

CO-OP Patron II

USE WITH CO-OP Patron II
ADJUVANT

EMULSIFIABLE CONCENTRATE POST-EMERGENCE HERBICIDE

GROUP

1

HERBICIDE

CONTAINS CLETHODIM

POST-EMERGENCE HERBICIDE FOR CONTROL OF GRASSES IN SEEDLING ALFALFA, 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 ONIONS, DRY BULB SHALLOTS AND GARLIC, POTATOES, PRAIRIE CARNATIONS, SAFFLOWER, SOYBEANS, SPINACH, SUNFLOWERS, RED GARDEN (TABLE) BEET, PARSNIP, CARROT, RADISH, CHERRY (tart and sweet), CERTAIN HERBS, SPICES and HOPS.

AGRICULTURAL

ACTIVE INGREDIENT: CLETHODIM 240 g/L

REGISTRATION NO. 33661 PEST CONTROL PRODUCTS ACT

WARNING: EYE AND SKIN IRRITANT

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

NET CONTENTS: (1L-9 L)

Interprovincial Cooperative Limited
P.O. Box 1050, Saskatoon, Saskatchewan S7K 3M9
1-204-233-3461

**FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE
CALL 1-888-CAN-UTEC (226-8832)**

**FOR 24-HOUR CHEMICAL EMERGENCY (Spills, leaks, fire, exposure, or accident)
CALL 1-888-CAN-UTEC (226-8832)**

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. CAUSES EYE AND SKIN IRRITATION. 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. Store the container tightly closed and away from seeds, feeds, fertilizer, plants and foodstuffs. Observe appropriate provincial buffer zones around bodies of water and wetland areas. 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 long-sleeved shirt and long pants during application. In addition, for hand-held application equipment, including backpack sprayer, wear chemical-resistant gloves during application. During application, wear long sleeved shirt, long legged pants and chemical-resistant gloves. Chemical resistant gloves are not required to be worn during groundboom or aerial application.

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

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 buffer zones specified under DIRECTIONS FOR USE.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects 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 strip between the treated area and the edge of the water body.

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

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (for example, sandy soil) and/or the depth to the water table is shallow.

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.

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:

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.

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.

CO-OP

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Patron II®

**EMULSIFIABLE CONCENTRATE
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GENERAL INFORMATION:

CO-OP Patron II is a selective post-emergence herbicide for control of a broad range of grasses in seedling alfalfa, 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*, safflower, yellow mustard, dry bulb onions, dry bulb shallot, garlic, potatoes, prairie carnation, soybeans, spinach, sunflowers, red garden (table) beet, parsnip, carrot, radish, cherry (tart and sweet), certain herbs, spices and hops.

CO-OP Patron II is to be used only with the adjuvant CO-OP Patron II .

CO-OP Patron II 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.

PRECAUTIONS:

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Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects 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 strip between the treated area and the edge of the water body.

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

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (for example, sandy soil) and/or the depth to the water table is shallow.

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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.

DIRECTIONS FOR USE:

CO-OP Patron II Emulsifiable Concentrate Post-Emergence Herbicide is to be used only on seedling alfalfa, 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*, safflower, yellow mustard, dry bulb onions, dry bulb shallots/garlic, potatoes, prairie carnations, soybeans, spinach, sunflowers, red garden (table) beet, parsnip, carrot, radish, cherry (tart and sweet), certain herbs, spices and hops.

Not for use in greenhouses.

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

TIME OF APPLICATION:

Apply **CO-OP Patron II** when the annual grasses and volunteer cereals are in the 2 to 6 leaf stage as specified under Application Rates of **CO-OP Patron II**. Most effective control is achieved when application is made prior to tillering when annual grasses are small and actively growing.

For suppression or control of quackgrass, apply **CO-OP Patron II** 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.

CO-OP Patron II 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 chickpeas, apply **CO-OP Patron II** at a maximum of one application per season before the crop reaches the 9 node stage (18 cm height maximum) and when the annual grasses and volunteer cereals are in the 2 to 6 leaf stage.

For dill and fenugreek, apply **CO-OP Patron II** post-emergence, when dill or fenugreek is in the 3 to 5 leaf stage at a maximum of one application per season.

For coriander, or prairie carnation, apply **CO-OP Patron II** 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 **CO-OP Patron II** post-emergence, when safflower is in the 6 to 8 leaf stage at a maximum of one application per season.

Cranberry is tolerant to **CO-OP Patron II** at all stages of growth, however, do not apply **CO-OP Patron II** between the hook stage and full fruit set.

For dry bulb onions, dry bulb shallots and garlic, apply **CO-OP Patron II** post-emergence, when crops are in the 1-4 leaf stage.

