

Container Label

GROUP 28 INSECTICIDE

COSAYR™

INSECTICIDE

SUSPENSION

FOR SALE FOR USE ON ROOT AND TUBER VEGETABLES GROUP, FRUITING VEGETABLES GROUP, BRASSICA VEGETABLES GROUP, LEAFY VEGETABLES GROUP, LEGUME VEGETABLES GROUP, CUCURBIT VEGETABLES GROUP, CORN (FIELD, POP, SWEET, AND SEED), GRASS FORAGE, FODDER, AND HAY GROUP, NON-GRASS ANIMAL FEEDS GROUP, MINT, OKRA, PEANUTS, GREEN ONION SUB GROUP, GLOBE ARTICHOKE, HOPS, GREENHOUSE CUCUMBERS, GREENHOUSE TOMATOES, GREENHOUSE EGGPLANT, GREENHOUSE PEPPERS, OILSEEDS GROUP AND CEREALS

COMMERCIAL (AGRICULTURAL)

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

Contains 1,2-benzisothiazolin-3-one at 0.02% as a preservative or

Contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00084% and 2-methyl-4-isothiazolin-3-one at 0.00027% as preservatives or

Contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00084% and 2-methyl-4-isothiazolin-3-one at 0.00028% and 2-bromo-2-nitropropane-1,3-diol at 0.0076% as preservatives

ACTIVE INGREDIENT: Chlorantraniliprole 200 g/L

REGISTRATION NO. 35005 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 0.5 L - BULK

ADAMA Agricultural Solutions Canada Ltd.
300 – 191 Lombard Avenue
Winnipeg, MB R3B 0X1
1-855-264-6262

For emergency medical help call PROPHARMA at 1-877-250-9291 (24 hours a day)

For spill, leak or fire call INFOTRAC at 1-800-535-5053 (24 hours a day)

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

- Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- For agricultural uses, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
- See the Aerial Application Label Instructions section of this label for additional precautions specific to aerial application.

FIRST AID:

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

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

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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

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

For emergency medical help call PROPHARMA at 1-877-250-9291 (24 hours a day).

TOXICOLOGICAL INFORMATION: Treat symptomatically. This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia.

ENVIRONMENTAL PRECAUTIONS:

Toxic to aquatic organisms. Observe spray buffer zones specified under **DIRECTIONS FOR USE.**

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

Greenhouse use: Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). May harm certain beneficial arthropods, including those

used in greenhouse production. Avoid application when beneficial arthropods are in the treatment area.

Chlorantraniliprole is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing chlorantraniliprole during the previous season. This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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.

STORAGE:

Store this product away from food or feed. Store product in original container only, away from other pesticides and fertilizer. Not for use or storage in or around the home. Keep container closed.

DISPOSAL:

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

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

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

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.

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.

COSAYR

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GENERAL INFORMATION

COSAYR is a liquid formulation that can be applied as a foliar spray, using ground application or aerial application (potatoes, sugar beets, garden beets, legume vegetables, corn, oilseeds and cereals only) to control many important insect pests. COSAYR is mixed with water for application.

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult your local extension specialist or certified crop advisor to determine appropriate threshold levels for treatment in your area.

Use sufficient water to obtain thorough, uniform coverage.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

- Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit.
- Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- For agricultural uses, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
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TOXICOLOGICAL INFORMATION: Treat symptomatically. This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia.

ENVIRONMENTAL PRECAUTIONS:

- Toxic to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE.
- Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland.
- Greenhouse use: Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). May harm certain beneficial arthropods, including those used in greenhouse production. Avoid application when beneficial arthropods are in the treatment area.
- Chlorantraniliprole is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing chlorantraniliprole during the previous season.
- This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. 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.

STORAGE:

Store this product away from food or feed. Store product in original container only, away from other pesticides and fertilizer. Not for use or storage in or around the home. Keep container closed.

DISPOSAL:

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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.

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.

Do not allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

ROOT AND TUBER VEGETABLES – Crop Group 1

Spray Volume for Root and Tuber Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground. For potatoes only, apply in a minimum finished spray volume of 50 L/ha by air.

