

2022-4450
2024-04-23

GROUP	15	HERBICIDE
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DUAL II MAGNUM[®] AGRICULTURAL Herbicide

AGRICULTURAL

Emulsifiable Concentrate for Selective Weed Control

ACTIVE INGREDIENT:

S-Metolachlor* 915 g/L

* and R-enantiomer

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

DANGER: EYE IRRITANT POTENTIAL SKIN SENSITIZER

REGISTRATION NO.: **29347**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **10 L - bulk**

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.

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.

TOXICOLOGICAL INFORMATION

If swallowed, there is no specific antidote. Treat symptomatically. Temporary allergic skin reactions may respond to treatment with oral antihistamines or steroid creams and/or systemic steroids.

This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia.

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN. Severely irritating to the eye. **DO NOT** get in eyes. Potential skin sensitizer. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds.

Wear a long-sleeve shirt, long pants, a hat, and enclosed boots during all activities. For application to ornamentals using hand-held application equipment, wear the previously mentioned clothing plus chemical-resistant gloves. When handling the concentrate wear a long-sleeve shirt, long pants, a hat, enclosed boots, chemical-resistant gloves and goggles or a face shield. Avoid breathing vapours or spray mist. 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. Wear freshly laundered clothes daily. Wash hands and face before eating, drinking, smoking, applying cosmetics or using the toilet. Store and wash all protective clothing separately from household laundry. Wash clothing in detergent and hot water before reuse.

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

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

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.

ENVIRONMENTAL PRECAUTIONS

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. 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 spray buffer zone of 29 metres between the 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) spray buffer zone of the products involved in the tank mixture.

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

This product contains aromatic petroleum distillates, which are 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. In the case of corn, immature means before ear emergence. Do not harvest sweet corn within 45 days of application. Do not harvest other corn within 80 days of application. Make only one application per season.

DO NOT APPLY BY AIR

STORAGE

Store this product away from food or feed

DISPOSAL

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

CONTAINER DISPOSAL OR REFILLING:**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/territorial 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)

DUAL II MAGNUM® is a trademark of a Syngenta Group Company.

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PAMPHLET

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Wear a long-sleeve shirt, long pants, a hat, and enclosed boots during all activities. For application to ornamentals using hand-held application equipment, wear the previously mentioned clothing plus chemical-resistant gloves. When handling the concentrate wear a long-sleeve shirt, long pants, a hat, enclosed boots, chemical-resistant gloves and goggles or a face shield. Avoid breathing vapours or spray mist. 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. Wear freshly laundered clothes daily. Wash hands and face before eating, drinking, smoking, applying cosmetics or using the toilet. Store and wash all protective clothing separately from household laundry. Wash clothing in detergent and hot water before reuse.

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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. 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 spray buffer zone of 29 metres between the 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) spray buffer zone of the products involved in the tank mixture.

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

This product contains aromatic petroleum distillates, which are 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.

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STORAGE

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If there is no container collection site in your area, dispose of the container in accordance with provincial/territorial 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)

DIRECTIONS FOR USE

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.

CROP INFORMATION:

DUAL II MAGNUM AGRICULTURAL herbicide provides selective weed control in:

Corn * (hybrid, silage, seed, sweet) Soybeans

Dry common beans (*Phaseolus vulgaris*) Cranberry
bean and kidney bean

Snap common beans (yellow and green) Lima beans

Potatoes Sugar beets Red

beets

Transplanted tomatoes Rutabagas

Sweet white lupins Carrots

Peas (grown for processing)

Fruit trees (bearing and non-bearing) Strawberries

(bearing and newly planted) Second-year or older
poplar stoolbeds

Second-year or older transplant or seedling stock of:

White Spruce, Norway Spruce, Black Spruce, White Pine, Jack Pine and Red Pine Transplanted
broccoli, cabbage, cauliflower and mustard greens

Highbush blueberries (new and established plantings) Field peppers

Outdoor Ornamentals (Woody and Herbaceous) Asparagus
(established beds)
Established conifers for field production Sweet
Potatoes
Pearl millet (animal feed only) Peanut
Pumpkin and winter squash
Crop Group 9 – Cucurbit Vegetables

* DUAL II MAGNUM AGRICULTURAL herbicide contains benoxacor which has been shown to enhance S-Metolachlor metabolism in corn. This enhanced metabolism can reduce the potential of S-Metolachlor injury to corn seedlings when grown under unfavourable weather conditions such as cool temperature or water stress. Use of DUAL II MAGNUM AGRICULTURAL herbicide will not provide improved crop safety on other labelled crops.

WEEDS CONTROLLED:

American Nightshade ¹	Fall Panicum
Eastern Black Nightshade ¹	Foxtail (green, yellow, giant)
Crabgrass (smooth, hairy)	Old Witchgrass
Barnyard Grass	Yellow Nutsedge ²
Redroot Pigweed ³ (suppression only)	

¹ Pre-emergent treatments sometimes give better control than pre-plant surface, pre-plant incorporated or post-emergent treatments.

² Pre-plant incorporated treatment only. Extended periods of dry hot weather following application may result in reduced nutsedge control.

³ Pre-plant incorporated and pre-emergent treatments only.

TIMING OF APPLICATION:

EASTERN CANADA	PRAIRIES & INTERIOR B.C.	COASTAL B.C.
Pre-plant Surface or Pre-plant Incorporated or Pre-emergent or Early Post-Emergent	Pre-plant Incorporated or Pre-emergent if irrigated within 10 days	Pre-emergent

APPLICATION INFORMATION

DO NOT APPLY BY AIR

PRE-PLANT SURFACE APPLICATION:

- For minimum tillage (reduced tillage), and no-till (zero-till) systems in corn and soybeans. Do not use for soybean, immature seed.
- 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.

PRE-PLANT INCORPORATION:

- Immediate incorporation is not necessary.
- Incorporation equipment should include rolling or western harrows.
- On sandy soils, heavy rainfall following an incorporated treatment may cause leaching of the herbicide.

INCORPORATION INSTRUCTIONS		
TYPE OF EQUIPMENT	MAXIMUM WORKING DEPTH	MINIMUM SPEED
"S"-Tine (Danish) cultivator	10 cm	10 km/hr
"C"-Tine cultivator with overlapping sweeps	10 cm	10 km/hr
Tandem disc (maximum 18 cm spacing between discs)	10 cm	6 km/hr
Power driven cultivator	5 cm	any
Mulch Master	5 cm	10 km/hr

DUAL II MAGNUM AGRICULTURAL herbicide may be applied as an overall spray or as a band treatment. For band treatment, a suitable press wheel mounted ahead of the nozzle should be used for levelling the band. For band application, use proportionately less material.

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 in corn and soybeans.
- Minimize exposure of untreated soil when cultivating or fertilizing.

POST-EMERGENT APPLICATION:

- CORN ONLY
- Apply when corn is in the spike to 6-leaf stage and **before weeds pass the 2-leaf stage**.
- Some leaf burn may occur but yield will not be affected.
- DO NOT tank-mix DUAL II MAGNUM AGRICULTURAL herbicide with fluid fertilizers, oils, oil concentrates or surfactants when applying post-emergent.
- Do not graze treated immature crops or cut for hay. Do not harvest sweet corn within 45 days of application. Do not harvest other corn within 80 days of making a post-emergent application.

CAUTION:

Do not apply to soils that contain less than 1% or more than 10% organic matter. Winter cereals may be planted 4 1/2 months following application. If drought conditions persist after either a pre-plant surface, pre-plant incorporated or pre-emergent application, annual grass control may not be adequate.

