PRODUCT INFORMATION

Syngenta Crop Protection, Inc.
Greensboro, NC 27409
www.syngenta-us.com

SUPPLEMENTAL LABEL FOR ACTARA® INSECTICIDE FOR:

- **DIRECTIONS FOR USE ON BARLEY; *BRASSICA* (COLE) LEAFY VEGETABLES CUCURBIT VEGETABLES; GLOBE ARTICHOKE; GRAPES; AND LEAFY VEGETABLES(EXCEPT *BRASSICA*)**
- **REVISED DIRECTIONS FOR USE ON BERRIES; CRANBERRY; FRUITING VEGETABLES; MINT; POME FRUIT; ROOT VEGETABLES SUBGROUP (EXCEPT SUGARBEETS); STONE FRUIT; STRAWBERRY; TOBACCO; TUBEROUS AND CORM VEGETABLES**
- **REVISED RESISTANCE MANAGEMENT LANGUAGE**

Active Ingredient:	
Thiamethoxam[1]	25.0%
Other Ingredients:	75.0%
Total:	100.0%

[1]CAS No. 153719-23-4

Actara is a water-dispersible granule.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

EPA Reg. No. 100-938

This label expires July 1, 2012

SCP 938S-L2 0607

All applicable directions, restrictions and precautions on the EPA-registered label are to be followed.

Before using Actara Insecticide, as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling supersedes the

Directions for Use on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DIRECTIONS FOR USE

Resistance Management

Some insect pests are known to develop resistance to products after repeated use. 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. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

Actara contains a Group 4A insecticide (thiamethoxam, belonging to the neonicotinoid class of chemistry). Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by Actara or other Group 4A insecticides.

In order to maintain susceptibility to this class of chemistry in insect species with high resistance development potential:

- Avoid using a block of more than three consecutive applications of Actara and/or other Group 4A insecticides. (Do not exceed the allowable amount of Actara per acre per growing season.)
- Following a block of Group 4A insecticides, rotate to a block of applications of effective products with a different mode of action before using additional applications of Group 4A insecticides.
- Using a block rotation, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect's pest's ability to develop resistance to this class of chemistry.
- Foliar applications of Actara or other Group 4A insecticides should not be used on crops previously treated with a long-residual, seed or soil applied Group 4A insecticides.

Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org/.

CROP USE DIRECTIONS

Crop	Pest	Rate Per Acre Per Application
Barley (ID, ND, OR, SD, and WA only)	Aphids	4.0 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels.
- **Pre-Harvest Interval (PHI):** 21 days
- **Maximum Actara Allowed per Growing Season**: 8.0 oz./Acre (0.125 lb. a.i./A)
- **Minimum interval between applications**: 7 days
- **Water Volume**: Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Berries		
Bushberry Blueberry (high and low bush) Currant Elderberry Gooseberry Huckleberry **Juneberry** **Lingonberry** **Salal**	Aphids Cranberry Weevil Leafhoppers	3.0 - 4.0 oz./A
	Japanese Beetle Weevil Adults	4.0 oz./A
Caneberry Blackberry Loganberry Red & Black Raspberry	Aphids Leafhoppers	2.0 - 3.0 oz./A
	Japanese Beetle Stinkbugs Tarnished Plant Bug Weevil Adults Whiteflies	3.0 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 3 days
- **Maximum Actara Allowed per Growing Season:**
  Bushberry: 12.0 oz./Acre (0.188 lb. a.i./A)
  Caneberry: 6.0 oz./Acre (0.094 lb. a.i./A)
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
***Brassica* (Cole) Leafy Vegetables**		
Head & Stem *Brassica* Broccoli Broccoli, Chinese Brussels sprouts Cabbage Cabbage, Chinese mustard Cabbage, Chinese (napa) Cauliflower Cavalo broccolo Kohlrabi	Aphids Flea Beetles	1.5 - 3.0 oz./A
	Thrips Whiteflies	3.0 – 5.5 oz./A
Leafy *Brassica* Greens Broccoli, raab Cabbage, Chinese (bok choy) Collards Kale Mizuna Mustard greens Mustard spinach Rape greens	Aphids Flea Beetles	1.5 - 3.0 oz./A
	Thrips Whiteflies	3.0 – 5.5 oz/A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):**
  0 Days for Head & Stem *Brassica*
  7 Days for Leafy *Brassica* Greens

