Container Label

GROUP 1 HERBICIDE

# **CENTURION® ADV**

# **EMULSIFIABLE CONCENTRATE POST-EMERGENCE HERBICIDE**

POST-EMERGENCE HERBICIDE FOR CONTROL OF GRASSES IN SEEDLING ALFALFA, PIGEON PEA, LEGUME VEGETABLES (SUCCULENT OR DRIED), EDAMAME, HIGHBUSH BLUEBERRY, CANOLA, BASIL, CORIANDER, DILL, CARAWAY, FENUGREEK, CRANBERRY, FLAX (including low linolenic acid varieties), ORIENTAL (BROWN) MUSTARD (condiment and oilseed types), *BRASSICA CARINATA*, YELLOW MUSTARD, DRY BULB ONION, DRY BULB SHALLOT, GARLIC, GREEN ONION, LEEK, POTATO, PRAIRIE CARNATION, SAFFLOWER, SOYBEAN, SPINACH, SUNFLOWER, RED GARDEN (TABLE) BEET, PARSNIP, CARROT, RADISH, CELERIAC, RUTABAGA, CHERRY (tart and sweet), CERTAIN HERBS, SPICES, HOPS, CHINESE CABBAGE (napa), CELERY AND BUCKWHEAT.

ACTIVE INGREDIENT: Clethodim ...... 120 g/L

Warning, contains allergen soy

**REGISTRATION NO. 34836** 

PEST CONTROL PRODUCTS ACT

WARNING: EYE and SKIN IRRITANT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT, 1-800-454-2673

**NET CONTENTS:** (250 mL - 1000 L)

BASF Agricultural Solutions Canada Inc. 510 - 28 Quarry Park Blvd. SE

Calgary, Alberta T2C 5P9 1-877-371-2273

CENTURION is a registered trade-mark of a UPL Corporation Limited Group Company.

## **PRECAUTIONS**

**KEEP OUT OF REACH OF CHILDREN. CAUSES SKIN IRRITATION.** Do not get on skin. Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes immediately. Do not inhale fumes. Avoid breathing vapours or spray mist. After use, wash hands and other exposed skin. When using, do not eat, drink or smoke. Remove and launder contaminated clothing separately from household laundry before reuse.

When handling the concentrate, mixing, loading or during cleanup and repair, wear goggles or face shield, rubber apron, chemical-resistant gloves, rubber boots, long-sleeved shirt and long pants. Wear coveralls over long-sleeved shirt and long pants, socks, rubber boots and chemical resistant gloves during spraying or application. Gloves are not required during application within a closed cab or cockpit. In addition, for hand-held application equipment, including backpack sprayer, wear chemical-resistant gloves during application.

Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

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

## **ENVIRONMENTAL PRECAUTIONS**

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

Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland.

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

This product contains aromatic petroleum distillates that are toxic to aquatic organisms.

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

## **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 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 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.

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

**TOXICOLOGICAL INFORMATION:** Treat symptomatically. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Danger from lung aspiration of petroleum-based solvents must be weighed against toxicity when considering emptying stomach.

## STORAGE AND DISPOSAL

**STORAGE:** To prevent contamination, store this product away from food or feed.

## **DISPOSAL**

**RECYCLABLE CONTAINER DISPOSAL:** Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

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**DISPOSAL OF UNUSED, UNWANTED PRODUCT:** 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.

**Booklet** 

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Calgary, Alberta T2C 5P9 1-877-371-2273

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## **GENERAL INFORMATION**

**CENTURION® ADV** is a selective, post-emergence herbicide for control of grasses in seedling alfalfa, pigeon pea, legume vegetables (succulent or dried), edamame, highbush blueberry, canola, basil, coriander, dill, caraway, fenugreek, cranberry, flax (including low linolenic acid varieties), oriental (brown) mustard (condiment and oilseed types), *Brassica carinata*, yellow mustard, dry bulb onion, dry bulb shallot, garlic, green onion, leek, potato, prairie carnation, safflower, soybean, spinach, sunflower, red garden (table) beet, parsnip, carrot, radish, celeriac, rutabaga, cherry (tart and sweet), certain herbs, spices, hops, Chinese cabbage (napa), celery and buckwheat.

# CENTURION ADV does not require the addition of a surfactant.

**CENTURION ADV** is a systemic herbicide which is translocated from the treated foliage to the growing points of the leaves, shoots and roots. Uptake into the plant is primarily through its leaves. Thorough coverage of the foliage is important for consistent grass control. Susceptible grasses that are actively growing will undergo a burn-back and colour change after treatment. Leaf foliage will first change from green to yellowish, then purplish and finally brown colour. The time required for complete control is normally 7 to 21 days following treatment, depending on growing conditions and crop competition.

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Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland.

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Avoid application when heavy rain is forecast.

