

<< Booklet >>

## **YUMA™ HERBICIDE**

EMULSIFIABLE CONCENTRATE

FOR SALE FOR USE ON CANOLA, FLAX, (INCLUDING LOW LINOLENIC ACID VARIETIES), SOYBEANS (INCLUDING VARIETIES DESIGNATED "STS"), SEED ALFALFA, LENTILS, PEAS (FIELD AND PROCESSING), SEEDLING LEGUMES FOR SEED PRODUCTION, SEEDLING OR ESTABLISHED CREEPING RED FESCUE FOR SEED PRODUCTION, SUGARBEETS, AND SNAP BEANS; DRY COMMON BEANS; FOR USE IN WESTERN CANADA ON CHICKPEAS ; CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD ;THE FOLLOWING BEANS IN SOUTHERN ONTARIO (LIMA, ADZUKI AND MUNG BEANS); RUTABAGAS IN ONTARIO AND QUEBEC; AND ON INDUSTRIAL HEMP GROWN FOR FIBRE PRODUCTION IN ONTARIO ONLY

AGRICULTURAL

READ THE LABEL AND THIS BOOKLET BEFORE USING

**GUARANTEE:** Quizalofop P-Ethyl 96 g/L

REGISTRATION NO. 29134 PEST CONTROL PRODUCTS ACT

DANGER – CORROSIVE TO EYES  
WARNING - SKIN IRRITANT  
POTENTIAL SKIN SENSITIZER

**NET CONTENTS:** 1 L to 10 L

Nissan Chemical Industries, Ltd. (Nissan)  
c/o Nissan Chemical America Corporation  
10777 Westheimer  
Houston, TX 77042  
713-532-4745

### **PRECAUTIONS:**

- KEEP OUT OF REACH OF CHILDREN**
- DANGER – CORROSIVE TO EYES
- WARNING - SKIN IRRITANT
- POTENTIAL SKIN SENSITIZER
- May be harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation.
- Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing vapours or spray mist. Use adequate ventilation.
- Wear goggles or face shield, chemical resistant gloves and coveralls over long-sleeved shirt and long pants during mixing, loading, clean up and repair.
- For worker protection during application, wear a hat and coveralls over long-sleeved shirt and long pants.
- When using, do not eat, drink or smoke. Wash skin thoroughly with soap and water after handling.
- Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse.

**ENVIRONMENTAL PRECAUTIONS:**

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.

**FIRST AID:****IF SWALLOWED:**

Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF IN EYES:**

Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or the product name and Pest Control Product Registration number with you when seeking medical attention.

For medical emergencies call 1-800-982-1215 (24 hours).

**TOXICOLOGICAL INFORMATION: "THIS PRODUCT CONTAINS PETROLEUM DISTILLATES."**

Vomiting may cause aspiration pneumonia.

**IMPORTANT**

Injury to or loss of desirable trees or vegetation may result from failure to observe the following: Do not apply, drain or flush equipment on or near desirable trees or plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water including irrigation water that may be used on other crops.

This product is toxic to fish. Overspray or drift to fish-bearing water must be avoided. Overspray or drift to important wildlife habitats such as shelterbelts, wetlands, sloughs or dry slough borders and woodlots should be avoided. Leave a 15-metre buffer zone between the last spray swath and the edge of any of these habitats.

Use caution when handling YUMA™ Herbicide as accidental spills or splashes may harm the finish on painted equipment.

DO NOT SUBJECT TO TEMPERATURES BELOW 0°C.

## GENERAL INFORMATION

YUMA™ Herbicide is a selective postemergence herbicide for the control of annual and perennial grasses in flax (including low linolenic acid varieties), canola, soybeans (including varieties designated "STS"), seed alfalfa, lentils, peas (field and processing) and seedling legumes for seed production. Recommended rates and timing for YUMA™ Herbicide application will provide control of the emerged grasses present.

YUMA™ Herbicide does not control sedges or broadleaf weeds.