Apply **CO-OP Patron II** 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 **CO-OP Patron II** 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 CO-OP Patron II :

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 CO-OP Patron II	Application Rate of CO-OP Patron II Adjuvant
*Foxtail (green, yellow)	2 to 4	0.125 L/ha	0.5 % v/v
Wild oats			
Volunteer cereals (wheat, barley, oats)			
Barnyard Grass	2 to 6	0.125 L/ha	0.5 % v/v
Witchgrass			
Fall panicum			
Proso millet			
Volunteer Corn			
Volunteer canary grass			
Wild Oats	2 to 6	0.19 L/ha	0.5 % v/v
Volunteer cereals (wheat, barley, oats)			
Foxtail (green, yellow)			
Persian darnel			
Crabgrass (smooth and large)			
Proso millet			
Witchgrass			
Fall panicum			
Barnyard grass			
Volunteer corn			
Volunteer canary grass			
Japanese brome			
Foxtail barley			
Quackgrass suppression			
Quackgrass control**	2 to 6	0.38 L/ha	1.0 % v/v
Annual bluegrass suppression	2 to 6	0.38 L/ha	0.5 % v/v
Japanese brome**	2 to 6 leaf		
Foxtail barley	maximum 3 tillers	0.38 L/ha	1.0 % v/v

***CO-OP Patron II** applied at 0.125 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 tank-mix with other pesticides
- 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 0.19 L/ha rate of **CO-OP Patron II** .

** For adequate control of quackgrass, use a minimum spray volume of 100L / ha.

CROP RECOMMENDATIONS:

Crops	Maximum Application Rate of CO-OP Patron II	Application Method ⁶	Pre-Harvest Interval
Seedling Alfalfa	0.38 L/ha	Ground application only	30 days
Pigeon Pea ^{1,2}	0.19 L/ha	Ground and aerial application	75 days
<p>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>).</p> <p>Succulent shelled peas and beans (Crop subgroup 6B): 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), Pigeon pea (<i>Cajanus cajan</i>)^{1,2,5}</p>	0.19 L/ha	Ground application only	21 days

<p>Dried Shelled Pea and Bean (Crop subgroup 6C) (except soybean, field pea, lentils, pigeon pea) including: Bean (<i>Lupinus</i> spp.) (includes grain lupin, sweet lupin, white lupin and white sweet lupin); bean (<i>Phaseolus</i> spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (<i>vigna</i> spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (fava bean) (<i>Vicia faba</i>); chickpea (garbanzo bean) (<i>Cicer arietinum</i>); guar (<i>Cyamopsis tetragonoloba</i>); lablab bean (hyacinth bean) (<i>Lablab purpureus</i>); ^{1,2}</p>	0.19 L/ha	Ground and aerial application	60 days
Caraway, Coriander (cilantro) ^{1,5}	0.38 L/ha	Ground application only	60 days for seed 30 days for 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	0.19 L/ha	Ground application only	30 days

leaf); tansy; 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	0.19 L/ha	Ground application only	60 days
Cherry (sweet and tart) ^{1,} ^{5, 8} (established trees)	0.38 L/ha	Ground application only	14 days
Highbush Blueberry ^{1,4,5}	0.38 L/ha	Ground application only	14 days
Canola	0.38 L/ha	Ground and aerial application	60 days
Carrot Red garden (table) beet, Parsnip Radish ^{3,5}	0.38 L/ha	Ground application only	30 days
Cranberry ^{1,2,5}	0.38 L/ha	Ground application only	30 days
Chive ^{1,5}	0.38 L/ha	Ground application only	30 days
Dill ^{1,5}	0.38 L/ha	Ground application only	30 days (dillweed leaves) 40 days (dill seed)
Flax (including low linolenic acid varieties)	0.38 L/ha	Ground and aerial application	60 days
Fenugreek ^{1,3,5}	0.38 L/ha	Ground application only	30 days (leaf and seed)
Field Peas	0.38 L/ha	Ground and aerial application	75 days
Hops ^{1,4,5}	0.38 L/ha	Ground application only	21 days
Lentils	0.38 L/ha	Ground and aerial application	60 days
Oriental (Brown) Mustard (condiment and oilseed types)	0.38 L/ha	Ground and aerial application	60 days
Yellow Mustard	0.38 L/ha	Ground and aerial application	60 days
<i>Brassica carinata</i>	0.38 L/ha	Ground and aerial application	60 days
Dry Bulb Onions, Dry	0.38 L/ha	Ground application	45 days

Bulb Shallot and Garlic ^{1,5}		only	
Potatoes	0.38 L/ha	Ground and aerial application	60 days
Prairie Carnation ^{1,5,6}	0.19 L/ha	Ground application only	N/A
Safflower ^{1,5}	0.38 L/ha	Ground application only	70 days
Soybeans	0.38 L/ha	Ground and aerial application	75 days
Spinach ^{3,5}	0.19 L/ha	Ground application only	14 days
Sunflowers	0.38 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 **CO-OP Patron II**. Since not all crops or crop varieties have been tested for tolerance to **CO-OP Patron II**, first use of **CO-OP Patron II** 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 **CO-OP Patron II**.
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 **CO-OP Patron II** 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 100L/ha as grass or crop foliage becomes dense.
8. Do not apply **CO-OP Patron II** 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 **CO-OP Patron II** is improperly applied, crop injury can occur.