SITE	PEST	RATE COSAYR (ml/ha)	SPECIFIC DIRECTIONS
POTATOES	Colorado potato beetle	250 to 500	For potatoes, apply by either ground or aerial application equipment.
	European corn borer	250 to 375	
ROOT AND TUBER VEGETABLES Arracacha; Arrowroot; Artichoke, Chinese; Artichoke, Jerusalem; Beet, garden; Beet, sugar; Burdock, edible; Canna, edible; Carrot; Cassava, bitter and sweet; Celery (celery root); Chayote (root); Chervil, turnip-rooted; Chicory; Chufa; Dasheen (taro); Ginger; Ginseng; Horseradish; Leren; Parsley, turnip-rooted; Parsnip; Potato; Radish; Radish, oriental (daikon); Rutabaga;	Diamondback moth, Cabbage looper, Black cutworm, Imported cabbageworm, Swede midge	250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. For Colorado potato beetle, use the higher application rate under heavy pest pressure and/or when larger larvae are present. Colorado potato beetle resistance management: DO NOT apply COSAYR for Colorado
	Corn earworm, European corn borer, Tobacco hornworm, Tomato hornworm, Armyworm, Variegated cutworm, Fall armyworm, Beet armyworm, Leafminers: <i>Liriomyza sativae</i> <i>Liriomyza trifolii</i>	250 to 375	

Salsify; Salsify, black; Salsify, Spanish; Skirret; Sweet potato; Tanier (cocoyam); Turmeric; Turnip; Yam bean; Yam, true			<p>potato beetle control if any Group 28 Insecticide was used at planting as an in-furrow, soil or seed-piece treatment.</p> <p>For control of the European corn borer, time the application to coincide with peak egg hatch. Scout for European corn borer by monitoring egg laying and egg hatch to determine application timing.</p>
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RESTRICTIONS AND PRECAUTIONS: Root and Tuber Vegetables

- For pests with a range of application rates, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

LEAFY VEGETABLES – Crop Group 4

Spray Volume for Root and Tuber Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
LEAFY VEGETABLES Amaranth leafy, Arugula, Cardoon, Celery, Celery (Chinese), Celtuce, Chervil, Chrysanthemum (edible leaved), Chrysanthemum (garland), Corn Salad, Cress (garland), Cress (upland), Dandelion leaves, Dock, Endive, Florence Fennel, Lettuce	Cabbage looper Black cutworm	250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Armyworm, Fall armyworm, Corn earworm, Beet armyworm, Leafminers: <i>Liriomyza sativae</i> <i>Liriomyza trifolii</i>	250 to 375	

(head & leaf), Orach, Parsley leaves, Purslane (garden), Purslane (winter), Radicchio, Rhubarb, Spinach, Spinach (vine), Spinach (New Zealand), Swiss Chard			
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RESTRICTIONS AND PRECAUTIONS: Leafy Vegetables

- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1 litre of COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

BRASSICA VEGETABLES - Crop Group 5

Spray Volume for Brassica Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
BRASSICA VEGETABLES Broccoli, Broccoli (Chinese), Broccoli raab, Brussels Sprouts, Cabbage, Cabbage (Chinese, bok choy), Cabbage (Chinese, napa), Cabbage (Chinese mustard, choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens	Imported cabbage worm Diamondback moth, Cabbage looper, Black cutworm	250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. For optimum control, apply Hasten NT Spray Adjuvant* at an application rate of 0.25% v/v or MSO Concentrate with Leci-Tech® at an application rate of 0.5% v/v.
	Armyworm, Fall armyworm, Beet armyworm, Corn earworm, Leafminers: <i>Liriomyza sativae</i> <i>Liriomyza trifolii</i>	250 to 375	

RESTRICTIONS AND PRECAUTIONS: Brassica Vegetables

- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days.
- Do not apply less than 3 days before harvest. Observe a 3-day PHI.

