

GROUP	4	INSECTICIDE
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ACTARA® 25WG

INSECTICIDE

COMMERCIAL

Water Dispersible Granule Insecticide for control of listed insect pests on fruits, vegetables and outdoor ornamentals.

ACTIVE INGREDIENT:

Thiamethoxam25%

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

CAUTION - EYE IRRITANT

REGISTRATION NO.:**28408**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **450 g - 3.4 kg**

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

Label

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. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IF POISONING IS SUSPECTED, call a doctor or 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 in eyes, hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If 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.

TOXICOLOGICAL INFORMATION

There is no specific antidote for this product if ingested. If a large amount has been ingested and emesis is inadequate, lavage stomach. Treat symptomatically.

PRECAUTIONS

Safety Precautions:

1. Hazard to Humans and Domestic Animals.
2. KEEP OUT OF THE REACH OF CHILDREN and domestic animals. PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.
3. Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. DO NOT get in eyes. Avoid contact with skin. Avoid inhalation of vapours and spray mist. Wash hands and face after handling and before eating or smoking.
4. Wear long-sleeved shirt, long pants, chemical resistant gloves, socks and boots during mixing, loading, clean-up and repair; wear long-sleeved shirt, long pants, socks and boots during application. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
5. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

6. Avoid contamination of feed and foodstuffs.
7. For aerial application on potatoes. Do not use human flaggers with this product.
8. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
9. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

Environmental Hazards:

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

Toxic to bees. This product is systemic and residues from soil may be transported through plants into leaves, pollen and nectar. Bees may be exposed directly, through spray drift, or to residues on/in leaves, pollen and nectar in flowering crops and weeds. To minimize exposure to bees from foliar application, DO NOT apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

This product is 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.

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

STORE IN A COOL, DRY PLACE.

DECONTAMINATION AND DISPOSAL

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

CONTAINER DISPOSAL:**FOR DISPOSAL OF PLASTIC JUGS:**

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

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

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

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (1-800-FASTMED)***

ACTARA® is a trademark of a Syngenta Group Company.

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Pamphlet

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6. Avoid contamination of feed and foodstuffs.
7. For aerial application on potatoes. Do not use human flaggers with this product.
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To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

This product is 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.

Avoid application of this product when heavy rain is forecast.

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GENERAL INFORMATION

ACTARA® 25WG Insecticide controls listed sucking and chewing insects through contact and ingestion when used on the crops listed on this label.

ACTARA 25WG Insecticide should be applied to plant foliage when insect pest populations begin to build, but before pest populations reach economically damaging levels. Economic thresholds for pests controlled by ACTARA 25WG Insecticide may be available from your local agricultural authorities.

ACTARA 25WG Insecticide is taken up into foliage after application. However, thorough spray coverage is essential for best performance. Apply ACTARA 25WG Insecticide in sufficient water to ensure good coverage. See specific application information in the Use Directions section of this label. The use of higher water volumes will generally result in better coverage, especially under adverse conditions (e.g. hot, dry weather) or where a dense plant canopy exists.

ACTARA 25WG Insecticide is rainfast once the spray solution has dried on treated plants.

NOTE: DO NOT use a foliar application of ACTARA 25WG Insecticide following in-furrow or soil application of ACTARA 240SC Insecticide which also contains thiamethoxam.

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.

Apply ACTARA 25WG Insecticide using sufficient water volume to provide thorough and uniform coverage. For ground applications, use a minimum of 100 L/ha unless otherwise indicated on this label. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid spray overlap.

Precautions:

- 1) When using water volumes of 100 L/ha, fine-sized droplets may be used to improve spray coverage.

- 2) Select nozzles that can produce the desired droplet sizes at the normal rated pressure range.
- 3) When spraying fine-sized droplets, carefully check all nozzles for flow and calibrate the sprayer.
- 4) The sprayer should travel at a uniform speed across the field.
- 5) Monitor environmental conditions and follow **Recommendations to Avoid Spray Drift** carefully.

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) fine classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: **DO NOT** apply during periods of dead calm. 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.

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

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

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

Method of application	Crop		Buffer Zones (metres) Required for the Protection of		
			Freshwater Habitats of Depths:		Terrestrial Habitats:
			Less than 1 m	Greater than 1 m	
Airblast	Apples, Crabapples, Pears, Bushberries, Cherries	Early growth stage	2	0	10
		Late growth stage	1	0	4
Field Sprayer	Potatoes, Leafy vegetables (Crop Group 4)		0	0	1
	Fruiting vegetables (Crop Group 8, Low growing berries (Crop sub group 13-07G), caneberries (Crop subgroup 13-07A), Field peppers and Outdoor Ornamentals		1	0	1
			1	0	1
Aerial	Potatoes	Fixed or rotary wing	0	0	15

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

MIXING PROCEDURES

1. Add 1/2 of the required amount of water to the mix tank.
2. With the agitator running, add the desired amount of ACTARA 25WG Insecticide to the tank.
3. Continue agitation while adding the remainder of the water.
4. Begin application of the solution after ACTARA 25WG Insecticide has completely dispersed into the mix water.
5. Maintain agitation until all of the mixture has been applied.

