GROUP 14 HERBICIDE

### **IPCO C-ZONE®**

### Herbicide

# Emulsifiable Concentrate AGRICULTURAL/COMMERCIAL

For Listed Weed Control in Fallow Systems, Preplant or Pre-emergence Burndown, Hooded Sprayer Applications, Harvest Aid Applications and Post-Harvest Burndown.

ACTIVE INGREDIENT: Carfentrazone-ethyl 240 g/L

REGISTRATION NUMBER 33580 PEST CONTROL PRODUCTS ACT

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

CAUTION

EYE AND SKIN IRRITANT

NET CONTENTS: 0.5 Litre - 1,020 Litres

Interprovincial Cooperative Ltd. P.O. Box 1050 Saskatoon, SK Canada S7K 3M9

### **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.

### **PRECAUTIONS**

### KEEP OUT OF THE REACH OF CHILDREN.

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**Caution.** Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing vapours. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Do not use or store near heat or open flame.

### PERSONAL PROTECTIVE EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### DO NOT apply by air.

### **RESTRICTED-ENTRY INTERVAL:**

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

Apply only when the potential for drift to areas of human habitation and activity such as houses, cottages, schools and recreational areas. Take into

consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

### **ENVIRONMENTAL PRECAUTIONS**

This product contains an active ingredient and aromatic petroleum distillates, which are toxic to aquatic organisms. Toxic to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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.

### **FIRST AID**

**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 IMMEDIATELY for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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 to 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 Swallowed:** Call a poison control centre or doctor IMMEDIATELY for treatment advice. Contains petroleum distillates. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also call 1-888-CAN-UTEC (226-8832) for emergency medical treatment information.

### **TOXICOLOGICAL INFORMATION**

**Note to Physician:** IPCO C-ZONE® Herbicide is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

### STORAGE

Store this product away from food or feed. Not for use or storage in or around the home. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Isolate IPCO C-ZONE® Herbicide in storage to prevent contamination of other pesticides, fertilizers, water, food or animal feeds. In case of spill, avoid contact, isolate area and keep out unprotected persons and animals. Confine spills.

### **DISPOSAL**

### **Recyclable Containers:**

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

- 1. Triple-rinse or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

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

### **Returnable Containers:**

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

### **Refillable Containers:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. DO NOT reuse this container for any other purpose.

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

IN CASE OF EMERGENCY, CALL 1-888-CAN-UTEC (226-8832) (24 HOURS).

### **IPCO C-ZONE®**

### Herbicide

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### **GENERAL INFORMATION**

### **SECTION 1: 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.

### **SECTION 2: PRODUCT INFORMATION**

IPCO C-ZONE® Herbicide is an emulsifiable concentrate formulation. IPCO C-ZONE® Herbicide is to be mixed with water and listed adjuvants and applied to labelled crops or sites.

IPCO C-ZONE® Herbicide used as directed will provide selective post-emergence control of broadleaf weeds, weed burndown prior to planting, pre-emergence to the crop (up to 3 days after seeding) or post-harvest, and defoliate/desiccate labelled crops as a harvest aid.

Weed control is optimized when the product is applied to actively growing weeds up to 10 cm in height, or as specified. IPCO C-ZONE® Herbicide is a contact herbicide. Within a few hours following application, the foliage of susceptible weeds shows signs of desiccation, and in subsequent days, necrosis and death of the plant occur.

Extremes in environmental conditions such as temperature, moisture, soil conditions, and cultural practices may affect the activity of IPCO C-ZONE® Herbicide. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms may be reduced as weeds hardened off by drought are less susceptible to IPCO C-ZONE® Herbicide.

IPCO C-ZONE® Herbicide is rapidly absorbed through the foliage of plants. To avoid significant crop response, applications should not be made within 6 to 8 hours of either rain or irrigation or when heavy dew is present on the crop. Due to environmental conditions and with certain spray tank additives, some herbicidal symptoms may appear on the crop.

### **SAFETY AND HANDLING**

### **SECTION 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT**

### **PRECAUTIONS**

KEEP OUT OF THE REACH OF CHILDREN.

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**Caution.** Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid breathing vapours. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Do not use or store near heat or open flame.

DO NOT by air.

### PERSONAL PROTECTIVE EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### RESTRICTED-ENTRY INTERVAL:

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

Apply only when the potential for drift to areas of human habitation and activity such as houses, cottages, schools and recreational areasTake into

consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

### **SECTION 4: ENVIRONMENTAL PRECAUTIONS**

This product contains an active ingredient and aromatic petroleum distillates, which are toxic to aquatic organisms.

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

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.

### **SECTION 5: FIRST AID AND TOXICOLOGICAL INFORMATION**

### **FIRST AID**

**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 IMMEDIATELY for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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 to 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 SWALLOWED:** Call a poison control centre or doctor IMMEDIATELY for treatment advice. Contains petroleum distillates. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also call **1-888-CAN-UTEC** (226-8832) for emergency medical treatment information.

### TOXICOLOGICAL INFORMATION

**Note to Physician:** IPCO C-ZONE® Herbicide is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

### **SECTION 6: STORAGE**

Store this product away from food or feed. Not for use or storage in or around the home. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Isolate IPCO C-ZONE® Herbicide in storage to prevent contamination of other pesticides,

fertilizers, water, food or animal feeds. In case of spill, avoid contact, isolate area and keep out unprotected persons and animals. Confine spills.

### **SECTION 7: DISPOSAL**

### **Recyclable Containers:**

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

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### **Refillable Containers:**

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

IN CASE OF EMERGENCY, CALL 1-888-CAN-UTEC (226-8832) (24 HOURS).

# SECTION 8: WEEDS AND CROP USES SECTION 8.1: DIRECTIONS FOR USE

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

IPCO C-ZONE® Herbicide may be applied to a crop as a preplant, pre-emergence burndown application, hooded sprayer application or as a harvest aid.

For certain crops, up to two different application types can be applied to the crop per year. For example, for legume vegetables, two applications are permitted; a preplant or pre-emergence application can be followed by a hooded sprayer application OR a harvest aid application. Refer to the table below for a summary of application types labeled for each crop or crop group and the maximum number of applications to each crop/crop group that are permitted.

A post-harvest burndown application can also be made after the harvest of the crop. DO NOT apply more than two applications in total per year, including post-harvest application.

Crop/Crop Group	Application Type	Maximum Annual Rate	Maximum Number of Applications to the Crop**
Crop Group 1: Root and Tuber Vegetables (except potatoes)			
Crop Group 3-07: Bulb Vegetables			
Crop Group 4-13: Leafy Vegetables			
Crop Group 5-13: <i>Brassica</i> Head and Stem Vegetables	Hooded sprayer	117 mL/ha	Maximum one
Crop Subgroup 13-07B: Bushberries		(28 g ai/ha)	application per
Crop Subgroup 22B: Leaf Petiole Vegetables		(20 g aa)	year.
Strawberries			
Mint	Preplant burndown, hooded sprayer or dormancy spray		
Crop Group 6: Legume Vegetables (Succulent or Dried)*	Preplant or pre- emergence burndown, hooded sprayer or harvest aid	234 mL/ha	Maximum two applications
Small-grain cereals (barley, millet, oats, triticale, wheat)	Preplant or pre- emergence burndown or harvest aid	(56 g ai/ha)	per year.

Crop/Crop Group	Application Type	Maximum Annual Rate	Maximum Number of Applications to the Crop**
Sorghum	Preplant or pre- emergence burndown or harvest aid	146 mL/ha (35 g ai/ha)	
Crop Group 8-09: Fruiting Vegetables	Preplant burndown, hooded sprayer	234 mL/ha	
Crop Group 9: Cucurbit Vegetables	nooded sprayer	(56 g ai/ha)	
Crop Group 11-09: Pome Fruits			
Crop Group 12-09: Stone Fruits			
Crop Subgroup 13-07A: Caneberries	Hooded sprayer, sucker/primocane control	300 mL/ha	
Crop Group 14-11: Tree Nuts	Sucker/primocane control	(72 g ai/ha)	
Grapes			
Hops			
Crop Subgroup Group 20A: Rapeseed			
Crop Subgroup 20B: Sunflowers	Preplant or pre-	234 mL/ha	
Other cereals (buckwheat, field corn, sweet corn, popcorn, rye, teosinte, wild rice)	emergence burndown	(56 g ai/ha)	
Potatoes	Preplant burndown, hooded sprayer or harvest aid	700 mL/ha (168 g ai/ha)	
Field grown woody ornamental nurseries	Sucker control	300 mL/ha (72 g ai/ha)	

<sup>\*</sup>Harvest aid applications for Crop Subgroup 6C dried shelled pea and bean (except lentil) and soybeans only.

### **SECTION 8.2: WEEDS CONTROLLED**

When used as directed, IPCO C-ZONE® Herbicide will provide control of the listed weeds up to ten (10) cm in height, or as specified.

<sup>\*\*</sup>Post harvest applications are not considered to be applied to the crop as they are applied after harvest; however, a post-harvest application is considered to be one of the two permitted applications in a single year. Thus, if two applications were made to the crop during the season, a post-harvest application is not permitted.