LIQUID FERTILIZERS:

Nitrogen solutions or complete liquid fertilizers may replace water as a carrier for pre-plant surface, pre-plant incorporated or pre-emergent application of DUAL II MAGNUM AGRICULTURAL herbicide alone or in tank mixes in corn. Do not use fertilizer solutions for post-emergent applications. Always predetermine the compatibility of DUAL II MAGNUM AGRICULTURAL herbicide or labelled DUAL II MAGNUM AGRICULTURAL herbicide tank mixes with your water or liquid fertilizer carrier by mixing small proportional quantities in advance. Always consult the label of the tank mix partner if tank mixtures are to use liquid fertilizer as the carrier.

DRY BULK GRANULAR FERTILIZERS:

Many dry bulk granular fertilizers may be impregnated with DUAL II MAGNUM AGRICULTURAL herbicide plus AATREX® herbicide for pre-plant incorporated application to control weeds in corn. Prepare the herbicide/fertilizer mixtures by using any commonly used dry bulk fertilizer blender. Spray herbicide mixture uniformly onto fertilizer. If the herbicide/fertilizer mixture is too wet, the use of a highly absorptive powder (generally less than 2% by weight) such as Microcel E, diatomaceous earth or finely powdered clay is recommended.

For best results, apply DUAL II MAGNUM AGRICULTURAL herbicide/fertilizer mixtures or DUAL II MAGNUM AGRICULTURAL herbicide plus AATREX herbicide/fertilizer mixtures uniformly to the soil with properly calibrated equipment immediately after blending and incorporate according to label directions.

Note: Apply a minimum of 225 kg per hectare of dry granular fertilizer impregnated with recommended rates of DUAL II MAGNUM AGRICULTURAL herbicide alone or DUAL II MAGNUM AGRICULTURAL herbicide tank mixtures.

Do not impregnate DUAL II MAGNUM AGRICULTURAL herbicide alone or with AATREX herbicide onto nitrate fertilizers, superphosphates, or limestone.

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 16 mesh suction screens, 50 mesh line and tip screens.
1. Fill sprayer 1/2 full of carrier. Start gentle agitation.
 2. Add wettable powder or wettable granule tank-mix partner, if applicable. Slurry with water first if using liquid fertilizers as the carrier.
 3. Add liquid flowable tank-mix partner, if applicable, and agitate thoroughly.
 4. Fill tank 9/10 full of carrier and add DUAL II MAGNUM AGRICULTURAL herbicide and other emulsifiable concentrate or solution tank-mix partners.
 5. Top off tank with carrier, maintain agitation and spray.
 6. Do not let stand without agitation.
 7. Sprayer equipment should be thoroughly flushed with clean water and drained before and after use of DUAL II MAGNUM AGRICULTURAL herbicide and its tank mixes.

Note: If using Fieldstar™ herbicide ensure that the water soluble packets and the Fieldstar herbicide are completely dissolved before proceeding to the next step.

Spray Buffer Zones

A spray buffer zone of 29 metres is 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.

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage, and
- soil drench or soil incorporation.

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

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

CORN
TANK MIXTURES (EASTERN CANADA ONLY):

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER²
Pre-plant Surface (up to 30 days before planting)	Annual Grasses and Broadleaf Weeds ³	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480 or 216 g Fieldstar ^{4,7}
	Annual Grasses, Emerged Annual or Perennial Weeds	1.25 - 1.75 L	+ 2.6 - 2.7 L TOUCHDOWN ^{®5} 480 ⁵ or 1.7 – 1.8 L TOUCHDOWN TOTAL ^{®5} or 2.35 – 2.5 L TOUCHDOWN iQ ^{®5} or 2.35 - 2.5 L Roundup Original ^{®5} or 2.35 - 2.5 L Roundup Transorb ^{®5} or 1.23 - 1.30 kg Roundup Dry [®] (68.5% glyphosate) ⁵ or 2.35 - 2.5 L Glyfos ^{®5} or 2.35 - 2.5 L Credit ^{®5} or 2.35 - 2.5 L Vantage ^{®5} or 2.35 - 2.5 L Vantage Plus ⁵ or 2.35 - 2.5 L Renegade ⁵
	Annual Grasses and Broadleaf Weeds, Emerged Annual or Perennial Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480 ⁶ + 2.6 - 2.7 L TOUCHDOWN 480 ⁵ or 1.7 – 1.8 L TOUCHDOWN TOTAL ⁵ or 2.35 – 2.5 L TOUCHDOWN iQ ⁵ or 2.35 - 2.5 L Roundup Original ⁵ or 2.35 - 2.5 L Roundup Transorb ⁵ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁵ or 2.35 - 2.5 L Glyfos ⁵ or 2.35 - 2.5 L Credit ⁵ or 2.35 - 2.5 L Vantage ⁵ or 2.35 - 2.5 L Vantage Plus ⁵ or 2.35 - 2.5 L Renegade ⁵
Pre-plant Incorporated	Nutsedge, Annual Grasses	1.25 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone
	Nutsedge, Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480 or 216 g Fieldstar ⁷

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ²
Pre-emergent	Annual Grasses	1.25 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone
	Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480
	Annual Grasses and Broadleaf Weeds including triazine tolerant weeds	1.25 - 1.75 L	+ 1.25 L Banvel [®] II ⁷ or 3.7 - 4.5 L Marksman [®] 7,8 OR + 2.1 - 3.1 L AATREX Liquid 480 + 1.25 L Banvel II ⁷ OR + 216 g Fieldstar ⁷ OR + 0.3 L CALLISTO [®] 480SC OR + 0.3 L CALLISTO 480SC + 2.1 - 3.1 L AATREX Liquid 480
	Annual Grasses, Emerged Annual or Perennial Weeds	1.25 - 1.75 L	+ 2.6 - 2.7 L TOUCHDOWN 480 ⁵ or 1.7 – 1.8 L TOUCHDOWN TOTAL ⁵ or 2.35 – 2.5 L TOUCHDOWN IQ ⁵ or 2.35 - 2.5 L Roundup Original ⁵ or 2.35 - 2.5 L Roundup Transorb ⁵ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁵ or 2.35 - 2.5 L Glyphos ⁵ or 2.35 - 2.5 L Credit ⁵ or 2.35 - 2.5 L Vantage ⁵ or 2.35 - 2.5 L Vantage Plus ⁵ or 2.35 - 2.5 L Renegade ⁵
	Annual Grasses and the following annual Broadleaf Weeds including triazine tolerant weeds: Redroot Pigweed, Lamb's Quarters, Velvetleaf, Common Ragweed, Mustard (wild, wormseed), Eastern Black Nightshade	1.5 L	+ 70 g Converge [®] 75WDG ^{7,9} + 1.1 L Converge 480 ^{7,9}