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Keep product container tightly closed when not in use.

AERIAL APPLICATION

Instruction for Aerial Application

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

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

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or 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.

Operator Precautions

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

It is desirable that the 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

Read and understand the entire label before opening this product. If you have questions, call the manufacturer 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 in 20-50 litres of water per hectare.

Do not spray when the wind blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

Coarse sprays are less likely to drift; therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply with spray droplets smaller than the ASAE medium classification. Aerial drift is increased under certain meteorological conditions. Do not apply during periods of dead calm, when winds are gusty, or when wind speed is greater than 15 km/hr at 2 metres above ground at the site of application. Do not overspray non-crop terrestrial habitats. Buffer zone of 3 m is required between the downwind edge of the boom and

sensitive aquatic habitats such as sloughs, ponds, prairie potholes, lakes, rivers, streams and wetlands. Do not overspray these sensitive habitats. Do not contaminate these habitats when cleaning and rinsing spray equipment or containers.

USE DIRECTIONS

CROP	PEST	PRODUCT RATE g/ha	REMARKS
Potato	Colorado potato beetle Aphids (including green peach, potato, buckthorn, and foxglove aphid) Potato leafhopper	105 g/ha	Apply before pests reach damaging levels. Scout fields and treat again 7-10 days later if populations rebuild to potentially damaging levels. Potato leafhopper: Control may require the use of two applications made at a 7-10 day interval.
<p>Remarks: Do not exceed a total of 210 g of ACTARA 25WG Insecticide per hectare during each growing season. Allow at least 7 days between applications. Do not apply closer than 7 days before harvest (7 day PHI). Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 100 L/ha for ground applications.</p> <p>Can be applied by aerial or ground application</p> <p><u>Pollinator Precautions:</u> This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. After an ACTARA 25WG Insecticide application, wait at least <u>5 days</u> before placing the beehives in the treated field.</p>			

CROP	PEST	PRODUCT RATE g /ha	REMARKS
Apples, Crabapples	Plum curculio Mullein bug	315 g/ha	PREBLOOM: one application only Mullein bug: Apply only when thresholds have been reached. Plum Curculio: Consult local extension personnel for recommendations relevant to your area.
		315-385 g/ha	POSTBLOOM: up to 2 applications Mullein bug: Make first application immediately after petal fall, when thresholds have been reached. A second application may be necessary if pest pressure continues. Plum curculio: Make first application immediately following petal fall. A second application may be necessary if pest pressure continues.
	Spotted tentiform leafminer	315 g/ha	PREBLOOM: one application only. Apply when eggs are being deposited. POSTBLOOM: up to 2 applications To control first generation populations make application immediately following petal fall. For control of second and third generations make applications to coincide with egg deposition.
	Rosy apple aphid	160 g/ha	PREBLOOM: one application only Apply when aphid colonies are first observed at the green tip through pink growth stage before leaf curling occurs. POSTBLOOM: up to 2 applications Apply before leaf curling occurs.
<p>DO NOT APPLY MORE THAN 2 APPLICATIONS TOTAL PER SEASON (MAXIMUM 2 APPLICATIONS POSTBLOOM OR ONE APPLICATION PREBLOOM PLUS ONE APPLICATION POSTBLOOM).</p> <p>DO NOT APPLY BY AIR.</p> <p>Apply before pests reach damaging level. Apply higher rates for heavy infestations and for improved residual control. Scout fields and treat again if populations rebuild to potentially damaging levels. Do not make more than one prebloom application. Do not apply more than 2 applications total per season (maximum 2 applications postbloom or one application prebloom plus one application postbloom). Do not apply more than 770 g product per hectare per season per crop. ACTARA 25WG Insecticide may be applied up to 60 days before harvest (60 day PHI). Allow a minimum of 10 days between applications. A minimum spray volume of 1000 litres water/ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).</p>			

REMARKS: DO NOT APPLY ACTARA 25WG INSECTICIDE DURING BLOOM.**Pollinator Precautions:**

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide after pre-bloom (early pink growth stage) or before post bloom (petal fall growth stage). Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. This is especially critical if there are adjacent orchards that are blooming (Refer to Recommendations to Avoid Spray Drift for additional information). If bees are foraging in the orchard ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. This restriction does not apply to blooming crops (such as potatoes) that are not attractive to bees. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

DO NOT APPLY BY AIR.