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## **DIRECTIONS FOR USE**

**CENTURION ADV** is to be used only on seedling alfalfa, pigeon pea, legume vegetables (succulent or dried), edamame, highbush blueberry, canola, basil, coriander, dill, caraway, fenugreek, cranberry, flax (including low linolenic acid varieties), oriental (brown) mustard (condiment and oilseed types), *Brassica carinata*, yellow mustard, dry bulb onion, dry bulb shallot, garlic, green onions, leeks, potato, prairie carnation, safflower, soybean, spinach, sunflower, red garden (table) beet, parsnip, carrot, radish, celeriac, rutabaga, cherry (tart and sweet), certain herbs, spices, hops, Chinese cabbage (napa), celery and buckwheat.

Not for use in greenhouses.

A 30-day plant-back interval should be observed for all unlabelled crops.

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.

#### **APPLICATION INSTRUCTIONS**

## TIME OF APPLICATION

Apply **CENTURION ADV** when annual grasses and volunteer cereals are in the 2 to 6 leaf stage as specified under Application Rates of **CENTURION ADV**. Most effective control is achieved when application is made prior to tillering when grasses are small and actively growing. For suppression or control of quackgrass, apply **CENTURION ADV** when the quackgrass is in the 2 to 6 leaf stage and 6 to 15 cm in height. Most effective results are achieved when application is made at the 3 to 5 leaf stage, when the canopy is uniform and actively growing.

**CENTURION ADV** will be less effective when plants are stressed by lack of moisture, excessive moisture, low-temperature and/or very low relative humidity. Regrowth by tillering may occur if application is made under any of the above stress conditions. In wide row crops, where the canopy may be slow to close, cultivation may be necessary to control grasses that emerge after treatment.

For suppression or control of quackgrass, apply **CENTURION ADV** when the quackgrass is in the 2 to 6 leaf stage and 6 to 15 cm in height. Most effective results are achieved when application is made at the 3 to 5 leaf stage, when the canopy is uniform and actively growing.

For chickpea, apply **CENTURION ADV** post-emergence, when chickpea reaches the 9-node stage (18 cm height maximum) at a maximum of one application per year.

For dill and fenugreek, apply **CENTURION ADV** post-emergence, when dill or fenugreek is in the 3 to 5 leaf stage at a maximum of one application per year.

For coriander, or prairie carnation, apply **CENTURION ADV** post-emergence, when coriander or prairie carnation is in the 2 to 5 leaf stage. A maximum of one application may be made per year.

For safflower, apply **CENTURION ADV** post-emergence, when safflower is in the 6 to 8 leaf stage at a maximum of one application per year.

Cranberry is tolerant to **CENTURION ADV** at all stages of growth, however, do not apply **CENTURION ADV** between the hook stage and full fruit set.

For dry bulb onion, dry bulb shallot and garlic, apply **CENTURION ADV** post-emergence, when crops are in the 1 to 4 leaf stage.

For green onion, apply **CENTURION ADV** post emergence, when crop is in the 2-3 leaf stage.

For leek, apply **CENTURION ADV** post-emergent at least 2 weeks after transplanting when crop is well established and has produced one new fully expanded leaf.

Apply **CENTURION ADV** only to established sweet and tart cherry trees. The pre-harvest interval outlined in the Crop Recommendations table must be followed to avoid excessive crop residues.

All other labelled crops are tolerant to **CENTURION ADV** at all stages of growth. However, the pre-harvest interval outlined in the Crop Recommendations table must be followed to avoid excessive crop residues.

## **APPLICATION RATES OF CENTURION ADV**

Rates of use are given below to control various grass species. Refer to crop section for the maximum use rate on each crop.

| Grass Species   | Leaf Stage                       | Application Rate of CENTURION ADV |
|---|----------------------------------|-----------------------------------|
| Foxtail (green and yellow)*<br>Volunteer cereals<br>(wheat, barley, oats)<br>Wild oat   | 2 to 4                           |                                   |
| Barnyard grass<br>Fall panicum<br>Proso millet<br>Volunteer canary grass<br>Volunteer corn<br>Witchgrass  | 2 to 6                           | *0.25 L/ha                        |
| Barnyard grass Fall panicum Foxtail barley Foxtail (green and yellow) Japanese brome Large crabgrass Persian darnel Proso millet Quackgrass (suppression) Smooth crabgrass Volunteer barley Volunteer canary grass Volunteer corn Volunteer oat Volunteer wheat Wild oat Witchgrass | 2 to 6                           | 0.38 L/ha                         |
| Quackgrass (control)**  | 2 to 6                           | 0.75 L/ha                         |
| Annual bluegrass (suppression)  | 2 to 6                           | 0.75 L/ha                         |
| Foxtail barley**<br>Japanese brome**  | 2 to 6 leaf<br>maximum 3 tillers | 0.75 L/ha                         |

\*CENTURION ADV applied at 0.25 L/ha for the control of weeds listed in this section of the table should only be applied under the following conditions:

- Good crop stand
- Early application (as in above table, prior to tillering)
- Do not apply to volunteer winter cereals
- Light to moderate weed infestation
- Adequate moisture and fertility
- Absence of stress, good growing conditions

If any one of the above conditions are not present at the time of application, use 0.38 L/ha rate of **CENTURION ADV**.