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ²
Pre-emergent	Annual Grasses and Broadleaf Weeds, Emerged Annual or Perennial Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480 ⁶ + 2.6 - 2.7 L TOUCHDOWN 480 ⁵ or 1.7 – 1.8 L TOUCHDOWN TOTAL ⁵ or 2.35 – 2.5 L TOUCHDOWN iQ ⁵ or 2.35 - 2.5 L Roundup Original ⁵ or 2.35 - 2.5 L Roundup Transorb ⁵ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁵ or 2.35 - 2.5 L Glyphos ⁵ or 2.35 - 2.5 L Credit ⁵ or 2.35 - 2.5 L Vantage ⁵ or 2.35 - 2.5 L Vantage Plus ⁵ or 2.35 - 2.5 L Renegade ⁵
Early Post-Emergent (spike to 2-leaf stage)	Annual Grasses	1.25 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone
	Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480
	Annual Grasses and Broadleaf Weeds including triazine tolerant weeds	1.25 - 1.75 L	+ 3.7 - 4.5 L. Marksman ^{7,8} or 600 mL - 1.25 L Banvel II ⁷ OR + 2.3 L AATREX Liquid 480 + 600 mL - 1.25 L Banvel II ⁷ OR + 0.3 L CALLISTO 480SC ¹⁰ OR + 0.3L CALLISTO 480SC + 2.1 - 3.1 L AATREX Liquid 480 ¹⁰
Post-Emergent (3 to 6-leaf stage) (hybrid and silage corn only)	Annual Grasses	1.25 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone ⁷
	Annual Grasses and Broadleaf Weeds including triazine tolerant weeds	1.25 - 1.75 L	+ 3.7 - 4.5 L. Marksman ^{7, 8, 11} or 600 mL - 1.25 L Banvel II ^{7, 11} OR + 2.3 L AATREX Liquid 480 + 600 mL - 1.25 L Banvel II ^{7, 11}
Post- Emergent (3 to 6-leaf stage) (hybrid, silage and sweet corn only)	Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480 ¹²

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed populations.

² Consult the label of the product(s) to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding broadleaf weeds, soil-type variations, and rotational crop, grazing or other restrictions.

³ Apply pre-plant surface applications of DUAL II MAGNUM AGRICULTURAL herbicide plus AATREX Liquid 480 herbicide only when emerged annual weeds are less than 6 cm tall. If emerged annual weeds are taller than 6 cm, apply TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicides prior to the tank mix application or make an application of a 3- way tank mix of DUAL II MAGNUM AGRICULTURAL herbicide plus AATREX plus TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicides. Consult the tank mix partner label for specific instructions regarding precautions, restrictions, recommended rates and additives.

⁴ Annual broadleaf weeds beyond the 2 leaf stage of growth will not be controlled by surface preplant applications of DUAL II MAGNUM AGRICULTURAL herbicide and Fieldstar herbicide.

⁵ Some perennial weeds may not be controlled with these rates of TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicides. Consult the TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicide labels regarding perennial weeds controlled.

⁶ It is recommended that liquid formulations of products be used when tank mixing with TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicide. Consult the TOUCHDOWN, Roundup, Glyphos, Credit, Vantage or Renegade herbicide labels for specific instructions regarding precautions, restrictions, recommended rates and additives.

⁷ **DO NOT USE THESE TIMINGS OR TANK MIXES ON SEED CORN, SWEET CORN OR POPCORN.**

⁸ Use the lower rate of Marksman herbicide on sand or sandy loam soil and the higher rate on loam or clay soils.

⁹ Follow all soil type restrictions on the Converge 75WDG herbicide label.

¹⁰ **FIELD CORN ONLY**

¹¹ Do not apply tank mixes containing Marksman or Banvel II beyond the 5 leaf stage of corn.

¹² **DO NOT USE THIS TANK MIX ON SEED CORN OR POPCORN.**

NOTES for Pre-plant Surface and Pre-emergent Applications Only:

For improved burndown of **small** emerged annual weeds, the following additives may be applied in mixtures of DUAL II MAGNUM AGRICULTURAL herbicide AATREX Liquid 480 herbicide:

- 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, Glyphos, Credit, Vantage or Renegade herbicides in the tank mix (See preceding table).

TANK MIXTURES (WESTERN CANADA ONLY):

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER²
Pre-plant Incorporated	Green and Yellow Foxtail, Barnyard Grass and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480
Pre-emergent with irrigation	Green and Yellow Foxtail, Barnyard Grass and Broadleaf Weeds	1.25 - 1.75 L	+ 2.1 - 3.1 L AATREX Liquid 480

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding soil-type variations and other restrictions.

SOYBEANS TANK MIXTURES:

TIMING	WEEDS CONTROLLED ¹	RATE/HA DUAL II MAGNUM AGRICULTURAL ² HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ³
Pre-plant Surface (up to 30 days before planting)	Annual Grasses and Broadleaf Weeds including Nightshade ⁴	1.15 - 1.75 L	+ 1.0 - 2.2 L Sencor [®] 500F or Sencor 480F or 1.0 – 2.2 L Sencor Soybean or 670 g - 1.45 kg Sencor 75DF or 670 g - 1.45 kg Lexone [™] DF ⁵
	Annual Grasses, Nightshade, Emerged Annual or Perennial Weeds	1.15 - 1.75 L	+ 2.6 - 2.7 L TOUCHDOWN 480 ⁶ or 1.7 – 1.8 L TOUCHDOWN TOTAL ⁶ or 2.35 - 2.5 L TOUCHDOWN iQ ⁶ or 2.35 - 2.5 L Roundup Original ⁶ or 2.35 - 2.5 L Roundup Transorb ⁶ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁶ or 2.35 - 2.5 L Glyfos ⁶ or 2.35 - 2.5 L Credit ⁶ or 2.35 - 2.5 L Vantage ⁶ or 2.35 - 2.5 L Vantage Plus ⁶ or 2.35 - 2.5 L Renegade ⁶
	Annual Grasses and Broadleaf Weeds including Nightshade, Emerged Annual or Perennial Weeds	1.15 - 1.75 L	+ 2.6 - 2.7 L TOUCHDOWN 480 ⁶ or 1.7 – 1.8 L TOUCHDOWN TOTAL ⁶ or 2.35 - 2.5 L TOUCHDOWN iQ ⁶ or 2.35 - 2.5 L Roundup Original ⁶ or 2.35 - 2.5 L Roundup Transorb ⁶ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁶ or 2.35 - 2.5 L Glyfos ⁶ or 2.35 - 2.5 L Credit ⁶ or 2.35 - 2.5 L Vantage ⁶ or 2.35 - 2.5 L Vantage Plus ⁶ or 2.35 - 2.5 L Renegade ⁶ + 1.0 - 2.2 L Sencor 500F ⁷ or Sencor 480F ⁷ or 1.0 – 2.2 L Sencor Soybean ⁷ or 670 g - 1.45 kg Sencor 75DF ⁷ or 670 g - 1.45 kg Lexone DF ^{5,7}
Pre-plant Incorporated	Nutsedge, Annual Grasses and Nightshade	1.15 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone

TIMING	WEEDS CONTROLLED ¹	RATE/HA DUAL II MAGNUM AGRICULTURAL ² HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ³
	Nutsedge, Annual Grasses and Broadleaf Weeds including Nightshade	1.15 - 1.75 L	+ 550 - 750 g Sencor 75DF or 850 mL - 1.1L Sencor 500F or Sencor 480F or 850 mL - 1.1L Sencor Soybean or 540 - 640 g Lexone DF ⁵ or 312 mL Pursuit ^{® 8}
Pre-emergent	Annual Grasses and Nightshade	1.15 - 1.75 L	DUAL II MAGNUM AGRICULTURAL herbicide applied alone
	Annual Grasses and Broadleaf Weeds including Nightshade	1.15 - 1.75 L	+ 850 mL - 2.25 L Sencor 500F or Sencor 480F or 850 mL - 2.25 L Sencor Soybean or 550 g - 1.5 kg Sencor 75DF or 540 - 960 g Lexone DF ⁵ or 1.6 - 2.5 L Afolan F or 1.9 - 2.3 L Lorox L ⁵ or 1.75 - 2.25 kg Lorox DF ⁵ or 312 - 420 mL Pursuit ⁸ or 210 - 550 g Lexone DF ⁵ plus 1.4 - 2.0 kg Lorox DF ⁵ or 210 - 550 g Lexone DF ⁵ plus 1.5 - 2.0 L Lorox L ⁵ or 465 - 665 g Sencor 75DF plus 1.4 - 2.0 kg Lorox DF ⁵ or 465 - 665 g Sencor 75DF plus 1.5 - 2.0 L Lorox L ⁵ or 750mL - 1.0 L Sencor 500F or Sencor 480F or Sencor Soybean plus 1.4 - 2.0 kg Lorox DF ⁵ or 750mL-1.0 L Sencor 500F or Sencor 480F or Sencor Soybean plus 1.5 - 2.0 L Lorox L ⁵
Pre-emergent	Annual Grasses, Nightshade, Emerged Annual or Perennial Weeds	1.15 - 1.75 L	+ 2.6 - 2.7 L TOUCHDOWN 480 ⁶ or 1.7 - 1.8 L TOUCHDOWN TOTAL ⁶ or 2.35 - 2.5 L TOUCHDOWN iQ ⁶ or 2.35 - 2.5 L Roundup Original ⁶ or 2.35 - 2.5 L Roundup Transorb ⁶ or 1.23 - 1.30 kg Roundup Dry (68.5% glyphosate) ⁶ or 2.35 - 2.5 L Glyphos ⁶ or 2.35 - 2.5 L Credit ⁶ or 2.35 - 2.5 L Vantage ⁶ or 2.35 - 2.5 L Vantage Plus ⁶ or 2.35 - 2.5 L Renegade ⁶

CAUTION: Soybeans should be seeded at least 4 cm deep or crop injury may result. Do not apply DUAL II MAGNUM AGRICULTURAL herbicide if soybeans have emerged.

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

For improved burndown of **small** emerged annual weeds, the following additives may be applied in mixtures of DUAL II MAGNUM AGRICULTURAL herbicide with Sencor 500F, Sencor 480F, Sencor Soybean, Sencor 75DF, Lexone DF, or Pursuit herbicides:

- 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, Glyphos, Credit, Vantage or Renegade herbicides in the tank mix (See preceding table).

OTHER BEANS

SNAP COMMON BEANS (Yellow and Green Only) AND
LIMA BEANS

Eastern Canada and B.C.

TIMING	WEEDS CONTROLLED	RATE PER HECTARE DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE
Pre-plant Incorporation	Annual Grasses and Nutsedge	1.15 - 1.75 L

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems. For redroot pigweed suppression apply a minimum of 1.25 L of DUAL II MAGNUM AGRICULTURAL herbicide per hectare.

CAUTION: Beans should be seeded at least 4 cm deep or crop injury may result.

POTATOES

TANK MIXTURES:

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ²
Pre-plant Incorporated	Nutsedge, Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 750 g - 1.5 kg Sencor 75DF or 1.1 - 2.25 L Sencor 500F or Sencor 480F or 830 g - 1.2 kg Lexone DF
Pre-emergent	Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 1.6 - 2.5 L Afolan F or 750 g - 1.5 kg Sencor 75DF or 1.1 - 2.25 L Sencor 500F or Sencor 480F or 830 g - 1.2 kg Lexone DF or 1.9 - 2.3 L Lorox L or 1.75 - 2.25 kg Lorox DF

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding soil-type variations and special restrictions.

CAUTION: Do not apply DUAL II MAGNUM AGRICULTURAL herbicide at ground crack or if potatoes have emerged. Do not use on the variety Superior.

SUGAR BEETS**TIMING OF APPLICATION:**

DUAL II MAGNUM AGRICULTURAL herbicide can be applied as:

1. a pre-plant incorporated spray in tank mix combination with Pyramin® herbicide or,
2. a pre-emergent spray in tank mix combination with Pyramin herbicide or,
3. a pre-plant incorporated spray, followed by a pre-emergent spray of Pyramin herbicide.

RATE PER HECTARE DUAL II MAGNUM AGRICULTURAL¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER²
1.25 - 1.75 L	8.25 - 10.25 L Pyramin FL 430 g/L

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

² Consult the Pyramin FL herbicide label for specific instructions regarding soil-type variations and other restrictions.

RUTABAGAS (EASTERN CANADA ONLY) TIMING**OF APPLICATION:**

DUAL II MAGNUM AGRICULTURAL herbicide can be applied either as:

1. a pre-plant incorporated spray or,
2. a pre-emergent spray.

RATES PER HECTARE DUAL II MAGNUM AGRICULTURAL¹ HERBICIDE
1.25 - 1.75 L

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

To control nutsedge, DUAL II MAGNUM AGRICULTURAL herbicide must be applied as a pre-plant incorporated spray.

TRANSPLANTED TOMATOES - GROWN FOR PROCESSING TANK**MIXTURES:**

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER²
Pre-plant Incorporated	Annual Nightshades (American Nightshade, Eastern Black Nightshade), Nutsedge, Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 0.5 - 1.4 L Sencor 500F or Sencor 480F

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding weeds, rates, soil-type and organic matter variations and other restrictions.

CAUTION: DO NOT APPLY DUAL II MAGNUM AGRICULTURAL HERBICIDE ON DIRECT- SEEDED TOMATOES.

NOTE: DUAL II MAGNUM AGRICULTURAL 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.

SWEET WHITE LUPINS

WEEDS CONTROLLED	TIMING	RATE/HA ¹	REMARKS
Annual Grasses	Pre-emergent	DUAL II MAGNUM AGRICULTURAL herbicide 1.10 - 1.75 L	Make one treatment per year with ground application equipment. Apply in 200 - 300 L of total volume per hectare.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems. For redroot pigweed suppression apply a minimum of 1.25 L of DUAL II MAGNUM AGRICULTURAL herbicide per hectare.

TANK MIXTURE (EASTERN CANADA ONLY)

WEEDS CONTROLLED	TIMING	RATE/HA ¹
Annual Grasses and Broadleaf Weeds including Nightshade ³	Pre-emergent	DUAL II MAGNUM AGRICULTURAL ² herbicide 1.10 - 1.75 L plus Lorox DF 2.0 - 3.0 kg

REMARKS:

Make one treatment per year using ground application equipment. Apply in 200 - 300L of water/ha. **Do not spray after lupins have emerged.** Lupins should be planted at least 5 cm deep. Use the lower rate of Lorox DF herbicide on light coloured soils with less than 2% organic matter. Do not harvest lupins within 80 days of treatment.

¹ Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for additional specific instructions regarding broadleaf weeds, soil-type variations and rotational crop, grazing or other restrictions.

² Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems. For redroot pigweed suppression apply a minimum of 1.25 L of DUAL II MAGNUM AGRICULTURAL herbicide per hectare.

³ For optimum nightshade control, use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide.

SWEET WHITE LUPINS**TANK MIXTURE (MARITIMES ONLY)**

WEEDS CONTROLLED	TIMING	RATE/HA¹
Annual Grasses and Broadleaf Weeds including Nightshade ³	At planting or Pre-emergent	DUAL II MAGNUM AGRICULTURAL ² herbicide 1.10 - 1.75 L plus Sencor 75DF 670 g

REMARKS:

Make one application per year. Apply as a broadcast spray during planting or as a separate operation after planting but **before** the crop has emerged. Lupin seed must be planted at least 4 cm below the soil surface. Do **not** apply to sandy or light soils with less than 2% organic matter or to muck soils. Better weed control will be obtained if light rainfall or irrigation follows application.

