

**Olympic****AZATIN<sup>®</sup> XL****Botanical Insecticide****FOR INDOOR AND OUTDOOR USE ON ORNAMENTALS AND HORTICULTURAL CROPS****ACTIVE INGREDIENT:**

Azadirachtin*	3.0%
OTHER INGREDIENTS	97.0%
	100.0%

\*Contains 0.265 pounds (120 grams) of azadirachtin per gallon

EPA Reg. No. 70051-27-59807

EPA Est. No.: 44616-MO-1

**KEEP OUT OF REACH OF CHILDREN****CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed or inhaled. Avoid breathing vapors or spraymist. Causes eye irritation. Do not get in eyes. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)****Applicators and other handlers must wear:**

- long-sleeved shirt and long pants
- chemical resistant gloves such as barrier laminate or Viton (≥14 mil)
- shoes plus socks, and
- protective eye wear.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**FIRST AID**

**If in Eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**If Inhaled:** Move to fresh air. Clear lungs and airways. Get medical attention if irritation develops.

**If on Skin:** Wash with plenty of soap and water. Get medical attention if irritation develops.

**If Swallowed:** Do not induce vomiting. Contact a physician immediately.

**User Safety Recommendations:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal area below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**STORAGE AND DISPOSAL**

**GENERAL:** Do not contaminate water, food or feed by storage and disposal.

**PESTICIDE STORAGE:** Do not store above 100 degrees F or below -20 degrees F for extended periods of time. Keep containers tightly closed when not in use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Do not re-use as a container. Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in an incinerator or landfill or by other procedures approved by State and local authorities.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow workers entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

Long-sleeved shirt and long pants, chemical resistant gloves such as barrier laminate or Viton (≥14 mil), shoes plus socks, and protective eye wear.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses. For other uses including golf courses, and other non-agricultural uses, do not enter treated areas without protective clothing until sprays have dried.

**Pests controlled by AZATIN<sup>®</sup> XL****Aphids, such as:**

Apple Aphid	Pea Aphid
Cotton Aphid	Potato Aphid
Green Peach Aphid	Rose Aphid
Melon Aphid	

**Armyworms, such as:**

Beet Armyworm	Southern Armyworm
Fall Armyworm	Yellow Striped Armyworm
Lawn Armyworm	

**Bagworms****Beetles, Grubs and Weevils, such as:**

Black Vine Weevil	Japanese Beetle
Colorado Potato Beetle	June Beetle
Elm Leaf Beetle	Mexican Bean Beetle
Flea Beetles	Rose Chafer

**Cankerworms, such as:**

Fall Cankerworm	Spring Cankerworm
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**Caterpillar and Loopers, such as:**

Cabbage Looper	Soybean Looper
Corn Earworm	Tent Caterpillar
Diamondback Moth	Tobacco Budworm
Grapeleaf Skeletonizer	Tobacco Hornworm
Imported Cabbageworm	Tomato Fruitworm
Navel Orangeworm	Tomato Pinworm

**Chafers, such as:**

European Chafer	Rose Chafer
Northern Masked Chafer	Southern Masked Chafer

**Cutworms, such as:**

Black Cutworm	Citrus Cutworm
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**Flies, such as:**

Caribbean Fruit Fly	Mediterranean Fruit Fly
Crane Fly	Melon Fly
Fungus Gnat	Shore Fly
Hessian Fly	Walnut Husk Fly
Oriental Fruit Fly	

**Leaf Tiers****Leafhoppers, such as:**

Grape Leafhopper	Variagated Leafhopper
Potato Leafhopper	

**Leafminers, such as:**

Citrus Leafminer	Vegetable Leafminer
Serpentine Leafminer	

**Leafrollers, such as:**

Blueberry Leafroller	Grape Leafroller
Filbert Leafroller	Oblique Banded Leafroller
Fruitree Leafroller	Omnivorous Leafroller

**Leaf Perforators****Marsh Crane Flies****Mealybugs****Moths, such as:**

European Pine Shoot Moth	Tussock Moth
Pine Tip Moth	

**Psyllids****Sawflies****Thrips, such as:**

Citrus Thrips	Gladiolus Thrips	Calamandin	Lemon	Orange, sour
Flower Thrips	Western Flower Thrips	Citrus citron	Limes	Orange, sweet
		Grapefruit	Mandarin	Pummelo
		Kumquat	(tangerine)	Satsuma mandarin

**Whiteflies, such as:**

Greenhouse Whitefly	Sweetpotato Whitefly
Silverleaf Whitefly	

**CROPS ON WHICH AZATIN® XL CAN BE USED**

Azatin® XL can be used indoors and outdoors. Plants may be potted, grown in the soil or soilless mixtures or grown hydroponically.