- **Maximum Actara Allowed per Growing Season**: 11.0 oz./Acre (0.172 lb. a.i./A)
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications. Allow spray to dry prior to harvest.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Cranberry	Aphids Cranberry Flea Beetle Cranberry Weevil Leafhoppers	2.0 - 4.0 oz./A
	Japanese Beetle	4.0 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 30 days
- **Maximum Actara Allowed per Growing Season:** 12.0 oz./Acre (0.188 lb. a.i./A)
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications. Actara may be applied through a solid set sprinkler irrigation system at 200-650 gals. total volume /A, and if applied during a regular irrigation set, only at the end of the irrigation set. For best results, it is recommended that 200-300 gals. total volume /A be used for irrigation application.
- **Do not** apply by air.
- **Do not** apply to flow-through bogs.
- **Do not** apply within 25 feet of bodies of water.
- **Do not** irrigate for the first 48 hours following application.
- **Do not** release water immediately following application; hold water within the bog system for 5 days following application prior to release.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Cucurbit Vegetables Chayote Chinese waxgourd Citron melon Cucumber Edible gourd Gherkin *Momordica* species Muskmelon Pumpkin Squash: summer and winter Watermelon	Aphids Flea Beetles	1.5 - 3.0 oz./A
	Cucumber Beetles[1] Leafminers[1] Whiteflies	3.0 – 5.5 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 0 days
- **Maximum Actara Allowed per Growing Season**: 11.0 oz./Acre (0.172 lb. a.i./A)
- **Minimum Interval Between Applications:** 5 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications. Allow spray to dry prior to harvest.

[1] Suppression

Refer to Pollinator Precautions section.

Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Fruiting Vegetables Eggplant Ground cherry Pepino Peppers (bell, chili, cooking, pimento, and sweet) Tomatillo Tomato	Aphids Colorado Potato Beetle Flea beetles Leafhoppers	2.0 - 3.0 oz./.A
	Whiteflies Pepper Weevil Stink Bugs	3.0 – 5.5 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 0 day
- **Maximum Actara Allowed per Growing Season:** 11.0 oz./Acre (0.172 lb. a.i./A)

- **Minimum Interval Between Applications:** 5 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications. Allow spray to dry prior to harvest.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Globe Artichoke	Artichoke Aphid - (*Capitophorus elaeagni*) Leafhoppers Proba Bug	3.0 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 4 days
- **Maximum Actara Allowed per Growing Season**: 6.0 oz./Acre (0.094 lb. a.i./A)
- **Minimum Interval Between Applications**: 7 days
- **Water Volume**: Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Grapes	Japanese Beetle Leafhoppers Mealybugs Sharpshooters	1.5 - 3.5 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 5 days
- **Maximum Actara Allowed per Growing Season**: 7.0 oz./Acre (0.109 lb. a.i./A)
- **Minimum Interval Between Applications**: 14 days
- **Water Volume**: Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Leafy Vegetables (except *Brassica*) Amaranth Arugula Cardoon Celery Celtuce Chervil Chinese celery Chrysanthemum: edible-leaved & garland Corn Salad Cress: Garden & upland Dandelion Dock Endive Fennel Lettuce: Head & Leaf Orach Parsley Purslane: Garden & Winter Radicchio Rhubarb Spinach (including New Zealand & Vine) Swiss chard	Aphids Flea Beetles Leafhoppers	1.5 - 3.0 oz./A
	Whiteflies	3.0 – 5.5 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 7 days
- **Maximum Actara Allowed per Growing Season**: 11.0 oz./Acre (0.172 lbs. a.i./A)
- **Minimum Interval between Applications:** 7 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Mint: Peppermint Spearmint	Aphids Fleahoppers Leafhoppers Mint Flea Beetles	1.5 - 3.0 oz./A
	Grasshoppers	3.0 - 4.0 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-harvest Interval (PHI):** 7 days
- **Maximum Actara Allowed per Growing Season:** 12.0 oz./Acre (0.188 lb. a.i./A)
- **Minimum Interval Between Applications:** 14 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application	Remarks
Pome Fruit Apples Not for use in NY except via SLN NY-020001. Crabapples Loquat Mayhaw Quince	**Prebloom:** Apple Aphid Apple Grain Aphid Green Peach Aphid Leafminers Mullein Bug (*Campylomma* species) Rosy Apple Aphid	4.5 oz./A	Apply before pests reach damaging levels. **Rosy Apple Aphid**: Apply when aphid colonies are first observed at the green tip through pink growth stage before leaf curling occurs. **Leafminers:** Apply when eggs are being deposited.
	Postbloom: Leafhoppers	2.0 – 2.75 oz./A	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
	Postbloom: Apple Aphid Apple Grain Aphid European Apple Sawfly Green Peach Aphid Leafminers Plum Curculio	4.5 - 5.5 oz./A	Apply before pests reach damaging levels. Apply higher rates for heavy infestations. **Leafminers:** 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. Apply higher rates for heavy infestations. **Plum Curculio:** Make application immediately following petal fall. Additional applications of a different insecticide may be necessary if pest pressure continues.