<sup>\*\*</sup> For adequate control, use a minimum spray volume of 100 L/ha.

# **CROP RECOMMENDATIONS**

| Crops   | Maximum Application Rate of CENTURION ADV | Application<br>Method <sup>7</sup> | Pre-Harvest<br>Interval                      |
|---|---|------------------------------------|--|
| Seedling alfalfa  | 0.75 L/ha                                 | Ground application only            | 30 days                                      |
| Pigeon pea <sup>1,2</sup>   | 0.38 L/ha                                 | Ground and aerial application      | 75 days                                      |
| Edamame and edible-podded legume vegetables (Crop subgroup 6A): Bean ( <i>Phaseolus</i> spp.) (includes runner bean, snap bean, wax bean), Bean ( <i>Vigna</i> spp.) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean), Jackbean ( <i>Canavalia ensiformis</i> ), Pea ( <i>Pisum</i> spp.) (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea), Sword bean ( <i>Canavalia gladiata</i> ).  | 0.38 L/ha                                 | Ground<br>application only         | 21 days                                      |
| Succulent shelled peas and beans (Crop subgroup 6B) (except pigeon pea): Bean ( <i>Phaseolus</i> spp.) (includes lima bean, green bean), Bean ( <i>Vigna</i> spp.) (includes blackeyed pea, cowpea, southern pea), broad bean (fava bean) ( <i>Vicia faba</i> ), Pea ( <i>Pisum</i> spp.) (includes English pea, garden pea, green pea) <sup>1,2,5</sup>  |   |                                    |  |
| Dried shelled pea and bean (Crop subgroup 6C) (except soybean, field pea, lentils, pigeon pea) including: Bean (Lupinus spp.) (includes grain lupin, sweet lupin, white lupin, white sweet lupin); Bean (Phaseolus spp.) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, tepary bean); Bean (Vigna spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); Broad bean (fava bean) (Vicia faba); Chickpea (garbanzo bean) (Cicer arietinum); Guar (Cyamopsis tetragonoloba); Lablab bean (hyacinth bean) (Lablab purpureus);1,2 | 0.38 L/ha                                 | Ground and aerial application      | 60 days                                      |
| Caraway, coriander (cilantro) 1,5   | 0.75 L/ha                                 | Ground application only            | 60 days for<br>seed<br>30 days for<br>leaves |
| Angelica; balm (lemon balm); basil; borage; burnet; chamomile; catnip; chervil; clary; costmary; culantro (leaf); horehound; hyssop; lavender; lovage; marigold; marjoram (includes sweet or annual marjoram, wild marjoram or oregano and pot marjoram); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; summer and winter savory; sweet bay (bay leaf); tansy;  | 0.38 L/ha                                 | Ground application only            | 30 days                                      |

| Crops  | Maximum Application Rate of CENTURION ADV | Application<br>Method <sup>7</sup> | Pre-Harvest<br>Interval                                   |
|--|---|------------------------------------|---|
| tarragon; thyme; wintergreen; woodruff; and wormwood 1,2,4,5   |   |                                    |   |
| Anise (anise seed); caraway (black); celery seed; culantro (seed); cumin; fennel [common and Florence (seed)]; juniper berry; lovage (seed); mustard (seed); poppy (seed); and Saffron 1,2,4,5 | 0.38 L/ha                                 | Ground application only            | 60 days   |
| Cherry (sweet and tart) 1, 5, 8 (established trees)  | 0.75 L/ha                                 | Ground application only            | 14 days   |
| Buckwheat 1,5,7  | 0.38 L/ha                                 | Ground and aerial application      | 60 days   |
| Highbush blueberry 1,4,5   | 0.75 L/ha                                 | Ground application only            | 14 days   |
| Canola   | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Carrot, celeriac, red garden (table) beet, parsnip, radish, rutabaga 3,5   | 0.75 L/ha                                 | Ground application only            | 30 days   |
| Cranberry 1,2,5  | 0.75 L/ha                                 | Ground application only            | 30 days   |
| Chive, celery, Chinese cabbage (napa) 1,5  | 0.75 L/ha                                 | Ground application only            | 30 days   |
| Dill <sup>1,5</sup>  | 0.75 L/ha                                 | Ground application only            | 30 days<br>(dillweed<br>leaves)<br>40 days (dill<br>seed) |
| Flax (including low linolenic acid varieties)  | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Fenugreek 1,3,5  | 0.75 L/ha                                 | Ground application only            | 30 days (leaf and seed)                                   |
| Field Pea  | 0.75 L/ha                                 | Ground and aerial application      | 75 days   |
| Hops 1,4,5   | 0.75 L/ha                                 | Ground application only            | 21 days   |
| Lentils  | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Oriental (brown) mustard (condiment and oilseed types)   | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Yellow mustard   | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Brassica carinata  | 0.75 L/ha                                 | Ground and aerial application      | 60 days   |
| Dry bulb onion, dry bulb shallot and garlic 1,5  | 0.75 L/ha                                 | Ground application only            | 45 days   |