TANK-MIXES:

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

CO-OP Patron II AND BUCTRIL® M:

Flax (including low linolenic acid varieties): **CO-OP Patron II** may be tank-mixed with BUCTRIL M for control of certain broadleaf and grassy weeds in flax (including low linolenic acid varieties) in one spray operation. Apply in 55 to 110 litres of water per hectare at a pressure of 275 kPa. DO NOT spray this tank-mix on plants under stress. DO NOT spray during periods of hot, humid weather. Follow all precautions, limitations and timing recommendations on the BUCTRIL M label.

Time of Application: Flax (including low linolenic acid varieties) may be treated from 5 cm high to the early bud stage. For best results, apply when flax (including low linolenic acid varieties) is 5 to 10 cm high and weeds are in the seedling stage. If broadleaf weeds and grassy weeds are not in the recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 to 0.38 L/ha tank-mixed with BUCTRIL M at 1.0 L/ha and CO-OP Patron II adjuvant at 0.5 to 1.0 % v/v.

Weeds Controlled: As listed for **CO-OP Patron II** used alone, plus certain seedling broadleaf weeds. Refer to the BUCTRIL M label for the broadleaf weeds controlled.

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 agitation system.
3. If tank-mixing **CO-OP Patron II** and BUCTRIL M for once-over grass and broadleaf weed control in flax (including low linolenic acid-varieties), add the correct amount of BUCTRIL M. Continue to agitate.
4. Add the correct amount of **CO-OP Patron II**. Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. 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.
8. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

For disposal of cleaning solution, see section on DISPOSAL.

CO-OP Patron II AND CURTAIL® M:

Flax (including low linolenic acid varieties): **CO-OP Patron II** may be tank-mixed with CURTAIL M for control of certain broadleaf and grass weeds in flax in one spray operation. Apply in a minimum of 100 L/ha spray volume at a pressure of 275 kPa.

Follow all precautions, limitations, restrictions and timing recommendations on the CURTAIL M label.

Time of Application: Flax may be treated from 5 to 15 cm in height. Apply when the grassy weeds are in the 2 to 6 leaf stage and the broadleaf weeds are actively growing. Application to Canada thistle should be made when Canada thistle is between 10 cm and up to the pre-bud stage. If broadleaf weeds and grass weeds are not in recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with CURTAIL M at 1.5 to 2.0 L/ha and with the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled: Weed claims listed on the **CO-OP Patron II** Herbicide label plus weed claims listed on Curtail M label. Refer to the CURTAIL M label for the broadleaf weeds controlled.

Grazing Interval

Do not cut treated crops for feed or graze until 60 days after application.

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 agitation system.
3. Add the required amount of CURTAIL M to the tank. Continue to agitate.
4. Add the correct amount of **CO-OP Patron II** . Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. 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 with broadleaf herbicides, settling will occur if agitation is not continuous.
8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

CO-OP Patron II AND MCPA ESTER:

Flax: **CO-OP Patron II** may be tank-mixed with MCPA ESTER for control of certain broadleaf and grassy weeds in flax in one spray operation. For ground applications, apply in a minimum of 100 L/ha spray volume at a pressure of 275 kPa. For aerial application apply this tank-mix in a minimum of 30 L/ha spray volume at a pressure of 235 kPa.

NOTE: THIS TANK-MIX MAY NOT BE APPLIED TO LOW LINOLENIC ACID VARIETIES OF FLAX.

Time of application: Flax may be treated from 5 cm tall to just before the bud stage. Do not apply after the early bud stage. Apply when the grassy weeds are in the 2 to 6 leaf stage and broad leaf weeds are in the seedling stage and actively growing. If broadleaf weeds and grassy weeds are not in the recommended treatment stage at the same time, then separate applications should be made.

Application Rate: **CO-OP Patron II** at 0.19 to 0.38 L/ha tank-mixed with MCPA ESTER and the CO-OP Patron II adjuvant at 0.5 to 1.0 % v/v.

Weeds Controlled: As listed for **CO-OP Patron II** used alone, plus certain seedling broadleaf weeds. Refer to the MCPA ESTER label for the rates and broadleaf weeds controlled and specific information on flax.

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 agitation system.

3. Add the correct amount of MCPA ESTER. Continue to agitate.
4. Add the correct amount of **CO-OP Patron II** . Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. 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.
8. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

CO-OP Patron II AND LONTREL® 360:

Flax (including low linolenic acid varieties): CO-OP Patron II may be tank-mixed with LONTREL 360 for control of certain broadleaf and grass weeds in flax in one spray operation. Apply in a minimum of 100 L/ha spray volume at a pressure of 275 kPa.