Weeds Controlled	IPCO C-ZONE® Herbicide Use Rate mL per hectare
Lamb's-quarters, common (up to 7.5 cm tall)	
Morning glory (up to 3 leaves)	36.5 mL
Nightshade, black (up to 5 cm tall)	
Nightshade, Eastern black (up to 5 cm tall)	
Pigweed, redroot	
Velvetleaf	
Waterhemp, tall (up to 5 cm tall)	
All the weeds controlled at 36.5 mL per hectare plus the weeds listed below:	58 mL
Flixweed	
Lamb's-quarters, common	
Mallow, round-leaved	
Morning glory	
Nightshade, hairy	
Pennycress, field (stinkweed)	
Pigweed, prostrate	
Pigweed, smooth	
Pigweed, tumble	
Purslane, common	
Smartweed, Pennsylvania (seedling)	
Mustard, tansy	
Waterhemp, tall	
Waterhemp, common	
All the weeds controlled at 58 mL per hectare plus the weeds listed below:	73 mL
Carpetweed	
Cleavers	
Cocklebur	
Jimsonweed	
Kochia	
Nightshade, black	
Nightshade, Eastern black	
Thistle, Russian (up to 5 cm tall)	
Shepherd's purse	
Canola, volunteer, including glyphosate- tolerant	

Weeds Controlled	IPCO C-ZONE <sup>®</sup> Herbicide Use Rate mL per hectare
All the weeds controlled at 73 mL per hectare plus the weeds listed below:	117mL
Burclover	
Lettuce, prickly	
Mallow, Venice (up to 5 cm tall)	
Spurry, corn	

## <u>SECTION 8.3: PREPLANT, PRE\_EMERGENCE OR POST\_HARVEST BURNDOWN AND</u> FALLOW SYSTEMS

#### PREPLANT BURNDOWN

IPCO C-ZONE® Herbicide may be used for preplant burndown applications in crops listed below.

### **Potatoes**

Crop Subgroup 6: Legume Vegetable (Succulent or dried): bean (*Lupinus* spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin; bean (*Phaseolus* spp. includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); Bean (*Vigna* spp. includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava bean); chickpea (garbanzo bean); guar; jackbean; lablab bean (hyacinth bean); lentil; pea (*Pisum* spp. includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); soybean; sword bean.

**Crop Group 8-09: Fruiting Vegetables (Except Cucurbits)** (transplanted only): African eggplant; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; okra; pea eggplant; pepino; bell pepper, nonball pepper, scarlet eggplant; sunberry; tomatillo; tomato; as well as cultivars, varieties and/or hybrids of these commodities.

Crop Group 9: Cucurbit Vegetables (transplanted only): Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; edible gourd (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon (includes true cantaloupe, cantaloupe, casaba melon, crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon); pumpkin; summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon (includes hybrids and/or varieties of Citrullus lanatus).

**Crop Group 15: Cereal Grains (except rice):** barley; buckwheat; corn (includes sweet corn and field corn); pearl millet, proso millet; oats; popcorn; rye; sorghum (milo); teosinte; triticale; wheat; wild rice.

**Crop Subgroup 20A:** Rapeseed: borage; crambe; cuphea; echium; flax seed; gold of pleasure (camelina); hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed (canola); sesame; sweet rocket; as well as cultivars and/or hybrids of these commodities.

**Crop Subgroup 20B: Sunflowers:** calendula; castor oil plant; euphorbia; evening primrose; Niger seed; rose hip; safflower; Stokes aster; sunflower; as well as cultivars and hybrids of these commodities.

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

### PRE-PLANT BURNDOWN APPLICATION TO MINT

FIXE-FEART DO	PRE-PLANT BURNDOWN APPLICATION TO WIINT			
Crop	Mint			
Rate	37-117 mL/ha			
Water Volume	Apply using a minimum water volume of 100 L/ha.			
Adjuvant	<ul> <li>The addition of one of the following adjuvants is required:         <ul> <li>A non-ionic surfactant at 0.25% v/v (0.25 L per 100 L of spray solution)</li> <li>Destination<sup>™</sup> MSO at 1% v/v (1 L per 100 L of spray solution)</li> <li>Journey<sup>™</sup> HSOC or Destinaire<sup>™</sup> High Surfactant Oil Concentrate at 0.5% (0.5 L per 100L of spray solution)</li> <li>Merge<sup>®</sup> at 1% v/v (1 L per 100 L of spray solution)</li> </ul> </li> </ul>			
Pre-Harvest Interval	Do not apply within 91 days of harvest			
Comments	For optimum performance, make application to actively growing weeds up to 10 cm high, or as specified. Coverage of the weeds is essential for good control.  Apply only one application of IPCO C-ZONE® Herbicide to mint per season. Do not follow a pre-plant burndown application with a dormancy or hooded sprayer application of IPCO C-ZONE® Herbicide.			

### PRE-EMERGENCE BURNDOWN

IPCO C-ZONE<sup>®</sup> Herbicide may be applied up to 3 days after seeding to control emerged weeds in the crops listed below. **DO NOT** apply if the crop has emerged.

Crop Group 6: Legume Vegetables (Succulent or Dried): bean (Lupinus spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin; bean (Phaseolus spp. includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (Vigna spp. includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava bean); chickpea (garbanzo bean); guar; jackbean; lablab bean (hyacinth bean); lentil; pea (Pisum spp. includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); soybean; sword bean.

**Crop Group 15: Cereal Grains (except rice):** barley; buckwheat; corn (includes sweet corn and field corn); pearl millet; proso millet; oats; popcorn; rye; sorghum (milo); teosinte; triticale; wheat; wild rice.

**Crop Subgroup 20A: Rapeseed:** borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed (canola); sesame; sweet rocket; as well as cultivars and/or hybrids of these commodities.

**Crop Subgroup 20B: Sunflowers:** calendula; castor oil plant; euphorbia; evening primrose; Niger seed; rose hip; safflower; Stokes aster; sunflower; as well as cultivars and hybrids of these commodities.

### **POST-HARVEST BURNDOWN**

IPCO C-ZONE<sup>®</sup> Herbicide can be applied after harvest to control actively-growing emerged weeds. DO NOT apply a post-harvest application to fields where two applications of IPCO C-ZONE<sup>®</sup> Herbicide were made in that same year.

Legume vegetables (CG6), fruiting vegetables (CG8-09), cucurbit vegetables (CG9), cereal grains (CG15), rapeseed (CSG20A), sunflowers (CSG20B), mint and potatoes may be planted the following spring after post-harvest application. All other crops may be planted after 12 months.

### **FALLOW SYSTEMS**

IPCO C-ZONE® Herbicide may be utilized in fallow cropping systems where crops are seeded and harvested in alternate years for soil moisture conservation.

## IPCO C-ZONE® HERBICIDE USE RATES FOR PRE-PLANT, PRE\_EMERGENCE OR POST-HARVEST BURNDOWN AND FALLOW SYSTEMS

Apply IPCO C-ZONE® Herbicide for pre-plant, pre-emergence or post-harvest burndown and fallow systems at up to 117 mL per hectare except for sorghum where IPCO C-ZONE® Herbicide may be applied for pre-plant burndown at up to 73 mL per hectare. For optimum performance, make application to actively growing weeds up to 10 cm high, or as specified. **Coverage of the weeds is essential for good control**.

### ADJUVANT RECOMMENDATIONS FOR PREPLANT, PRE-EMERGENCE OR POST-HARVEST BURNDOWN AND FALLOW SYSTEMS

When using IPCO C-ZONE® Herbicide alone, the addition of one of the following adjuvants is required:

- A non-ionic surfactant at 0.25% v/v (0.25 L per 100 L of spray solution)
- Destination<sup>™</sup> MSO at 1% v/v (1 L per 100 L of spray solution)
- Journey<sup>™</sup> HSOC or Destinaire<sup>™</sup> High Surfactant Oil Concentrate at 0.5% (0.5 L per 100L of spray solution)
- Merge<sup>®</sup> at 1% v/v (1 L per 100 L of spray solution)

### **TANK-MIXES:**

This product may be tank mixed with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions for Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Interprovincial Cooperative Ltd. at 1-204-233-3461 for information before applying any tank mix that is not specifically recommended on this label.

### IPCO C-ZONE® HERBICIDE PLUS GLYPHOSATE

Apply IPCO C-ZONE<sup>®</sup> Herbicide at 36.5-73 mL per hectare in combination with registered glyphosate products at 450-900 grams of ae/ha.

Use 100 L/ha water and ensure good coverage for maximum performance.

This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® applied, as well as those listed in the following table:

Rate of Glyphosate	Weeds controlled		
	Green foxtail		
	Lady's thumb		
450 g co/bo1	Volunteer barley		
450 g ae/ha¹	Volunteer wheat		
	Wild mustard		
	Wild oats		
	Weeds controlled by the 450 g ae/ha rate plus:		
	Canada fleabane (less than 8 cm in height)		
	Common ragweed (less than 8 cm in height)		
	Downy brome		
450 695 g co/bo1	Giant foxtail		
450-685 g ae/ha¹	Hemp nettle		
	Persian darnel		
	Volunteer flax		
	Narrow-leaved hawk's beard <sup>2</sup>		
	Wild buckwheat <sup>3</sup>		
	Weeds controlled by the 450-685 g ae/ha rate plus:		
	Annual bluegrass		
810 g ae/ha <sup>1</sup>	Annual sow thistle		
010 g ae/ila	Crab grass		
	Narrow-leaved vetch		
	Prickly lettuce		
	Weeds controlled by the 810 g ae/ha rate plus:		
	Canada thistle (rosette stage; summerfallow)		
900 g ae/ha¹	Dandelion (less than 15 cm)		
	Quackgrass (light to moderate infestations, 3-4 green leaves or		
	more)		

<sup>&</sup>lt;sup>1</sup>Weeds up to 15 cm in height are controlled by this rate unless otherwise specified

<sup>&</sup>lt;sup>2</sup> Narrow-leaved hawk's-beard use 450 g ae/ha if less than 8cm in height or 685 g ae/ha if 8-15 cm

<sup>&</sup>lt;sup>3</sup> Wild buckwheat use 450 g ae/ha if less than 3 leaves or 685 g ae/ha if 3-4 leaf stage

### IPCO C-ZONE® HERBICIDE PLUS 2,4-D ESTER

Apply IPCO C-ZONE® Herbicide at 36.5-73 mL per hectare in combination with registered 2,4-D Ester products at 330-528 grams of ae/ha.