| Crops                              | Maximum Application Rate of CENTURION ADV | Application<br>Method <sup>7</sup> | Pre-Harvest<br>Interval |
|------------------------------------|---|------------------------------------|-------------------------|
| Green onion 1,5                    | 0.75 L/ha                                 | Ground application only            | 14 days                 |
| Leek 1,5                           | 0.75 L/ha                                 | Ground application only            | 14 days                 |
| Potato                             | 0.75 L/ha                                 | Ground and aerial application      | 60 days                 |
| Prairie carnation <sup>1,5,6</sup> | 0.38 L/ha                                 | Ground application only            | N/A                     |
| Safflower <sup>1,5</sup>           | 0.75 L/ha                                 | Ground application only            | 70 days                 |
| Soybean                            | 0.75 L/ha                                 | Ground and aerial application      | 75 days                 |
| Spinach <sup>3,5</sup>             | 0.38 L/ha                                 | Ground application only            | 14 days                 |
| Sunflower                          | 0.75 L/ha                                 | Ground and aerial application      | 72 days                 |

- 1. Apply a maximum of one application per year.
- 2. NOTE: Varieties of this crop or crops in this crop group may vary in their tolerance to herbicides, including CENTURION ADV. Since not all crops or crop varieties have been tested for tolerance to CENTURION ADV, first use of CENTURION ADV should be limited to a small area of each crop or variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your supplier for information on the tolerance of specific varieties to CENTURION ADV.
- 3. Apply a maximum of two applications per year. If repeat application is required, allow at least 14 days between first and second application.
- 4. Apply **CENTURION ADV** as a broadcast spray directed to the ground.
- 5. Refer to section "MINOR USES" in this label for additional use instructions.
- 6. Do not harvest treated prairie carnations for human consumption.
- 7. SPRAY VOLUME FOR AERIAL APPLICATION: Apply in 28 to 55 L/ha. Increase spray volumes up to 100 L/ha as grass or crop foliage becomes dense.
- 8. Do not apply **CENTURION ADV** directly over the top of the sweet and tart cherry trees. Direct the spray at the base of the tree where grassy weeds are growing. If **CENTURION ADV** is improperly applied, crop injury can occur.

## **TANK MIXES**

For broader spectrum of weed control, **CENTURION ADV** may be mixed with one of the herbicides listed in this section. When tank mixes are permitted, read and observe all label directions including rates and restrictions for each product used in the tank mix. Follow the more stringent label precautionary measures for mixing, loading and applying as stated on both product labels.

When applied according to label directions, tank mixes control weeds listed on the **CENTURION ADV** when applied alone, plus weeds listed on the tank mix partners label. Refer to the **CENTURION ADV** and tank mix partner labels for a list of weeds and staging. If broadleaf weeds and grass weeds are not in the recommended treatment growth stage at the same time during application, then separate applications should be made. Do not apply tank mixes to plants under stress.

| CDOD  | CENTURION  | TANK MIX PARTNER  |                     | DEMARKS  |
|---|------------|---|---------------------|--|
| CROP  | ADV RATE   | PARTNER   | RATE                | REMARKS  |
|   | 0.126 L/ha | LIBERTY 150 SN  | 2.67 or<br>4.0 L/ha | <ul> <li>Apply to glufosinate ammonium tolerant canola varieties (varieties or hybrids labelled LibertyLink).</li> <li>Ground application in a minimum of 110 L/ha spray volume.</li> <li>Aerial application in a minimum of 55 L/ha spray volume at a pressure of 300 kPa.</li> <li>Canola growth stage from cotyledon up to early bolting.</li> <li>Apply when wild oat, volunteer wheat and green foxtail are in the 1 to 5 leaf stage.</li> </ul>  |
| Canola<br>(glufosinate<br>ammonium<br>tolerant) | 0.38 L/ha  | (Prairie Provinces<br>and Interior of<br>British Columbia<br>including Peace<br>River region<br>ONLY) | 3.33 or<br>4.0 L/ha | <ul> <li>Apply to glufosinate ammonium tolerant canola varieties (varieties or hybrids labelled LibertyLink).</li> <li>Ground application in a minimum of 110 L/ha spray volume.</li> <li>Aerial application in a minimum of 55 L/ha spray volume at a pressure of 300 kPa.</li> <li>Canola growth stage from cotyledon up to early bolting.</li> <li>Weeds include foxtail barley at 1 to 4 leaf stage with a maximum 2 tillers and spring germinated Japanese and downy brome at 1 to 6 leaf stage up to the emergence of the 1st tiller as well as weeds listed on both tank-mix partner labels.</li> </ul> |

