GROUP 15 HERBICIDE

# DUAL® MAGNUM ® Soybean (a Component of the Boundary Herbicide Tank-mix)

HERBICIDE

**AGRICULTURAL** 

Emulsifiable Concentrate for Selective Weed Control FOR USE IN SOILS WITH AN ORGANIC MATTER CONTENT OF 2-4%

FOR SALE FOR USE IN EASTERN CANADA ONLY

This product must be used in combination with SENCOR $^{\dagger}$  DF Soybean Herbicide, a component of the BOUNDARY $^{TM}$  Herbicide Tank Mix

#### **GUARANTEE:**

S-Metolachlor\* ...... 915 g/L

#### READ THE LABEL AND BOOKLET BEFORE USING

WARNING: EYE IRRITANT POTENTIAL SKIN SENSITIZER

REGISTRATION NO.: 27363
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 14 L

Syngenta Canada, Inc.

140 Research Lane, Research Park Guelph, Ontario N1G 4Z3

Telephone: 1-877-964-3682

label

<sup>\*</sup> and R-enantiomer

#### **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**

**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 rin sing eye. Call a po ison 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 b reathing, 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.

**NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON**. If patient has ceased breathing, clear airway and start artificial respiration. Obtain medical attention or contact a poison control centre **IMMEDIATELY**.

**NOTE**: This product may cause skin sensitization reactions in certain individuals.

#### TOXICOLOGICAL INFORMATION

Note to Physician: If swallowed, there is no specific antidote. Treat symptomatically. If a large amount has been inge sted and emesis has been ina dequate, lavage stomach. The active ingredient in this product, S-Metolachlor, has a high affinity for activated charcoal. A suspension of activated charcoal in water can be given to absorb the remaining toxicant. Skin reactions have been treated with antihistamines and ointments containing an anti-inflammatory agent.

#### **PRECAUTIONS**

KEEP OUT OF THE REACH OF CHILDREN. Harmful if swallowed. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation of vapours or spray mist. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.

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, chemical resistant gloves and goggles or a face shield. Avoid breathing vapours, spray mist or dust. If ventilation is not adequate, wear an appropriate pesticide respirator. Do not eat, drink, smoke or apply cosmetics in areas where there is potential for exposure to this product. Wash hands and face with soap and warm water before eating, drinking, chewing gum, using tobacco or using the toilet. 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. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wear freshly laundered clothes daily. Store and wash all protective clothing separately from household laundry. Wash clothing in detergent and hot water before reuse.

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.

DO NOT re-enter treated areas within 12 hours of treatment. If required, individuals may re-enter treated areas within 12 hours of treatment for short term tasks not involving hand labour if at least 4 hours have passed since application and long-sleeved shirt, long pants and chemical resistant gloves are worn.

For the p rotection of aq uatic plants, overspray or drift to imp ortant wildlife habitats such as wetlands, sloughs or dry slough borders and water bodies should be avoided. Leave a buffer zone of 29 meters between the downwind last spray swath and the edge of any of these habitats. Drift to emerging vegetation or newly emerged vegetation in shelterbelts or woodlots should be avoided. For tank mixes, consult the label(s) of the tank mix partner(s), and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

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

#### DO NOT APPLY BY AIR

If this pest control product is to be used on a commodit y that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at <a href="https://www.croplife.ca">www.croplife.ca</a>.

#### **DECONTAMINATION AND DISPOSAL**

For information on d isposal of unused, unwanted product, contact t he 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 cont ainer for any purpose. This is a r ecyclable 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 collect ion site in your area, dispose of the container in accordance with provincial requirements.

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

Product names marked ® or TM are registered trademarks of a Syngenta Group Company † All other products listed are trademarks of their respective companies.

GROUP	15	HERBICIDE
GROUP	5	HERBICIDE

## **BOUNDARY**<sup>TM</sup>

#### HERBICIDE TANK- MIX FOR SOYBEAN

FOR SALE FOR USE IN EASTERN CANADA ONLY
FOR USE IN SOILS WITH AN ORGANIC MATTER CONTENT OF 2-4%
BOUNDARY Herbicide Tank Mix provides Annual Grass and Broadleaf Weed control in Soybeans

**AGRICULTURAL** 

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

# CAUTION WARNING: EYE IRRITANT POTENTIAL SKIN SENSITIZER

STORE IN A COOL, DRY PLACE

For information regarding this Herbicide Tank-Mix contact: Syngenta Canada, Inc.

