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		1 1 3 1 1 1 1 1
GROUP	15	HERBICIDE
GROUP	5	HERBICIDE

BOUNDARY® LQD HERBICIDE

COMMERCIAL - AGRICULTURAL

EMULSIFIABLE CONCENTRATE

FOR SALE FOR USE IN EASTERN CANADA ONLY
FOR USE IN SOILS WITH AN ORGANIC MATTER CONTENT OF 1-10%
BOUNDARY® LQD Herbicide provides Annual Grass and Broadleaf Weed control

ACTIVE INGREDIENTS:

S-Metolachlor*	. 628	g/L
*and R-enantiomer		-
Metribuzin	. 149	g/L

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

WARNING: EYE IRRITANT POTENTIAL SKIN SENSITIZER

REGISTRATION NO.: 30812
PEST CONTROL PRODUCTS ACT

STORE IN A COOL, DRY PLACE

NET CONTENTS: 1 L - Bulk

Syngenta Canada Inc.

140 Research Lane, Research Park Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Label

1.0 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.

2.0 FIRST AID

IN CASE OF POISONING, 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.

3.0 TOXICOLOGICAL INFORMATION

If swallowed, there is no specific antidote. Treat symptomatically. One of the active ingredients in this product, metribuzin, may cause breathing difficulties and sedation. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Potential skin sensitizer. Causes eye irritation. Do not get in eyes.

Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.

Do not eat, drink, smoke or apply cosmetics in areas where there is potential for exposure to this product.

It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

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Apply only when the potential for drift to areas of human habitation or 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.

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.

Restricted Entry Interval (REI): DO NOT enter or re-enter treated areas within 12 hours of treatment.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

CAUTION: Do not graze treated immature crops or cut for hay. Sufficient data are not available to support such uses. Make only one application per season.

DO NOT apply by air.

Do not exceed rates recommended on this label.

5.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear a long-sleeved shirt, long pants, a hat, and enclosed boots during all activities. During mixing/loading, clean-up and repair activities wear the previously mentioned clothing, plus chemical resistant gloves and goggles or a face shield.

Remove clothing/PPE immediately if pesticide gets inside. Then wash yourself thoroughly and put on clean clothing.

Remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Wear freshly laundered clothes daily. Do not wear contaminated shoes. Store and wash all protective clothing separately from household laundry. Wash clothing in detergent and hot water before reuse.

Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

6.0 ENVIRONMENTAL PRECAUTIONS

This product contains an active ingredient and aromatic petroleum distillates which are toxic to

aquatic organisms.

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

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

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 strip between the treated area and the edge of the water body.

7.0 STORAGE

Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated secure area away from other pesticides, feed, foodstuffs, beverages and tobacco, and out of the reach of children, unauthorized persons and animals. To prevent contamination store this product away from seed, food, feed or fertilizer. Keep away from fire or open flame, or other sources of heat.

8.0 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.

For 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.

For Refillable 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)

BOUNDARY® is a trademark of a Syngenta Group Company.

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BOOKLET

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Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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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 strip between the treated area and the edge of the water body.

7.0 STORAGE

Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated secure area away from other pesticides, feed, foodstuffs, beverages and tobacco, and out of the reach of children, unauthorized persons and animals. To prevent contamination store this product away from seed, food, feed or fertilizer. Keep away from fire or open flame, or other sources of heat.

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9.0 PRODUCT INFORMATION

BOUNDARY LQD Herbicide is specially designed for soybean, tomato and potato growers in Eastern Canada in soils with an organic matter content of 1-10%. BOUNDARY LQD Herbicide provides early season residual control of troublesome weeds. BOUNDARY LQD Herbicide should not be used in soybeans or potatoes growing on coarse soils with organic matter content of less than 1% or greater than 10%. BOUNDARY LQD Herbicide cannot be used on tomatoes growing in coarse soils.

WEEDS CONTROLLED: GRASS WEEDS

Barnyard grass Crabgrass (smooth, hairy) Witch grass Fall panicum Foxtail (green, yellow, giant)

BROADLEAF WEEDS

American nightshade¹
Redroot pigweed²
Eastern black nightshade¹
Yellow nutsedge³
Canada fleabane⁴
Waterhemp¹

- 1. Pre-emergent treatments sometimes give better control than pre-plant surface, pre-plant incorporated or post-emergent treatments.
- Some naturally occurring triazine tolerant biotypes of these weeds may not be controlled by BOUNDARY LQD Herbicide.
- ^{3.} Pre-plant incorporated treatment only. Extended periods of dry hot weather following application may result in reduced nutsedge control.
- ^{4.} Control of Canada fleabane (maximum weed stage 20 leaf) when applied in tank mix with Eragon® LQ in soybeans.