CROP	PEST	PRODUCT RATE g/ha	REMARKS
Pear Oriental pear	Pear psylla Plum curculio	315-385 g/ha	<u>POSTBLOOM Only:</u> up to 2 applications Pear psylla: Apply immediately following petal fall. A second application may be necessary if pest pressure continues. Plum curculio: Apply immediately following petal fall. A second application may be necessary if pest pressure continues.

DO NOT APPLY MORE THAN 2 APPLICATIONS TOTAL PER SEASON.

Apply before pests reach damaging levels. Apply higher rates for heavy infestations and for improved residual control. Scout fields and treat again if populations rebuild to potentially damaging levels. ACTARA 25WG Insecticide may be applied up to 60 days before harvest (60 day PHI). Do not apply more than 2 applications total per season. Do not apply more than 770 g product per hectare per season per crop. Allow a minimum of 10 days between applications. A minimum spray volume of 1000 litres water/ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).

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Do not apply ACTARA 25WG Insecticide before postbloom (petal fall). Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. This is especially critical if there are adjacent orchards that are blooming (Refer to Recommendations to Avoid Spray Drift for additional information). If bees are foraging in the orchard ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. This restriction does not apply to blooming crops (such as potatoes) that are not attractive to bees. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

DO NOT APPLY BY AIR.

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

The DIRECTIONS FOR USE for this product for the use(s) described below were developed by persons other than Syngenta Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Syngenta Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop(s) listed below.

Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Syngenta Canada Inc. harmless from any claims based on efficacy or phytotoxicity in connection with the use(s) described below.

ROOT VEGETABLES (CROP SUBGROUPS 1B AND 1C)**					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Aphids Aster leafhopper	105	Apply in sufficient water volume to ensure adequate coverage. Do not use less than 100 L/ha.	Allow at least 7 days between applications.	7	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Ground application only. DO NOT apply by air. Maximum of 2 applications per growing season.

**Crop Subgroup 1B: Garden beet, edible burdock, carrot, celeriac, turnip-rooted chervil, chicory, ginseng, horseradish, turnip-rooted parsley, parsnip, radish, ornamental radish (daikon), rutabaga, salsify, black salsify, Spanish salsify, skirret, turnip,
Crop Subgroup 1C: Arracacha, arrowroot, Chinese artichoke, Jerusalem artichoke, edible canna, bitter and sweet cassava, chayote (root), chufa, dasheen (taro), ginger, leren, potato, sweet potato, tanier (cocoyam), turmeric, yam bean, true yam.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

APPLE, CRABAPPLE, PEAR, ORIENTAL PEAR					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Brown marmorated stink bug (suppression)	385	A minimum spray volume of 1000 L /ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).	Allow at least 10 days between applications.	60	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Ground application only. DO NOT apply by air. Maximum of 2 applications per growing season. Post-bloom application only. Do not apply more than 770 g product/ha per season.

REMARKS: DO NOT APPLY ACTARA 25WG INSECTICIDE DURING BLOOM.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide after pre-bloom (early pink growth stage) or before post bloom (petal fall growth stage). Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. This is especially critical if there are adjacent orchards that are blooming (Refer to Recommendations to Avoid Spray Drift for additional information). If bees are foraging in the orchard ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. This restriction does not apply to blooming crops (such as potatoes) that are not attractive to bees. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

CANE BERRIES (CROP SUB GROUP 13-07A)*				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Black vine weevil (<i>Otiorhynchus sulcatus</i>) and obscure root weevil (<i>Sciopithes obscurus</i>)	210-280	Apply in sufficient water volume to ensure adequate coverage. Use at least 100 L of water per hectare.	Allow at least 7 days between treatments.	Apply as a foliar application by broadcast spray before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Maximum 2 applications per season. Do not apply within 3 days of harvest. DO NOT apply by air.

* Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, 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.); Loganberry (*rubus loganobaccus*); Raspberry, black and red (*Rubus* spp.); Wild raspberry (*Rubus muelleri*) and cultivars, varieties and/or hybrids of these.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming plants if bees are visiting the treated area. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

BUSHBERRIES (CROP GROUP 13-07B)*					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Weevils (<i>Otiorhynchus sulcatus</i> , <i>Sciopithes obscurus</i>)	210-280	Sufficient water volume to ensure adequate coverage of the foliage. Use at least 100 L/ha.	7	3	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations. Ground application only. DO NOT apply by air. Maximum of 2 applications per growing season.
Brown marmorated stink bug suppression	280				

* Crop Group 13-07B: Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; currant, black; currant, red; elderberry; European barberry; gooseberry; cranberry, highbush; honeysuckle, edible; huckleberry; jostaberry; Juneberry; lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

FRUITING VEGETABLES (CROP GROUP 8)*					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Aphids Tarnished plant bug (<i>Lygus lineolaris</i>), Stink bugs (<i>Acrosternum hilare</i> <i>Euschistus servus</i> , <i>E. variolarus</i>) Reduction in damage caused by brown marmorated stink bug	105 105 – 210 (foliar) 210 (foliar)	Apply in sufficient water volume to ensure adequate coverage. Use at least 100 L of water per hectare.	Allow at least 7 days between applications.	1	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Maximum of 2 applications per growing season.
Aphids, Suppression of Tarnished plant bug (<i>Lygus lineolaris</i>), Suppression of stink bugs (<i>Acrosternum hilare</i> <i>Euschistus servus</i> , <i>E. variolarus</i>)	3.4 – 4.4 g product/100m row (in-furrow)***	Apply in sufficient water volume to ensure adequate coverage.	N/A	30	If applying in-furrow, apply at transplanting. Maximum of 1 application per growing season.
Aphids, Suppression of tarnished plant bug (<i>Lygus lineolaris</i>), Suppression of stink bugs (<i>Acrosternum hilare</i> <i>Euschistus servus</i> , <i>E. variolarus</i>)	365 – 468 (transplant water application)	Use 100 – 200 ml water per plant	N/A	30	Maximum of 1 application per growing season. Apply the product in 100 to 200 mL per plant in transplant water. For example, if the area to treat is 1 hectare and the plant population within is 30 000 plants then mix 365 to 468 g product in 3000 (to 6000) L water and apply 100 (to 200) mL to each transplant.

* Eggplant, Tomato, Peppers (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Groundcherry, and Pepino.
** Ground application only. DO NOT apply by air. Use the higher application rate when pest pressure is high (or anticipated to be high).
*** For in-furrow application, follow the rates outlined below per 100 m row:

Rate g/100 m row	Rate in g/ha of product for specified row spacing and rate per 100 m row						
	75 cm	90 cm	100 cm	120 cm	135 cm	150 cm	175 cm
3.4	453	378	340	283	252	227	194
4.4	587	489	440	367	326	293	251

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

LEAFY VEGETABLES (CROP GROUP 4)*					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Aphids (green peach, potato and foxglove)	105	Apply in sufficient water volume to ensure adequate coverage. Use at least 100 L of water per hectare.	Reapply after a minimum of 7 days if monitoring indicates further applications are required for aphid control	7	Maximum of 2 applications per growing season. DO NOT apply by air.
Reduction in damage caused by tarnished plant bug	210	Apply in sufficient water volume to ensure adequate coverage. Use at least 100 L of water per hectare.		7	Maximum 1 application per growing season. DO NOT apply by air.

*Celery, lettuce (head and leaf), spinach, amaranth, arugula, cardoon, Chinese celery, celtuce, fresh chervil leaves, edible leaved chrysanthemum, garland chrysanthemum, corn salad, garden cress, upland cress, dandelion leaves, dock, endives, fresh Florence fennel leaves and stalk, orach leaves, fresh parsley leaves, garden purslane, winter purslane, radicchio, rhubarb, New Zealand spinach, vine spinach, and Swiss chard.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

CHERRIES (sweet and sour)				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Aphids (including black cherry aphid)	160	A minimum spray volume of 1000 L water/ha is recommended. If adequate spray coverage of the plant canopy requires less solution per hectare, adjust the spray volume accordingly while using the same spray concentration (ratio of grams of product to litres of water).	10	Maximum of two applications per year. Do not apply more than 320 g product per hectare per season per crop. Apply before pests reach damaging level. Scout fields and treat again if populations rebuild to potentially damaging levels. Airblast application only. DO NOT apply by air. Do not harvest cherries within 14 days of application.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