Follow all precautions, limitations and timing recommendations on the LONTREL 360 label.

Time of Application: Flax may be treated from 5 to 10 cm in height. Apply when the grassy weeds are in the 2 to 6 leaf stage and the broadleaf weeds are actively growing. Application to Canada thistle should be made when Canada thistle is in the rosette to pre-bud stage of growth. If broadleaf weeds and grass weeds are not in recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with LONTREL 360 at 0.56 to 0.83 L/ha and with the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled: Wild oats, green foxtail, volunteer barley, volunteer wheat, volunteer oats, wild buckwheat.

Canada thistle	0.56 L LONTREL 360/ha	Season-long control
	0.83 L LONTREL 360/ha	Control extended into following year.

MIXING INSTRUCTIONS: For mixing instructions, refer to **CO-OP Patron II** and LONTREL 360 tank-mix on canola.

Canola: CO-OP Patron II may be tank-mixed with LONTREL 360 for control of certain broadleaf and grass weeds in canola in one spray operation. Apply in a minimum of 100 L/ha spray volume at a pressure of 275 kPa. Follow all precautions, limitations and timing recommendations on the LONTREL 360 label.

Time of Application: Canola may be treated from the 2 to 6 leaf stage. Apply when the grassy weeds are in the 2 to 6 leaf stage and the broadleaf weeds are actively growing. Application to Canada thistle should be made when Canada thistle is in the rosette to pre-bud stage of growth. If broadleaf weeds and grass weeds are not in recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with LONTREL 360 at 0.42 to 0.83 L/ha and with the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled: Wild oats, green foxtail, volunteer barley, volunteer wheat, volunteer oats.

Wild Buckwheat	0.56 L LONTREL 360/ha	Season-long control
Canada thistle	0.42 L LONTREL 360/ha	Top growth control to 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 agitation system.
3. Add the required amount of LONTREL 360 to the tank. Continue to agitate.
4. Add the correct amount of **CO-OP Patron II**. Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. After any break in the spraying operation, agitate thoroughly before spraying again. Check inside the tank to ensure that sprayer agitation is sufficient to remix the spray materials. Do not allow the mixture to sit overnight. In the case of tank mixtures with broadleaf herbicides, settling will occur if agitation is not continuous.
8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

CO-OP Patron II AND PURSUIT®:

Field Peas: CO-OP Patron II may be tank-mixed with PURSUIT for control of certain broadleaf and grassy weeds in field peas in one spray operation. Apply in a minimum of 100 litres of water per hectare at a spray pressure of 275 kPa. Follow all precautions, limitations and timing recommendations on the PURSUIT label.

Time of Application: Field peas may be treated up to the sixth (6th) trifoliate leaf stage. Apply when volunteer wheat, volunteer barley, wild oats and green foxtail are in the 2 to 6 leaf stage. Apply up to the 4 leaf stage for control of broadleaf weeds. If broadleaf weeds and grassy weeds are not in the recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with PURSUIT at 210 mL/ha and the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled: Wild oats, green foxtail, volunteer barley, volunteer wheat plus the weeds as listed on the PURSUIT label.

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 agitation system.
3. If tank-mixing **CO-OP Patron II** and PURSUIT for once over grass and broadleaf weed control in field peas, add the correct amount of PURSUIT. Continue to agitate.
4. Add the required amount of **CO-OP Patron II** to the tank. Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. 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.
8. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

Imazethapyr Tolerant Canola (e.g. canola varieties with the SMART trait):

CO-OP Patron II may be tank-mixed with **PURSUIT** for control of certain broadleaf and grassy weeds in imazethapyr-tolerant canola varieties in one spray operation. Apply in a minimum of 100 litres of water per hectare at a spray pressure of 275 kPa. Follow all precautions, limitations and timing recommendations on the PURSUIT label.

Time of Application: Imazethapyr-tolerant canola varieties may be treated after the crop has developed one (1) fully expanded leaf. Apply when grassy weeds are in the 2 to 6 leaf stage. Apply up to the 4 leaf stage for control of broadleaf weeds.

Application Rate: **CO-OP Patron II** at 0.19 L/ha tank-mixed with **PURSUIT** at 0.105 or 0.21

L/ha and the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled: As listed for **CO-OP Patron II** plus the following additional weeds.

PURSUIT at 0.105 L/ha for control of chickweed, hempnettle, redroot pigweed*, stinkweed, volunteer canola (not imazethapyr-tolerant), wild mustard and wild buckwheat*, in the 1 to 4 leaf stage.

*For the control of light infestations only. For heavy infestations, use the 0.21 L/ha rate of PURSUIT.

PURSUIT at 0.21 L/ha for control of weeds as listed on the PURSUIT label.

MIXING INSTRUCTIONS: For mixing instructions, refer to **CO-OP Patron II** and PURSUIT tank-mix on field peas.