10.0 DIRECTIONS FOR USE

10.1 Use Precautions

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.

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 Syngenta Canada Inc. at 1-87-SYNGENTA

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(1-877-964-3682) for information before applying any tank mix that is not specifically recommended on this label.

Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank-mixes under all environmental conditions or for all crop varieties. Tank mixes that are not specifically listed on this label should be tested on a small area first, under local conditions and using standard practices, to confirm the tank mix is suitable for widespread application.

To determine the physical compatibility of this product with other products, use a jar test.

Always read and follow label directions including WALES mixing order.

<u>Field sprayer application</u> 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) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

10.2 Application Information

- Applications of BOUNDARY LQD Herbicide made at rates above those recommended may result in burning, yellowing or stunting of the crop. If heavy rains occur soon after application, plant injury may result, especially in poorly drained areas where water may stand for several days. Soybean seeds must be planted at least 4 cm below the soil surface.
- VARIETIES: Consult your chemical dealer, or your seed supplier for information on the metribuzin tolerance of soybean varieties, prior to BOUNDARY LQD Herbicide use.
- DO NOT USE BOUNDARY LQD HERBICIDE ON SOILS WITH AN ORGANIC MATTER CONTENT OF LESS THAN 1% OR GREATER THAN 10%.
- If drought conditions persist after either a pre-plant surface, or pre-emergent application, annual weed control may not be adequate.
- Do not apply more than once per season regardless of method of application.
- Uneven application such as swath overlapping, variable tractor speed, spraying on turns, etc., may result in crop injury and increase chances of injury to succeeding crops. After harvest, tillage practices that provide thorough mixing of the soil may be helpful in reducing the chance of injury to succeeding crops.
- Apply specified dosage as pre-emergence broadcast spray in 150 to 300 L of water per hectare and as pre-plant incorporated in at least 100 L of water per hectare.

Pre-Plant Surface Application:

- For minimum tillage (reduced tillage), and no-till (zero-till) systems.
- Applications may be made up to 30 days before planting.
- 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.
- Rainfall is necessary to move BOUNDARY LQD Herbicide into the upper soil surface where weed seeds germinate.

Pre-emergent Application:

- Apply evenly to a firm, lump-free seed bed.

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- If an activating rain (>1.25 cm) is not received within 7-10 days after a preemergent application, cultivate or use other weed control measures if weeds develop.
- Pre-emergent applications may also be made in reduced tillage, ridge tillage, and no-till systems.
- Minimize exposure of untreated soil when cultivating or fertilizing.
- Dry weather conditions as well as excessive rainfall or irrigation following application may reduce weed control.

Notes for Pre-plant Surface and Pre-emergent Applications ONLY:

For improved burn down of **small** emerged annual weeds, the following additives may be used:

- 28-0-0at 5% v/v
- Crop oil concentrate at 1% v/v
- Non-ionic surfactant at 0.1% v/v

If annual weeds are larger or perennial weeds are present use glyphosate in the tank mix (See table below).

10.3 Mixing and Spraying Instructions

- Spray Pressure 200 300 kPa
- Spray Volume minimum 150 litres per hectare for pre-emergence application. The use of higher water volumes and larger spray tip sizes will generally increase spray deposition and reduce drift.
- minimum 100 litres per hectare for pre-plant incorporated application.
- Keep bypass line at bottom of tank to minimize foaming.
- Use screens no finer than 0.3 mm (50 mesh) in nozzle and in-line strainers (felt filters, or smaller screens will become clogged). A 16 mesh screen is recommended for the filter on the inlet side of the pump.
- Nozzle tips should be no finer than 6502, 8002 or TK 2.
- Do not use airblast or other high pressure spray equipment to apply BOUNDARY LQD Herbicide.
- VIGOROUS, CONTINUOUS AGITATION IS ESSENTIAL FOR PROPER MIXING THROUGHOUT FILLING AND SPRAYING OPERATIONS. Return line agitation is not sufficient. Sparge tube, jet or mechanical agitation is required. Agitation should be sufficient to create a rippling or rolling action on the surface. A pump must be of sufficient capacity to provide adequate volume through the by-pass and/or jet agitation system to provide sufficient agitation even while the booms are operating.
- The sprayer should be checked frequently during application to be sure it is working properly and delivering a uniform spray pattern.
- Avoid over-laps that will increase dosages above those recommended.

Before mixing BOUNDARY LQD Herbicide and its labelled tank-mixtures, examine the spray equipment making sure it is completely clean and free of rust or corrosion. To ensure the equipment is free of any residues from previously used pesticides, flush lines with clean water or recommended detergents. Use an approved method for disposing of rinse water.