LOW GROWING BERRIES (CROP GROUP 13-07G)* subgroup*				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Adult black vine weevil (<i>Otiorhynchus sulcatus</i>) Cranberry weevil (<i>Anthonomus musculus</i>)	210 – 280	Apply in sufficient water volume to ensure adequate coverage (minimum 200 L of water per hectare).	7 days	Apply as a foliar application by broadcast spray before pests reach damaging levels. If pests reach damaging levels during bloom, applications are to be made as soon as possible post-bloom. Scout fields and treat again if populations rebuild to potentially damaging levels. Maximum two (2) foliar applications per season. Do not apply within 3 days of harvest. DO NOT APPLY BY AIR. Do not follow a soil application of a Group 4 insecticide with a foliar application of ACTARA 25WG Insecticide.
Suppression of black vine weevil (<i>Otiorhynchus sulcatus</i>) and strawberry root weevil (<i>O. ovatus</i>)	560	Use sufficient water to ensure adequate coverage	N/A – post renovation application only	Apply as a soil drench post renovation only. Maximum 1 application per season. Do not exceed 560 g/ha of ACTARA 25WG Insecticide on low-growing berries per year. DO NOT apply a drench application of ACTARA 25WG on low-growing berries if one or more foliar applications were used in the same year. DO NOT APPLY BY AIR. DO NOT use a foliar application of a product containing a Group 4 (neonicotinoid) insecticide following in-furrow or soil application of ACTARA 25WG Insecticide.

* Crop Subgroup 13-07G: lowbush blueberry, bearberry, bilberry, cloudberry, cranberry, lingonberry, muntries, partridgeberry, strawberry, and cultivars, varieties and/or hybrids of these.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

FIELD PEPPER					
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	PHI (days)	Remarks
Pepper Weevil (suppression)	280	Applied in sufficient water to ensure thorough coverage (minimum 100L/ha).	7 days	1 day	Apply before pests reach damaging levels. Scout field and treat again if population rebuild to potentially damaging levels. Maximum 2 applications per year. DO NOT APPLY BY AIR.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

Outdoor Ornamentals				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Aphids, leafhoppers	105	Sufficient water volume to ensure adequate coverage of the foliage, use at least 100 L/ha.	7	Foliar application only. DO NOT make more than 2 applications per season.
Tarnished plant bug (suppression)	210 - 280	Do not exceed 1000 L/ha.		Apply before pests reach damaging levels or damage is first observed. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations. DO NOT apply by air.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

OUTDOOR NURSERIES AND LANDSCAPE				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Brown marmorated stink bug suppression	280	Adequate water volume to achieve thorough and uniform coverage without excessive runoff (to drip).	N/A	Foliar application only Maximum 1 application per season. Apply before pests cause significant damage to the host plant. For use in residential or landscape settings, do not allow re-entry into treated areas until residues have dried. Before making large scale applications to any crop, a representative subset of material should be treated to determine plant safety under the cultural conditions. Growing conditions and cultural practices vary and may influence phytotoxicity. It is strongly recommended that evaluations be conducted on a sample set of plant material to observe for phytotoxicity prior to treating an entire crop.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.

Celeriac				
Pest	Product Rate (g/ha)	Spray Volume (L/ha)	Application Interval (days)	Remarks
Tarnished plant bug (<i>Lygus lineolaris</i>)	210 g – 280	Apply in sufficient water volume to ensure adequate coverage. Use at least 100 L of water per hectare for ground application. Do not apply by air.	7	Apply as a foliar application by broadcast spray before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Maximum 2 applications per season. Use the higher application rate for heavy infestations and for improved residual control. Do not harvest within 7 days of application.

Pollinator Precautions:

This product is highly toxic to bees exposed to direct treatment or to residues on blooming crops and weeds. Do not apply ACTARA 25WG Insecticide or allow it to drift onto blooming crops or weeds if bees are foraging in/or adjacent to the treatment area. If bees are foraging in the ground cover and it contains any blooming plants or weeds, always remove flowers before making an application. This may be accomplished by mowing, disking, mulching, flailing, or applying a labeled herbicide. After an ACTARA 25WG Insecticide application, wait at least 5 days before placing the beehives in the treated field.'

Rotational Restrictions

Treated areas may be replanted immediately following harvest or as soon as practical following the last application with any crop listed on this label or to sorghum, wheat, barley, and canola. Any cover crop planted for erosion control or soil improvement may be planted as soon as practical following the last application. However, the cover crop may not be grazed or harvested for food or feed. For all other crops, a 120 day plant-back interval must be observed.

Resistance-Management Recommendations

For resistance management, please note that ACTARA 25WG Insecticide contains a Group 4 insecticide (neonicotinoid class of chemistry). Any insect population may contain individuals naturally resistant to ACTARA 25WG Insecticide and other Group 4 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area.

To delay insecticide resistance:

Where possible, rotate the use of ACTARA 25WG Insecticide or other Group 4 insecticides with different groups that control the same pests in a field.

Use tank mixtures with miticides/insecticides from a different group when such use is permitted. Insecticide use should be based on an IPM program that includes scouting, 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 company representatives at 1-877-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.