

2021-3041
2026-05-20

GROUP	30	INSECTICIDE
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A21377 CP

INSECTICIDE

COMMERCIAL

SUSPENSION

For broad spectrum control of listed insect and mite pests on tuberous and corm vegetables, leafy vegetables (except head lettuce), Brassica head and stem vegetables, fruiting vegetables, cucurbit vegetables, pome fruits, stone fruits, tree nuts, soybeans and peanuts.

PLINAZOLIN® technology*

ACTIVE INGREDIENT:

Isocycloseram200 g/L

Contains 1,2-benzisothiazolin-3-one at 0.035%, 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0010% and 2-methyl-4-isothiazolin-3-one at 0.00033% as preservatives.

*PLINAZOLIN® technology denotes the Syngenta trademark for the active ingredient isocycloseram

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

REGISTRATION NO.: **35770**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **1 L to 1000 L**

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario N1G 4Z3
Telephone: 1-877-964-3682

Label

1.0 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.

2.0 FIRST AID

IN CASE OF POISONING, contact a doctor or a poison control centre **IMMEDIATELY**. 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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. 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.

3.0 TOXICOLOGICAL INFORMATION

There is no specific antidote. Treat symptomatically.

4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

DO NOT eat, drink or smoke/vape while using this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum/tobacco, smoking/vaping, using the toilet or handling mobile devices. Vehicle cabs **MUST** be decontaminated regularly.

DO NOT apply in greenhouses.

DO NOT apply using handheld mistblower/airblast or handheld fogging equipment.

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

DO NOT apply by air.

Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

Read and follow all tank mix partner labels and observe the most stringent label restrictions, precautions and instructions for each tank mixture.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

5.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

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.

For handheld application, wear eye, head and respiratory protection when applying above waist height, including overhead.

If the product comes in contact with clothing/PPE, remove all contaminated clothing/PPE, wash the outside of gloves with soap and water before removing, wash contaminated skin with soap and water and then dress in clean clothing. Launder contaminated clothing/PPE regularly and separately from other laundry. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Heavily contaminated or drenched clothing and other absorbent materials contaminated with this product should be discarded. DO NOT reuse them.

6.0 ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms. Observe spray buffer zones and vegetative filter strips specified under DIRECTIONS FOR USE.

Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Not compatible with integrated pest management programs using beneficial arthropods. Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland.

Toxic to bees. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to the evening when most bees are not foraging. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.canada.ca/pollinators).

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. To reduce risk to aquatic organisms from runoff, a vegetative filter strip of at least 10 metres wide between the application area edge and adjacent, downhill aquatic habitats must be observed, as specified under DIRECTIONS FOR USE.

7.0 STORAGE

Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated secure area away from other pesticides, and out of the reach of children, unauthorized persons and animals. Store this product away from seed, food, feed or fertilizer.

If A21377 CP should freeze, allow to thaw and agitate thoroughly prior to use.

8.0 DISPOSAL

For information on disposal of unused, unwanted product, contact the registrant or the provincial or territorial regulatory agency. Contact the registrant and the provincial or territorial regulatory agency in case of a spill, and for cleanup of spills.

For 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- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
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***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

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Pamphlet

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CALL 1-800-327-8633 (FASTMED)***

9.0 PRODUCT INFORMATION

A21377 CP is a broad spectrum insecticide for the control of listed insects in listed crops.

10.0 DIRECTIONS FOR USE

10.1 General Information

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 apply by air.

Runoff Management

A Vegetative Filter Strip (VFS) of at least 10 metres wide must be constructed and maintained. The VFS is required between the application area edge and adjacent, downhill aquatic habitats to reduce risk to aquatic organisms from runoff. Aquatic habitats include, but are not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries. The VFS is to be composed of grasses and may also include shrubs, trees, or other vegetation. Both VFS and spray buffer zones, if applicable, must be observed. Additional guidance can be found on the Runoff Mitigation portion of the Canada.ca website.

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 Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682 for information before applying any tank mix that is not specifically recommended on this label.

Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank mixes under all environmental conditions or for all crop varieties. Tank mixes that are not specifically listed on this label should be tested on a small area first, under local conditions and using standard practices, to confirm the tank mix is suitable for widespread application.

To determine the physical compatibility of this product with other products, use a jar test.

Always read and follow label directions including WALES mixing order.

10.2 Ground Application

10.2.1 Mixing Instructions

1. Spray equipment should be thoroughly flushed with clean water before mixing A21377 CP.
2. Fill spray tank 1/2 full with carrier. Engage gentle agitation.
3. Pour in the required amount of wettable powder or wettable granule, if applicable.
4. Induct or thoroughly batch mix A21377 CP and any SE or SC formulations.
5. Add emulsifiable concentrate (EC) mix partners. If adding emulsifiable oils, avoid excessive agitation to prevent mixture from forming a grease-like mass and settling out.
6. Finish filling tank. Maintain gentle agitation during mixing and spraying operations.
7. DO NOT let stand without agitation.
8. When using a mixture of A21377 CP and emulsifiable oil, clean tank immediately after use with a strong detergent and clean water.