Use 100 L/ha water and ensure good coverage for maximum performance.

This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table:

Rate of 2,4-D Ester	Weeds controlled		
	Annual sow thistle		
	Bluebur (before the 4-leaf stage)		
	Burdock (before the 4-leaf stage)		
	Common ragweed		
	Daisy fleabane		
	False flax		
	False ragweed		
	Giant ragweed		
	Goat's beard		
	Horsetail		
330-528 g ae/ha¹	Mustards (except dog mustard)		
	Narrow-leaved hawk's beard (1-2 leaf stage)		
	Plantain		
	Prickly lettuce		
	Russian pigweed		
	Stinging nettle		
	Sweet clover (seedling)		
	Thyme-leaved spurge		
	Wild buckwheat		
	Wild radish		
	Wild (prairie) sunflower		

<sup>&</sup>lt;sup>1</sup>Weeds less 8 cm tall and actively growing.

# IPCO C-ZONE® HERBICIDE PLUS PYROXASULFONE 85 WG FOR GLYPHOSATE TOLERANT CORN AND SOYBEANS

Apply IPCO C-ZONE $^{\circ}$  Herbicide at 36.5 – 73 mL per hectare in combination with Pyroxasulfone 85 WG at 118 grams per hectare for early season control of certain weeds. A planned in-crop application of glyphosate should follow this use for season long control.

Use 100 L/ha water and ensure good coverage for maximum performance.

This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Rate of Pyroxasulfone 85WG	Weeds controlled
	Barnyard grass
	Common ragweed
	Downy brome
	Giant foxtail
440/1	Green foxtail
	Green pigweed
118 g/ha <sup>1</sup>	Italian ryegrass
	Japanese brome
	Large crabgrass
	Yellow foxtail
	Wild oats (suppression)
	Wild buckwheat (suppression)

<sup>&</sup>lt;sup>1</sup>This rate provides early season control only. An in-crop application of glyphosate will be needed for season long control.

# IPCO C-ZONE® HERBICIDE PLUS BROMOXYNIL CONTAINING PRODUCTS FOR BURNDOWN CONTROL OF VOLUNTEER CANOLA (ALL TYPES)

This tank mix provides burndown control of volunteer canola prior to seeding canola crops.

Apply IPCO C-ZONE® Herbicide at 36.5 – 73 mL per hectare in combination with listed bromoxynil products at 140 grams a.i. per hectare. Registered glyphosate products can be added to this tank mix at 450-900 g a.e./ha.

IPCO C-ZONE® Herbicide + bromoxynil products will control volunteer canola (all types including Liberty Link, Clearfield, and Roundup Ready) from cotyledon stage up to the 4-leaf stage.

Use 100 L/ha water and ensure good coverage for maximum performance.

No adjuvant required when using this tank-mix with glyphosate.

See table below for rates of bromoxynil containing products based on concentration:

Products	Rate/Hectare	
235 g/L	600 mL	
NuFarm Koril <sup>®</sup> 235 Liquid Herbicide		
or Bromotril II 240 EC		
240 g/L	584 mL	
IPCO Brotex® 240 Liquid Herbicide		
or Bromotril II 240 EC		
480 g/L	292 mL	
IPCO Brotex® 480 Liquid Herbicide		
or IPCO Brotex 4AT		

### IPCO C-ZONE® HERBICIDE PLUS EXPRESS® SG HERBICIDE PLUS GLYPHOSATE

For control of broadleaf weeds and grasses in fallow and pre-seed to spring wheat (including durum), winter wheat, spring barley, oats and pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean).

With any chemfallow treatment, allow at least 10 days to elapse between treatment and tillage. Only weeds emerged at time of application will be controlled.

Fields treated with this tank mix can be seeded to spring wheat (including durum), winter wheat, spring barley, oats or pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean) a minimum of 24 hours after application.

For pre-seed applications in the spring, injury to pulse crops may occur on coarse-textured soils, low in organic matter (less than 3%), or in fields with variable soils, gravely areas, sandy areas or eroded knolls. Avoid planting pulse crops in soils containing more than 50% sand.

Fields treated with a post-harvest application of this tank mix in the fall may be seeded in the spring to spring wheat (including durum), spring barley, oats, field corn, pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean) canola and flax.

Apply IPCO C-ZONE® Herbicide at 36.5 – 117 mL/ha with EXPRESS® SG Herbicide at 15 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450-810 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed*
EXPRESS® SG Herbicide +	15 g/ha +	Up to 8 cm	Canada fleabane, common ragweed, narrow leaved	Scentless chamomile
Glyphosate (present	450 g ae/ha		hawk's beard	VACI I
as potassium salt,		Up to 10 cm		Wild carrot
isopropylamine salt, ammonium salt)		Up to 15 cm	Dandelion, downy brome, flixweed, giant foxtail, green foxtail, hemp nettle, kochia, lady's thumb, lamb's-quarters, Persian darnel, redroot pigweed, Russian thistle, stinkweed, volunteer barley, volunteer canola (including glyphosate-tolerant varieties), volunteer flax, volunteer wheat, wild mustard, wild oats	Tufted vetch

		Up to 3-leaf	Cow cockle, wild buckwheat	
		Up to 8-leaf	Common chickweed	
		Rosette		Canada thistle, White cockle
Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed*
EXPRESS® SG Herbicide + Glyphosate (present as potassium salt, isopropylamine salt, ammonium salt)	15 g/ha + 810 g ae/ha	Weeds up to 15 cm in height	Annual grasses listed above plus crab grass (large and smooth) and annual blue grass.  All annual broadleaved weeds listed above plus prickly lettuce, shepherd's purse, annual sow thistle and narrowleaved vetch.	

<sup>\*</sup>Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

### IPCO C-ZONE® HERBICIDE PLUS NC-0050 Herbicide PLUS GLYPHOSATE

For use in the Prairie provinces and the Interior of British Columbia (including the Peace River Region) prior to seeding spring wheat (including durum) winter wheat, spring barley, oats and pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean) and for chemfallow applications.

With any chemfallow treatment, allow at least 10 days to elapse between treatment and tillage. Only weeds emerged at time of application will be controlled.

Fields treated with this tank mix can be seeded to spring wheat (including durum), winter wheat, spring barley, oats or pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean) a minimum of 24 hours after application.

Injury to pulse crops may occur on coarse-textured soils, low in organic matter (less than 3%), or in fields with variable soils, gravely areas, sandy areas or eroded knolls. Avoid planting pulse crops in soils containing more than 50% sand.

Fields treated with a post-harvest application of this tank mix in the fall may be seeded in the spring to spring wheat (including durum), spring barley, oats, field corn, pulse crops (including chickpea, dry bean, faba bean, field pea, lentil, lupin and soybean) canola and flax.

Apply IPCO C-ZONE® Herbicide at 36.5-117 mL/ha with NC-0050 Herbicide at 15 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450-810 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed*
NC-0050 Herbicide + Glyphosate (present as potassium salt, isopropylamine salt,	15 g/ha + 450 g ae/ha	Up to 8 cm	Canada fleabane, common ragweed, narrow leaved hawk's beard	Scentless chamomile
ammonium salt)		Up to 15 cm	Dandelion, downy brome, flixweed, giant foxtail, green foxtail, hemp nettle, kochia, lady's thumb, lamb's-quarters, Persian darnel, redroot pigweed, Russian thistle, stinkweed, volunteer barley, volunteer canola (including glyphosate-tolerant varieties), volunteer flax, volunteer wheat, wild mustard, wild oats	
		Up to 3-leaf	Cow cockle, wild buckwheat	
		Up to 8-leaf	Common chickweed	
		Rosette		Canada thistle, White cockle

Tank Mix Partners	Application	Application	Weeds Controlled	Weeds
	Rate	Stage		Suppressed*
NC-0050 Herbicide	15 g/ha	Weeds up to 15	•	
+	+	cm in height	listed above plus	
Glyphosate (present	810 g ae/ha		crab grass (large	
as potassium salt,			and smooth) and	
isopropylamine salt, ammonium salt)			annual blue grass.	
ammonium sait)			All annual	
			broadleaved weeds	
			listed above plus	
			prickly lettuce,	
			shepherd's purse,	
			annual sow thistle	
			and narrow-leaved	
			vetch.	

<sup>\*</sup>Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

## IPCO C-ZONE® HERBICIDE PLUS EXPRESS® FX HERBICIDE OR DB-878 HERBICIDE OR INTRUVIX™ A PLUS GLYPHOSATE

For use in the Prairie provinces and the interior of British Columbia (including the Peace River Region) prior to seeding wheat (spring, durum and winter), spring barley and oats and for chemfallow applications.

With any chemfallow treatment allow at least 10 days to elapse between treatment and tillage. Only weeds emerged at time of application will be controlled.

Treated fields can be seeded to wheat (spring, durum and winter), spring barley or oats a minimum of 24 hours after application.

Fields treated with a post-harvest application of one of these tank mixes in the fall may be seeded in the spring to canola, corn, lentils, oats, spring barley, soybeans, wheat (spring or durum) or white beans.