| CDOD   | CENTURION            | TANK MIX PARTNER   |                             | DEMARKS   |
|--------|----------------------|--|-----------------------------|---|
| CROP   | ADV RATE             | PARTNER  | RATE                        | REMARKS   |
|        | 0.126 L/ha           | FACET L + LIBERTY 150 SN  (Prairie Provinces and Interior of British Columbia including Peace River region ONLY) | 0.28 L/ha<br>+<br>3.33 L/ha | <ul> <li>Apply to glufosinate ammonium tolerant canola varieties (varieties or hybrids labelled LibertyLink).</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Canola growth stage from 2 to 6 leaf.</li> <li>Tank mix is for enhanced and more consistent control of cleavers and annual grasses.</li> </ul>                                  |
|        | 0.126 L/ha           | LIBERTY 200 SN<br>(Eastern Canada<br>and British<br>Columbia ONLY)   | 2.0 to 2.5 L/ha             | <ul> <li>Apply to glufosinate ammonium tolerant canola varieties (varieties or hybrids labelled LibertyLink).</li> <li>Ground application in a minimum of 110 L/ha spray volume.</li> <li>Canola growth stage from cotyledon up to early bolting.</li> <li>Apply when wild oat, volunteer wheat, volunteer oat and green foxtail are in the 1 to 5 leaf stage.</li> </ul> |
| Canola | 0.38 L/ha            | LONTREL 360<br>Herbicide   | 0.42 to<br>0.83 L/ha        | <ul> <li>Including all types of canola.</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Canola growth stage from 2 to 6 leaf.</li> <li>Canada thistle¹ should be between rosette to pre-bud stage.</li> <li>For season-long control of wild buckwheat use 0.56 L/ha of LONTREL 360 Herbicide</li> </ul>                                       |
|        |                      | MUSTER<br>Herbicide  | 20 to 30 g/ha               | <ul> <li>Including all types of canola</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Canola growth stage from 2 leaf to the beginning of bolting.</li> </ul>  |
| Flax   | 0.38 to 0.75<br>L/ha | BUCTRIL M<br>Herbicide   | 1 L/ha                      | <ul> <li>Including low linolenic acid varieties of flax.</li> <li>Ground application in 55 to 100 L/ha spray volume</li> <li>Flax growth stage from 5 cm plant height to bud (ideal stage is 5 to 10 cm in height).</li> </ul>  |

| CDOD                                | CENTURION | TANK MIX PARTNER  |  | DEMARKS  |
|-------------------------------------|-----------|---|--|--|
| CROP                                | ADV RATE  | PARTNER   | RATE   | REMARKS  |
|                                     |           | MCPA ESTER<br>Herbicide   | Refer to Label<br>for MCPA<br>Ester  | <ul> <li>EXCLUDING low linolenic acid varieties of flax.</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Aerial application in a minimum of 30 L/ha. spray volume at 235 kPa.</li> <li>Flax growth stage 5 cm plant height up to bud stage. Do not apply after the early bud stage.</li> </ul> |
|                                     | 0.38 L/ha | CURTAIL M<br>Herbicide  | 1.5 to 2 L/ha  | <ul> <li>Including low linolenic acid varieties of flax.</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Flax growth stage from 5 to 15 cm plant height.</li> <li>Canada thistle should be between 10 cm and the prebud stage.</li> </ul>  |
|                                     | U.SO L/Ha | LONTREL 360<br>Herbicide  | 0.56 to<br>0.83 L/ha   | <ul> <li>Including low linolenic acid varieties of flax.</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Flax growth stage 5 to 10 cm plant height.</li> <li>Canada thistle¹ should be between rosette to pre-bud stage.</li> </ul>  |
| Field Pea                           | 0.38 L/ha | PURSUIT<br>Herbicide  | 0.21 L/ha  | - Ground application in a minimum of 100 L/ha spray volume Field pea growth stage up to the sixth (6th) trifoliate.  |
| Soybean<br>(glyphosate<br>tolerant) | 0.38 L/ha | GLYPHOSATE<br>Products (or<br>ROUNDUP<br>WEATHERMAX<br>Herbicide) | 900 to 1800 g<br>ae/ha (or<br>Roundup<br>Weathermax<br>540 g/L at<br>1.67 to<br>3.33 L/ha) | <ul> <li>Apply to glyphosate tolerant soybean.</li> <li>Tank mix with glyphosate products registered for use on glyphosate tolerant soybean.</li> <li>Ground application in a minimum of 100 L/ha spray volume.</li> <li>Soybean growth stage 1<sup>st</sup> trifoliate up to flowering.</li> </ul>                        |

<sup>&</sup>lt;sup>1</sup> Canada thistle:

- 0.42 L LONTREL 360/ha: top growth control for 6 to 8 weeks
- 0.56 L LONTREL 360/ha: season-long control
- 0.83 L LONTREL 360/ha: control into following year

## **MIXING INSTRUCTIONS**

- 1. Thoroughly clean the sprayer by flushing the system with water containing detergent.
- 2. Fill clean spray tank half full with clean water. Start the agitation system.
- 3. Add the required amount of the tank mix partner. When tank mixing FACET L Herbicide, add FACET L first, agitate and then add the correct amount of LIBERTY 150 SN. Continue to agitate.
- 4. Add the correct amount of **CENTURION ADV** along with the remaining amount of water necessary to fill the spray tank.
- 5. Continue to agitate or run the by-pass system and spray out immediately.
- 6. After any break in the spraying operation, agitate thoroughly before spraying again. Check inside the tank to ensure that sprayer agitation is sufficient to re-mix the spray materials. Do not allow the mixture to sit overnight. In the case of tank mixtures, settling may occur if agitation is not continuous.
- 7. If an oil film starts to build up in the tank, drain and clean the tank with a strong detergent solution.
- 8. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