140 Research Lane, Research Park

Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

This co-package contains:

DUAL® MAGNUM® SOYBEAN Herbicide

GROUP 15 HERBICIDE

**GUARANTEE:** S-Metolachlor\*..... 915 g/L

\*and R-enantiomer

REGISTRATION NO. 27363 PEST CONTROL PRODUCTS ACT

Syngenta Canada, Inc.

140 Research Lane, Research Park

Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

SENCOR<sup>†</sup> DF SOYBEAN Herbicide

GROUP 5 HERBICIDE

**GUARANTEE:** Metribuzin ...... 75%

REGISTRATION NO. 27362 PEST CONTROL PRODUCTS ACT

Bayer CropScience Inc.

Suite 100, 3131 114<sup>th</sup> Avenue SE

Calgary, Alberta T2Z 3X2

#### **NET CONTENTS:**

DUAL MAGNUM SOYBEAN Herbicide - 14 L SENCOR DF SOYBEAN Herbicide - 7.0 KG

#### **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, IMMEDIATELY** contact a physician or a poison control centre. Remove victim to safe, uncontaminated area. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**IF DUAL MAGNUM SOYBEAN Herbicide IS 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 SENCOR DF SOYBEAN Herbicide IS 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 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.

**NOTE:** DUAL MAGNUM SOYBEAN Herbicide may cause skin sensitization reactions in certain individuals.

**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**

**DUAL MAGNUM SOYBEAN Herbicide** – If swallowed, there is no specific antidote. Treat symptomatically. If a large amount has been ingested, lavage stomach. The active ingredient in this product, S-Metolachlor, has a high affinity for activated charcoal. A suspension of activated charcoal in water can be given to absor b the remaining toxicant. Skin reactions have been treated with antihistamines and ointments containing an anti-inflammatory agent.

**SENCOR DF SOYBEAN Herbicide** - There is no specific antidote. Treat patient symptomatically. The active ingredient in this product, metribuzin, does not cause any definite

symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.

#### **PRECAUTIONS**

KEEP OUT OF THE REACH OF CHILDREN. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid inhalation of vapours, spray mist, or dust. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.

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, chemical resistant gloves and goggles or a face shield. Avoid breathing vapours, spray mist or dust. If ventilation is not adequate, wear an appropriate pesticide respirator. Do not eat, drink, smoke or apply cosmetics in areas where there is potential for exposure to this product. Wash hands and face with soap and warm water before eating, drinking, chewing gum, using tobacco or using the toilet. 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. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wear freshly laundered clothes daily. Store and wash all protective clothing separately from household laundry. Wash clothing in detergent and hot water before reuse.

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.

DO NOT enter or re-enter treated areas within 12 hours of treatment. If required, individuals may re-enter treated areas within 12 hours of treatment for short term tasks not involving hand labour if at least 4 hours have passed since application and long-sleeved shirt, long pants and chemical resistant gloves are worn.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

**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

#### **ENVIRONMENTAL PRECAUTIONS**

This herbicide tank mix contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

#### **Buffer Zones:**

For the protection of aquatic plants, overspray or drift to important wildlife habitats such as wetlands, sloughs or dry slough borders and water bodies should be avoided. Leave a buffer

zone of 29 meters between the downwind last spray swath and the edge of any of these habitats.

Drift to emerging vegetation or newly emerged v egetation in shelterbelts or woodlots should be avoided. Do not allow sprays to drift on to adjacent desirable plants.

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, woodlots, hedgerows, pastures, rangelands, and shrublands).

		Buffer Zones (metres) Required for the Protection of:
Crop	Method of Application	Terrestrial Habitat
	Field sprayer	10
Soybean	Field sprayer with shrouds	3
	Field sprayer with cones	5

When BOUNDARY Herbicide Tank Mix is used with a tank-mix partner, consult the labels of the tank-mix partner and observe the largest (most re strictive) buffer zone of the products involved in the tank mixture.

Application in areas where soils are permeable or coarse (e.g., sandy soil) and ground water is near the surface could result in ground water contamination. Following application and during rainfall events that cause runoff, this herbicide tank mix may reach surface water bodies including streams and reservoirs. 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, poorly draining soil (e.g., soils that are compacted, fine textured or low in organic matter such as clay). Avoid application of this product when heavy rain is forecast.

Do not exceed rates recommended on this label.

#### **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:**

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.