Apply IPCO C-ZONE® Herbicide at 36.5 − 117 mL/ha with EXPRESS® FX Herbicide or DB-878 Herbicide or INTRUVIX<sup>TM</sup> A at 115 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450 - 810 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed*
EXPRESS® FX Herbicide or DB-878 Herbicide or INTRUVIX <sup>TM</sup> A	115 g/ha	Up to 8 cm	Canada fleabane, common ragweed, kochia (including Group 2 and Group 9 resistant biotypes), narrow leaved hawk's beard	Scentless chamomile
+ Glyphosate (present as potassium salt, isopropylamine salt, or ammonium salt)	+ 450 g ae/ha	Up to 3-leaf Up to 8-leaf	Cleavers, dandelion, downy brome, flixweed, giant foxtail, green foxtail, hemp nettle, lady's thumb, lamb's-quarters, Persian darnel, redroot pigweed, Russian thistle, stinkweed, volunteer barley, volunteer canola (including glyphosate-tolerant varieties), volunteer flax, volunteer wheat, wild mustard, wild oats  Cow cockle  Wild buckwheat	
		Rosette	Wild Buokwilout	Canada thistle, white cockle
EXPRESS® FX Herbicide or DB-878 Herbicide or INTRUVIX™ A + Glyphosate (present as potassium salt, isopropylamine salt, or ammonium salt)	115 g/ha + 810 g ae/ha	Weeds up to 15 cm in height	All annual grasses listed above plus crab grass (large and smooth) and annual blue grass. All annual broadleaved weeds listed above plus prickly lettuce, shepherd's purse, annual sow thistle and narrow-leaved vetch.	

<sup>\*</sup>Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

### NOTE:

If rain occurs soon after application control may be reduced. Environmental conditions that slow the drying of the spray mixture on the foliage such as high relative humidity, cool air temperatures or cloud cover, may increase the time required for absorption.

### IPCO C-ZONE® HERBICIDE PLUS EXPRESS® PRO HERBICIDE OR NC-00439 HERBICIDE PLUS GLYPHOSATE

For use in the Prairie provinces, Peace River Region and the Interior of British Columbia prior to seeding wheat (spring, durum and winter) and spring barley and for chemfallow applications.

With any chemfallow treatment, allow at least 10 days to elapse between treatment and tillage. Only weeds emerged at time of application will be controlled.

Treated fields can be seeded to wheat (spring, durum and winter) or spring barley a minimum of 24 hours after application.

Fields treated with a post-harvest application of one of these tank mixes in the fall may be seeded in the spring to wheat (spring or durum), spring barley or oats, or fields may be summerfallowed.

Apply IPCO C-ZONE® Herbicide at 36.5 – 117 mL/ha with EXPRESS® PRO Herbicide or NC-00439 Herbicide at 17.5 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt or trimethylsulfonium salt) at 450 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed <sup>1</sup>
EXPRESS® PRO Herbicide or NC- 00439 Herbicide + Glyphosate (present as	17.5 g/ha + 450 g ae/ha	Up to 8 cm	Canada fleabane, cleavers <sup>R</sup> , common ragweed, narrow-leaved hawk's beard <sup>R</sup> , scentless chamomile	Night flowering catchfly
potassium salt, isopropylamine		1-6 leaf	Chickweed	
salt, ammonium salt or trimethylsulfonium salt)		Up to 15 cm	Dandelion <sup>R</sup> , downy brome, flixweed, giant foxtail, green foxtail, hemp nettle, kochia, lady's thumb, lamb's-quarters, Persian darnel, redroot pigweed, Russian thistle, stinkweed, volunteer barley, volunteer canola <sup>R</sup> (including glyphosate-tolerant varieties), volunteer flax, volunteer wheat, wild mustard, wild oats	

Tank Mix Partners	Application Rate	Application Stage	Weeds Controlled	Weeds Suppressed <sup>1</sup>
		Up to 3-leaf	Cow cockle, wild buckwheat	
		Rosette	White cockle	Canada thistle

<sup>\*</sup>Weed suppression is a visual reduction in weed competition (reduced population or vigour) as compared to an untreated area. Degree of suppression will vary with size of weed and environmental conditions prior to and following treatment.

### IPCO C-ZONE® HERBICIDE PLUS COMMAND® 360ME

For use as part of an integrated approach for the control of weeds in herbicide-tolerant canola varieties and oilseed mustard (brown, Oriental, yellow).

Application of a post emergence herbicide (e.g., a herbicide to which the crop variety is tolerant) is recommended.

Apply as a single, soil-applied application prior to seedin.

Apply in a minimum of 100 L of water per hectare.

Do not incorporate.

Do not apply to sandy soil. Control may be reduced in high organic matter soils.

This tank mix requires the addition of one of the following adjuvants:

- A non-ionic surfactant at 0.25% v/v (0.25 L per 100 L of spray solution)
- Destination<sup>™</sup>MSO at 1% v/v (1 L per 100 L of spray solution)
- JourneyTM HSOC or Destinaire<sup>™</sup> High Surfactant Oil Concentrate at 0.5% (0.5 L per 100L of spray solution)
- Merge® at 1% v/v (1 L per 100 L of spray solution)

Apply IPCO C-ZONE® Herbicide at 36.5 - 117 mL/ha with COMMAND 360ME at 0.25 L/ha for mustard or 0.25 - 0.33 L/ha for canola in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table.

Tank Mix Partner	Crop	Application Rate (L/ha)	Application Stage	Weeds Controlled/ Suppressed <sup>1</sup>
COMMAND® 360ME	Herbicide- tolerant canola, Oilseed mustard Herbicide	0.25	Apply as a single, soil-applied application prior to seeding.	Cleavers (early season suppression) Common chickweed (suppression) Cleavers (early season
	tolerant canola	0.33		control) Common chickweed (suppression)

<sup>&</sup>lt;sup>1</sup>Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to

<sup>&</sup>lt;sup>R</sup> Residual control. Degree and duration of residual control will depend on environmental conditions at and following treatment and weed infestation levels.

an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Temporary whitening and/or yellowing of the crop may occur when emerging from the treated soil. Susceptible weed species may emerge from the soil but are devoid of pigmentation and plant death occurs in a short period of time.

### IPCO C-ZONE® HERBICIDE PLUS COMMAND® 360ME PLUS GLYPHOSATE

For use as part of an integrated approach for the control of weeds in herbicide-tolerant canola varieties and oilseed mustard (brown, Oriental, yellow). Application of a post emergence herbicide (e.g., an herbicide to which the crop variety is tolerant) is recommended.

Apply as a single, soil-applied application prior to seeding canola.

Apply in a minimum of 100 L of water per hectare.

Do not incorporate the tank mix.

Do not apply to sandy soil. Control may be reduced in high organic matter soils.

Apply IPCO C-ZONE® Herbicide at 36.5 - 117 mL/ha with COMMAND 360ME at 0.25 L/ha for mustard or 0.25 - 0.33 L/ha for canola and glyphosate at 450 - 900 g ae/ha in a total spray volume of 100 L/ha. This tank mix will control weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, as well as those listed in the following table. An adjuvant is not required for this tank mix.

Tank Mix Partner	Crop	Application Rate	Application Stage	Weeds Controlled/ Supressed
COMMAND® 360ME	Herbicide tolerant canola, Oilseed mustard	0.25 L/ha	Apply as a single, soil-applied application	Cleavers (early-season suppression) Common chickweed (suppression)
	Herbicide tolerant canola	0.33 L/ha	prior to seeding	Cleavers (early-season control) Common chickweed (suppression)

Tank Mix Partner	Crop	Application Rate	Application Stage	Weeds Controlled/ Supressed
Glyphosate	Herbicide tolerant canola, Oilseed mustard	450 g ae/ha²		Barley, volunteer Foxtail, green Lady's thumb Mustard, wild Oats, wild
		450 - 685 g ae/ha²		Wheat, volunteer  Weeds controlled by the 450 g ae/ha rate plus: Brome, downy Buckwheat, wild³ Darnel, Persian Flax, volunteer Fleabane, Canada (less than 8 cm in height) Foxtail, giant Hemp nettle Narrow-leaved hawk's beard⁴ Ragweed, common (less than 8 cm in height)
		810 g ae/ha²		Weeds controlled by the 450 - 685 g ae/ha rate plus: Bluegrass, annual Crab grass Narrow-leaved vetch Prickly lettuce Sowthiste, annual
		900 g ae/ha²		Weeds controlled by the 810 g ae/ha rate plus: Dandelion (less than 15 cm) Quackgrass (light to moderate infestations, 3-4 green leaves or more)

<sup>&</sup>lt;sup>1</sup>Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Temporary whitening and/or yellowing of the crop may occur when emerging from the treated soil. Susceptible weed species may emerge from the soil but are devoid of pigmentation and plant death occurs in a short period of time.

<sup>&</sup>lt;sup>2</sup>Weeds up to 15 cm in height are controlled by this rate unless otherwise specified

<sup>&</sup>lt;sup>3</sup>For wild buckwheat use 450 g ae/ha if less than 3 leaves or 685 g ae/ha if 3-4 leaf stage

<sup>&</sup>lt;sup>4</sup>For narrow-leaved hawk's-beard use 450 g ae/ha if less than 8cm in height or 685 g ae/ha if 8-15 cm

### IPCO C-ZONE® HERBICIDE PLUS AUTHORITY® 480 HERBICIDE

For use prior to seeding chickpeas, field peas, fababeans, flax, sunflower, soybeans, mustard or wheat (spring or durum).

Apply IPCO C-ZONE® Herbicide at 36.5 – 117 mL/ha with AUTHORITY® 480 Herbicide at a rate of 219 mL/ha for mustard and wheat and 219 – 292 mL/ha for chickpeas, field peas, fababeans, flax, sunflower or soybeans, in a total spray volume of 100 L/ha. This tank mix will control emerged weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, and will provide extended control of weeds listed in the following table:

Tank Mix Partner	Crops	Application Rate	Application Stage	Weeds Controlled
AUTHORITY® 480 Herbicide	Chickpeas, field peas, fababeans, flax, sunflowers, soybeans, mustard, wheat (spring and durum)	219 mL/ha	Apply as a single, soil-applied application prior to seeding	Kochia Russian thistle (suppression) <sup>1</sup>
	Chickpeas, field peas, fababeans, flax, sunflowers, soybeans	292 mL/ha		Above weeds plus: Cleavers (suppression) <sup>1</sup> Common groundsel Common purslane Common waterhemp Eastern black nightshade Lamb's quarters Large crabgrass Redroot pigweed Smooth crabgrass Wild buckwheat Yellow woodsorrel

<sup>&</sup>lt;sup>1</sup>Suppression only. Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Do not apply to soils classified as coarse-textured soils.