CO-OP Patron II AND MUSTER®:

Canola: **CO-OP Patron II** may be tank-mixed with MUSTER for control of certain broadleaf and grassy weeds in canola in one spray operation. Apply in a minimum of 100 litres of water per hectare at a spray pressure of 275 kPa. Follow all precautions, limitations and timing recommendations on the MUSTER label.

Time of Application: Canola may be treated from the 2 leaf stage to the beginning of bolting. Apply when the grassy weeds are in the 2 to 6 leaf stage and when the broadleaf weeds are in the cotyledon to 6 leaf stage. If broadleaf weeds and grassy weeds are not in the recommended treatment stage at the same time, then separate applications should be made.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with MUSTER at 20 or 30 g/ha and the CO-OP Patron II adjuvant at 0.5 % v/v.

Weeds Controlled:

Muster at 20 or 30 g/ha: Wild oats, green foxtail, volunteer barley, volunteer oats, volunteer wheat, hempnettle, wild mustard, green smartweed, flixweed (spring seedlings), stinkweed*, and redroot pigweed.

* *Stinkweed suppression at the lower rate. Apply to stinkweed in the 1 to 4 leaf stage.*

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 agitation system.
3. Add the required amount of MUSTER to the tank. Continue to agitate.
4. Once MUSTER is in suspension, add the required amount of **CO-OP Patron II** . Continue to agitate.
5. Add the correct amount of CO-OP Patron II adjuvant along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. On repeat tankloads, prepare a MUSTER/water slurry and add to required water volume in the spray tank prior to adding **CO-OP Patron II** and CO-OP Patron II adjuvant .
8. 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.
9. Immediately after use, refer to MUSTER label for appropriate tank cleanout instructions.

CO-OP Patron II AND LIBERTY® 150 SN or INTERLINE™ – PRAIRIE PROVINCES AND PEACE RIVER REGION AND INTERIOR OF BRITISH COLUMBIA ONLY:

Canola: For use on Glufosinate Ammonium tolerant canola varieties only (e.g. varieties or hybrids labelled LIBERTYLINK).

CO-OP Patron II may be tank-mixed with LIBERTY 150 SN Herbicide or INTERLINE Herbicide for control of certain broadleaf and grass weeds in Glufosinate Ammonium tolerant canola varieties in one spray operation. For ground applications, apply in a minimum of 110 L/ha spray volume at a pressure of 275 kPa. For aerial applications apply this tank-mix in a minimum of 55 L/ha spray volume at a pressure of 300 kPa.

Follow all precautions, limitations and timing recommendations on the LIBERTY 150 SN Herbicide or INTERLINE Herbicide label.

RECOMMENDED APPLICATIONS:

Products	Rate / ha	Weeds Controlled	Time of Application
CO-OP Patron II + LIBERTY 150 SN or INTERLINE + CO-OP Patron II Adjuvant	63 mL/ha + 2.67 or 4.0 L/ha + 0.5% v/v	Wild oat, green foxtail, volunteer barley, volunteer wheat, volunteer oat plus all remaining grass weeds and broadleaf weeds listed on the LIBERTY 150 SN Herbicide or INTERLINE Herbicide label at the application rates of 2.67 and 4.0 L/ha.	Glufosinate Ammonium tolerant canola varieties may be treated from the cotyledon stage up to the early bolting stage. Apply when the wild oat, volunteer wheat, volunteer oat and green foxtail are in the 1- to 5-leaf stage. Refer to the LIBERTY 150 SN Herbicide or INTERLINE Herbicide label for application timing on all remaining grass and broadleaf weeds for 2.67 or 4.0 L/ha.
CO-OP Patron II + LIBERTY 150 SN or INTERLINE + CO-OP Patron II Adjuvant	190 mL/ha + 3.33 or 4.0 L/ha + 0.5 % v/v	Weed species listed on the CO-OP Patron II and LIBERTY 150 SN Herbicide or INTERLINE Herbicide labels plus foxtail barley, spring- germinated Japanese brome, spring-germinated downy brome.	Glufosinate Ammonium tolerant canola varieties may be treated from the cotyledon stage up to the early bolting stage. Apply when the weeds are at growth stages listed on the CO-OP Patron II and LIBERTY 150 SN Herbicide or INTERLINE Herbicide labels, foxtail barley is at the 1- to 4-leaf stage with a maximum of 2 tillers and spring germinated Japanese and downy brome are at the 1- to 6-leaf stage up to the emergence of the 1 st tiller stage.

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 agitation system.
3. Add the required amount of CO-OP Patron II adjuvant to the tank. Continue to agitate until thoroughly mixed.
4. STOP agitation. Add the correct amount of LIBERTY 150 SN Herbicide or INTERLINE to the spray tank. Start agitation system.

5. Add the correct amount of **CO-OP Patron II** along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system and spray out immediately.
7. 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 with broadleaf herbicides, settling will occur if agitation is not continuous.
8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

**CO-OP Patron II AND LIBERTY® 200 SN – EASTERN CANADA
AND BRITISH COLUMBIA ONLY**

Canola: For use on Glufosinate Ammonium tolerant canola varieties only (e.g. varieties or hybrids labelled LIBERTYLINK).