Grass crops, including wheat, barley, rye, oats, and corn are highly sensitive to YUMA™ Herbicide. When not in use, keep container closed to prevent evaporation or loss through spillage.

Under certain environmental conditions, minor leaf spotting may occur on soybeans. New growth is unaffected and there is no adverse effect on crop yield.

## BIOLOGICAL ACTIVITY

YUMA™ Herbicide is a systemic herbicide which is rapidly absorbed and readily translocated from the treated foliage to the root systems and growing points of the plant.

Control Symptoms - Treated plants show a reduction in growth and a loss of competitiveness. An early yellowing or browning of the younger plant tissues is followed by a progressive collapse of the remaining foliage. These symptoms will generally be observed in one to three weeks depending on the grass species treated and the environmental conditions.

## DIRECTIONS FOR USE

POSTEMERGENCE APPLICATIONS - CANOLA, FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES), SOYBEANS (INCLUDING VARIETIES DESIGNATED "STS"), SEED ALFALFA, LENTILS AND PEAS (FIELD AND PROCESSING) AND SEEDLING LEGUMES FOR SEED PRODUCTION; FOR USE IN WESTERN CANADA ON CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD:

Apply the specified rate of YUMA™ Herbicide with CANPLUS\* 411 or MERGE\* at 5-10 litres per 1000 litres of spray solution or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution) at the leaf stage of the grass indicated below:

### USE RATE (GROUND OR AERIAL):

|                |                                    |   |
|----------------|------------------------------------|---|
| 0.38 L/ha      | <b><u>Weeds Controlled</u></b>     | <b><u>Weed Leaf Stage At Application</u></b>      |
|                | Green foxtail                      | 2 leaf to early tillering                         |
|                | Volunteer barley                   | 2 leaf to early tillering                         |
|                | Volunteer corn                     | 2-6 leaf  |
|                | Volunteer oats                     | † 2 leaf to early tillering                       |
|                | Volunteer wheat                    | 2 leaf to early tillering                         |
|                | Wild oats                          | 1-5 leaf without tillers                          |
| 0.5 L/ha       | <b><u>Weeds Controlled</u></b>     | <b><u>Weed Leaf Stage At Application</u></b>      |
|                | Those controlled by 0.38 L/ha and: |   |
|                | Barnyard grass                     | 2 leaf to early tillering                         |
|                | Wild oats                          | † 1-5 leaf to early tillering (up to two tillers) |
|                | Fall panicum                       | 2 leaf to early tillering                         |
|                | Old Witchgrass                     | 2 leaf to early tillering                         |
| Proso millet   | 2 leaf to early tillering          |   |
| Yellow foxtail | 2 leaf to early tillering          |   |

|           |   |  |
|-----------|---|--|
| 0.5 L/ha  | <b><u>Weeds Suppressed</u></b><br>Quackgrass                            | <b><u>Weed Leaf Stage At Application</u></b><br>2-6 leaf |
| 0.75 L/ha | <b><u>Weeds Controlled</u></b><br>Those listed above and:<br>Quackgrass | <b><u>Weed Leaf Stage At Application</u></b><br>2-6 leaf |

† Best results on volunteer/wild oats if application is made before tillering begins.

Use the higher rate of CANPLUS\* 411 or MERGE\* when wild oats or quackgrass are the main target weeds, or under conditions not conducive to good growth.

When using a broadleaf herbicide, other than those registered for tank mixing with YUMA™ Herbicide, wait a minimum of 24 hours after the YUMA™ Herbicide application to apply the broadleaf herbicide or wait 7 days after the broadleaf application to apply YUMA™ Herbicide.

#### POSTEMERGENCE APPLICATIONS – CHICKPEAS

For the control of grassy weeds listed on the label, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.38 L/ha to 0.75 L/ha with a recommended surfactant (MERGE\* or SURE-MIX™) at 5 litres per 1000 litres of spray (0.5% v/v).

Use ground application only. Use in a minimum of 100 litres of water/ha.