Rotational crops such as onions, celery, peppers, cole crops, lettuce, spinach, sugar beets, table beets, turnips, pumpkins, squash, cucumbers and melons, tobacco and non-triazine tolerant canola are sensitive to Sencor herbicide and may be injured if planted into soil treated with Sencor during the year of application and the following year. After-harvest tillage practices which provide thorough mixing of the soil may be helpful in reducing the possibility of injury to succeeding crops. Do **not** use treated vines for feed and forage.

¹ Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for additional specific instructions regarding broadleaf weeds, soil-type variations and rotational crop, grazing or other restrictions.

² Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems. For redroot pigweed suppression apply a minimum of 1.25 L of DUAL II MAGNUM AGRICULTURAL herbicide per hectare.

³ For optimum nightshade control, use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide.

FIRST-YEAR (NON-BEARING) APPLE, APRICOT, SWEET AND SOUR CHERRY, PEACH, PEAR, PLUM TREES

TIMING	WEEDS CONTROLLED	RATE/HA	REMARKS
Post planting, pre-emergent to weeds	Annual Grasses and Broadleaf Weeds (Late-season emerging fall panicum and crabgrass may not be controlled by this treatment)	DUAL II MAGNUM AGRICULTURAL ¹ herbicide 1.25 - 1.75 L plus PRINCEP Nine-T® ¹ 1.1 - 2.2 kg	Apply once per year. Avoid contact with trunk and leaves of trees. Do not use on sandy soils with less than 2% organic matter. Best results are obtained with applications made after rain has settled the soil around trees. Use only a tractor mounted boom sprayer to apply.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide and PRINCEP Nine-T herbicide for heavier weed problems.

ESTABLISHED (BEARING) APPLE, APRICOT, SWEET AND SOUR CHERRY, PEACH, PEAR, PLUM TREES

TIMING	WEEDS CONTROLLED	RATE/HA	REMARKS
Post planting, pre-emergent to weeds	Annual Grasses	DUAL II MAGNUM AGRICULTURAL herbicide 1.75 L	Apply once per year as a band under the trees. Avoid contact with trunk and leaves of trees. Do not use on sandy soils with less than 2% organic matter. Use only a tractor mounted boom sprayer to apply.
	Annual Grasses and Broadleaf Weeds (Late-season emerging fall panicum and crabgrass may not be controlled by this treatment)	DUAL II MAGNUM AGRICULTURAL herbicide 1.75 L plus PRINCEP Nine-T 2.5 kg	Apply once per year as a band treatment under the trees. Avoid contact with trunk and leaves of trees. Do not use on sandy soils with less than 2% organic matter. Use only a tractor mounted boom sprayer to apply.
	Annual Grasses and Broadleaf Weeds	DUAL II MAGNUM AGRICULTURAL herbicide 1.75 L plus Lexone DF 1.0 kg	Apply once per year as a band under the tree(s). Avoid contact with trunk and leaves of trees. Do not use on sandy soils with less than 2% organic matter. Use only a tractor mounted boom sprayer to apply.

PROCESSING PEAS (Eastern Canada only)

TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent	Eastern Black Nightshade, Annual Grasses	1.25 - 1.75 L	Make one application per year. Apply in 150-250 L water/ha. Apply by ground application equipment only.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

SECOND-YEAR OR OLDER WHITE SPRUCE, NORWAY SPRUCE, BLACK SPRUCE, WHITE PINE, JACK PINE AND RED PINE TRANSPLANT OR SEEDLING STOCK AND POPLAR STOOLBEDS

TIMING	WEEDS CONTROLLED	RATE/HA	REMARKS
Pre-emergent or early post-emergent to weeds	Annual grasses and broadleaf weeds	DUAL II MAGNUM AGRICULTURAL ¹ herbicide 1.25 - 1.75 L	Apply to spruce and pine in forest tree nurseries prior to budbreak. DO NOT APPLY DUAL II MAGNUM AGRICULTURAL HERBICIDE WITHIN 4 WEEKS AFTER BURST OR UNTIL THE NEEDLES HAVE HARDENED. May be applied as a pre-emergent or early post-emergent application to weeds before they pass the 2 leaf stage. For Poplar Stoolbeds, apply to dormant and flushing stoolbeds.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION

NOTE TO BUYER/USER:

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) 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.

TRANSPLANTED CABBAGE, TRANSPLANTED CAULIFLOWER, TRANSPLANTED BROCCOLI

TIMING	WEEDS CONTROLLED	RATE¹/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Post Transplant Apply within 2 days after transplanting and prior to weed emergence. Do not incorporate.	Nightshade, Annual Grasses and Redroot Pigweed ²	1.25 – 1.75 L	Make one application per year. Apply in 300 L water/ha. Apply by ground application equipment only.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

² Suppression only.

**TRANSPLANTED TOMATOES - GROWN FOR PROCESSING
TANK MIXTURES**

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ²
Pre-plant Incorporated	Annual Nightshades (American Nightshade, Eastern Black Nightshade), Nutsedge, Annual Grasses and Broadleaf Weeds	1.0 – 1.25 L	+ 330 - 660 g Sencor 75DF plus 1.0 – 2.0L Treflan™ EC ^{3,4} or 500 mL - 1 L Sencor 500F or Sencor 480 plus 1.0 – 2.0L Treflan EC ^{3,4}

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems and for control of nightshade.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding weeds, rates, soil-type and organic matter variations and other restrictions.

³ Use lower rates on light textured soils, higher rates on heavier soils.

⁴ Make Only One Application Per Year. Do Not Apply Within 60 Days Of Harvest

CAUTION: DO NOT APPLY ON DIRECT-SEEDED TOMATOES

NOTE: DUAL II MAGNUM AGRICULTURAL 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.

TRANSPLANTED TOMATOES – FIELD TOMATOES GROWN FOR FRESH MARKET

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL ¹ HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER ²
Pre-plant Incorporated	Annual Nightshades (American Nightshade, Eastern Black Nightshade), Nutsedge, and Annual Grasses	1.25 - 1.75 L	
Pre-plant Incorporated	Annual Nightshades (American Nightshade, Eastern Black Nightshade), Nutsedge, Annual Grasses and Broadleaf Weeds	1.25 - 1.75 L	+ 0.5 - 1.4 L Sencor 500F or Sencor 480F

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL Herbicide for specific instructions regarding weeds, rates, soil-type and organic matter variations and other restrictions.

REMARKS:

Apply in 150 - 300 L water/ha. Make only one application per year. Do not harvest within 60 days after application.

CAUTION: DO NOT APPLY DUAL II MAGNUM AGRICULTURAL HERBICIDE ON DIRECT-SEEDED TOMATOES.

NOTE: DUAL II MAGNUM AGRICULTURAL 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. Tomato varieties differ in tolerance to DUAL II MAGNUM AGRICULTURAL herbicide. **Since not all tomato varieties have been tested for tolerance to DUAL II MAGNUM AGRICULTURAL Herbicide, first use of DUAL II MAGNUM AGRICULTURAL herbicide should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your plant supplier for information on the tolerance of specific tomato varieties to DUAL II MAGNUM AGRICULTURAL herbicide.**

SWEET CORN TANK MIXTURE:

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER	REMARKS
Pre-emergent	Annual grasses and broadleaf weeds including triazine tolerant weeds	1.25 L	+ 2.1 – 3.1 L AATREX Liquid 480 + 790 mL– 1.56 L Afolan F or 790 mL – 1.56 L Lorox L or 750 g – 1.5 kg Lorox DF	Make only one application per year. Apply as pre-emergent treatment. Apply in 150 L water/ha minimum. Do not harvest sweet corn within 45 days of treatment. Apply by ground equipment only.