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

## DIRECTIONS FOR USE – SOYBEAN EASTERN CANADA

#### **PRODUCT INFORMATION:**

BOUNDARY is a herbicide tank mix that is specially designed for soybean growers in Eastern Canada in soils with an organic matter content of 2-4%. BOUNDARY Herbicide Tank Mix provides residual control of annual grasses, broadleaf weeds including nightshade. BOUNDARY Herbicide Tank Mix controls weeds when the crop is in the early stage of stand establishment as well as all season long and is designed to protect soybean yields and provide rotational freedom.

BOUNDARY Herbicide Tank Mix can be applied early surface pre-plant, or pre-emergently. In conservation tillage systems the tank mix may also be used in combination with a non-selective herbicide, prior to crop emergence, to provide added burndown and residual weed control in soybeans.

#### **WEEDS CONTROLLED:**

#### **GRASS WEEDS**

Barnyard grass Witch grass Crabgrass (smooth, hairy) Fall panicum

Foxtail (green, yellow, giant)

#### **BROADLEAF WEEDS**

American nightshade<sup>1</sup> Lamb's-quarters<sup>3</sup>
Carpetweed<sup>2</sup> Prickly mallow<sup>2</sup>
Cocklebur Prostrate pigweed
Common chickweed
Common ragweed<sup>3</sup> Russian thistle
Dandelion (seedling) Shepherd's purse

Eastern black nightshade<sup>1</sup> Velvetleaf
Green smartweed Wild mustard<sup>3</sup>
Jimsonweed<sup>2</sup> Wild potato vine
Lady's-thumb<sup>3</sup> Yellow woodsorrel<sup>2</sup>

- 1. Pre-emergent treatments sometimes give better control than pre-plant surface.
- Pre-emergent treatments only.
- 3. Some naturally occurring triazine tolerant biotypes of these weeds may not be controlled by BOUNDARY Herbicide Tank Mix.

#### **APPLICATION INFORMATION**

- Applications of BOUNDARY Herbicide Tank Mix 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 Syngenta representative, chemical dealer, or your seed supplier for information on the metribuzin tolerance of soybean varieties, prior to BOUNDARY Herbicide Tank Mix use.
- DO NOT USE BOUNDARY HERBICIDE TANK MIX ON SOILS WITH AN ORGANIC MATTER CONTENT OF LESS THAN 2% OR GREATER THAN 4%.
- 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.
- This herbicide tank mix is not to be used in combination with any other product except as specifically recommended on this label.
- DO NOT APPLY BY AIR

#### 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 Herbicide Tank Mix into the upper soil surface where weed seeds germinate.

#### PRE-EMERGENT APPLICATION:

- Apply evenly to a firm, lump-free seed bed.
- Rain is required within 10 days or a shallow cultivation or use of a rotary hoe is necessary.
- 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.

#### **SOIL TYPES AND RESTRICTIONS**

The recommended use rates of BOUNDARY Herbicide Tank Mix are dependent upon soil texture and organic matter content of the soil being treated, as well as the expected weed pressure. Rate tables in this label refer to the following three soil texture groups: coarse, medium and fine. If you are not sure how to classify your soil, contact your Syngenta representative, Soils & Crops Advisor, or other knowledgeable person. The following chart includes a complete listing of soil textures included in each of the soil texture groupings:

COARSE	MEDIUM	FINE
Loamy sand Sandy loam	Loam Silt loam Silt Sandy clay loam Sandy clay	Silty clay loam Silty clay Clay loam Clay

- Do not exceed the rate recommended for the soil type or crop injury may result.
- On variable soils with coarse sandy areas, some crop injury may occur on the sandy areas if the rate used is for the finer soil type.
- Sandy loam and silty clay loam soils are tr ansitional soils and may be classified as medium textured soils in some regions.
- Do not use this product on MUCK soils. If BOUNDARY Herbicide Tank Mix is applied to MUCK soils, subsequent crops may be injured.
- On heavy clay soils, BOUNDARY Herbicide Tank Mix may not provide adequate weed control.