Do not apply within 85 days of harvest.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

#### TANK MIXTURES WITH BROADLEAF HERBICIDES

##### **CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD IN WESTERN CANADA**

For control of broadleaf weeds and grasses in condiment and oilseed type oriental mustard, apply a tank mixture of MUSTER® Herbicide plus YUMA™ Herbicide. Use MUSTER® Toss-N-Go® Herbicide at 20 grams per hectare plus 0.38 - 0.5 litres per hectare YUMA™ Herbicide plus MERGE\* at 5-10 litres per 1000 litres of spray solution or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution). Refer to the "Mixing Instructions" section of this label for specific mixing instructions.

Additional surfactant is not required when using MERGE\* or SURE-MIX™. For best results, follow the timing restrictions and specific weed control recommendations stated on each product's label. After application follow the sprayer clean-out directions on the MUSTER® Toss-N-Go® Herbicide label. Consult the MUSTER® Toss-N-Go® Herbicide label for desired use rates, weeds controlled and additional restrictions regarding the use of MUSTER® Toss-N-Go® Herbicide.

#### NOTE:

When tank mixed with YUMA™ Herbicide plus SURE-MIX™ or MERGE\* adjuvant, MUSTER® Toss-N-Go® Herbicide will control stinkweed at the 20 grams per hectare rate.

#### **CANOLA**

DO NOT APPLY BY AIR.

For control of broadleaf weeds and grasses in canola (rapeseed), apply a tank mixture of MUSTER® Herbicide plus YUMA™ Herbicide. Use MUSTER® Herbicide at 20 or 30 grams per hectare plus 0.38 - 0.5 litres per hectare YUMA™ Herbicide plus CANPLUS\* 411 or MERGE\* at 5-10 litres per 1000 litres of spray solution or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution). Refer to the "Mixing Instructions" section of this label for specific mixing instructions.

Additional surfactant is not required when using CANPLUS\* 411, MERGE\* or SURE-MIX™. For best results, follow the timing restrictions and specific weed control recommendations stated on each product's label. After application follow the sprayer clean-out directions on the MUSTER® Herbicide label. Consult the MUSTER® Herbicide label for desired use rates, weeds controlled and additional restrictions regarding the use of MUSTER® Herbicide.

**NOTE:**

When tank mixed with YUMA™ Herbicide plus SURE-MIX™ or MERGE\* adjuvant, MUSTER® Herbicide will control stinkweed at the 20 grams per hectare rate.

**SOYBEANS**

**YUMA Herbicide + CLASSIC® Herbicide**

DO NOT APPLY BY AIR.

For the control of Annual Grasses, Common Ragweed, Redroot Pigweed, and Velvetleaf, apply a tank mixture of YUMA™ Herbicide plus CLASSIC® Herbicide. Use YUMA™ Herbicide at 0.38 to 0.63 litres per hectare plus CLASSIC® Herbicide at 36 grams per hectare. Add CANPLUS\* 411 at 1% (1 litre per 100 litres of spray solution) or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution).

Use a minimum of 0.5 litre per hectare rate of YUMA™ Herbicide when quackgrass and yellow foxtail are present in the field. The tank-mix of CLASSIC® Herbicide and YUMA™ Herbicide may result in reduced control of these two grassy weeds. For more consistent control of yellow foxtail, use 0.63 litre per hectare of YUMA™ Herbicide.

For optimum leaf stage timing of broadleaf weeds, consult the CLASSIC® Herbicide label. If leaf stages of the grass and broadleaf weeds do not coincide, a sequential application of the grass and broadleaf herbicides is required to ensure satisfactory control. Consult the CLASSIC® Herbicide label for general information and use precautions.

**YUMA™ Herbicide + PINNACLE® Herbicide + BASAGRAN\* FORTE Herbicide**

DO NOT APPLY BY AIR.