DRY COMMON BEANS

CROP	TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Dry Common Beans (<i>Phaseolus vulgaris</i> species only)	Pre-plant incorporated OR Pre-emergent soil application	American Nightshade ² Fall Panicum Eastern Black Nightshade ² Foxtail (green, yellow, giant) Crabgrass (smooth, hairy) Old Witchgrass Barnyard Grass Yellow Nutsedge ³ Redroot Pigweed ⁴	1.15 to 1.75 L	<p>Make only one application per year. Apply in 150 L water/ha. Apply by ground application equipment only.</p> <p>NOTE: Dry common bean varieties may vary in their tolerance to herbicides, including to DUAL II MAGNUM AGRICULTURAL Herbicide. Since not all dry common bean varieties have been tested for tolerance to DUAL II MAGNUM AGRICULTURAL Herbicide, first use of DUAL II MAGNUM AGRICULTURAL Herbicide should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific varieties of dry common beans to DUAL II MAGNUM AGRICULTURAL Herbicide.</p> <p>CAUTION: Beans should be seeded at least 4 cm deep or crop injury may result.</p>

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Pre-emergent treatments sometimes give better control than pre-plant incorporated

³ Pre-plant incorporated treatment only. Extended periods of dry hot weather following application may result in

DRY COMMON BEANS TANK MIXTURE (EASTERN CANADA ONLY)

CROP	TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	RATE/HA TANK MIX PARTNER ²	REMARKS
<p>Dry Common Beans (<i>Phaseolus vulgaris</i> species only)</p>	<p>Pre-plant incorporated</p>	<p>American Nightshade, Eastern Black Nightshade, Fall Panicum, Foxtail (green, yellow, giant), Crabgrass (smooth, hairy), Old Witchgrass, Barnyard Grass, Yellow Nutsedge³, Redroot Pigweed⁴</p>	<p>1.15 to 1.75 L</p>	<p>0.312 L Pursuit Herbicide</p>	<p>Make only one application per year. Apply in 150 L – 400 L water/ha. Apply by ground application equipment only. DO NOT harvest within 100 days of treatment.</p> <p>NOTE: Dry common bean varieties may vary in their tolerance to herbicides, including to DUAL II MAGNUM AGRICULTURAL Herbicide. Since not all dry common bean varieties have been tested for tolerance to the tankmix of Pursuit plus DUAL II MAGNUM AGRICULTURAL Herbicide, first use of this tankmix should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific varieties of dry common beans to the tankmix of Pursuit plus DUAL II MAGNUM AGRICULTURAL Herbicide.</p> <p>CAUTION: Beans should be seeded at least 4 cm deep or crop injury may result.</p>

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Refer to the Pursuit Herbicide label for additional recommendations, precautions and restrictions not specified on this label.

³ Extended periods of dry hot weather following application may result in reduced nutsedge control.

⁴ Suppression only.

CRANBERRY BEANS AND KIDNEY BEANS FOR USE IN EASTERN CANADA ONLY

CROP	TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	RATE/HA TANK MIX PARTNER ²	REMARKS
Cranberry Beans	Pre-plant incorporated OR Pre-emergent soil application	American Nightshade ³ Eastern Black Nightshade ³ Fall Panicum Foxtail (green, yellow, giant) Crabgrass (smooth, hairy)	1.15 to 1.75 L	+ 0.312 L Pursuit Herbicide	Make only one application per year. Apply by ground application equipment only. CAUTION: Beans should be seeded at least 4 cm deep or crop injury may result.
Kidney Beans	Pre-Plant incorporated OR Pre-emergent soil application	Old Witchgrass Barnyard Grass Yellow Nutsedge ⁴ Redroot Pigweed ⁵	1.15 to 1.75 L	+ 0.312 L Pursuit Herbicide	

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Consult the label of the product to be tank mixed with DUAL II MAGNUM AGRICULTURAL herbicide for specific instructions regarding soil-type variations and other restrictions.

³ Pre-emergent treatments sometimes give better control than pre-plant incorporated

⁴ Pre-plant incorporated treatment only. Extended periods of dry hot weather following application may result in reduced nutsedge control.

⁵ Suppression only.

SUGAR BEETS

TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Post-emergent, apply within the period from cotyledon to 4 leaf stage of sugar beets, but before weed emergence	Nightshade, Annual Grasses	1.25 – 1.75 L	Make only one application per year. Apply in 150 - 300L water/ha. Apply by ground application equipment only. Do not harvest within 120 days of treatment. DO NOT USE SUGAR BEET TOPS FOR FEEDING TO LIVESTOCK.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

NOTE: DO NOT tank-mix DUAL II MAGNUM AGRICULTURAL herbicide with fluid fertilizers, oils, oil concentrates or surfactants when applying post-emergent.

RED BEETS

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
<p>Pre-emergent to weeds and crop</p>	<p>Nightshade (American and Eastern Black), Crabgrass (Smooth, Hairy), Barnyard Grass, Fall Panicum, Foxtail (Green, Yellow, Giant), Old Witchgrass, Redroot Pigweed¹</p>	<p>1.25 L</p>	<p>Make only one application per year. Apply in 150 L water/ha minimum. Apply by ground application equipment only.</p> <p>Do not use more than 1 application per year.</p> <p>DO NOT APPLY BY AIR.</p> <p>Application of DUAL II MAGNUM AGRICULTURAL Herbicide may result in injury to the red beet crop which may include stand loss, delayed maturity and even loss of yield.</p> <p>Irrigate after application to activate the herbicide if rainfall is not expected, but use only 0.5 inches of water to incorporate the herbicide. Excessive irrigation will increase the risk of crop injury.</p> <p>Mechanical incorporation of DUAL II MAGNUM AGRICULTURAL Herbicide will increase the risk of crop injury.</p> <p>DO NOT use DUAL II MAGNUM AGRICULTURAL if the planting operation creates a furrow or trough over the seed-row into which rain or irrigation water will collect and thus concentrate the herbicide over the row.</p> <p>Do not enter or allow worker entry into the treated areas during the restricted entry interval (REI) of 12 hours.</p>

¹Suppression only.

FIELD PEPPERS

TIMING	WEEDS CONTROLLED	RATE¹/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Post-emergent, apply within 48 hours of transplanting, but before weed emergence	Nightshade, Annual Grasses	1.15 – 1.25 L	Apply in a minimum of 150 L water/ha. Apply by ground application equipment only. Do not harvest within 80 days of treatment. Risk of crop injury increases with early transplanting and soil temperatures below 10°C. Applications made more than 48 hours after transplanting may increase the risk of foliar injury. Using the lower application rate for field peppers may result in reduced control in heavy weed populations.

¹Use the higher rate of DUAL II MAGNUM AGRICULTURAL herbicide for heavier weed problems.

NOTE: DO NOT tank-mix DUAL II MAGNUM AGRICULTURAL herbicide with fluid fertilizers, oils, oil concentrates or surfactants when applying post-emergent.

SOYBEAN - SUPPRESSION OF TALL WATER-HEMP

TIMING	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent	1.75 L	Make only one application per year. Apply in a minimum of 150 L water/ha. Apply by ground application equipment only.