# CROP RECOMMENDATIONS (USER REQUESTED MINOR USE LABEL EXPANSION CROPS)

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

## **USER REQUESTED MINOR USE LABEL EXPANSION CROPS**

| CROP              | WEEDS<br>CONTROLLED   | CENTURION<br>ADV | REMARKS  |
|-------------------|---|------------------|--|
| Prairie carnation | Annual weeds listed on CENTURION ADV label. Refer to weed/rate chart in this label. | 0.38 L/ha        | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop.  Apply a maximum of one application per year using ground equipment.  Apply in a minimum spray volume of 110 L/ha.  Do not harvest treated prairie carnations for human consumption.  Ground application only. |

| CROP   | WEEDS  | CENTURION        | REMARKS   |
|--|--|------------------|---|
| Edamame, edible- podded legume vegetables (Crop subgroup 6A) (excluding pigeon pea and soybean): Bean (Phaseolus spp.) (includes runner bean, snap bean, wax bean), Bean (Vigna spp.) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean), Jackbean (Canavalia ensiformis), Pea (Pisum spp.) (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea), Sword bean (Canavalia gladiata)  Succulent shelled peas and beans (Crop | Labelled grass weeds. Refer to weed/rate chart in this label.          | ADV<br>0.38 L/ha | TIME OF APPLICATION: Apply CENTURION ADV postemergence of weeds and crop.  Apply a maximum of one application per year using ground equipment.  Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 21 days.  Ground application only.            |
| subgroup 6B) (except pigeon pea): Bean (Phaseolus spp.) (includes lima bean, green bean), Bean (Vigna spp.) (includes blackeyed pea, cowpea, southern pea), Broad bean (fava bean) (Vicia faba), Pea (Pisum spp.) (includes English pea, garden pea, green pea)  |  |                  |   |
| Buckwheat <sup>1</sup>   | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 L/ha        | TIME OF APPLICATION: Apply CENTURION ADV postemergence of weeds and crop. Apply a maximum of one  |
|  |  |                  | application per year using ground or aerial equipment.  Apply in a minimum spray volume of 100 L/ha for ground application. Apply in a minimum spray volume of 28 – 55 for aerial application. Increase to 100 L/ha if grass or crop foliage becomes dense. |

| CROP  | WEEDS  | CENTURION        | REMARKS   |
|---|--|------------------|---|
|   | CONTROLLED   | ADV              | Observe a PHI of 60 days.   |
| Cherry (sweet and tart) (established trees) | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV to established sweet and tart cherry trees, post-emergence of weeds. Do not apply CENTURION ADV directly over the top of the trees. Direct the spray at the base of the tree where grassy weeds are growing. If CENTURION ADV is improperly applied, crop injury can occur.  Apply a maximum of one application per year using ground equipment.  Apply in a minimum spray volume of 100 L/ha. |
|   |  |                  | Observe a PHI of 14 days.   |
|   |  |                  | Ground application only.  |
| Highbush blueberry                          | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop. Apply a maximum of one application per year, using ground equipment. Apply as a broadcast spray directed to the ground. Apply in a minimum spray volume of 100 L/ha. Observe a PHI of 14 days. Ground application only.   |
| Coriander (cilantro), caraway               | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent when the crop is in the 2 to 5 leaf stage.  Apply a maximum of one application per year, using ground equipment.  Observe a PHI of 30 days for leaves and 60 days for seed.  Ground application only.   |
| Dill  | Labelled grass<br>weeds. Refer to                                      | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop when dill is in the 3-5 leaf stage.  |

| WEEDS CENTURION  |  |                  |  |  |  |
|--|--|------------------|--|--|--|
| CROP   | WEEDS<br>CONTROLLED  | CENTURION<br>ADV | REMARKS  |  |  |
|  | weed/rate chart<br>on this label.                                      |                  | Apply a maximum of one application per year using ground equipment. Apply a minimum spray volume of 100 L/ha. Observe a PHI of 30 days for dillweed leaves and a PHI of 40 days for dill seed.   |  |  |
|  |  |                  | Ground application only.   |  |  |
| Chive  | Labelled grass weeds. Refer to weed/rate chart in this label.          | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply a maximum of one application per year, post- emergent using ground equipment. Apply in a minimum spray volume of 110 L/ha.  |  |  |
|  |  |                  | Observe a PHI of 30 days.  |  |  |
|  |  |                  | Ground application only.   |  |  |
| Angelica; balm (lemon balm); basil; borage; burnet; chamomile; catnip; chervil; clary; costmary; culantro (leaf); horehound; hyssop; lavender; lovage; marigold; marjoram (includes sweet or annual marjoram, wild marjoram or oregano and pot marjoram); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay (bay leaf); tansy; tarragon; thyme; wintergreen; woodruff; and wormwood | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 L/ha        | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop. Apply a maximum of one application per year using ground equipment. Apply as a broadcast spray directed to the ground. Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 30 days. Ground application only. |  |  |
| Anise (anise seed), caraway (black); celery seed; cilantro (seed); cumin; fennel [common and Florence (seed)]; juniper berry; lovage (seed); mustard (seed); poppy (seed); and saffron   | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 L/ha        | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop. Apply a maximum of one application per year using ground equipment. Apply as a broadcast spray directed to the ground. Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 60 days. Ground application only. |  |  |
| Hops   | Labelled grass weeds. Refer to   | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post-   |  |  |