For the control of annual grassy and broadleaf weeds, apply a tank mixture of YUMA™ Herbicide plus PINNACLE® Herbicide plus BASAGRAN\* FORTE Herbicide. Use YUMA™ Herbicide at 0.63 litres per hectare plus PINNACLE® Herbicide at 5.5 - 8.0 grams per hectare plus BASAGRAN\* FORTE Herbicide at 1.75 - 2.25 litres per hectare. Add CANPLUS\* 411 at 5 - 10 litres per 1000 litres of spray solution or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution). Consult the PINNACLE® Herbicide and BASAGRAN\* FORTE Herbicide labels for the correct use rate for the broadleaf weeds present. Weeds controlled by 0.63 L/ha of YUMA Herbicide in this tank mix are listed on this label at 0.5 L/ha (when YUMA™ Herbicide is used alone). The increase in the application rate of YUMA™ Herbicide in this tank mix is required for consistent grassy weed control.

For optimum leaf stage timing of broadleaf weeds, consult the PINNACLE® Herbicide and BASAGRAN\* FORTE Herbicide labels. If leaf stages of the grass and broadleaf weeds do not coincide, a sequential application of the grass and broadleaf herbicides is required to ensure satisfactory control. Do not apply before the crop has 1 - 2 full trifoliate leaves.

Use the higher rate of CANPLUS\* 411 under conditions not conducive to good growth. DO NOT FREEZE.

Consult the PINNACLE® Herbicide and BASAGRAN\* FORTE Herbicide labels for general information and use precautions.

### **YUMA™ Herbicide + PINNACLE® Herbicide**

DO NOT APPLY BY AIR.

For the control of annual grassy and specific broadleaf weeds, apply a tank mixture of YUMA™ Herbicide + PINNACLE® Herbicide. Use YUMA™ Herbicide at 0.5 litres per hectare plus PINNACLE® Herbicide at 5.5 - 8.0 grams per hectare. Add CANPLUS\* 411 at 5 - 10 litres per 1000 litres of spray solution or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution). Consult the PINNACLE® Herbicide label for the correct use rate for the broadleaf weeds present.

Consult the timing section of this label for the correct timing of application to grassy weeds. For optimum leaf stage timing of broadleaf weeds, consult the PINNACLE® Herbicide label. If leaf stages of the grass and broadleaf weeds do not coincide, a sequential application of the grass and broadleaf herbicides is required to ensure satisfactory control. Do not apply before the crop has 1-2 full trifoliate leaves.

Velvetleaf control may be reduced with a single tank mix application. For optimum control, make separate applications of YUMA™ Herbicide and PINNACLE® Herbicides.

Use the higher rate of CANPLUS\* 411 under conditions not conducive to good growth. DO NOT FREEZE.

Consult the PINNACLE® Herbicide label for precautions, weeds controlled and additional restrictions on the use of PINNACLE® Herbicide.

### **YUMA™ Herbicide + RELIANCE STS Toss-N-Go® Herbicide**

DO NOT APPLY BY AIR.

For the control of annual grassy and broadleaf weeds in sulfonylurea tolerant soybean varieties (varieties designated "STS"), apply a tank mixture of YUMA™ Herbicide plus RELIANCE□ STS□ Toss-N-Go® Herbicide. Use YUMA™ Herbicide at 0.38 to 0.63 litres per hectare plus RELIANCE□ STS™ Toss-N-Go® Herbicide at 42.8 grams per hectare. Add CANPLUS\* 411 at 1% (1 litre per 100 litres of spray solution) or SURE-MIX™ at 0.5% (0.5 litres per 100 litres of spray solution).

Use a minimum of 0.5 litre per hectare rate of v Herbicide when quackgrass and yellow foxtail are present in the field. The tank-mix of RELIANCE□ STS□ Toss-N-Go® Herbicide and YUMA™ Herbicide may result in reduced control of these two grassy weeds. **Use the 0.63 litre per hectare rate of YUMA™ Herbicide for more consistent control of yellow foxtail.**

For optimum leaf stage timing of broadleaf weeds, consult the RELIANCE□ STS□ Toss-N-Go® Herbicide label. If leaf stages of the grass and broadleaf weeds do not coincide, a sequential application of the grass and broadleaf herbicides is required to ensure satisfactory control.