When using chemical handling equipment to fill the sprayer, the following additional recommendations apply:

- WG and DF formulations are preferentially batch mixed.
- SC, SN, and SL formulations may be inducted or batch mixed.
- EC formulations are preferentially batch mixed.

10.2.2 Field Sprayer Application

Field sprayer application: DO NOT apply when wind speed is less than 1 km/h. Avoid application of this product when winds are gusty. DO NOT apply with sprays finer than the American Society of Agricultural and Biological Engineers (ASABE) S572 (572.1 to 572.3) medium classification. Boom height must be 60 cm or less above the crop or ground.

1. Water Volume: Apply in a minimum spray volume of 100 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER.
2. Spray Nozzles: Use only ASABE medium or coarser nozzles. The use of higher water volumes and larger spray tip sizes will generally increase spray deposition and reduce drift.
3. Pressure: As recommended by the nozzle manufacturer to achieve ASABE medium or coarser sized droplets.
4. Ensure tank agitation is engaged whenever possible.
5. Keep bypass line at bottom of tank to minimize foaming.
6. Use 16 mesh suction screens, 50 mesh line and tip screens.

10.2.3 Airblast Application

DO NOT apply when wind speed is less than 1 km/h. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

1. Water Volume: Apply in a minimum spray volume of 400 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER.
2. Spray Quality: Select nozzles and pressure to achieve a minimum of ASABE fine sized droplets.
3. Spray Distribution: Select nozzles, orient deflectors, and adjust air speed and volume

- to ensure only the canopy is sprayed. Spray should just reach the top of the target. Account for the shape and canopy density of the target when setting spray distribution.
4. Apply at uniform speed and avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to avoid potential crop injury from over application.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in overly fine particles (mist). DO NOT apply when wind velocity and direction pose a risk of spray drift. DO NOT spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

10.2.4 Equipment Clean-Up

Before Spraying:

Prior to using A21377 CP, ensure that the tank, chemical handling equipment, lines and filter are thoroughly cleaned.

After Spraying:

Thoroughly clean application equipment immediately after spraying. **DO NOT** allow A21377 CP residue to dry within application equipment.

When using tank mixes, consult the tank-mix partner label for additional clean-up instructions. The following recommendations are provided:

1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **DO NOT** clean application equipment near desirable vegetation, wells or other water sources.
2. Remove all nozzles and screens and wash separately.
3. Dispose of all rinsate in accordance with provincial or territorial regulations.

10.3 Spray Buffer Zones

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), 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 Habitats of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitats
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Tuberous and Corm Vegetables (CSG 1C), Leafy Vegetables (except head lettuce) (CG 4-13), Brassica Vegetables (CG 5-13), Fruiting Vegetables (CG 8-09), Cucurbit Vegetables (CG 9), Soybean, Peanut		80	35	15	5	15
Airblast	Pome Fruit (CG 11-09), Stone Fruit (CG 12-09), Tree Nuts (CG 14-11)	Early Growth Stage	70	60	45	35	50
		Late Growth Stage	60	50	35	25	40

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 (ASABE) category indicated on the labels for those tank mix partners.

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

10.4 Rotational Crop Restrictions

Crop, Crop Group, or Crop Subgroup	Plant-back Intervals (days)
Tuberous and Corm Vegetables (CSG1C)	0
Leafy Vegetables (CG4-13), except head lettuce	
<i>Brassica</i> Head and Stem Vegetables (CG5-13)	
Lentils	
Fruiting Vegetables (CG8-09)	
Cucurbit Vegetables (CG9)	
Barley, oats, rye, triticale, wheat (spring, winter, durum)	
Corn (field, seed, pop)	
Soybeans	
Peanuts	
All other crops intended for food and feed not listed on the label	120

10.5 Spray Drift Management and Application Requirements

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for application.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitat must be avoided. The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

11.0 CROP USE DIRECTIONS

11.1 Potato

CROP	Potato
PEST	Colorado potato beetle
USE RATE	50-100 mL/ha
PEST	Potato leafhopper
USE RATE	100-150 mL/ha
PEST	European corn borer (suppression)
USE RATE	150 mL/ha
APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 50-100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	14 days
WATER VOLUME	100-500 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.2 Crop Subgroup 1C - Tuberous and Corm Vegetables, except Potato (See 11.1 for Potato)