- Do not exceed a total of 1 litre of COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

LEGUME VEGETABLES - Crop Group 6

Spray Volume for Legume Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground. Apply in a minimum finished spray volume of 50 L/ha by air.

SITE	PEST	RATE COSAYR (ml/ha)	SPECIFIC DIRECTIONS
LEGUME VEGETABLES	Grasshoppers	125 to 250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Cabbage looper, Cutworms	250	
	Bean (Lupinus) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); Bean (Phaseolus) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); Bean (Vigna) (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); Chickpea (garbanzo); Guar; Jackbean; Lablab bean; Lentil; Pea (Pisum) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea,	250 to 375	

snowpea, sugar snap pea); Pigeon pea; Sword bean; Soybean			
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RESTRICTIONS AND PRECAUTIONS: Legume Vegetables

- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FRUITING VEGETABLES (EXCEPT CUCURBITS) – Crop Group 8

Spray Volume for Fruiting Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
FRUITING VEGETABLES Eggplant, Groundcherry, Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper) Tomatillo, Tomato	Colorado potato beetle, Armyworm, Fall armyworm, Beet armyworm, Variegated cutworm, Tobacco hornworm, Tomato hornworm, Tomato fruitworm (Corn earworm), European corn borer	250 to 375	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Colorado potato beetle resistance management: DO NOT apply COSAYR for Colorado potato beetle control if any Group 28 Insecticide was used at planting as an in-furrow, soil or seed treatment.
	Cabbage looper, Black cutworm	250	

RESTRICTIONS AND PRECAUTIONS: Fruiting Vegetables

- For pests with a range of application rates, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 5 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any**

Group 28 insecticide.

CUCURBIT VEGETABLES – Crop Group 9

Spray Volume for Cucurbit Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
CUCURBIT VEGETABLES Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; Cucumber; Gherkin; Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); Muskmelon (includes cantaloupe); Pumpkin; Squash, summer; Squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); Watermelon	Cabbage looper Black cutworm	250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Armyworm, Fall armyworm, Corn earworm, Leafminers: <i>Liriomyza sativae</i> <i>Liriomyza trifolii</i>	250 to 375	

RESTRICTIONS AND PRECAUTIONS: Cucurbit Vegetables

- For pests with a range of application rates, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 5 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

CORN – FIELD, POP, SEED AND SWEET

Spray Volume for Corn: Apply in a minimum finished spray volume of 100 L/ha by ground. Apply in a minimum finished spray volume of 50 L/ha by air

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
CORN Field corn; Pop corn; Seed corn. Sweet Corn	Black cutworm	250 Apply either by ground or aerial application equipment	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. For corn earworm, European corn borer or western bean cutworm control, time the applications to coincide with peak egg hatch. Scout by monitoring egg laying and egg hatch to determine application timing. Reapply if monitoring indicates it is necessary. Refer to the section of the label titled AERIAL APPLICATION LABEL INSTRUCTIONS for use information specific to aerial application.
	Armyworm Fall armyworm Beet armyworm Variegated cutworm Corn earworm/ Tomato fruitworm European corn borer Western bean cutworm	250 to 375 Apply either by ground or aerial application equipment	

RESTRICTIONS AND PRECAUTIONS: Corn

- For pests with a range of application rates, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days on seed corn or sweet corn.
- Do not apply more than once every 7 days on field corn or popcorn.
- Do not apply less than 1 day before harvest of seed corn or sweet corn.
- Do not apply less than 14 days before harvest of field corn or popcorn.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

**CEREAL GRAINS – Crop Group 15 (EXCEPT CORN AND WILD RICE)
and CEREALS for FORAGE – Crop Group 16 (EXCEPT CORN AND WILD RICE)**

Spray Volume for Cereal Grains: Apply in a minimum finished spray volume of 100 L/ha by

ground. Apply in a minimum finished spray volume of 50 L/ha by air

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
CEREAL GRAINS Barley, Buckwheat, Millet, pearl Millet, proso, Oats, Rye, Sorghum, Teosinte, Triticale Wheat	Grasshoppers	125 to 250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Cutworms	250	
	Armyworm, Fall armyworm, Beet armyworm, Corn earworm, European corn borer	250 to 375	