Consult the RELIANCE□ STS□ Toss-N-Go® Herbicide label for general information and use precautions.

**NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS:**

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Nissan Chemical Industries, Ltd. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion Program. Nissan Chemical Industries, Ltd. itself makes no representation or warranty with respect to product performance (efficacy) and crop tolerance (phytotoxicity) of this product when used on the crops listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Nissan Chemical Industries, Ltd. harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

**FOR SALE FOR USE ON SEEDLING LEGUMES FOR SEED PRODUCTION ONLY:**

For bird's-foot trefoil, alsike, red, white and sweet clover, and sainfoin, make a postemergent broadcast application of:

|                |  |
|----------------|--|
| YUMA™Herbicide | 0.5-0.75 litres/hectare                            |
| plus           |  |
| CANPLUS* 411   | 5-10 litres per 1000 litres spray solution         |
| or             |  |
| SURE-MIX™      | 0.5% (0.5 litres per 100 litres of spray solution) |

DO NOT graze or cut for hay in the year of treatment.

Refer to the weed control chart printed in the Directions for Use section of this label for application rates to control quackgrass and annual grass species. Application to the above species should be made before crop canopy closes.

Make only one application per growing season. Apply the spray mixture with ground equipment only. Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray solution. Apply a minimum of 100 litres/ha of total spray volume.

**FOR SALE FOR USE ON ESTABLISHED CREEPING RED FESCUE FOR SEED PRODUCTION ONLY**

For postemergent broadleaf and grassy weed control:

|                 |  |
|-----------------|--|
| YUMA™Herbicide  | 0.5–0.75 litres/hectare                      |
| Plus            |  |
| ALLY® Herbicide | 7.5 grams/hectare                            |
| Plus            |  |
| SURE-MIX™       | 5 litres per 1000 litres spray solution      |
| Or              |  |
| CANPLUS* 411    | 5 – 10 litres per 1000 litres spray solution |

This tank mix will control all label weeds listed on this label and the ALLY® Herbicide label.

Apply YUMA™Herbicide + ALLY® Herbicide tank mixture post emergent to the first main flush of actively growing weeds, when established creeping red fescue is in the 2 leaf to flag leaf (shot blade) stage. Apply before the crop canopy is dense enough to prevent thorough coverage of the weeds.

Apply with ground equipment only. Make only one application per growing season.

Refer to other sections of this label, and to the ALLY® Herbicide label for additional application and/or use precaution instructions.

**FOR SALE FOR USE ON SEEDLING OR ESTABLISHED CREEPING RED FESCUE FOR SEED PRODUCTION ONLY:**

For control of quackgrass and annual grassy weeds, make a postemergent broadcast application of:

|                |  |
|----------------|--|
| YUMA™Herbicide | 0.5 - 0.75 litres/hectare                    |
| Plus           |  |
| CANPLUS* 411   | 5 - 10 litres per 1000 litres spray solution |