OUTDOOR ORNAMENTALS (Woody and Herbaceous): Container-, Field- and Liner*-Grown Plants and Plants in Landscape Plantings

The following plant species have been tested results indicated that they are tolerant to DUAL II MAGNUM AGRICULTURAL herbicide when the product is applied according to the label.

Tolerance Plant Species

Plant Category	Common name	Scientific name
Broadleaf	Burning bush	Euonymous spp.
	Rhododendron	Rhododendron spp
Herbaceous	Daylily	Hemerocallis spp.
	Hosta	Hosta spp.
Conifer	Juniper	Juniperus spp.
	Eastern white-cedar	Thuja spp.

DUAL II MAGNUM AGRICULTURAL herbicide may be applied to other non-listed plant species. However, non-listed plant species may vary in their tolerance to herbicides, including DUAL II MAGNUM AGRICULTURAL herbicide. First use of DUAL II MAGNUM AGRICULTURAL herbicide to any non-listed plant species should be limited to a small number of plants to confirm tolerance prior to adoption as a large scale practice.

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergence (prior to weed emergence) OR Early Post-emergent (1-2 leaf weed stage)	Nightshade, Annual Grasses and Redroot Pigweed ¹	1.25 – 1.75 L	Make only one application per year. Apply in a minimum of 150 - 200L water/ha. Apply by ground application equipment only. To avoid plant injury, do not apply to seedbeds, cutting beds, or uprooted cuttings before transplanting and to plants until the soil has firmly settled around roots. When applied broadcast over-the-top of plant foliage, follow with sufficient overhead irrigation to wash DUAL II MAGNUM AGRICULTURAL from the foliage to reduce the chance of injury. Do not apply to trees or plants that will bear harvestable fruit within 12 months, or illegal residues may result. Do not use this product in residential areas where bystanders including children, may be potentially exposed during or after spraying.

¹ Suppression only.

*Plants transplanted normally in rows in a nursery or similar area for further growth before transplanting to final growing location (place of establishment).

ASPARAGUS (Established beds)

WARNING: Application of DUAL II MAGNUM AGRICULTURAL Herbicide may result in injury to the asparagus crop, which may include potential stand loss, delayed maturity, and even loss of yield.

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
In the spring, apply to dormant asparagus beds prior to emergence OR Post-harvest	American Nightshade, Eastern Black Nightshade, Crabgrass (smooth, hairy), Barnyard Grass, Fall Panicum, Foxtail (green, yellow, giant), Old Witchgrass, and Redroot Pigweed ¹	1.55 – 1.75 L	Make only one application per year. Apply by ground application equipment only. PHI is 16 days.

¹Suppression only

CONIFERS (Established for field production)

DUAL II MAGNUM AGRICULTURAL herbicide has been tested on Balsam fir, Fraser fir, White pine, and White spruce. DUAL II MAGNUM AGRICULTURAL herbicide may be applied to other non-listed conifer species; however, non-listed conifer species may vary in tolerance to herbicides, including DUAL II MAGNUM AGRICULTURAL herbicide. First use of DUAL II MAGNUM AGRICULTURAL herbicide to any non-listed conifer species should be limited to a small number of plants to confirm tolerance prior to adoption as a large scale practice.

TIMING	WEEDS CONTROLLED	RATE ¹ /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent to weeds as per label directions	Annual broadleaf and grass weeds	1.25 – 1.75 L	Make only one ground application per year, banded over top of trees. Apply in a minimum of 300 L water/ha.

¹Use higher rate for heavier weed infestations.

CONIFERS (Established for field production)

TIMING	WEEDS CONTROLLED	RATE ² /HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	RATE ³ /HA SIMAZINE 480 HERBICIDE	REMARKS
Pre-emergent or early post emergent (before 2 leaf stage) to weeds	Labelled weeds ¹	1.25 – 1.75 L	4.7 – 7.0 L	Make only one ground application per year. Apply in a minimum of 150 L water/ha.

¹ See Simazine 480 for further information.

² Use higher rate for heavier weed infestations.

³ Use lowest rate in sandy or low organic matter soils; use highest rate in clay or high organic matter soils.

MUSTARD GREENS – transplanted only (DO NOT apply to direct-seeded crop)

TIMING	WEEDS CONTROLLED	RATE¹/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent or post emergent (weeds at 2-leaf stage or less)	Labelled annual broadleaf and grass weeds	1.2 – 1.5 L	Make only one ground application per year. Apply in a minimum of 150-300 L/ha water. PHI is 30 days. Yield losses may be observed when this product is applied to transplanted mustard greens.

¹ Reduced levels of weed control may be observed when weed densities are high.

HIGHBUSH BLUEBERRIES (newly transplanted and established plants)

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent to labeled weeds	Nightshade (American and Eastern black), crabgrass (smooth, hairy), barnyard grass, fall panicum, foxtail (green, yellow, giant), old witchgrass Redroot pigweed (suppression only)	1.25 – 1.75 L	Make only one application per year. Apply in 150 - 300 L water/ha. DO NOT APPLY BY AIR , ground application only. DO NOT harvest within 30 days of treatment. Apply to the soil as a banded application, directed to the base of the highbush blueberry plants. Avoid contact with the highbush blueberry truck and foliage. Crop injury and yield reduction may occur if any part of the highbush blueberry plants are contacted through spray or drift.

STRAWBERRIES

Strawberry cultivars may vary in their tolerance to herbicides, including DUAL II MAGNUM AGRICULTURAL Herbicide. Since not all strawberry cultivars have been tested for tolerance to DUAL II MAGNUM AGRICULTURAL Herbicide, first use of DUAL II MAGNUM AGRICULTURAL Herbicide should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your supplier for information on the tolerance of specific cultivars of strawberry to DUAL II MAGNUM AGRICULTURAL Herbicide. **Do not apply to the cultivar Joliette.**

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE ¹	REMARKS
Bearing years: After mulch removal but before weed emergence	Labelled annual broadleaf and grass weeds	1.25 – 1.75 L	Make only one application per year. Apply as either a pre-plant incorporated or pre-emergent (post-transplanting) treatment. Some initial injury may occur but will be outgrown with no reduction in yield. Apply by ground application equipment only. Apply in 150 L/ha of water. Do not harvest berries within 30 days of application.
Newly planted: Pre-plant Incorporated or Pre-emergent (post transplanting)	Labelled annual grasses and nutsedge ²	1.25 – 1.75 L	

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Pre-plant incorporated treatment only. Extended periods of dry hot weather following application may result in reduced nutsedge control.