RESTRICTIONS AND PRECAUTIONS: Cereal Grains

- Forage, Fodder and hay may be fed to livestock
- Do not make more than 3 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI
- Do not exceed a total of 1.125 litres COSAYR per ha per season
- For pests with a range of application rates, use the high rate under heavy pest pressure.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

GRASS FORAGE, FODDER, AND HAY GROUP – Crop Group 17

Spray Volume for Grass Forage, Fodder, and Hay Group: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
GRASS FORAGE FODDER AND HAY GROUP (Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage	Grasshoppers	125 to 250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Armyworm, Fall armyworm, Beet armyworm, Corn earworm	250 to 375	

RESTRICTIONS AND PRECAUTIONS: Grass Forage, Fodder, and Hay Group

- For any of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.

- Do not apply more than once every 7 days.
- Observe a 0-day PHI.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

NON-GRASS ANIMAL FEEDS GROUP – Crop Group 18

Spray Volume for Non-Grass Animal Feeds Group: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
NON-GRASS ANIMAL FEEDS GROUP Alfalfa; Bean, velvet; Clover (Trifolium, Melilotus); Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Vetch, crown; Vetch, milk	Grasshoppers	125 to 250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
	Beet armyworm	250 to 375	
	Alfalfa weevil (suppression only)	375 to 500	

RESTRICTIONS AND PRECAUTIONS: Non-Grass Animal Feeds Group

- For either of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 1 application per cutting.
- Observe a 0-day PHI.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

OILSEEDS GROUP – Crop Group 20

Spray volume for Oilseeds Group: Apply a minimum finished spray volume of 100 L/ha by ground. Apply a minimum finished spray volume of 50 L/ha by air.

SITE	PEST	RATE COSAYR (ml/ha)	SPECIFIC DIRECTIONS
OILSEEDS GROUP Canola Rape Seed; Mustard seed;	Diamondback moth	125	Begin applications when treatment thresholds have been reached. Thorough
	Grasshoppers	125 - 250	
	Bertha armyworm	125 to 375	
	Cabbage looper,	250	

Flax; Linseed; Sunflower seed; Safflower; Borage; Calendula; Crambe; Cuphea; Echium; Euphorbia; Evening Primrose; Gold of Pleasure; Hare's ear mustard; Lesquerella; Lunaria; Meadowfoam; Milkweed; Niger seed; Oil radish; Poppy seed; Rose hip; Stokes aster; Sweet rocket; Tea oil plant;	Imported cabbage worm, Swede midge, Cutworms Sunflower head moth, Reduces damage caused by banded sunflower moth.	250 to 375	coverage is important to obtain optimum control.
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RESTRICTIONS AND PRECAUTIONS: Oilseeds

- Do not make more than 3 applications per season.
- Do not apply more than once every 5 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI
- Do not exceed a total of 1.125 litres COSAYR per ha per season
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

MINT

Spray Volume for Mint: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
MINT	Cabbage looper	250	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Mint

- Do not make more than 4 applications per season.
- Do not apply more than once every 14 days.
- Do not apply less than 3 days before harvest. Observe a 3-day PHI.
- Do not exceed a total of 1 litre COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

OKRA

Spray Volume for Okra: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
OKRA	Beet armyworm Corn earworm	250 to 375	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Okra

- For either of the pests listed above, use the high rate under heavy pest pressure.
- Do not make more than 4 applications per season.
- Do not apply more than once every 5 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

HOPS

Spray Volume for Hops: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
Hops	Cutworms, Armyworm	250 to 375	Begin applications when treatment thresholds have been reached.
	Cabbage looper	250	Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Hops

- Do not make more than 4 applications per season.

- Do not apply more than once every 7 days.
- Do not apply less than 0 day before harvest. Observe a 0 day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season.
- Do not apply by air.