|  |   |
|--|---|
| Or   |   |
| HI-MIX®  | 5 - 10 litres per 1000 litres spray solution        |
| Or   |   |
| SURE-MIX™  | 0.5% (0.5 litres per 100 litres of spray solution)  |
| <p>Do not graze or cut treated established red fescue for feed or hay in the year of treatment.</p> <p>Apply when quackgrass is in the 2-6-leaf stage and when annual grassy weeds are from the 2-leaf stage to early tillering. Application to the above species should be made before crop canopy closes. Refer to other sections of this label for a list of grassy weeds controlled as well as the recommended YUMA™ Herbicide rates depending on the leaf stage of quackgrass or the annual grass species that are present.</p> |   |
| <p>Make only one application per growing season. Apply the spray mixture with ground equipment only. Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray solution. Apply a minimum of 100 litres/ha of total spray volume.</p>   |   |
| <p><b>FOR SALE FOR USE ON SNAP BEANS</b></p> <p>For control of annual grasses apply:</p>   |   |
| YUMA™ Herbicide  | 0.38 – 0.75 L/ha                                    |
| Plus   |   |
| CANPLUS* 411 or MERGE*   | 5 - 10 litres per 1000 litres of spray solution     |
| Or   |   |
| SURE-MIX□  | 0.5% (0.5 litres per 100 litres of spray solution). |
| <p>Apply one application per year at the 2- to 5-leaf stage of annual grasses and up to the 3-leaf stage of quackgrass. Do not harvest until 30 days after application. Apply the spray mixture with ground equipment only.</p>  |   |
| <p><b>FOR SALE FOR USE ON SUGARBEETS IN CANADA</b></p> <p>Apply YUMA™ Herbicide as a post emergent broadcast application to small, emerged grassy weeds between the 2 leaf to early tillering leaf stage. Application to grassy weeds should be made before the crop canopy closes to maximize spray coverage.</p> <p>To control annual grasses and volunteer cereals, apply:</p>  |   |
| YUMA™ Herbicide  | 0.38 L/ha   |
| Plus   |   |
| SURE-MIX™  | 5 L per 1000 litres spray solution                  |
| Or   |   |
| CANPLUS* 411   | 5-10 litres per 1000 litres spray solution          |
| <p>If a second flush of annual grasses or volunteer cereals is observed, apply an additional (sequential) application of YUMA Herbicide at 0.38 L /ha + recommended adjuvant.</p> <p>To control annual grasses, volunteer cereals and quackgrass apply YUMA™ Herbicide at 0.75 L/ha + recommended adjuvant.</p> <p>Do not exceed an accumulative, seasonal use rate of 0.75 L/ha of YUMA™ Herbicide per year.</p>  |   |
| <p>Apply the spray mixture with ground equipment only. Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray solution. Do not apply to sugar beets within 60-80 days of harvest.</p>   |   |

For a complete list of grassy weeds, as well as additional application and/or use precaution instructions please refer to other sections of this label.

**FOR SALE FOR USE ON ALL DRY COMMON BEANS OF THE SPECIES *PHASEOLUS VULGARIS* INCLUDING BUT NOT LIMITED TO ALL DRY COMMON BEAN TYPES LISTED ON THIS LABEL.**

For the control of grassy weeds listed on the label as well as volunteer cereals, corn, and quackgrass, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.38 L/ha to 0.75 L/ha with a recommended surfactant (MERGE\* or SURE-MIX®) at 5 litres per 1000 litres of spray (0.5% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Dry common bean varieties may vary in their tolerance to herbicides, including YUMA™ Herbicide. The tolerance of some dry common bean varieties listed on this label has been confirmed when YUMA™ Herbicide is applied as directed. Since not all dry common bean varieties have been tested for tolerance to YUMA™ Herbicide, first use of YUMA™ 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 YUMA™ bHerbicide.

Do not apply within 30 days of harvest.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

**FOR SALE FOR USE IN WESTERN CANADA ON PINTO, NAVY, GREAT NORTHERN, PINK AND SMALL RED BEANS**

For the control of grassy weeds listed on the label, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.38 L/ha to 0.75 L/ha with a recommended surfactant (MERGE\* or SURE-MIX™) at 5 litres per 1000 litres of spray (0.5% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Use ground application only. Use in a minimum of 100 litres of water/ha.

Do not apply within 30 days of harvest.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

**FOR SALE FOR USE IN SOUTHERN ONTARIO ON WHITE, WHITE AND RED KIDNEY, CRANBERRY, BLACK, BROWN AND YELLOW EYE, LIMA, MUNG, OTEBO AND ADZUKI BEANS**

For the control of grassy weeds listed on the label as well as volunteer cereals, corn, and quackgrass, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.375 L/ha to 0.75 L/ha with a recommended surfactant (CANPLUS\* 411 or MERGE\* or SURE-MIX™) at 5 litres per 1000 litres of spray (0.5% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Apply at the 2-5-leaf stage of the annual grasses.