Refer to the other product label for pertinent recommendations regarding mixing procedures. The proper mixing sequence for BOUNDARY LQD Herbicide and recommended tank-mixtures is as follows:

1. Ensure that the sprayer interior is clean, then fill the spray tank with ½ the required

amount of carrier and engage gentle agitation. Good agitation is indicated by a rippling or rolling action on the surface of the water.

- 2. Add any WG or DF formulation mix partners and agitate to ensure complete mixing.
- 3. Add any SE or SC formulation mix partners and agitate to ensure complete mixing.
- 4. Add BOUNDARY LQD and any EC formulation mix partners and agitate to ensure complete mixing.
- 5. Fill the tank to \(^3\)4 the required amount of water.
- 6. Add any solution (SN or SL) formulation mix partners and agitate to ensure complete mixing.
- 7. Finish filling the sprayer with carrier, maintaining good agitation.
- 8. Always ensure that agitation is maintained until spraying is completed. After any break in spraying operations, agitate thoroughly before spraying again. Reduce agitation once tank volume is reduced to about one third of capacity.
- 9. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

When using chemical handling equipment to fill the sprayer, the following additional recommendations apply:

- WG and DF formulations are preferentially batch mixed.
- SC, SN, and SL formulations may be inducted or batch mixed.
- EC formulations are preferentially batch mixed.

BOUNDARY LQD Herbicide and all registered mixtures should be kept agitated once mixed and then sprayed out immediately. Do not allow mixtures to stand for prolonged periods of time. Water quality, pH, temperature and/or other components of the mixture may affect how long the mixture can stand before application.

10.4 Sprayer Cleanup

Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops. Drain any remaining spray solution of BOUNDARY LQD Herbicide from the spray tank and discard in non-crop areas away from water supplies. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of 250 mL/100 L of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of the spray tank, nozzles or spray rig.

10.5 Buffer Zones

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	Crop	Buffer Zones (metres) Required for the Protection of:	
		Aquatic Habitat	Terrestrial Habitat
Field sprayer	All field crops	29	10

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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.

10.6 Rotational Crop Restrictions

- Rotation crops such as onions, celery, peppers, Cole crops, lettuce and spinach, sugar beets, table beets and turnips, pumpkin and squash, cucumbers and melons, tobacco, and non-triazine tolerant canola (rapeseed) are sensitive to BOUNDARY LQD Herbicide and may be injured if planted in soil treated with BOUNDARY LQD Herbicide during the year of application or the following crop year.
- Fall seeded or cover crops such as wheat, oats, and rye may be injured when seeded within the same season as the application of BOUNDARY LQD Herbicide.

11.0 CROP USE DIRECTIONS

11.1 Soybeans

SOYBEAN	
TIMING	Pre-plant incorporated, Surface pre-plant ³ , or pre-emergent
WEEDS CONTROLLED	Labelled weeds
BOUNDARY LQD	1.85 - 2.5 L/ha
HERBICIDE RATE ¹	
NOTES	Injury to soybeans or reduced weed control may occur when BOUNDARY LQD Herbicide is applied to soils with a pH of 7.5 or higher. Soybean seeds must be planted at least 4 cm below the soil surface or crop injury may result. Do not apply if soybeans have emerged. VARIETIES: Consult your chemical dealer, or your seed supplier for information on the metribuzin tolerance of soybean varieties, prior to BOUNDARY LQD Herbicide use. One application per year.
SOYBEAN – Tank mixes	
TIMING	Surface pre-plant ³ , or pre-emergent
WEEDS CONTROLLED	Labelled weeds plus emerged annual and perennial weeds
BOUNDARY LQD HERBICIDE RATE ¹	1.85 - 2.5 L/ha
RATE OF TANK MIX PARTNER ²	900 – 1800 g ae/ha glyphosate (present as potassium salt, isopropylamine salt, di-ammonium, or dimethylamine salt) ⁴
NOTES	Injury to soybeans or reduced weed control may occur when BOUNDARY LQD Herbicide is applied to soils with a pH of 7.5 or higher. Soybean seeds must be planted at least 4 cm below the soil surface or crop injury may result. Do not apply if soybeans have emerged. VARIETIES: Consult your chemical dealer, or your seed supplier for information on the metribuzin tolerance of soybean varieties, prior to BOUNDARY LQD Herbicide use. One application per year. Consult the labels of tank mix partners for full weed species list and product
	use recommendations and precautions.