Do not apply in fine textured soils with less than 1.5% organic matter.

Do not apply in any type of soils with an organic matter content greater than 6%. Do not use on soils with a pH of 7.8 or greater.

This tank mix requires the addition of one of the following adjuvants:

- A non-ionic surfactant at 0.25% v/v (0.25 L per 100 L of spray solution)
- Destination<sup>™</sup> MSO at 1% v/v (1 L per 100 L of spray solution)
- Journey<sup>™</sup> HSOC or Destinaire<sup>™</sup> High Surfactant Oil Concentrate at 0.5% (0.5 L per 100L of spray solution)
- Merge<sup>®</sup> at 1% v/v (1 L per 100 L of spray solution)

### IPCO C-ZONE® HERBICIDE PLUS AUTHORITY® SUPREME HERBICIDE

For use prior to seeding chickpeas, field peas, soybean or sunflowers.

Apply IPCO C-ZONE® Herbicide at 36.5 – 117 mL/ha with AUTHORITY® SUPREME Herbicide at a rate of 400 – 600 mL/ha in a total spray volume of 100 L/ha. This tank mix will control emerged weeds listed on this label, corresponding to the rate of IPCO C-ZONE® Herbicide applied, and will provide extended control of weeds listed in the following table:

Tank Mix Partner	Application Rate	Application Stage	Soil Characteristics	Weeds Controlled
AUTHORITY® SUPREME Herbicide	400 mL/ha (early season control only)	Set-up treatment <sup>1</sup> (pre-plant)	Medium to fine texture, O.M. 1 – 6%	Barnyard grass Cleavers Common groundsel Common purslane
	500 mL/ha	Residual treatment (pre-plant)	Medium texture, O.M. 1 – 3%	Common ragweed <sup>2</sup> Common waterhemp Cow cockle
	600 mL/ha		Medium-fine to fine texture, O.M. 3 – 6%	Downy brome Eastern black nightshade Giant foxtail Green foxtail Green pigweed Japanese brome Kochia Lamb's-quarters Large Crabgrass Powell pigweed Redroot pigweed Stinkweed Smooth crabgrass Wild buckwheat Wild mustard² Wild oats² Witchgrass Yellow foxtail Yellow woodsorrel

<sup>&</sup>lt;sup>1</sup>A set-up treatment is an application to remove early weed competition to allow good crop establishment. <sup>2</sup>Suppression only. Suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, weed biotype, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

Do not apply to soils classified as coarse-textured soils.

Do not use on peat or muck soils.

Do not apply on any type of soils with an organic matter content greater than 6%.

Do not use on soils with a pH of 7.8 or greater.

This tank mix requires the addition of one of the following adjuvants:

- A non-ionic surfactant at 0.25% v/v (0.25 L per 100 L of spray solution)
- Destination<sup>™</sup> MSO at 1% v/v (1 L per 100 L of spray solution)
- Journey<sup>™</sup> HSOC or Destinaire High Surfactant Oil Concentrate at 0.5% (0.5 L per 100L of spray solution)
- Merge<sup>®</sup> at 1% v/v (1 L per 100 L of spray solution)

### IPCO C-ZONE® HERBICIDE PLUS MCPA-ESTER AND GLYPHOSATE

The tank mix of IPCO C-ZONE® Herbicide with MCPA-ester and glyphosate can be applied prior to planting wheat, barley, rye, oats and flax. The application rates for various MCPA-ester and glyphosate formulations can be found in the following table.

Tank Mix Partner	Concentration of Active Ingredient	Application Rate	Crops	Comments
	500 g ae/L	0.5 – 1.0 L/ha		The addition of a surfactant is not required for this tank
MCPA-ester	600 g ae/L	0.42 – 0.83 L/ha		Refer to glyphosate
	700 g ae/L	0.36 – 0.72 L/ha	Wheat, barley, rye, oats and flax	and MCPA-ester product labels for information on
Glyphosate	360 g ae/L	1.25 – 2.5 L/ha		weeds controlled.  Weeds should be
3.yp.130dt0	540 g ae/L	0.8 – 1.7 L/ha		less than 15 cm tall and actively growing for best results.

### IPCO C-ZONE® HERBICIDE PLUS SPITFIRE® 50 SC HERBICIDE PLUS GLYPHOSATE

For use prior to seeding spring barley, oats and spring wheat (including durum) or as an initial summerfallow treatment.

Apply IPCO C-ZONE® Herbicide at 36.5 – 117 mL/ha with SPITFIRE® 50 SC Herbicide at a rate of 100 mL/ha with glyphosate (present as an isopropylamine salt or dimethylamine salt) at 450 g ae/ha in a total spray volume of 100 L/ha. This tank mix will provide control of the weeds listed on this label, according to the rate of IPCO C-ZONE® Herbicide applied, and the labelled weeds controlled by SPITFIRE® 50SC Herbicide and glyphosate.

Apply in the spring prior to planting barley, oats or spring wheat (including durum) or as an initial summerfallow treatment, or in the fall prior to planting barley, oats or wheat the following spring. For annual weed control in the fall, only the weeds at labelled growth stages will be controlled. Heavy frost prior to application in the fall may decrease control.

DO NOT follow a preplant application of this tank mix with a post-emergence application of SPITFIRE® 50 SC Herbicide or any other product containing florasulam.

### **SECTION 8.4: HOODED SPRAYER APPLICATIONS**

IPCO C-ZONE® Herbicide must be applied to the row middles of the following emerged crops from crop groups listed below as well as grapes and strawberries using hooded sprayers in accordance with specific information in the Directions for Use section:

**Crop Group 1: Root and Tuber Vegetables:** arrowroot; Chinese artichoke; Jerusalem artichoke; garden beet; sugar beet; edible Burdock; edible canna; carrot; celeriac (celery root); turnip-rooted chervil; chicory; chufa; dasheen (taro); ginseng; horseradish; turnip-rooted parsley; parsnip; potato; radish; oriental radish (daikon); rutabaga; salsify (oyster plant); black salsify; Spanish salsify; sweet potato; turnip; true yam.

Crop Group 3-07: Bulb Vegetables: fresh Chinese chive leaves; fresh chive leaves; daylily; elegans hosta; fritillaria; garlic; great headed garlic; serpent garlic; kurrat; lady's leek; leek; lily; Beltsville bunching onion; bulb onion; Chinese bulb onion; fresh onion; green onion; macrostem onion; pearl onion; potato onion bulb; tree onion tops; Welsh onion tops; shallot; wild leek. Crop Group 4-13: Leafy Vegetables: Chinese amaranth; leafy amaranth; arugula; Indian aster; blackjack; broccoli raab; Chinese broccoli; Abyssinian cabbage; seakale cabbage; cat's whiskers; cham-chwi; cham-na-mul; fresh chervil leaves; bok choy (Chinese cabbage); chipilin; garland chrysanthemum; fresh cilantro leaves; collards; corn salad (including Lamb's lettuce and Italian corn salad); cosmos; garden cress; upland cress; dandelion; dang-gwi; fresh dillweed leaves; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; Hanover salad; huauzontle; jute leaves; kale; bitter lettuce; head lettuce; leaf lettuce; maca; mizuna; mustard greens; orach; fresh parsley leaves; buckhorn plantain; common plantain; English primrose; garden purslane; winter purslane; radicchio (red chicory); radish leaves; rape greens; wild rocket; shepherd's purse; spinach; Malabar spinach; New Zealand spinach; tree spinach (giant lambsquater); Swiss chard; tanier spinach; turnip greens; Chinese violet; watercress; as well as cultivars, varieties, and hybrids of these commodities.

Crop Group 5-13: Brassica Head and Stem Vegetables: broccoli; Brussels sprouts; cabbage; Chinese cabbage (napa); cauliflower; as well as cultivars, varieties and/or hybrids of these. Crop Subgroup 6: Legume Vegetable (Succulent or dried): bean (Lupinus spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin; bean (Phaseolus spp.includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (Vigna spp. includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava bean); chickpea (garbanzo bean); guar; jackbean; lablab bean (hyacinth bean); lentil; pea (Pisum spp. includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea); pigeon pea; soybean (immature soybean seed); sword bean, soybean.

**Crop Group 8-09: Fruiting Vegetables (transplanted only)**: African eggplant; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; okra; pea eggplant; pepino; bell pepper, nonball pepper, scarlet eggplant; sunberry; tomatillo; tomato; as well as cultivars, varieties and/or hybrids of these commodities.

Crop Group 9: Cucurbit Vegetables (transplanted only): Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; edible gourd (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon); pumpkin; summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).

**Crop Group 11-09: Pome Fruits:** apple; azarole; crabapple; mayhaw; medlar; pear; Asian pear; quince; Chinese quince; Japanese quince; tejocote; as well as cultivars, varieties and/or hybrids of these commodities.

**Crop Group 12-09: Stone Fruits:** apricot; Japanese apricot; black cherry; Nanking cherry; sweet cherry; tart cherry; Chinese jujube; nectarine; peach; plum; American plum; beach plum; Canada plum; cherry plum; Chickasaw plum; Damson plum; Japanese plum; Klamath plum; prune plum; plumcot; sloe; as well as cultivars, varieties and/or hybrids of these commodities.