Apply the spray mixture with ground equipment only.

Do not apply within 30 days of harvest.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

**TANKMIX IN WESTERN CANADA:**

**FOR SALE FOR USE ON PINTO, PINK, GREAT NORTHERN AND SMALL RED BEANS IN WESTERN CANADA**

For the control of volunteer cereals, wild oats, and broadleaf weeds listed on the Basagran\* Herbicide label, apply a post-emergent tankmix (at the 1-3 trifoliolate stage of beans) of YUMA™ Herbicide at a rate of 0.63 L/ha with Basagran\* Herbicide at a rate of 1.75-2.25 L/ha.

Add a recommended surfactant (SURE-MIX®) at 5 litres per 1000 litres of spray (0.5% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Do not apply within 65 days of harvest. Make only one application per growing season.

Refer to the appropriate sections of the YUMA™ Herbicide and Basagran\* Herbicide label booklets for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

**FOR SALE FOR USE IN ONTARIO AND QUEBEC ON RUTABAGAS**

For the control of grassy weeds listed on the label, corn, and quackgrass, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.375 L/ha to 0.75 L/ha with a recommended surfactant (CANPLUS\* 411 or MERGE\* or SURE-MIX™) at 5 litres per 1000 litres of spray (0.5% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Apply at the 2-5-leaf stage of the annual grasses.

Apply the spray mixture with ground equipment only.

Do not apply within 30 days of harvest.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

**FOR SALE FOR USE IN ONTARIO ON INDUSTRIAL HEMP GROWN FOR FIBRE PRODUCTION ONLY**

For the control of weeds listed on the label, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.38 L/ha to 0.75 L/ha with CANPLUS\* 411 adjuvant at a rate of 10L per 1,000 L of solution (1.0% v/v). See "Mixing Instructions" section of the YUMA™ Herbicide label booklet.

Make one application per year when the crop is at the 2-6 crop leaf stage (6-25 cm in height)

Apply the spray mixture with ground equipment only

Use in a minimum of 100 litres of water/ha with a spray pressure of 210-275 kPa.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

## **FOR SALE FOR USE IN ONTARIO ON SOYBEANS ONLY**

For the control of Long-spined Sandbur, apply YUMA™ Herbicide as a single post-emergent spray at a rate of 0.38 L/ha (36 g a.i./ha) at the 2 leaf to tillering stage of Long-spined Sandbur. YUMA™ Herbicide must be applied with an adjuvant such as CANPLUS\* 411 at a rate of 5 to 10 litres per 1,000 litres of spray solution (0.5-1.0 % v/v) or SURE-MIX™ at a rate of 5 litres per 1,000 litres of spray solution (0.5 % v/v) See "Mixing Instructions" section of the YUMA™ Herbicide label booklet. Do

not apply to soybeans within 80 days of harvest.

Use ground application only.

Refer to the appropriate sections of the YUMA™ Herbicide label booklet for a complete list of grassy weeds, their stages of control, as well as additional application and/or use precaution instructions, and/or mixing instructions.

### **SPRAY PREPARATION:**

#### **GROUND APPLICATION:**

##### **EQUIPMENT - SPRAY VOLUME**

Apply the spray mixture with ground equipment only. Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray. Apply a minimum of 100 litres per hectare total spray volume. Use flat fan nozzles. **DO NOT USE FLOOD JET NOZZLES.**

Use 50 mesh screens or larger. A spray pressure of 210-275 kPa is recommended. Under heavy weed pressure, use increased volumes up to 400 litres total spray volume per hectare.

Avoid overlapping. Shut off spray booms while starting, turning, slowing or stopping to prevent over application.

Use spray preparation of YUMA™ Herbicide within 24 hours or product degradation may occur. If spray preparation is left without agitation, thoroughly agitate before using.

Do not apply when environmental conditions such as wind speed, temperature, relative humidity, etc. are favourable for drift to occur.