TIMING	Surface pre-plant ³ , or pre-emergent
WEEDS CONTROLLED	Labelled weeds plus Canada fleabane (maximum weed stage 20 leaf)
BOUNDARY LQD HERBICIDE RATE ¹	2.5 L/ha
RATE OF TANK MIX PARTNER ²	0.073 L/ha Eragon LQ + 1.67 L/ha of glyphosate (540 g/L equivalent) + 1 L/ha MERGE Adjuvant
NOTES	Injury to soybeans or reduced weed control may occur when BOUNDARY LQD Herbicide is applied to soils with a pH of 7.5 or higher. Soybean seeds must be planted at least 4 cm below the soil surface or crop injury may result. Do not apply if soybeans have emerged. VARIETIES: Consult your chemical dealer, or your seed supplier for information on the metribuzin tolerance of soybean varieties, prior to BOUNDARY LQD Herbicide use. One application per year. Consult the labels of tank mix partners for full weed species list and product use recommendations and precautions.

- Use the higher rate of BOUNDARY LQD Herbicide for control of waterhemp and/or heavier weed populations.
- ² Consult the label of the product(s) to be tank mixed with BOUNDARY LQD Herbicide for specific instructions regarding broadleaf weeds, soil-type variations and rotational crop, grazing and other restrictions.
- Apply pre-plant surface applications of BOUNDARY LQD Herbicide only when emerged annual weeds are less than 4 cm tall. If emerged annual weeds are taller than 4 cm, apply glyphosate prior to the application of BOUNDARY LQD Herbicide or make an application of BOUNDARY LQD Herbicide plus glyphosate. Consult the tank mix partner label for specific instructions regarding precautions, restrictions, recommended rates and additives. Follow the most restrictive PPE and precautionary statements of the products involved in the tank mix.
- Some perennial weeds may not be controlled with these rates of glyphosate. Consult the respective glyphosate product labels regarding perennial weeds controlled.

11.2 Potatoes

POTATO	
TIMING	Pre-emergence
WEEDS CONTROLLED	Labelled Weeds
BOUNDARY LQD	1.85 – 2.5 L/ha
HERBICIDE RATE ¹	
NOTES	Do not use on the varieties Belleisle, Tobique or Superior as crop injury may result.
	Potato varieties may vary in their response to BOUNDARY LQD HERBICIDE.
	When using BOUNDARY LQD HERBICIDE for the first time on a particular variety, always confirm crop tolerance before using on a field scale. Do not apply at ground crack or if potatoes have emerged.
	Do not harvest within 60 days of application.
	Apply after hilling. Hilling operations made after application of BOUNDARY LQD Herbicide will reduce weed control.
	One application per year.

Use the higher rate of BOUNDARY LQD Herbicide for control of waterhemp and/or heavier weed populations.

11.3 Transplanted Tomatoes Grown for Processing

TRANSPLANTED TOMAT	OES GROWN FOR PROCESSING
TIMING	Pre-Plant Incorporated
WEEDS CONTROLLED	Labelled Weeds
BOUNDARY LQD	1.85 – 2.5 L/ha
HERBICIDE RATE ¹	
NOTES	Do not apply to direct seeded tomatoes.
	Avoid application under stress conditions.
	Do not use on coarse soils.
	Varieties differ in tolerance to BOUNDARY LQD Herbicide. Newly
	introduced varieties with unknown tolerance to BOUNDARY LQD Herbicide
	should only be treated in a small test area to determine tolerance.
	BOUNDARY LQD HERBICIDE MAY DAMAGE TRANSPLANTS THAT
	HAVE BEEN WEAKENED BY ANY CAUSE RESULTING IN REDUCED
	CROP YIELD. TO PREVENT DAMAGE, PLANT ONLY HEALTHY
	TRANSPLANTS. DO NOT PLANT WHEN WET, COOL OR
	UNFAVOURABLE GROWING CONDITIONS EXIST. FOLLOW ALL
	APPLICATION AND INCORPORATION DIRECTIONS EXACTLY.
	Do not harvest within 60 days of application.
	One application per year.

Use the higher rate of BOUNDARY LQD Herbicide for control of waterhemp and/or heavier weed populations.

12.0 MINOR USES

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Syngenta Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

12.1 Soybeans- suppression of waterhemp

SOYBEAN	
APPLICATION TIMING	Pre-emergent
PEST	Labelled weeds and suppression of tall waterhemp
BOUNDARY LQD	2.5 L/ha
HERBICIDE RATE	
APPLICATION METHOD	Ground application
SOIL TYPE	Medium

13.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that the components in BOUNDARY LQD Herbicide contain both a Group 5 and a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to Group 5 and/or Group 15 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 BOUNDARY LQD Herbicide or other Group 5 and 15 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 company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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