Crop	Pest	Rate Per Acre Per Application	Remarks
Pome Fruit (continued) Pear Oriental Pear (*Pyrus pyrifolia*)	**Prebloom:** Pear Psyllid	5.5 oz./A	Apply before pests reach damaging levels.
	Prebloom: Apple Aphid	4.5 - 5.5 oz./A	Apply before pests reach damaging levels. Apply higher rates for heavy infestations.
	Postbloom: Pear Psyllid	5.5 oz./A	Apply before pests reach damaging levels.
	Postbloom: Apple Aphid Comstock Mealybug Plum Curculio	4.5 - 5.5 oz./A	Apply before pests reach damaging levels. Apply higher rates for heavy infestations. **Comstock Mealybug:** Make application immediately following petal fall to control first generation crawlers. **Plum Curculio:** Make application immediately following petal fall. Apply higher rates for heavy infestations. Additional applications of a different insecticide may be necessary if pest pressure continues.
	Leafhoppers	2.0 - 2.75 oz./A	Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.

Remarks:

- **Pre-Harvest Interval (PHI):**
  35 day - Use rates exceeding 2.75 oz./A may not be applied closer than 35 days before harvest.
  14 day - Application rates equal to or less than 2.75 oz./A may be applied up to 14 days before harvest.
- **Maximum Actara Allowed per Growing Season**: 16.5 oz./Acre (0.258 lb. a.i./A)
- **Minimum Interval Between Applications:** 10 days
- **Water volume:** Use a minimum of 50 GPA applied with ground equipment to ensure thorough coverage of foliage.
- **Do not** apply by air.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Root Vegetables Subgroup (Except Sugarbeets)		
Radish	Aphids Flea Beetles Leafhoppers	1.5 - 3.0 oz./A
	Whiteflies	3.0 - 4.0 oz./A
Carrot Celeriac Chicory Edible Burdock Garden Beet Ginseng Horseradish Oriental Radish Parsnip Rutabaga Salsify: Black Salsify Spanish Salsify Skirret Turnip Turnip Rooted Chervil Turnip Rooted Parsley	Aphids Flea Beetles Leafhoppers	1.5 - 3.0 oz./A
	Whiteflies	3.0 - 4.0 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 7 days
- **Maximum Actara Allowed per Growing Season**:
  Radish - 4.0 oz./Acre (0.063 lbs. a.i./A)
  Other Root Vegetables - 8.0 oz./Acre (0.125 lbs. a.i./A)
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Stone Fruit Apricot Chickasaw plum Damson plum Japanese plum Nectarine Peach Plum Plumcot Prune (fresh) Sweet and tart cherry	Leafhoppers	2.0 - 2.75 oz./A
	Aphids	3.0 - 4.0 oz./A
	Cherry Fruit Fly Plum Curculio Stink Bugs Tarnished Plant Bug Thrips	4.5 - 5.5 oz./A

Remarks:

- **Application Timing**: Apply before pests reach damaging levels. . Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 14 days
- **Maximum Actara Allowed per Growing Season:** 11.0 oz./Acre (0.172 lbs. a.i./A)
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 50 GPA for ground applications.
- **Do not** apply by air.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Strawberry	Aphids Leafhoppers	1.5 – 3.0 oz./A
	Whiteflies	3.0 – 4.0 oz./A
	Lygus Bug (suppression) Weevil Adult	4.0 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval (PHI):** 3 days
- **Maximum Actara Allowed per Growing Season**: 12.0 oz./Acre (0.188 lbs. a.i./A)
- **Minimum Interval Between Applications:** 10 days
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 50 GPA for ground applications.
- **Do not** apply by air.

Refer to Pollinator Precautions section.
Refer to Resistance Management section

Crop	Pest	Rate Per Acre Per Application
Tobacco	Aphids Flea Beetles Japanese Beetles	2.0 - 3.0 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Apply higher rates for heavy infestations.
- **Pre-Harvest Interval:** 14 days
- **Maximum Actara Allowed per Growing Season:** 3.0 oz./Acre (0.047 lb. a.i. /A)
- **Water volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 20 GPA for ground applications.

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Crop	Pest	Rate Per Acre Per Application
Tuberous and Corm Vegetables Arracacha Arrowroot Canna Cassava, Bitter and Sweet Chayote (root) Chinese artichoke Chufa Dasheen Ginger Jerusalem artichoke Leren Potato Sweet potato Tanier Turmeric Yams Yam bean	Colorado Potato Beetle Flea Beetle Potato Leafhoppers	1.5 – 3.0 oz./A
	Aphids	3.0 oz./A

Remarks:

- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates for heavy infestations.
- **Pre-harvest Interval:** 14 days
- **Maximum Actara Allowed per Growing Season:** 6.0 oz./Acre (0.094 lb. a.i./A) during each growing season.
- **Minimum Interval between Applications:** 7 days.

- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.
- **Chemigation:** use from 0.10-0.25 inches of water. (For more details: see application through irrigation systems for potatoes in **APPLICATION PROCEDURES AND SPRAY EQUIPMENT** section.)

Refer to Pollinator Precautions section.
Refer to Resistance Management section.

Actara® is a Trademark of a Syngenta Group Company
© 2007 Syngenta
Syngenta Crop Protection, Inc.
Greensboro, North Carolina 27409
www.syngenta-us.com

ACT938S-L2 0607-lg-7-9-07