**Crop Group 13-07: Caneberries:** blackberry (includes Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, bromberre, California blackberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry,

ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, as well as cultivars, varieties and/or hybrids of these commodities); loganberry; raspberry (black and red); wild raspberry; as well as cultivars, varieties and/or hybrids of these commodities.

**Crop Subgroup 13-07B: Bushberries**: aronia berry; highbush blueberry; lowbush blueberry; buffalo currant; Chilean guava; black currant; red currant; elderberry; European barberry; gooseberry; highbush cranberry; edible honeysuckle; huckleberry; jostaberry; juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; as well as cultivars, varieties and/or hybrids of these commodities.

**Crop Subgroup 22B**: Leaf Petiole Vegetables: cardoon; celery; Chinese celery; fuki; rhubarb; udo; zuiki; as well as cultivars, varieties and/or hybrids of these commodities.

### **Grapes**

**Strawberries** 

### IPCO C-ZONE® HERBICIDE USE RATES FOR HOODED SPRAYER APPLICATIONS

IPCO C-ZONE® Herbicide must be applied with hooded sprayers to control labelled weeds between the rows of the below listed emerged crops. This treatment must be made to crops grown in rows, and includes crops grown in rows where mulch or plastic barriers are used as a weed control tool in the drill or plant line. IPCO C-ZONE® Herbicide may be applied at use rates 37-117mL in a minimum of 100 litres per hectare of spray solution.

Hooded sprayers must be designed, adjusted and operated in such a manner as to totally enclose the spray nozzles, tips and pattern and to prevent any spray deposition to green stem tissue, foliage, blooms or fruit of the crop being treated.

PRECAUTIONS: Crop injury will occur when spray is allowed to come in contact with the green stem tissue, leaves, blooms or fruit of the crop.

Sprayers shall not be operated at more than eight (8) km/h in order to minimize vertical movement of the sprayer during application, including the bouncing or raising of the equipment. Use extreme care in applying to fields where the soil surface is uneven, has deep furrows, drains or other contours that disturb the adjustment and positioning of the spray equipment and/or the spray pattern. Applications must not be made when windy conditions may result in spray deposition onto sensitive plants or plant parts.

For optimum performance, make application to actively growing weeds up to 10 cm tall, or as specified. Coverage of the weeds is essential for good control.

### ADJUVANT RECOMMENDATIONS FOR HOODED SPRAYER APPLICA-TIONS

Use Agral<sup>®</sup> 90 or Ag-Surf<sup>®</sup> at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge<sup>®</sup> at 1% v/v (1 litre per 100 litres of spray solution).

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Interprovincial Cooperative Ltd. under the User Requested Minor Use Label Expansion program. For these uses, Interprovincial Cooperative Ltd. 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 GROUP 14-11 – TREE NUTS**:

IPCO C-ZONE® Herbicide may be applied to tree nuts using hooded sprayers, according to the directions below:

Сгор	Crop Group 14-11: Tree nuts: almond, beech nut, bur oak, butternut, chestnut, chinquapin, ginkgo, hazelnut (filbert), heartnut, hickory nut, Japanese horse-chestnut, monkey puzzle nut, pecan, pine nut, walnut (black and English), yellowhorn, as well as cultivars, varieties and/or hybrids of these commodities.
Rate	37-117 mL/ha
Water Volume	Apply using a minimum water volume of 100 L/ha.
Adjuvant	Use Agral® 90 or AgSurf® adjuvants at 0.25% v/v. Mix thoroughly before spraying.
Pre-Harvest Interval	Do not apply within 3 days of harvest.
Notes and precautions	Apply a maximum of 1 application per season.  Hooded sprayers must be designed, adjusted and operated in such a manner as to totally enclose the spray nozzles, tips and pattern and to prevent any spray deposition to green stem tissue, foliage, blooms or fruit of the crop being treated.  Crop injury will occur when spray is allowed to come in contact with the green stem tissue, leaves, blooms or fruit of the crop.  Sprayers shall not be operated at more than eight (8) km/h in order to minimize vertical movement of the sprayer during application, including the bouncing or raising of the equipment. Use extreme care in applying to fields where the soil surface is uneven, has deep furrows, drains or other contours that disturb the adjustment and positioning of the spray equipment and/or the spray pattern. Applications must not be made when windy conditions may result in spray deposition onto sensitive plants or plant parts.  For optimum performance, make application to actively growing weeds up to 10 cm tall, or as specified. Coverage of the weeds is essential for good control.

### **HOODED SPRAYER APPLICATION TO MINT**

Crop	Mint
Rate	37-117 mL/ha
Water Volume	Apply using a minimum water volume of 100 L/ha.
Adjuvant	Use Agral 90 or Ag-Surf at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge at 1% v/v (1 litre per 100 litres of spray solution).
Pre-Harvest Interval	Do not apply within 5 days of harvest

Comments	Apply using a hooded sprayer to control labelled weeds between the rows of mint crops. This treatment must be made to mint crops grown in rows.
	Hooded sprayers must be designed, adjusted and operated in such a manner as to totally enclose the spray nozzles, tips and pattern and to prevent any spray deposition to green stem tissue, foliage, blooms or fruit of the crop being treated.
	DO NOT use hooded sprayers designed for <i>broadcast</i> application for application to the actively growing crop. Hooded sprayers designed for broadcast application can only be used for pre-plant burndown or during mint dormancy.
	PRECAUTIONS: Crop injury will occur when spray is allowed to come in contact with the green stem tissue, leaves, blooms or fruit of the crop.
	Sprayers shall not be operated at more than eight (8) km/h in order to minimize vertical movement of the sprayer during application, including the bouncing or raising of the equipment. Use extreme care in applying to fields where the soil surface is uneven, has deep furrows, drains or other contours that disturb the adjustment and positioning of the spray equipment and/or the spray pattern. Applications must not be made when windy conditions may result in spray deposition onto sensitive plants or plant parts.
	For optimum performance, make application to actively growing weeds up to 10 cm tall, or as specified. <b>Coverage of the weeds is essential for good control</b> . Apply only one application of IPCO C-ZONE® Herbicide to mint per season. Do not apply a hooded sprayer application to mint that has been treated with a dormancy or pre-plant burndown spray of IPCO C-ZONE® Herbicide.

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

### **SECTION 8.5: SUCKER MANAGEMENT- General Information: Directions for Use:**

Apply to young suckers that have not reached maturity and hardened off.

Apply IPCO C-ZONE<sup>®</sup> Herbicide to manage undesirable sucker growth from the base of vine or tree trunks or root sprouts. Treat when the tissue is young and not mature and/ or hardened off. Do not allow spray to contact fruit, foliage, or green bark.

Take all precautions to prevent the spray from contacting desirable foliage or fruit. Complete coverage is necessary. Do not apply if drift is possible. Avoid using fine droplet nozzles that produce a droplet VMD of 300 microns or less (see the drift prevention section of the IPCO C-ZONE Herbicide label for more instructions). Use of hooded sprayer or directed sprayer application: to prevent drift from reaching other parts of the vine or tree, the use of drift reducing nozzles, splash screens or full screen is recommended (at least one method is required). Direct spray toward the sucker zone.

For management of undesirable sucker growth, apply 150 mL of product per hectare or 75 mL of product/100L of water, using 200 L/ha spray mixture per treated area. Maximum 2 applications per year. Preharvest interval is 30 days for all food crops listed below. Apply with an adjuvant such as Agral® 90 or Ag-Surf® at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge® at 1% v/v (1 litre per 100 litres of spray solution). Apply as described in the use table below.

	Crons		
Crops	Grape; Stone fruits: apricot; Japanese apricot; black cherry; Nanking cherry; sweet cherry; tart cherry; Chinese jujube; nectarine; peach; plum; American plum; beach plum; Canada plum; cherry plum; Chickasaw plum; Damson plum; Japanese plum; Klamath plum; prune plum; plumcot; sloe; as well as cultivars, varieties and/or hybrids of these commodities;		
	<b>Pome fruits</b> : apple; azarole; crabapple; mayhaw; medlar; pear; Asian pear; quince; Chinese quince; Japanese quince; tejocote; as well as cultivars, varieties and/or hybrids of these commodities;		
	Field grown woody ornamental nurseries (genus such as <i>Malus</i> , <i>Prunus</i> , <i>Sorbus</i> );		
	<b>Tree nuts</b> : almond, beech nut, bur oak, butternut, chestnut, chinquapin, ginkgo, hazelnut (filbert), heartnut, hickory nut, Japanese horse-chestnut, monkey puzzle nut, pecan, pine nut, walnut (black and English), yellowhorn, as well as cultivars, varieties and/or hybrids of these commodities.		
Rate	150 mL of product per ha or 75 mL per 100 L of spray		
Number of Applications	Maximum 2 applications per year. Allow 14 days between applications.		
Water Volume	200 L per ha.		
Adjuvant	Use Agral® 90 or AgSurf® adjuvants at 0.25% v/v. Mix thoroughly before spraying.		
Spray Droplet Size	Refer to nozzle guidelines that address orifice size and pressure. 400-600 (no greater than 25% of the range of droplet size below 400 VMD). Droplets in the 200 VMD range will cause drift and potential damage.		
Pre-Harvest Interval	30 days.		
Comments	Directed spray at the base of the tree for sucker control with special precaution not to get spray on fruit, foliage or tender growing parts.		

### **HOPS**

# **Timing and Method of Application:**

## **Post-Directed Application for Sucker Management:**

IPCO C-ZONE® Herbicide is a contact herbicide for directed spray application to the basal portion of the hop plant for the management of sucker growth. Apply IPCO C-ZONE® Herbicide at 150 mL product per ha per application in a minimum of 200 litres per ha of spray solution by boom-type ground application equipment only to the basal portion of the hop plant (approximately the lower 45 cm) and to the sucker mat which extends from the base of the plant to approximately 45 to 60 cm into the row. Maximum 2 applications per year. Allow 14 days between treatments of IPCO C-ZONE® Herbicide.