CO-OP Patron II may be tank-mixed with LIBERTY 200 SN Herbicide for control of certain broadleaf and grass weeds in Glufosinate Ammonium tolerant canola varieties in one spray operation. Apply in a minimum of 110 L/ha spray volume at a pressure of 275 kPa. Follow all precautions, limitations and timing recommendations on the LIBERTY 200 SN Herbicide label.

Time of Application: Glufosinate Ammonium tolerant canola varieties may be treated from the cotyledon stage up to the early bolting stage. Apply when the wild oats, volunteer wheat, volunteer oats and green foxtail are in the 1 – 5 leaf stage. Refer to the LIBERTY 200 SN Herbicide label for application timing on all remaining grass and broadleaf weeds for 2.0 or 2.5 L/ha.

Application Rate: **CO-OP Patron II** at 63 mL/ha tank-mixed with LIBERTY 200 SN Herbicide at 2.0 to 2.5 L/ha and with the CO-OP Patron II adjuvant at 0.5% v/v.

Weeds Controlled: Wild oats, green foxtail, volunteer barley, volunteer wheat, volunteer oats plus all remaining grass weeds and broadleaf weeds listed on the LIBERTY 200 SN Herbicide label at the application rates of 2.0 and 2.5 L/ha.

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 agitation system.
3. Add the required amount of CO-OP Patron II adjuvant to the tank. Continue to agitate until thoroughly mixed.
4. STOP agitation. Add the correct amount of **LIBERTY** 200 SN Herbicide to the spray tank. Start agitation system.
5. Add the correct amount of **CO-OP Patron II** along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system and spray out immediately.
7. 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 with broadleaf herbicides, settling will occur if agitation is not continuous.

8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

CO-OP Patron II GLYPHOSATE TOLERANT SOYBEANS

CO-OP Patron II may be tank-mixed with Roundup-Weathermax with Transorb 2 Technology Liquid Herbicide (or other liquid glyphosate products registered for use on glyphosate tolerant soybeans) for control of volunteer glyphosate tolerant corn and other weeds listed on the product labels.

All weeds listed on each label can be controlled in one spray operation.

Apply in a minimum of 100 L/ha spray volume at a pressure of 275 kPa. Follow all precautions, limitations, restrictions and timing recommendations on the glyphosate brand labels.

Time of application: Glyphosate tolerant soybeans may be treated from 1st trifoliolate through to flowering, observing the 75-day PHI. Apply when grass weeds are in the 2- to 6-leaf stage and the broadleaf weeds are actively growing.

Application Rate: CO-OP Patron II at 0.19 L/ha tank-mixed with 900 to 1800 g ae/ha of a liquid glyphosate product that is registered for use on glyphosate tolerant soybeans (equivalent to 1.67 - 3.33 L/ha of Roundup Weathermax with Transorb 2 Technology Liquid Herbicide, a 540 g/L product, plus CO-OP Patron II Adjuvant at 0.5% v/v.

Weeds Controlled: Weed claims listed on the **CO-OP Patron II** Herbicide label plus weed claims listed on the glyphosate product label. Refer to the glyphosate product label for the broadleaf weeds controlled.

Grazing Interval: Do not cut treated crops for feed or graze until 60 days after application.

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 agitation system.
3. Add the correct amount of **CO-OP Patron II** . Continue to agitate.
4. Add the correct amount of CO-OP Patron II Adjuvant. Continue to agitate.
5. Add the required amount of glyphosate brand to the tank along with the remaining amount of water necessary to fill the spray tank.
6. Continue to agitate or run the by-pass system.
7. 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 with broadleaf herbicides, settling will occur if agitation is not continuous.
8. If an oil film starts to build up in the tank, drain it and clean tank with strong detergent solution.
9. Immediately after use, thoroughly clean the sprayer by flushing the system with clean water containing detergent.

MINOR USES:

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Interprovincial Cooperative Limited under the User Requested Minor Use Label Expansion program. For these uses, Interprovincial Cooperative Limited 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.