| WEEDS CENTURION DEMARKS                     |  |                  |  |  |  |
|---|--|------------------|--|--|--|
| CROP  | CONTROLLED   | ADV              | REMARKS  |  |  |
|   | weed/rate chart<br>in this label.                                      |                  | emergence of weeds and crop. Apply a maximum of one application per year, using ground equipment. Apply as a broadcast spray directed to the ground. Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 21 days.  Ground application only.              |  |  |
| Fenugreek                                   | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.25 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent when fenugreek is in the 3 to 5 leaf stage. Apply a maximum of one application per year, using ground equipment. Apply in a minimum spray volume of 100L/ha. Observe a PHI of 30 days for leaves and seed. |  |  |
|   |  |                  | Ground application only.   |  |  |
| Dry bulb onion, dry bulb shallot and garlic | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent when the crop is in the 1 to 4 leaf stage.   |  |  |
|   |  |                  | Apply a maximum of one application per year, using ground equipment. Observe a PHI of 45 days.   |  |  |
|   |  |                  | Ground application only.   |  |  |
| Green onion                                 | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent when the crop is in the 2 to 3 leaf stage.   |  |  |
|   |  |                  | Apply a maximum of one application per season, using ground equipment. Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 14 days.  |  |  |
|   |  |                  | Ground application only.   |  |  |
| Leek  | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent at least 2 weeks after transplanting when crop is well established and has produced one new fully expanded leaf.   |  |  |
|   |  |                  | Apply a maximum of one application per season, using   |  |  |

| CROP  | WEEDS<br>CONTROLLED  | CENTURION<br>ADV | REMARKS  |
|---|--|------------------|--|
|   | OOMINGLES  | 7,57             | ground equipment. Apply in a minimum spray volume of 110 L/ha. Observe a PHI of 14 days.   |
|   |  |                  | Ground application only.   |
| Safflower                                   | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergent when safflower is in the 6-8 leaf stage. Apply a maximum of one application per year using ground equipment.   |
|   |  |                  | Apply in a minimum spray volume of 100 litres of water per hectare.  |
|   |  |                  | Observe a PHI of 70 days.  |
|   |  |                  | Ground application only.   |
| Spinach                                     | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.25 – 0.38 L/ha | TIME OF APPLICATION: Apply a maximum of two applications per year with 14 days between applications, post emergent by ground application when grassy weeds are in the 2 to 6 leaf stage.   |
|   |  |                  | Observe a PHI of 14 days.  |
|   |  |                  | Ground application only.   |
| Cranberry                                   | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop. Do not apply between the hook stage and full fruit set. Apply a maximum of one application per year using ground equipment. Apply in a minimum spray volume of 110 L of water /ha. |
|   |  |                  | Observe a PHI of 30 days.  Ground application only.  |
| Red garden (table) beet,                    | Labelled grass   | 0.38 – 0.75 L/ha | TIME OF APPLICATION:   |
| parsnip, carrot, radish, rutabaga, celeriac | weeds. Refer to<br>weed/rate chart<br>in this label.                   |                  | Apply <b>CENTURION ADV</b> post-<br>emergence of weeds and crop<br>using ground equipment. Apply a<br>maximum of two applications per<br>year. If repeat application is<br>required, allow at least 14 days<br>between first and second<br>application.        |

| CROP                           | WEEDS<br>CONTROLLED  | CENTURION<br>ADV | REMARKS   |
|--------------------------------|--|------------------|---|
|                                |  |                  | Do not apply more than 0.75 L/ha (90 grams ai/ha) per crop year.  |
|                                |  |                  | Apply in a minimum spray volume of 110 L/ha.  |
|                                |  |                  | Observe a PHI of 30 days.   |
|                                |  |                  | Ground application only.  |
| Celery, Chinese cabbage (napa) | Labelled grass<br>weeds. Refer to<br>weed/rate chart<br>in this label. | 0.38 – 0.75 L/ha | TIME OF APPLICATION: Apply CENTURION ADV post- emergence of weeds and crop. Apply a maximum of one application per year using ground equipment. Apply in a minimum spray volume of 100 L/ha. Observe a PHI of 30 days. Ground application only. |

#### **APPLICATION INSTRUCTIONS**

## **GROUND APPLICATION**

# Water volume and spray pressure

For ground application, use sprayers equipped with standard flat fan nozzles. For optimum spray coverage, use nozzles tilted 45° forward.