# **Adjuvant Requirements:**

Coverage is essential to obtain good basal growth management. Apply with an adjuvant such as Agral<sup>®</sup> 90 or Ag-Surf<sup>®</sup> at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge<sup>®</sup> at 1% v/v (1 litre per 100 litres of spray solution).

# **Postemergent Control of Broadleaf Weeds:**

Apply IPCO C-ZONE® Herbicide using shielded sprayers or hooded sprayers to control emerged and actively growing broadleaf weeds within or between the rows of the crop. Refer to Hooded Sprayer Applications section of this label. Make only one application per year for postemergent control of broadleaf weeds. Refer to Section 8.1 for rates and list of weeds controlled.

#### **Precautions:**

Extreme caution must be taken during application to avoid upward drift of the spray solution and contact with the highly susceptible new growth. Avoid applications until newly trained vines have developed sufficient barking to avoid damage to the stem and are high enough up the string to avoid contact with the apical bud.

#### Restrictions:

Do not apply IPCO C-ZONE<sup>®</sup> Herbicide using air blast or air assisted sprayers. Do not apply within 7 days of harvest.

Do not apply through any type of irrigation system.

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

# <u>SECTION 8.6: PRIMOCANE CONTROL IN CROP SUBGROUP 13-07A – Caneberries:</u>

blackberry (includes Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, bromberre, California blackberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, as well as cultivars, varieties and/or hybrids of these commodities); loganberry; raspberry (black and red); wild raspberry; as well as cultivars, varieties and/or hybrids of these commodities.

#### **Directions for Use:**

Apply IPCO C-ZONE® Herbicide for control of primocanes at a rate of 150 ml/ha.

Apply when primocanes are approximately 13 cm in height. Treat when the tissue is young and not mature and/ or hardened off. Do not allow spray to contact fruit, foliage, or green bark.

The method of application is a post- emergence directed application using banded boom sprayer.

Use Agral<sup>®</sup> 90 or Ag-Surf<sup>®</sup> at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge<sup>®</sup> at 1% v/v (1 litre per 100 litres of spray solution).

Maximum 2 applications per year.

Preharvest interval is 30 days.

## **SECTION 8.7: HARVEST AID TREATMENT**

IPCO C-ZONE<sup>®</sup> Herbicide may be applied prior to harvest to the following crops. Refer to the PHI table for appropriate application.

**Crop Subgroup 6C:** Dried shelled pea and bean (except lentil and soybean): bean (*Lupinus* spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus* spp. includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna spp. includes adzuki bean, blackeyed pea, catjang, cowpea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (fava bean); chickpea (garbanzo bean); guar; lablab bean (hyacinth bean); pea (*Pisum* spp. includes field pea); pigeon pea.

## Soybeans

Small-Grain Cereals: barley, millet, oat, sorghum, triticale, wheat

#### **Potatoes**

### IPCO C-ZONE® HERBICIDE USE RATES FOR HARVEST AID TREATMENT

Apply IPCO C-ZONE® Herbicide at 73-117 mL per hectare, except for sorghum where the maximum rate is 73 mL per hectare. Apply IPCO C-ZONE® Herbicide at 233-350 mL per hectare for potatoes, where the first application maximum rate is 350 mL per hectare.

#### IPCO C-ZONE® HERBICIDE TANK MIXES FOR HARVEST AID TREATMENT

IPCO C-ZONE® Herbicide at 73-117 mL/ha may be tanked-mixed with 900 g a.e./ha of glyphosate (present as isopropylamine salt or potassium salt, registered for pre-harvest use on small grains and crop sub-group 6-C listed below) to control additional weeds and provide more complete harvest aid burn-down. Make applications in spray volumes sufficient to provide complete coverage of foliage. Use a minimum of 100 litres of water. DO NOT apply the tank mix to crops if grown for seed production.

Small Grains: barley, millet, oats, sorghum and wheat.

IPCO C-ZONE® Herbicide when tank mixed with glyphosate (present as isopropylamine salt or potassium salt, registered for pre-harvest use on barley, millet, oats, sorghum or wheat), can be used as a desiccant to dry immature green crop and green weeds to advance harvest dates of small grains. This tank mix application used for crop desiccation should be made when grain moisture is less than 30% (hard dough stage; a thumbnail impression remains on seed). The use of IPCO C-ZONE® Herbicide will not speed up the maturity of green crops.

Crop Subgroup 6-C: Dried shelled pea and bean (except lentil and soybean): bean (*Lupinus* spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus* spp. includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna spp. includes adzuki bean, blackeyed pea, catjang, cowpea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (fava bean); chickpea (garbanzo bean); guar; lablab bean (hyacinth bean); pea (*Pisum* spp. includes field pea); pigeon pea.

Make application when the crop is mature and the grain has begun to dry down, or according to Agriculture and Agri-Food Canada recommendations in the use area.

IPCO C-ZONE® Herbicide, when tank mixed with glyphosate (present as isopropylamine salt or potassium salt, registered for pre-harvest use on crops within crop sub-group 6-C), can be used as a desiccant to dry immature green material at top of dry bean and pea crops and immature green weeds to advance harvest dates. This tank mix application used for crop desiccation should be made when grain moisture of dry bean and dry pea is less than 30%. Apply to dry bean when 80-90% of bean leaves have fallen and pods are mature (yellow to brown in colour). Apply to dry pea when the majority (75% - 80%) of the pods are brown, the bottom pods are ripe and the pea seeds have detached from the pods. The use of IPCO C-ZONE® Herbicide will not speed up the maturity of green crops.

#### **HARVEST AID IN POTATOES**

IPCO C-ZONE® Herbicide can be applied foliarly to potatoes in senescence and will provide adequate desiccation of potato foliage and vines. IPCO C-ZONE® Herbicide will also desiccate late season susceptible broadleaf weeds to aid in tuber harvest. Adequate desiccation is generally achieved within 14 days after the initial treatment is applied. If the potato crop is in the active vegetative growth stage when desiccation is initiated, two applications may be required to provide desiccation of leaf and stem tissue. Dense potato canopy, large plant size, and environmental conditions not conducive to product absorption or activity will reduce initial application efficacy and increase the need for a second application. If a second application is necessary, apply at 7 to 14 days after the first application. **Thorough coverage of the potato plant to be desiccated is essential.** Use a sufficient volume of water to obtain thorough coverage of the potato leaves and vines. For optimum results, apply IPCO C-ZONE® Herbicide when the potato crop is in the early stages of natural senescence.

For potato burndown harvest aid, apply IPCO C-ZONE® Herbicide as a broadcast spray at a rate of 233-350 mL per hectare in spray volume sufficient to provide complete coverage of potato foliage. If a second burndown application is required for potatoes, use a second application of IPCO C-ZONE® Herbicide at 233-350 ml/ha, where the maximum rate is 350 ml/ha, when needed, or Reglone® Dessicant at the rates listed on the label. Make applications in spray volumes sufficient to provide complete coverage of foliage Use a minimum of 100 litres of water.

For potato burndown harvest aid, use a labeled adjuvant listed in the directions for use section of this label below at a maximum rate of 2 liters per 100 liters of water. Thorough coverage is necessary for burndown of potato foliage and stems.

IPCO C-ZONE® Herbicide may be used alone or as a tank mixture with other potato harvest aids as a desiccant prior to harvest. When tank mixing IPCO C-ZONE® Herbicide with Reglone® Desiccant use IPCO C-ZONE® Herbicide at a rate of 233-350 mL/ha plus Reglone® Desiccant at a rate of 1.25-2.3 L/ha. Should a second application be necessary, apply IPCO C-ZONE® Herbicide at a rate of 233-350 mL/ha either alone or as a tank-mix with Reglone® Desiccant at a rate of 1.25L/ha.

Apply IPCO C-ZONE® Herbicide in at least 200 litres of water per hectare using nozzles delivering medium droplet size in the 200 – 400 micron range, and not course droplets. Select a spray pressure between 210 to 420 kPa measured at the nozzle to obtain a droplet size of approximately 200-400 microns. Vary the spray volume and spray pressure as indicated by the density of the potato canopy and vines to assure thorough spray coverage. Increase the spray volume and pressure if the potato canopy is dense or under cool, cloudy or dry conditions. Increased spray volumes will enhance performance. If Turbo TeeJet® nozzles are used, a spray pressure of 420 kPa or more will be required to obtain thorough coverage. Do not apply when winds are gusty, changing direction by more than 30 degrees, having speed changer of greater than 8 kph or prone to cause herbicide drift from desired target, particularly when high spray pressures are utilized.

# ADJUVANT RECOMMENDATIONS FOR HARVEST AID TREATMENT

Use Agral® 90 or Ag-Surf® at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge® at 1% v/v (1 litre per 100 litres of spray solution). The use of AGRAL 90 is not recommended in the spray mixture of IPCO C-ZONE® Herbicide + Reglone® Desiccant for use on potatoes except in the prairie provinces.

# SECTION 8.8: PREHARVEST INTERVALS FOR HOODED APPLICATIONS AND HARVEST AID FOR SUCKER MANAGEMENT

Refer to the crop section of this label for specific product use directions.