CROP	Weeds Controlled	Application Rate of:		Remarks
		CO-OP Patron II	CO-OP Patron II adjuvant	
PRAIRIE CARNATION	Annual weeds listed on CO-OP Patron II label. Refer to weed/rate chart in this label.	0.19 L/ha	0.5 % v/v	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergence of weeds and crop.</p> <p>Apply a maximum of one application per year using ground equipment.</p> <p>Apply in a minimum spray volume of 110 L/ha.</p> <p>Do not harvest treated prairie carnations for human consumption.</p> <p>Ground application only.</p>
Edamame, 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.)	Labelled grassy weeds. Refer to weed/rate chart in this label.	0.19 L/ha	0.5 % v/v	<p>TIME OF APPLICATION: Apply CO-OP Patron II postemergence of weeds and crop.</p> <p>Apply a maximum of one application per year using ground equipment.</p> <p>Apply in a minimum spray volume of 110 L/ha.</p> <p>Observe a PHI of 21 days.</p> <p>Ground application only.</p>

<p>(includes dwarf pea, edible-pod pea, snow pea, sugar snap pea), Pigeon pea (<i>Cajanus cajan</i>), Soybean (immature seed) (<i>Glycine max</i>), Sword bean (<i>Canavalia gladiata</i>).</p> <p>Succulent shelled peas and beans (Crop subgroup 6B): 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), Pigeon pea (<i>Cajanus cajan</i>).</p>				
<p>CHERRY (SWEET AND TART) (established trees)</p>	<p>Labelled grassy weeds. Refer to weed/rate chart in this label.</p>	<p>0.19 – 0.38 L/ha</p>	<p>0.5 – 1.0 % v/v</p>	<p>TIME OF APPLICATION: Apply CO-OP Patron II to established sweet and tart cherry trees, post-emergence of weeds. Do not apply CO-OP Patron II directly over the top of the trees. Direct the spray at the base of the tree where grassy weeds are growing. If CO-OP Patron II is improperly applied, crop injury can occur.</p> <p>Apply a maximum of one application per year using ground equipment.</p>

				<p>Apply in a minimum spray volume of 100 litres of water per hectare.</p> <p>Observe a PHI of 14 days.</p> <p>Ground application only.</p>
HIGHBUSH BLUEBERRY	CO-OP Patron II labelled grassy weeds. Refer to weed/rate chart in this label.	0.19 - 0.38 L/ha	0.5 - 1.0 % v/v	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergence of weeds and crop.</p> <p>Apply a maximum of one application per year, post-emergent by ground equipment.</p> <p>Apply as a broadcast spray directed to the ground.</p> <p>Apply in a minimum spray volume of 100 L/ha.</p> <p>Observe a PHI of 14 days.</p> <p>Ground application only.</p>
CORIANDER, (Cilantro), CARAWAY	Labelled grassy weeds. Refer to weed/rate chart in this label	0.19 - 0.38 L/ha Refer to CO-OP Patron II + CO-OP Patron II adjuvant weed/rate chart in this label.	0.5 - 1.0% v/v Refer to CO-OP Patron II + CO-OP Patron II adjuvant weed/rate chart in this label.	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergent when coriander is in the 2 to 5 leaf stage.</p> <p>Apply a maximum of one application per year, using ground equipment.</p> <p>Observe a PHI of 30 days for leaves and 60 days for seed.</p> <p>Ground application only.</p>
DILL	Labelled grassy weeds. Refer to weed/rate chart on this label.	0.19 - 0.38 L/ha	0.5 - 1.0% v/v	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergence of weeds and crop when dill is in the 3-5 leaf stage. 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.</p> <p>Ground application only.</p>
CHIVE	Labelled grassy weeds. Refer to	0.19 – 0.38 L/ha	0.5 – 1.0 % v/v	<p>TIME OF APPLICATION: Apply a maximum of one</p>

	weed/rate chart in this label	Refer to CO-OP Patron II + CO-OP Patron II adjuvant weed/rate chart in this label.	Refer to CO-OP Patron II + CO-OP Patron II adjuvant weed/rate chart in this label.	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 grassy weeds. Refer to weed/rate chart in this label.	0.19 L/ha	0.5 – 1.0 % v/v	TIME OF APPLICATION: Apply CO-OP Patron II 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; culantro (seed); cumin; fennel [common and Florence (seed)]; juniper berry; lovage (seed); mustard (seed); poppy (seed); and saffron	Labelled grassy weeds. Refer to weed/rate chart in this label.	0.19 L/ha	0.5 – 1.0 % v/v	TIME OF APPLICATION: Apply CO-OP Patron II 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 grassy weeds. Refer to	0.125 - 0.38 L/ha	0.5 -1.0% v/v	TIME OF APPLICATION: Apply CO-OP Patron II