## **RECOMMENDED APPLICATIONS**

TIMING	WEEDS CONTROLLED	AREA TREATED PER CASE	SOIL TYPE	BOUNDARY HERBICIDE TANK MIX DELIVERS <sup>1</sup> :	
				DUAL MAGNUM SOYBEAN HERBICIDE RATE OF:	SENCOR DF SOYBEAN RATE OF:
Pre-plant Surface (up to 30 days before planting) <sup>2</sup>	Annual Grasses and Broadleaf Weeds including Nightshade	8 ha (20 acres)	Medium	1.75 L/ha (0.7 L/ac)	870 g/ha (350 g/ac)
and under heavier weed infestation	Above plus emerged annual or perennial weeds			Above treatment + 2.35 - 2.5 L TOUCHDOWN® iQ³ or 1.7 – 1.8 L TOUCHDOWN TOTAL³ or 2.6-2.7 L TOUCHDOWN 480³ or 2.35 - 2.5 L Roundup† Original³ or 2.35-2.5 L Roundup Transorb³ or 1.23-1.30 kg Roundup Dry (68.5% glyphosate)³ or 2.35-2.5 L Glyfos†³ or 2.35-2.5 L Credit†³ or 2.35-2.5 L Vantage†³ or 2.35-2.5 L Vantage Plus³ or 2.35-2.5 L Renegade†³	
Pre- emergent <sup>4</sup> and under heavier weed infestation	Annual Grasses and Broadleaf Weeds including Nightshade	8 ha (20 acres)	Medium	1.75 L/ha (0.7 L/ac)	870 g/ha (350 g/ac)
Pre- emergent <sup>4</sup> and under lighter weed infestation	Annual Grasses and Broadleaf Weeds including Nightshade	12.2 ha (30 acres)	Coarse	1.15 L/ha (0.47 L/ac)	575 g/ha (233 g/ac)

TIMING	WEEDS CONTROLLED	AREA TREATED PER CASE	SOIL TYPE	BOUNDARY HERBICIDE TANK MIX DELIVERS <sup>1</sup> :	
				DUAL MAGNUM SOYBEAN HERBICIDE RATE OF:	SENCOR DF SOYBEAN RATE OF:
Either of the pre- emergent applications	Annual Grasses and Broadleaf Weeds including Nightshade plus emerged annual or perennial weeds			Either of the pre-emergent treatements + 2.35 - 2.5 L TOUCHDOWN iQ <sup>3</sup> or 1.7 – 1.8 L TOUCHDOWN TOTAL <sup>3</sup> or 2.6-2.7 L TOUCHDOWN 480 <sup>3</sup> or 2.35 - 2.5 L Roundup Original <sup>3</sup> or 2.35-2.5 L Roundup Transorb <sup>3</sup> or 1.23-1.30 kg Roundup Dry (68.5% glyphosate) <sup>3</sup> or 2.35-2.5 L Glyfos <sup>3</sup> or 2.35-2.5 L Credit <sup>3</sup> or 2.35-2.5 L Vantage <sup>3</sup> or 2.35-2.5 L Vantage Plus <sup>3</sup> or 2.35-2.5 L Renegade <sup>3</sup>	
Pre- emergent tank mix with Lorox DF or Lorox L and under moderate weed infestation	Annual Grasses and Broadleaf Weeds including Triazine Tolerant Broadleaf Species and Nightshade	10.5 ha (26 acres)	Fine	1.33 L/ha (0.55 L/ac) +2.0 kg/ha Lorox <sup>†</sup> DF or 2.0 L/ha Lorox L	665 g/ha (270 g/ac)
Pre- emergent tank mix with Lorox DF or Lorox L and under lighter weed infestation	Annual Grasses and Broadleaf Weeds including Triazine Tolerant Broadleaf Species and Nightshade	12.3 ha (30 acres)	Medium	1.15 L/ha (0.47 L/ac) +1.7 kg/ha Lorox DF or 1.75 L/ha Lorox L	565 g/ha (230 g/ac)

Consult the label of the product(s) to be t ank mixed with BOUNDARY Herbicide Tank Mix for specific instructions regarding broadleaf weeds, soil-type variations and rotational crop, grazing and other restrictions.

Apply pre-plant surface applications of BOUNDARY Herbicide Tank Mix only when emerged annual weeds are less than 4 cm tall. If emerged annual weeds are taller than 4 cm, apply TOUCHDOWN, Roundup, Glyfos, Credit, Vantage, Vantage Plus or Renegade herbicides prior to the application of BOUNDARY Herbicide Tank Mix or make an application of BOUNDARY Herbicide Tank Mix plus TOUCHDOWN, Roundup, Glyfos, Credit, Vantage, Vantage Plus or Renegade herbicides. Consult the tank mix partner label for specific instructions regarding precautions, restrictions, recommended rates and additives.