Preharvest Intervals (PHI) or Maximum Growth Stage for IPCO C-ZONE <sup>®</sup> Herbicide Applications							
Crop/Crop Group/Crop Subgroup	PHI (Days Before Harvest)						
Hooded sprayer applications							
Vegetables, root (Subgroups 1A and 1B)	1						
Vegetables, bulb (Group 3-07)	1						
Vegetables, leafy (Group 4-13)	1						
Vegetables, leaf petiole (Crop Subgroup 22B)	1						
Vegetables, brassica head and stem (Group 5-13)	1						
Vegetables, legume (Group 6)	1						
Vegetables, fruiting; (Group 8-09)	1						
Vegetables, cucurbit (Group 9)	1						
Bushberries (Subgroup 13-07B)	1						
Vegetables, tuberous and corm (Subgroups 1C and 1D)	7						
Pome fruits (Group 11-09)	3						
Stone fruits (Group 12-09)	3						
Caneberries (Subgroup 13-07A)	15						
Strawberries	1						
Grape	3						
Mint	5						
Harvest aid							
Sorghum	3						
Barley	3						
Millet	3						
Oats	3						
Triticale	3						
Wheat	3						
Soybean	3						
Potato	7						
Dried shelled peas and beans (Crop Subgroup 6-C (except lentil and soybean)	3						

Pre-harvest Intervals (PHI) for SUCKER MANAGEMENT						
Crop/Crop Group/Crop Subgroup	PHI (Days Before Harvest)					
Grape	30					
Stone Fruits	30					
Pome Fruits	30					
Field Grown Wood Ornamental Nurseries	30					
Tree nuts	30					

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

# **SECTION 8.9: DORMANCY SPRAY FOR MINT**

Crop	Mint			
Rate	37-117 mL/ha Use higher rates when weeds are under stress or are larger.			
Application Timing	Apply as a broadcast application before mint breaks dormancy for control of existing broadleaf weeds.			
Water Volume	Apply using a minimum water volume of 100 L/ha.			
Adjuvant	Use Agral 90 or Ag-Surf at 0.25% v/v (0.25 litres per 100 litres of spray solution) or use Merge at 1% v/v (1 litre per 100 litres of spray solution).			
Pre-Harvest Interval	Do not apply within 91 days of harvest			
Comments	DO NOT apply to actively growing crop.			
	For optimum performance, make application to actively growing weeds up to 10 cm high, or as specified. <b>Coverage of the weeds is essential for good control.</b>			
	Apply only one application of IPCO C-ZONE® Herbicide to mint per season. Do not follow a pre-plant burndown or dormancy spray with a hooded sprayer application of IPCO C-ZONE® Herbicide.			

## **SECTION 9: APPLICATION INFORMATION**

## **SECTION 9.1: GENERAL APPLICATION INSTRUCTIONS**

## **GROUND APPLICATION**

Use a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Use nozzles that produce minimal amounts of fine spray droplets. Do not exceed 210 kPa spray pressure, unless otherwise required for optimal drift reduction nozzle performance. Apply in a minimum of 100 litres of spray volume per hectare. Use higher spray volumes when there is a dense weed population or dense crop canopy. Adjust sprayers to position spray tips no lower than 45 cm above the crop.

Hooded sprayers must be designed and operated so as to totally enclose the spray nozzles and tips and spray pattern and prevent any spray deposition to the crop being treated. PRECAUTIONS: Crop injury will occur when spray is allowed to come in contact with the green stem tissue, leaves, blooms or fruit of the crop.

Use ground sprayers designed, calibrated and operated to deliver uniform spray droplets to the targeted plant or plant parts. Adjust sprayer nozzles to achieve uniform plant coverage. Overlaps and slower ground speeds (caused by continuing to spray while starting, stopping or turning) may result in higher application rates and possible crop response.

#### ADJUVANT USE REQUIREMENTS

A spray adjuvant product must be used in the spray solution with IPCO C-ZONE® Herbicide for optimum performance, when used alone. Refer to the specific crop use section of this label for adjuvant choices and use rates.

### **METHODS OF APPLICATION**

IPCO C-ZONE® Herbicide is a versatile product with several different application options to achieve weed control or plant desiccation results. If IPCO C-ZONE® Herbicide is being applied in standing crop situations, application methods and adjustments must be precise to prevent potential crop injury.

Harvest Aid and Pre-plant burndown applications are permitted, where noted in the Directions for Use section of the label.

**Hooded Sprayer** applications may be made to many labelled crops as noted in the Directions for Use section of the label. **Hooded sprayers must be designed and operated so as to totally enclose the spray nozzles and tips and spray pattern and prevent any spray deposition to the crop being treated.** 

#### **SPRAY DRIFT MANAGEMENT**

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from applications to agricultural field crops.

# **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The optimum drift management strategy is to apply the largest droplets that provide sufficient coverage and performance. Applying larger droplets reduces drift potential but will not prevent drift when applications are made improperly, or under unfavourable environmental conditions. (See Wind, Temperature and Humidity, and Temperature Inversions.)

# **Controlling Spray Droplet Size**

**VMD –** VMD is the expression of the droplet size of the spray cloud. The VMD value means that 50% of the droplets are larger than the expressed value and 50% of the droplets are smaller than the expressed value. Optimum IPCO C-ZONE® Herbicide spray clouds should be 450 microns with fewer than 10% of the droplets being 200 microns or smaller.

**Volume –** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets.

**Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles –** Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Type –** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles.

**Application Height –** Making applications at the lowest height that is safe reduces exposure of spray droplets to evaporation and wind movement.

**Wind** – Drift potential is lowest between winds speeds of 5 to 16 km/h. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications shall be avoided below 5 km/h due to variable wind direction and high inversion potential.

Do not apply IPCO C-ZONE® Herbicide when wind speed exceeds 16 km/h. NOTE: Local terrain can influence wind patterns. Every applicator shall be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity –** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions** – Do not apply IPCO C-ZONE® Herbicide during a temperature inversion because the drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke

from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas –** Apply IPCO C-ZONE<sup>®</sup> Herbicide only when direction of air flow is away from nearby sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops).

#### **SECTION 9.2: SPRAY BUFFER ZONE FOR GROUND APPLICATION**

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.

DO NOT apply by air.

#### **SPRAY BUFFER ZONES**

A spray buffer zone is NOT required for:

• low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage.

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).

	Method of application	Spray Buffer Zones (metres) Required for the Protection of:		
Сгор		Freshwater Habitat of Depths:		Terrestrial
		Less than	Greater than	Habitat:
		1 m	1 m	
Potatoes	Field sprayer	1	1	5
Small cereal grains (barley, millet, oats, triticale, wheat), rapeseed, other cereal grains (buckwheat, field corn, sweet corn, popcorn, rye and teosinte)	Field sprayer	1	0	3
Legume vegetables (succulent or dried), sorghum, sunflowers, fruiting vegetables, cucurbit vegetables	Field sprayer	1	0	2
Field-grown woody ornamentals (nurseries)	Field sprayer	1	1	4
Mint	Field sprayer	1	0	1

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

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

## **SECTION 9.3: CROP ROTATION RESTRICTIONS**

Following an application of IPCO C-ZONE® Herbicide, a treated field may be rotated at any time to crops listed under Section 8.2 of this label, subject to specific crop restrictions that may be found in the individual crop sections. All other crops may be planted after 12 months.

## **SECTION 10: MIXING AND LOADING INSTRUCTIONS**

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean-out procedures specified on the label of the product previously applied before adding IPCO C-ZONE® Herbicide to the spray tank.

For best results, fill the spray tank with one half the volume of clean water needed for the area to be treated. Make sure the agitation system is operating while adding products. Slowly add the required amount of IPCO C-ZONE® Herbicide to the spray tank. Carefully rinse the container, adding the rinsings to the spray tank. Complete filling the spray tank to the desired level. Spray tank agitation should be sufficient to ensure uniform spray mixture during application and must continue until the spray tank has been emptied.

**Tank Mixtures:** Fill spray tank one-half to two-thirds full of water. With agitator operating add the recommended amount of ingredients using the following order:

- **W**ettable powders and dispersible granules
- Agitate tank mix thoroughly
- Micro-encapsulated suspensions
- Liquid flowables and suspensions
- Emulsifiable concentrate formulations
  - Fill spray tank nearly full of water
- Glyphosate formulations
- Surfactants
  - Complete filling the spray tank to the desired level

If sprayer has been stored or idle, purge the spray boom and nozzles with clean water before charging sprayer with products to be applied.

Avoid the overnight storage of IPCO C-ZONE® Herbicide spray mixtures.

Premixing IPCO C-ZONE® Herbicide spray solutions in nurse tanks is not recommended. Maintain continuous and adequate spray solution agitation until all the spray solution has been used.

Do not use with tank additives that alter the pH of the spray solution.

# **SECTION 11: SPRAYER CLEANUP**

Many herbicide products are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if such equipment is not properly cleaned between uses.

As soon as possible after spraying IPCO C-ZONE® Herbicide and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with IPCO C-ZONE® Herbicide, as directed on the companion product labels. Maximum cleaning can be achieved by cleaning the spray system immediately following use.

- Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent
  wash to remove physical sediment and residues from the inside of the sprayer tank and
  thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles
  with a clean water rinse.
- 2. Next, prepare a sprayer cleaning solution by adding 3 litres of ammonia (containing at least 3% active) per 100 litres of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush the tank, hoses, spray boom and spray nozzles.
- 3. If possible, leave the ammonia solution or fresh water left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage to dissolve and dilute any remaining traces of herbicide.
- 4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.
- 5. Remove and clean spray tips and all filters and screens separately in an ammonia solution prepared as in Step 2, above. Replace these parts right after cleaning and rinsing.
- 6. Properly dispose of all cleaning solution and rinsate in accordance with established regulations and guidelines. Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with IPCO C-ZONE® Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

Small quantities of IPCO C-ZONE® Herbicide remaining in improperly cleaned mixing, loading and/or spray equipment may be released during subsequent applications, potentially causing crop effects.

### **SECTION 12: RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, IPCO C-ZONE® Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to IPCO C-ZONE® Herbicide and other Group 14 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 IPCO C-ZONE<sup>®</sup> Herbicide or other Group 14 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 favor 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 Ltd. representatives at (204) 233-3461

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