Do not apply to terrain where there is a potential for surface run-off to enter aquatic systems.

#### **NOTE:**

Extreme care must be taken to prevent drift to desirable plants or non-target agricultural land.

#### **AERIAL APPLICATION:** (Only for YUMA™ Herbicide used alone)

Apply only by fixed-wing or rotary aircraft equipment, which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **Use Precautions:**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial

Committee on Pest Management and Pesticides. Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed. Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

#### **Operator Precautions:**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot have communication capabilities at each treatment site at the time of application. The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label. All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly. Do not use human flaggers.

#### **Product Specific Precautions:**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-982-1215 or obtain technical advice from the distributor or your provincial agricultural representative.

Application of this specific product must meet and/or conform to the following:  
Apply a minimum of 25 L of spray volume per hectare.  
Apply a maximum of 50 L of spray volume per hectare.

#### **MIXING INSTRUCTIONS:**

1. Make sure that spray tank is thoroughly cleaned before mixing.
2. Fill tank half full with water. KEEP AGITATOR RUNNING.
3. If tank mixing YUMA™ Herbicide with another herbicide, use the following sequence:
  - a) MUSTER® Herbicide or PINNACLE® Herbicide, CLASSIC® Herbicide, or RELIANCE™ STS™ Herbicide
  - b) BASAGRAN\* FORTE Herbicide
  - c) YUMA™ Herbicide
  - d) Slowly add CANPLUS\* 411, MERGE\* or SURE-MIX™

Ensure that the herbicide is completely mixed before proceeding to the next step.

4. Add the rest of the required water to the tank. Mix well before applying to the crop.

On repeat tank loads, ensure that the amount of spray solution left in the tank from the previous load is less than 10% of volume about to be mixed.

Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

#### **SPRAYER CLEAN-OUT:**

Thoroughly clean all traces of YUMA™ Herbicide from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Failure to thoroughly clean the equipment may result in injury to subsequently sprayed grass crops.

**USE PRECAUTIONS:**

- ☐ Do not apply to soybeans within 80 days of harvest.
- ☐ Do not apply to canola within 64 days of harvest.
- ☐ Do not apply to flax within 82 days of harvest.
- ☐ Do not apply to lentils or peas (field and processing) within 65 days of harvest.
- ☐ Do not apply YUMA™ Herbicide to plants stressed by severe conditions such as drought, low fertility, or cool weather as control of weeds may be reduced.
- ☐ Do not apply YUMA™ Herbicide to crops stressed by severe conditions such as drought, low fertility, saline soils, water logged soils (soils at or near field capacity), disease or insect damage as crop injury may result.
- ☐ Drought, disease or insect damage following application may also result in crop injury.
- ☐ Rainfall within 1 hour of application may reduce effectiveness of the spray.
- ☐ Avoid drift to other crops and non-target areas. Grass crops such as corn and wheat etc. are highly sensitive to YUMA™ Herbicide.
- ☐ Do not tank mix YUMA™ Herbicide with any other pesticides, fertilizer, or additive except as directed in this label.
- ☐ Do not contaminate irrigation water.

**CAUTION:**

Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.

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](http://www.croplife.ca).

**RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, YUMA™ Herbicide is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to YUMA™ Herbicide and other Group 1 herbicides. The resistance 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:

- ϕ Where possible rotate the use of YUMA™ Herbicide or other Group 1 herbicides with different groups when such use is permitted.
- ϕ Use tank mixtures with herbicides from a different group when such use is permitted.
- ϕ 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.
- ϕ Monitor treated weed populations for resistance development.
- ϕ Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- ϕ 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.
- ϕ For further information or to report suspected resistance, contact your local Nissan representative or at 1-800-982-1215 for further information.

**STORAGE:**

Store product in original container only, away from fertilizer, seed, food or feed. Not for use or storage in or around the home. Keep container closed. DO NOT FREEZE.

**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.

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.

**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.

\*All other products mentioned are trademarks of their respective companies.