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

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

FOR USE ON BRASSICA VEGETABLES - Crop Group 5

Spray Volume for Brassica Vegetables: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
BRASSICA VEGETABLES Broccoli, Broccoli (Chinese), Broccoli raab, Brussels Sprouts, Cabbage, Cabbage (Chinese, bok choy), Cabbage (Chinese, napa), Cabbage (Chinese mustard, choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens	Swede midge	250 For optimum control, apply Hasten® NT Spray Adjuvant at an application rate of 0.25% v/v or MSO Concentrate with Leci-Tech® at an application rate of 0.5% v/v.	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Monitor Swede midge activity every 2-4 days using Jackson traps baited with pheromone lures. Follow local threshold. Apply COSAYR as soon as possible once the Swede midge threshold is reached. Applications on cabbage, Chinese cabbage (napa), cauliflower and Chinese broccoli (gai lon) must be made early in the growing season, before heads start to form. Given that there are multiple generations of Swede midge, several applications of insecticide (to a maximum of 4 per season) will likely be required.

RESTRICTIONS AND PRECAUTIONS: Brassica Vegetables

- Do not make more than 4 applications per season.

- Do not apply more than once every 3 days. For swede midge, make additional applications when monitoring indicates they are necessary, according to local thresholds.
- Do not apply less than 3 days before harvest. Observe a 3-day PHI.
- Do not exceed a total of 1 litre of COSAYR per ha per season.
- Do not apply by air.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON Globe Artichokes

Spray Volume for Globe Artichoke: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
Globe Artichoke	Cutworms, Armyworm	250 to 375	Begin applications when treatment thresholds have been reached.
	Cabbage looper	250	Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Artichokes

- Do not make more than 4 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 3 day before harvest. Observe a 3-day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season.
- Do not apply by air.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON GREENHOUSE CUCUMBERS, GREENHOUSE PEPPERS, GREENHOUSE EGGPLANTS, AND GREENHOUSE TOMATOES

Spray Volume for Greenhouse Vegetables: For greenhouse tomatoes, the maximum finished spray volume is 1400 L/ha. For greenhouse cucumbers, greenhouse eggplants, and greenhouse peppers, the maximum finished spray volume is 2000 L/ha.

SITE	PEST	RATE COSAYR / 1000 L finished spray volume	SPECIFIC DIRECTIONS
GREENHOUSE CUCUMBERS; GREENHOUSE PEPPERS; GREENHOUSE EGGPLANT; GREENHOUSE TOMATOES	Cabbage looper	125 ml	Begin applications when treatment thresholds have been reached. Thorough coverage is required to obtain optimum control. Repeat applications if monitoring indicates it is necessary

RESTRICTIONS AND PRECAUTIONS: Greenhouse Vegetables

- Do not make more than 3 applications per crop cycle.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 750 ml of COSAYR per ha per crop cycle.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON GREENHOUSE PEPPERS, GREENHOUSE EGGPLANTS, AND GREENHOUSE TOMATOES

Spray Volume for Greenhouse Vegetables: Apply in a maximum finished spray volume of 1250 L/ha. Please note that the use of this product for control of tomato leafminer is restricted to plant growth stages for which thorough coverage can be achieved by application volumes of 1250 L/ha or less.

SITE	PEST	RATE COSAYR /1000 L finished spray volume	SPECIFIC DIRECTIONS
GREENHOUSE PEPPERS; GREENHOUSE EGGPLANT; GREENHOUSE TOMATOES	Lepidopteran leafminer	200 ml / 1000L	Apply at egg hatch. Reapply if monitoring indicates it is necessary. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Greenhouse Vegetables

- Do not make more than 3 applications per crop cycle.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 750 ml of COSAYR per ha per crop cycle.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON PEANUTS

Spray Volume for Peanuts: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
Peanuts	Armyworms, Cutworms, Corn earworm	250 to 375	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Peanuts

- Do not make more than 4 applications per season.
- Do not apply by air.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON GREEN ONIONS SUB GROUP – Crop group 3-07B