CARROTS

TIMING	WEEDS CONTROLLED OR SUPPRESSED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Pre-emergent (after planting, prior to carrot and weed emergence)	Control of American nightshade, fall panicum, eastern black nightshade, foxtail (green, yellow, giant), crabgrass (smooth, hairy), old witchgrass, and barnyard grass and suppression of redroot pigweed	Mineral soils: 1.2-1.5 L/ha	<p>Make only one application per year. Do not follow a pre-emergent application with a post-emergent spray later in the season.</p> <p>Apply by ground (broadcast) application (pre- or post-emergent application). Pre-emergent application can also be made by banded spray. Make pre-emergent applications to clean-tilled soils.</p> <p>Use lower rates on medium-textured soils and higher rates on fine-textured soils. Do not apply more than 1.5 L/ha of DUAL II MAGNUM AGRICULTURAL herbicide to mineral soils. Do not apply more than 1.75 L/ha of DUAL II MAGNUM AGRICULTURAL herbicide to muck soils (OM > 20%).</p>
Post-emergent (crop at 3-5 leaf stage and weeds prior to 2-leaf stage)	Control of American nightshade, fall panicum, eastern black nightshade, foxtail (green, yellow, giant), crabgrass (smooth, hairy), old witchgrass, and barnyard grass and suppression of redroot pigweed	1.2-1.5 L/ha	<p>To help avoid crop injury, do not apply DUAL II MAGNUM AGRICULTURAL herbicide in areas where water is likely to pool.</p> <p>Apply in 150 – 300 L water/ha.</p> <p>Reduced levels of weed control may be observed when weed densities are high.</p> <p>Do not harvest carrots within 30 days of application.</p> <p>NOTE: LEVEL AND DURATION OF WEED SUPPRESSION MAY BE REDUCED IN MUCK SOILS WITH HIGHER ORGANIC MATTER CONTENT.</p> <p>NOTE: APPLICATIONS OF DUAL II MAGNUM AGRICULTURAL MAY CAUSE SIGNIFICANT INJURY TO CARROTS, RESULTING IN REDUCED YIELDS.</p>

SWEET POTATOES

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Early post- emergence (2 – 5 days after transplanting)	Labelled annual broadleaf and grass weeds	1.25 – 1.75 L	Make only one application per year. Apply foliar by ground application only. Apply using a spray volume of 200 - 400 L water/ha. PHI is 105 days.

PEARL MILLET GROWN FOR ANIMAL FEED (GRAIN OR FORAGE) (EASTERN CANADA ONLY)

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
Early post-emergent to crop (1-2 leaf stage); pre to early post-emergent to weeds (up to 1-leaf stage)	Suppression of: Smooth crabgrass, Green foxtail, Barnyard grass	0.625 L	<p>Make only one application per year. Apply by ground application only. DO NOT APPLY BY AIR. Apply in 200 L water/ha. Do not harvest pearl millet for forage within 45 days of application. Do not harvest pearl millet for grain within 130 days of application.</p> <p>For use in pearl millet for animal feed only. Treated grain millet is not intended for human consumption.</p> <p>Application of DUAL II MAGNUM AGRICULTURAL herbicide will result in injury to the pearl millet crop which may include stand loss, delayed maturity and even loss of yield. AVOID SPRAY OVERLAP. Millet should be seeded at least 2.5 cm deep or crop injury may result. Use on soil that has a minimum of 2.5% organic matter.</p>

PEANUT (ONTARIO ONLY)

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE^{1,2,3}	REMARKS
Pre-plant incorporated or Pre-emergent to peanut germination and labelled weeds	Nutsedge, Annual Grasses and Nightshade	1.15 – 1.55 L	Make only one application per year. Apply in 150 L water/ha. DO NOT APPLY BY AIR. Ground application only. Do not graze or feed peanut forage or fodder to livestock for 30 days following application. Do not harvest crop within 90 days of application. For use in Ontario only. Application of DUAL II MAGNUM AGRICULTURAL may result in injury to the peanut crop which may include stand loss, delayed maturity and even loss of yield.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems.

² Pre-emergent treatments sometimes give better control than pre-plant incorporated treatments.

³ To control nutsedge, DUAL II MAGNUM AGRICULTURAL Herbicide must be applied as a pre-plant incorporated spray.

SOYBEAN, IMMATURE SEED

TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE¹	REMARKS
Pre-plant incorporated (application and incorporation within 14 days of planting)	Nutsedge, Annual grasses and Nightshade	1.15 – 1.75 L	Make only one application per year (either pre-plant or pre-emergence). Apply in 150 L water/ha. DO NOT APPLY BY AIR. Ground application only. Use lower rate of DUAL II MAGNUM AGRICULTURAL on coarse-textured soil and higher rates on fine-textured and muck soils, or for heavier weed infestations. In general, the risk of crop injury is greater on lighter textured soils and with higher application rates.
Pre-emergence (before weed and crop emergence)	Annual grasses and Nightshade		Pre-plant incorporated- Follow incorporation instructions listed for soybeans in the main section of this label. Application and incorporation must occur within 14 days of planting. Use this application method if furrow irrigation is used or when a period of dry weather after application is expected. If crops are to be planted in beds, apply and incorporate after bed formation. Pre-emergent- Apply during planting (behind planter) or after planting but before weed and crop emergence.

¹ Use the higher rate of DUAL II MAGNUM AGRICULTURAL Herbicide for heavier weed problems and for higher organic matter soils. For redroot pigweed suppression, apply a minimum of 1.25 L of DUAL II MAGNUM AGRICULTURAL Herbicide per hectare. DUAL II MAGNUM AGRICULTURAL Herbicide will not control emerged weeds.

CROP GROUP 9 – CUCURBIT VEGETABLES

CROP	TIMING	WEEDS CONTROLLED	RATE/HA DUAL II MAGNUM AGRICULTURAL HERBICIDE	REMARKS
<p>Crop Group 9 – Cucurbit Vegetables : Citron melon (<i>Citrullus lanatus</i> var. <i>citroides</i>), Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), Watermelon (includes hybrids and/or varieties of <i>Citrullus lanatus</i>), Chayote (fruit) (<i>Sechium edule</i>), Chinese waxgourd (Chinese preserving melon) (<i>Benincasa hispida</i>), Cucumber (<i>Cucumis sativus</i>), Gherkin (<i>Cucumis anguria</i>), Gourd, edible (<i>Lagenaria</i> spp.) (includes hyotan, cucuzza), Gourd, edible (<i>Luffa acutangula</i>, <i>L. cylindrica</i>) (includes hechima, Chinese okra), <i>Momordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Pumpkin (<i>Cucurbita</i> spp.), Squash, summer (<i>Cucurbita pepo</i> var. <i>meloepo</i>) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (<i>Cucurbita maxima</i>, <i>C. moschata</i>) (includes butternut squash, calabaza, hubbard squash); (<i>C. mixta</i>, <i>C. pepo</i>) (includes acorn squash, spaghetti squash)</p>	<p>Transplanted: Prior to transplanting or within 48 hours after transplanting.</p> <p>Direct seeded: Pre-emergence or early post-emergent to crop (1 to 2 leaf stage).</p> <p>All applications should be pre-emergent to labeled weeds.</p>	<p>Control of nightshade and annual grasses and suppression of redroot pigweed</p>	<p>Banded to row middles after plastic mulch has been laid: 1.15 L/ha – 1.56 L/ha</p> <p>Broadcast: 1.15 L/ha</p>	<p>Ground application; Banded to row middles or broadcast.</p> <p>Make only 1 application per year.</p> <p>PHI is 30 days.</p> <p>Apply in a minimum of 150 L water/ha.</p> <p>Application of DUAL II MAGNUM AGRICULTURAL Herbicide may result in injury to the crop which may include stand loss, delayed maturity and even loss of yield.</p> <p>Risk of crop injury increases with cool and wet conditions. Care should be taken to minimize foliar contact with DUAL II MAGNUM AGRICULTURAL Herbicide as this can increase potential to cause crop injury. Avoid overspray. Reduced control in heavy weed populations may occur.</p>

Resistance-Management Recommendations

For resistance management, DUAL II MAGNUM AGRICULTURAL Herbicide is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to DUAL II MAGNUM AGRICULTURAL Herbicide and other Group 15 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 DUAL II MAGNUM AGRICULTURAL Herbicide or other Group 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 and to report suspected resistance, contact Syngenta Canada Inc. company representatives at 1-877-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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Consult the label of products to be tank mixed or split applied with DUAL II MAGNUM AGRICULTURAL herbicide for specific crop recommendations.

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