- Some perennial weeds may not be controlled with these rates of TOUCHDOWN, Roundup, Glyfos, Credit, Vantage, Vantage Plus or Renegade herbicides. Consult the TOUCHDOWN, Roundup, Glyfos, Credit, Vantage, Vantage Plus or Renegade herbicide labels regarding perennial weeds controlled.
- In NO or MINIMUM TILLAGE, DO NOT USE BOUNDARY Herbicide Tank Mix preemergent on COARSE soils.

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

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

- Crop oil, 28-0-0, or 10-34-0 at 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 TOUCHDOWN, Roundup, Glyfos, Credit, Vantage, Vantage Plus or Renegade herbicides in the tank mix (See preceding table).

#### MIXING AND SPRAYING INSTRUCTIONS:

- . Spray Pressure 200 300 kPa
- Spray Volume minimum 150 litres per hectare. The use of higher water volumes and larger spray tip sizes will generally increase spray deposition and reduce drift.
- . 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.
- <u>Field sprayer application:</u> DO NOT apply during periods of dead calm or when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification.
- Do not use airblast or other high pressure spray equipment to apply BOUNDARY Herbicide Tank Mix.
- VIGOROUS, CONTINUOUS AGITATION IS ESSENTIAL FOR PROPER MIX ING 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 Herbicide Tank Mix 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 Herbicide Tank Mix and recommended tank-mixtures is as follows:

- 1. Fill sprayer 1/4 full of carrier. Start gentle agitation.
- 2. Add recommended amount of SENCOR DF SOYBEAN Herbicide.
- 3. Add other dry flowable or wettable granule tank-mix partners, if applicable.
- 4. Add liquid flowable tank mix partner, if applicable, and agitate thoroughly.
- 5. Fill tank 1/2 full of carrier and add DUAL MAGNUM SOYBEAN Herbicide.
- 6. Fill tank 9/10 full of carrier and add solution tank-mix partners, if applicable.
- 7. Top off tank with carrier, maintain agitation and spray.
- 8. Do not let stand without agitation.
- 9. At the end of each spray day, rinse out the tank and sprayer lines with water.

BOUNDARY Herbicide Tank Mix 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.

NOTE: If spraying and agitation is stopped before the spray tank is empty, the suspended material will settle to the bottom of the tank. When spraying must be interrupted, it is recommended that agitation is maintained until spraying resumes. If agitation must be stopped before the spray tank is empty, follow these steps to resume spraying:

- 1. Remove main filter.
- 2. Mechanically mix spray solution (i.e., paddle) prior to restarting pump. Ensure that loose sediment is moved out to a sump area.
- 3. Start agitation on full.
- 4. Paddle corners of the tank.
- 5. Reinstall main filter.

#### 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 Herbicide Tank Mix 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.

#### **ROTATIONAL CROP INFORMATION**

- 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 B OUNDARY Herbicide Tank Mix and may be injured if planted in soil treated with BOUNDARY Herbicide Tank Mix 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 Herbicide Tank Mix.

# READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATAED SPECIAL USE APPLICATION

#### **NOTE TO USER:**

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Syngenta Canada, Inc. or Bayer CropScience Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Syngenta Canada, Inc. or Bayer CropScience Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used as listed below.

Accordingly, the User assumes all liability arising, and agree to hold Syngenta Canada, Inc. or Bayer CropScience Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the uses described below.

#### SUPPRESSION OF TALL WATERHEMP IN SOYBEANS

TIMING	AREA TREATED PER CASE	SOIL TYPE	BOUNDARY HERBICIDE TANK MIX DELIVERS:	
			DUAL MAGNUM SOYBEAN HERBICIDE RATE OF:	SENCOR DF SOYBEAN RATE OF:
Pre- emergent	8 ha (20 acres)	Medium	1.75 L/ha (0.7 L/ac)	870 g/ha (350 g/ac)

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that the components in B OUNDARY Herbicide Tank Mix 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 Herbicide Tank Mix or other Group 5 and 15 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 ce rtified 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 re sistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at <a href="https://www.syngenta.ca">www.syngenta.ca</a>.

Product names marked  $\circledR$  or  $\intercal^\intercal$  are registered trademarks of a Syngenta Group Company  $^\intercal$  All other products listed are registered trademarks of their respective companies.

\*\*\*\*\*\*\*\*\*

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.