Beans, Alfalfa	11 months
All Other Crops	Bioassay

Observe the recropping guidelines of any product to be tank mixed with LUMAX SE Selective Herbicide.

In the event of crop failure, only Field Corn (Grain or Silage), Seed Corn, or Sweet Corn can be planted as a salvage crop in the same fields in which the failed crop was treated with LUMAX SE Selective Herbicide.

Land treated with LUMAX SE Selective Herbicide CAN ONLY BE PLANTED TO A CROP NOT LISTED IN THE PRECEEDING TABLE if a field bioassay can be successfully performed. The bioassay must indicate normal growth with no yield reductions.

A bioassay may be conducted in any year following the year of application to assess the tolerance of the tested crop intended for planting in the year following the bioassay. Do not conduct a bioassay in the year of application. When conducting a field bioassay, it is very important to select a representative area(s) of the field previously treated with LUMAX SE Selective Herbicide to plant the test crop(s).

#### **WARNING:**

Do not plant any crop other than corn in the same year on land treated with LUMAX SE Selective Herbicide as injury may occur. Crops that may be planted the following year are provided in the recropping guidelines. However, when the rotational crop is subjected to stress conditions, e.g. abnormally hot, dry weather, preceded by extended periods of dry weather the previous season, injury may occur. Do not tank mix with any other herbicide or additive unless

listed on this label.

## FIELD BIOASSAY

1. **Representative Sample:**

Ensure that soil parameters such as soil texture, depth of topsoil layer, soil pH and drainage of the test area selected are representative of the remainder of the field.

2. **Sample Size:**

The seeded area of each selected bioassay crop must be large enough to ensure that reliable results are obtained. The seedbed preparations and seeding of the bioassay crop(s) should be conducted the same way as when the entire field would be planted.

3. **Other Residual Herbicides:**

It is important that other herbicide products which are known to have residual activity were not applied to the field between the last application of LUMAX SE Selective Herbicide and the bioassay testing period. Avoid the use of other pesticides during the duration of the bioassay as they may damage the indicator crop(s).

4. **Comparisons:**

Ideally, an untreated check strip in a neighbouring field should be established and monitored for comparison since growing conditions can vary greatly from year to year and may result in erroneous results.

5. **Assessment:**

The site should be monitored regularly throughout the growing season. Watch for any damage to the crop such as thinning, yellowing or stunting. A yield sample should be taken and compared to an adjacent untreated field.

***DO NOT ROTATE TO OTHER CROPS UNTIL THE BIOASSAY INDICATES NORMAL GROWTH WITH NO YIELD REDUCTIONS.***

***Failure to follow these recropping guidelines could result in injury to seeded crop(s).***

ADHERE TO THESE PRODUCT LABELS FOR BROADLEAF AND GRASSWEEDS CONTROLLED, PRECAUTIONS, WARNINGS, RESTRICTIONS, TANK MIXING AND SPRAYING INSTRUCTIONS, ROTATIONAL CROPS AND DETAILED DIRECTIONS FOR USE REGARDING DOSAGE VARIATIONS ACCORDING TO SOIL TYPE.

## SPRAYER CLEANUP:

To avoid subsequent injury to other crops, thoroughly clean application equipment immediately after spraying each day. Ensure that all traces of the product are removed. Do not allow residue to dry in spray tank. Do not allow solution to remain in lines or tank overnight. The following procedures are recommended:

1. Drain and flush tank, boom and all hoses for several minutes with clean water. Ensure dead end lines are flushed. **Do not** clean the sprayer near desirable vegetation, wells or other water sources.
2. Prepare a cleaning solution of one part of household ammonia per 25 parts of water. A household detergent may also be added to the solution.
3. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15

- minutes. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
  5. Dispose of all rinsings in accordance with provincial regulations.
  6. Repeat steps 2-5
  7. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures
  8. Rinse the complete spraying system with clean water

## **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, LUMAX SE Selective Herbicide is a Group 5, 15 and 28 herbicide. Any weed population may contain or develop plants naturally resistant to LUMAX SE Selective Herbicide and other Group 5 and/or 15 and/or 28 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 LUMAX SE Selective Herbicide or other Group 5 and/or 15 and/or 28 herbicides 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.

Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.

Monitor treated weed populations for resistance development. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.

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 and to report suspected resistance, contact company representatives at 1-877-SYNGENTA (1-877-964-3682) or at [www.syngenta.ca](http://www.syngenta.ca).

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