	weed/rate chart in this label.			<p>post-emergence of weeds and crop. Apply a maximum of one application per season, using ground equipment. Apply as a broadcast spray directed to the ground. Apply in a minimum spray volume of 110 litres of water per hectare. Observe a PHI of 21 days.</p> <p>Ground application only.</p>
FENUGREEK	Annual weeds listed on CO-OP Patron II label	Refer to CO-OP Patron II + CO-OP Patron II adjuvantweed/rate chart in this label.	Refer to CO-OP Patron II + CO-OP Patron II adjuvant weed/rate chart in this label.	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergent when fenugreek is in the 3 to 5 leaf stage. Apply a maximum of one application per season, using ground equipment. Apply in a minimum spray volume of 100L/ha. Observe a PHI of 30 days for leaves and seed.</p> <p>Ground application only.</p>
DRY BULB ONIONS, DRY BULB SHALLOT and GARLIC	Labelled grassy weeds. Refer to weed/rate chart in this label.	0.19-0.38 L/ha	0.5 % v/v	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergent when the crop is in the 1 to 4 leaf stage.</p> <p>Apply a maximum of one application per season, using ground equipment. Observe a PHI of 45 days.</p> <p>Ground application only.</p>
SAFFLOWER	Annual weeds listed on CO-OP Patron II label	0.19 - 0.38 L/ha.	0.5 - 1.0% v/v.	<p>TIME OF APPLICATION: Apply CO-OP Patron II post-emergent when safflower is in the 6-8 leaf stage. Apply a maximum of one application per season using ground equipment.</p> <p>Apply in a minimum spray volume of 100 litres of water per hectare.</p> <p>Observe a PHI of 70 days.</p> <p>Ground application only.</p>
SPINACH	Annual Weeds listed on CO-OP	Refer to CO-OP Patron II + CO-OP Patron II adjuvant	Refer to CO-OP Patron II + CO-OP Patron II	<p>TIME OF APPLICATION: Apply a maximum of two applications per year with</p>

	Patron II label	weed/rate chart in this label.	adjuvant weed/rate chart in this label.	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 grassy weeds. Refer to weed/rate chart in this label.	0.19 - 0.38 L/ha	0.5 - 1.0% v/v	TIME OF APPLICATION: Apply CO-OP Patron II 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.
RED GARDEN (TABLE) BEET, PARSNIP, CARROT, RADISH	Labelled grassy weeds. Refer to weed/rate chart in this label.	0.19 - 0.38 L/ha	0.5 - 1.0% v/v	TIME OF APPLICATION: Apply CO-OP Patron II post-emergence of weeds and crop using ground equipment. Apply a maximum of two applications per year. If repeat application is required, allow at least 14 days between first and second application. Do not apply more than 0.38 L/ha (90 grams ai/ha) per crop season. Apply in a minimum spray volume of 110 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. In any situation, ensure the proper rate of CO-OP Patron II adjuvant is maintained as listed on the label under APPLICATION RATES OF **CO-OP Patron II** .

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 **CO-OP Patron II** 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.

When applying **CO-OP Patron II** by aircraft, uniform coverage is essential. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Aerial Use Precautions

- Read and understand the entire label before opening this product. If you have questions, call Interprovincial Cooperative Limited at 1-204-233-3461.or obtain technical advice from the distributor or your provincial agricultural representative.
- 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 terrain where there is a potential for surface run-off to enter aquatic systems.
- 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.
- Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift.
- Do not apply when wind speed is greater than 16 km/h at a flying height at the site of application.
- Do not apply with spray droplets smaller than ASAE medium classification.

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 1-204-233-3461.or obtain technical advice from the distributor or your provincial agricultural representative.

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) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

Buffer zones:

Field sprayer application: 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.

Aerial application: 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. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Spot treatments using hand-held equipment DO NOT require a buffer zone.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater 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, <i>Brassica carinata</i> , potato, parsnip, radish, red garden (table) beet, soybean, sunflower	1	1	2
	Spinach, Edamame, Edible-podded Legume (crop subgroup 6A) vegetables, Succulent shelled peas	1	1	1

	and beans (crop subgroup 6B), bean (<i>lupines</i> , <i>phaseolus</i> , and <i>vigna</i> spp.), broad bean, chickpea, guar, lablab bean, Prairie carnation, pigeon pea, various herbs and spices (except chive, coriander, and dill)				
Aerial	Canola, flax (including low linolenic acid varieties), field peas, lentils, potatoes, Oriental (brown) mustard (condiment and oilseed types), yellow mustard, soybeans, sunflowers, <i>Brassica carinata</i>	Fixed wing	10	1	60
		Rotary wing	10	1	50
	Bean (<i>lupines</i> , <i>phaseolus</i> , and <i>vigna</i> spp.), broad bean, chickpea, guar, lablab bean, pigeon pea	Fixed wing	4	1	30
		Rotary wing	1	1	30

For Cherry (sweet and tart):

Use of the following spray methods or equipment DO NOT require a 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*.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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 buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the 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. Do not mix or apply **CO-OP Patron II** with any other additive, pesticide or with fertilizer except as specifically recommended on the label.
6. Allow 4 days between application of **CO-OP Patron II** and any other chemical not recommended as a tank-mix combination on the label.
7. Do not apply more than 0.38 L/ha (90 grams ai/ha) per season.
8. Do not use crops for grazing of livestock or green feed following application of **CO-OP Patron II** 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.
9. **CO-OP Patron II may be applied by air for certain crops specified in this label.**
10. **DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

HERBICIDE RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, **CO-OP Patron II** is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to **CO-OP Patron II** 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 **CO-OP Patron II** 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 Interprovincial Cooperative Limited at 1-204-233-3461.

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.