CROP SUBGROUP 1C - Tuberous and Corm Vegetables, except Potato (see 11.1 for Potato)	
CROPS	Arrowroot Artichoke, Chinese Artichoke, Jerusalem Canna, edible Chufa Dasheen (taro) Sweet Potato Yam, true
PEST	Potato leafhopper
USE RATE	100-150 mL/ha
PEST	European corn borer (suppression)
USE RATE	150 mL/ha

APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	14 days
WATER VOLUME	100-500 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.3 Leafy Vegetables (except head lettuce)

CROP GROUP 4-13		
CROPS	Amaranth, Chinese Amaranth, leafy Arugula Aster, Indian Blackjack Broccoli raab Broccoli, Chinese Cabbage, Abyssinian Cabbage, seakale Cat's Whiskers Cham-chwi Cham-na-mul Chervil, fresh leaves Chinese cabbage, bok choy Chipilin Chrysanthemum, garland Cilantro, fresh leaves Collards Corn salad (including Lamb's lettuce and Italian Corn salad) Cosmos Cress, garden Cress, upland Dandelion Dang-gwi Dillweed, fresh leaves Dock Dol-nam-mul Ebolo Endive Escarole Fameflower Feather cockscomb	Good King Henry Hanover salad Huauzontle Jute leaves Kale Lettuce, bitter Lettuce, leaf Maca Mizuna Mustard greens Orach Parsley, fresh leaves Plantain, buckhorn Primrose, English Purslane, garden Purslane, winter Radicchio (Red Chicory) Radish, leaves Rape greens Rocket, wild Shepherd's purse Spinach Spinach, Malabar Spinach, New Zealand Spinach, tree (Giant Lambsquarter) Swiss chard, Tanier spinach Turnip greens Violet, Chinese Watercress Cultivars, varieties and/or hybrids of these
PESTS	Potato leafhopper, cabbage looper	
USE RATE	100-150 mL/ha	
APPLICATION METHOD	Ground	
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.	
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha	
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days	
PRE-HARVEST INTERVAL (PHI)	1 day	
WATER VOLUME	200-600 L/ha	

NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.
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11.4 Brassica Leafy Greens

CROP SUBGROUP 4-13B	
CROPS	Arugula Broccoli raab Broccoli, Chinese Cabbage, Abyssinian Cabbage, seakale Chinese cabbage, bok choy Collards Cress, garden Cress, upland Hanover salad Kale Maca Mizuna Mustard greens Radish, leaves Rape greens Rocket, wild Shepherd's purse Turnip greens Watercress Cultivars, varieties and/or hybrids of these
PESTS	Flea beetles, imported cabbageworm, diamondback moth
USE RATE	100-150 mL/ha
APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	1 day
WATER VOLUME	200-600 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.5 Brassica Head and Stem Vegetables

CROP GROUP 5-13	
CROPS	Broccoli Brussel sprouts Cabbage Cabbage, Chinese, napa Cauliflower Cultivars, varieties and/or hybrids of these
PESTS	Flea beetles, cabbage looper, imported cabbageworm, diamondback moth
USE RATE	100-150 mL/ha
APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	1 day
WATER VOLUME	200-600 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.6 Fruiting Vegetables

CROP GROUP 8-09		
CROPS	African eggplant Currant tomato Eggplant Garden huckleberry Goji berry Groundcherry Martynia Okra Pea eggplant	Pepino Pepper, bell Pepper, non-bell Scarlet eggplant Sunberry Tomatillo Tomato Cultivars, varieties and/or hybrids of these
PEST	Colorado potato beetle	
USE RATE	50-100 mL/ha	
PESTS	Potato leafhopper, broad mite, two-spotted spider mite, cabbage looper	
USE RATE	100-150 mL/ha	
PEST	European corn borer (suppression)	
USE RATE	150 mL/ha	
APPLICATION METHOD	Ground	

APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 50-100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	1 day
WATER VOLUME	200-600 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.7 Cucurbit Vegetables

CROP GROUP 9		
CROPS	Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza) Gourd, edible (includes hechima, Chinese okra) <i>Momordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumbers) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>; includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon)	Pumpkin Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of <i>Citrillus lanatus</i>)
PEST	Twospotted spider mite	
USE RATE	100-150 mL/ha	
PEST	Squash bug	
USE RATE	150 mL/ha	
APPLICATION METHOD	Ground	
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.	

MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	3 days
WATER VOLUME	200-600 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.8 Pome Fruits

CROP GROUP 11-09		
CROPS	Apple Azarole Crabapple Mayhaw Medlar Pear Pear, Asian	Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties and/or hybrids of these
PESTS	European red mite, two-spotted spider mite	
USE RATE	100-150 mL/ha	
APPLICATION METHOD	Airblast	
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.	
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha	
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days	
PRE-HARVEST INTERVAL (PHI)	14 days	
WATER VOLUME	400-4000 L/ha	
NOTES	For optimal control apply a non-ionic surfactant at 0.25% v/v. Under high pest populations apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.	