The use of flood jet or hollow cone nozzles is not recommended because of uneven and inadequate spray coverage. Thorough and uniform spray coverage over the entire leaf area of the target weeds is necessary for optimum weed control.

Thoroughly clean all screens to prevent nozzle clogging, especially when spray volumes of 55 to 110 L/ha are used.

For ground applications, use spray volumes of 55 to 225 L/ha and a minimum of 275 kPa pressure. For applications to dense weed infestations or to dense crop canopies, use a minimum of 110 L/ha spray volume at pressures of 275 to 425 kPa.

For legume vegetables (succulent or dried) (except soybeans) and edamame, a minimum spray volume of 110 L/ha is recommended.

## **AERIAL APPLICATION**

## Water volume and spray pressure

Apply **CENTURION ADV** alone or in tank mixes (ONLY with the recommended tank mix partners that are registered for aerial use) in no less than 28 L/ha spray volume at a pressure no less than 300 kPa.

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 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.

## **Aerial 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.

## **Aerial 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 pilots have communication capabilities at each treatment site at the time of application.
- The field crew and the mixer/loaders must wear goggles or face shield, rubber apron, chemical-resistant gloves, rubber boots, long sleeved shirt and long-legged pants.
- 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.

# **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call
the manufacturer at 1-877-371-2273 or obtain technical advice from the distributor or your
provincial agricultural representative.

<u>Field sprayer application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

<u>Aerial application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

# **Spray Buffer zones**

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands) and sensitive

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

|  | Сгор  |             | Spray Buffer Zones (metres) Required for the Protection of: |                               |             |  |
|--|---|-------------|---|-------------------------------|-------------|--|
| Method of application  |   |             | Freshwater Habitat  |                               | Terrestrial |  |
|  |   |             | Less than   | of Depths:  Less than Greater |             |  |
|  |   |             | 1 m   | than 1 m                      |             |  |
| Field sprayer  | Seedling alfalfa, highbush blueberry, cherry, cranberry, caraway, chive, coriander, dill, fenugreek, dry bulb onion, dry bulb shallot, safflower, canola, carrot, flax (including low linolenic varieties), field pea, hops, lentils, oriental (brown) mustard (condiment and oilseed types), yellow mustard, Brassica carinata, potato, parsnip, radish, red garden (table) beet, soybean, sunflower, celery, Chinese cabbage (napa), celeriac |             |   | 1                             | 2           |  |
|  | Spinach, Edamame, Edible-podded Legume (crop subgroup 6A) vegetables, Succulent shelled peas and beans (crop subgroup 6B), bean (Lupines, Phaseolus, and Vigna spp.), broad bean, chickpea, guar, lablab bean, Prairie carnation, pigeon pea, various herbs and spices (except chive, coriander, and dill), buckwheat   |             | 1   | 1                             | 1           |  |
| linole field Orien (contypes soyb Brass  Bear and bear labla | Canola, flax (including low linolenic acid varieties), field peas, lentils, potatoes, Oriental (brown) mustard (condiment and oilseed types), yellow mustard, soybeans, sunflowers, Brassica carinata   | Fixed wing  | 10  | 1                             | 60          |  |
|  |   | Rotary wing | 10  | 1                             | 50          |  |
|  | Bean (Lupines, Phaseolus, and Vigna spp.), broad bean, chickpea, guar, lablab bean, pigeon pea, buckwheat   | Fixed wing  | 4   | 1                             | 30          |  |
|  |   | Rotary wing | 1   | 1                             | 30          |  |

# Cherry (sweet and tart)

Use of the following spray methods or equipment DO NOT require a spray buffer zone: hand-held or backpack sprayer and spot treatment, inter-row hooded sprayer, low-clearance hooded or shielded sprayers that ensure spray drift does not come in contact with orchard crop fruit or foliage.

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 that are larger than 1 m 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.

### **RESTRICTIONS AND LIMITATIONS**

- 1. Use only for crops listed on the label.
- 2. Thorough preplant tillage operations are required to fields where sod or forage grass crops may have grown in the previous year.
- 3. Take necessary precautions to avoid sprayer overlaps.
- 4. Rainfall within one hour of application may reduce the effectiveness of the spray.
- 5. Allow 4 days between application of **CENTURION ADV** and any other chemical not recommended as a tank-mix combination on the label.
- 6. Do not apply more than 0.75 L/ha (90 g ai/ha) per year.
- 7. Do not use crops for grazing of livestock or green feed following application of **CENTURION ADV** until after the appropriate interval as specified in the crop recommendations table has been observed. Do not cut treated crops for forage until the appropriate interval as specified in the crop recommendations table has been observed.
- 8. CENTURION ADV may be applied by air for certain crops specified in this label.
- 9. **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **CENTURION ADV** is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to **CENTURION ADV** and other Group 1 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 CENTURION ADV or other Group 1 herbicides within a
  growing season (sequence) or among growing seasons with different herbicide groups that
  control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact BASF at 1-877-371-2273 or at www.agsolutions.ca.

**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.

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