Spray Volume for Green Onion Subgroup: Apply in a minimum finished spray volume of 100 L/ha by ground.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
GREEN ONION SUB GROUP Leek, Onion, green Onion, Welsh, tops, Shallot, fresh leaves, Chive, fresh leaves, Chive, Chinese, fresh leaves, Elegans hosta, Fritillaria, Kurrat, Lady's leek, Onion, Beltsville bunching, Onion, fresh, Onion, macrostem, Onion, tree, tops, Wild leek,	Cutworms Leek moth (suppression) Leafminers: <i>Liriomyza</i> <i>sativae</i> <i>Liriomyza</i> <i>trifolii</i>	250 to 375	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Green onion sub group

- Do not make more than 4 applications per season.
- Do not apply by air.
- Do not apply more than once every 5 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season.
- **Do not make a foliar application of COSAYR for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.**

FOR USE ON GARDEN AND SUGAR BEETS

Spray Volume for Garden Beets and Sugar beets: Apply in a minimum finished spray volume of 100 L/ha by ground or 50 L/ha by air.

SITE	PEST	RATE COSAYR (mL/ha)	SPECIFIC DIRECTIONS
Sugar beets; Garden beets	Beet Webworm	250 to 375	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

RESTRICTIONS AND PRECAUTIONS: Garden and Sugar Beet

- Do not make more than 4 applications per season.
- Do not apply more than once every 3 days.
- Do not apply less than 1 day before harvest. Observe a 1-day PHI.
- Do not exceed a total of 1.125 litres of COSAYR per ha per season. Use the high rate under heavy pest pressure.
- Thorough coverage is important to obtain optimum control.

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 and Engineers (ASAE S572.1) fine classification. Boom height must be 60 cm or less above the crop or ground.

AERIAL APPLICATION

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

Apply only by fixed-wing or rotary aircraft equipment, which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Use Precautions for Aerial Application

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

Federal/Provincial/Territorial Committee on Pest Management and Pesticides”.

Operator Precautions for Aerial Application

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions for Aerial Application

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-855-264-6262 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Apply the recommended rate in a minimum spray volume of 50 litres per hectare.

Tank Mixtures

This product may be tank mixed with a fertilizer, a supplement, or 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 ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 for information before applying any tank mix that is not specifically recommended on this label.

SPRAY BUFFER ZONES

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

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Spray Buffer Zones (metres) Required for the Protection of				
		Freshwater habitat of depths:		Estuarine/Marine Habitat of depths:		
		Less than 1m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Potatoes, Root and Tuber vegetables, Fruiting vegetables, leafy vegetables, brassica vegetables, Legume vegetables, cucurbit vegetables, corn, grass forage, fodder, and hay, non- grass animal feeds, mint, Oilseeds, okra, hops, globe artichokes, peanuts, green onion subgroup, sugar and garden beets, cereal grains, and cereals for forage	1	1	1	0	
Aerial	Potato, Corn (field, pop, seed and sweet), Legume vegetables, Oilseeds and cereal grains, sugar beets and garden beets	Fixed wing	15	1	1	0
		Rotary wing	10	1	1	0

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.

MIXING INSTRUCTIONS:

Spray equipment must be clean and free of previous pesticide deposits before applying COSAYR. Fill spray tank 1/4 to 1/2 full of water. Add COSAYR directly to spray tank. Mix thoroughly to fully disperse the insecticide; once dispersed continued agitation is required. Once the product has been well mixed, add an adjuvant, where applicable, while continuously mixing. Recommendations regarding the use of adjuvants are provided under the Directions for Use Section of this label. Use mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

SPRAYER CLEANUP:

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

RESISTANCE-MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that COSAYR contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to COSAYR and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of COSAYR or other Group 28 insecticides with different groups that control the same pests.
- Make no more than 2 successive applications per generation to the same insect species on a crop. The following application to the target pest(s) must be with an effective product with a different mode of action.
- Use tank mixtures with insecticides from a different group that is effective on the target pest when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance, contact ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 or adama.com/canada.

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