11.9 Stone Fruits

CROP GROUP 12-09		
CROPS	Apricot Apricot, Japanese Cherry, black Cherry, Nanking Cherry, sweet Cherry, tart Jujube, Chinese Nectarine Peach Plum Plum, American Plum, beach	Plum, Canada Plum, cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum, Klamath Plum, prune Plumcot Sloe Cultivars, varieties and/or hybrids of these
PESTS	European red mite, two-spotted spider mite	
USE RATE	100-150 mL/ha	
APPLICATION METHOD	Airblast	
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.	
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha	
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days	
PRE-HARVEST INTERVAL (PHI)	14 days	
WATER VOLUME	400-4000 L/ha	
NOTES	For optimal control apply a non-ionic surfactant at 0.25% v/v. Under high pest populations apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.	

11.10 Tree Nuts

CROP GROUP 14-11		
CROPS	Almond Beechnut Bur Oak Butternut Chestnut Chinquapin Ginkgo Hazelnut Heartnut Hickory nut	Japanese horse-chestnut Monkey puzzle nut Pecan Pine nut Walnut, black Walnut, English Yellowhorn Cultivars, varieties, and/or hybrids of these commodities
PEST	Twospotted spider mite	
USE RATE	100-150 mL/ha	
APPLICATION METHOD	Airblast	
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.	
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha	
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days	
PRE-HARVEST INTERVAL (PHI)	14 days	
WATER VOLUME	400-4000 L/ha	
NOTES	For optimal control apply a non-ionic surfactant at 0.25% v/v. Under high pest populations apply a higher rate within the labeled rate range. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.	

11.11 Soybeans

CROPS	Soybeans
PESTS	Twospotted spider mite, bean leaf beetle
USE RATE	100-150 mL/ha
PESTS	Green stink bug, brown stink bug
USE RATE	150 mL/ha
APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	14 days
WATER VOLUME	Minimum 150 L/ha
NOTES	For optimal control apply a non-ionic or methylated seed oil (MSO) surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. DO NOT graze livestock. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.

11.12 Peanut

CROP	Peanut
PESTS	Potato leafhopper, two-spotted spider mite
USE RATE	100-150 mL/ha
APPLICATION METHOD	Ground
APPLICATION TIMING	Begin applications when treatment thresholds have been reached. Thorough coverage is essential for optimum control.
MAXIMUM NUMBER OF APPLICATIONS PER YEAR	2 at 100 mL/ha or 1 at 150 mL/ha
MINIMUM RE-TREATMENT INTERVAL (RTI)	7 days
PRE-HARVEST INTERVAL (PHI)	14 days
WATER VOLUME	200-600 L/ha

NOTES	For optimal control apply a non-ionic surfactant at 0.25% v/v. Under high pest populations, apply a higher rate within the labeled rate range. DO NOT graze livestock. Maximum amount of A21377 CP per crop is 200 mL/ha per year. Maximum amount of isocycloseram containing products applied as a foliar spray is 40 g ai/ha per year.
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12.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, A21377 CP contains a Group 30 insecticide/acaricide. Any insect/mite population may contain individuals naturally resistant to A21377 CP and other Group 30 insecticides/acaricides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides 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 A21377 CP or other Group 30 insecticides/acaricides with different groups that control the same pests.

Use tank mixtures with insecticides/acaricides from a different group that is effective on the target pest when such use is permitted.

Insecticide/acaricide use should be based on an integrated pest management (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 and to report suspected resistance, contact Syngenta Canada Inc. company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

Application Limitations and Pre-harvest Intervals

Crop*	Maximum Product Rate/ha/ Application (mL/ha)	Minimum Re-Treatment Interval (days)	Maximum Total Product Rate/ha/ Season (mL/ha)	Pre-Harvest Interval (PHI) (days)
Tuberous and Corm Vegetables (CSG 1C)	150	7	200	14
Leafy Vegetables (CG 4-13)	150	7	200	1
Brassica Head and Stem Vegetables (CG 5-13)	150	7	200	1
Fruiting Vegetables (CG 8-09)	150	7	200	1
Cucurbit Vegetables (CG 9)	150	7	200	3
Pome Fruits (CG 11-09)	150	7	200	14
Stone Fruits (CG 12-09)	150	7	200	14
Tree Nuts (CG 14-11)	150	7	200	14
Soybeans	150	7	200	14
Peanuts	150	7	200	14

*For specific crops in a group and use directions, refer to the Crop Use Directions

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