**Bedding Plants, Flowers, Potted Plants and Foliage, such as:**

Actinopteris	Daisy	Pansy
Aglaonema	Daylily	Pelargonium
Allamanda	Delphinium	Peony
Algerian Ivy	Dianthus	Peperomia
Alocasia	Dieffenbachia	Petunia
Anthurium	Dusty Miller	Philodendron
Aphelandra	Easter Lily	Phlox
Artemisia	English Ivy	Photinia
Aster	Euphorbia	Pittosporum
Aucuba Illex	Fern	Pinks
Azalea	Ficus	Poinsettia
Baby's Breath	Foxglove	Pothos
Begonia	Freesia	Portulaca
Bougainvillea	Fuchsia	Rosemary
Boston Fern	Gaillardia	Rose
Boxwood	Gardenia	Rubberplant
Brachycome	Geranium	Salvia
Cacti	Gerbera	Schefflera
Calabrese	Gladioli	Sedum
Caladium	Gypsophilla	Sempervivum
Calla	Hedera	Snapdragon
Calathea	Hibiscus	Spathiphyllum
Calendula	Impatiens	Stock
Carnation	Iris	Syngonium
Chrysanthemum	Lily	Verbena
Coleus	Manvilla	Vinca
Columbine	Marigold	Wandering Jew
Dahlia	Nasturtium	Zinnia

**Ornamentals, such as:**

Ageratum	Daffodil	Pelargonium
Arborvitae	Dahlia	Peony
Aster	Delphinium	Phlox
Aucuba Illex	Dogwood	Photinia
Azalea	Ficus	Pittosporum
Begonia	Foliage Plants	Poinsettia
Boxwood	Fuchsia	Pyracantha
Cacti	Gardenia	Rhododendron
Calendula	Geranium	Rose
Calla	Hyacinth	Rubber Plant
Camella	Hydrangea	Snapdragon
Camellia	Iris	Stock
Carnation	Ivy	Tulip
Ceanothus	Lily	Wandering Jew
Chrysanthemum	Maidenhair Fern	White Cedar
Cineraria	Marigold	White Pine
Coleus	Narcissus	Yew
Cotoneaster	Orchid	Yucca
Cyclamen	Pansy	Zinnia

**Trees and Shrubs, such as:**

Andromeda	Douglas Fir	Magnolia
Arborvitae	Elm	Manvilla
Ash	Euonymus	Maple
Austrian Pine	Firethorn	Mimosa
Azalea	Forsythia	Mountain Ash
Beech	Hackberry	Myrtle
Birch	Hawthorn	Oak
Birdsnest Spruce	Hemlock	Pachysandra
Blue Spruce	Hickory	Peach
Boxwood	Holly	Pine
Butternut	Honey Locust	Planetree
Cedar	Horse Chestnut	Poplar
Chamaecyparis	Juniper	Privet
Cherry	Larch	Quince
Crabapple	Laurel	Spruce
Cotoneaster	Lilac	Sycamore
Cyprus	Linden	
Dogwood	London Plane	

**Bulb Vegetables, such as:**

Garlic	Onion
Leek	Shallot

**Citrus Fruits, such as:****Cucurbit Vegetables, such as:**

Balsam pear (bitter melon)	Crenshaw	Mango Melon
Cantaloupe	Cucumber	Pumpkin
Casaba	Gherkin	Squash
Chinese waxgourd	Gourds	Watermelon
Citron melon	Honeydew	
	Honeyballs	

**Fruiting Vegetables, such as:**

Eggplant	Pepinos	Tomatillo
Ground cherry	Peppers	Tomato

**Herb and Spices such as:**

Anise	Cumin	Pennyroyal
Balm	Curry leaf	Rosemary
Basil	Dandelion	Rue
Borage	Dill	Sage
Burnet	Fennel	Savory
Chamomile	Fenugreek	Sweet bay
Caraway	Horehound	Tansy
Catnip	Hyssop	Tarragon
Celery	Marigold	Thyme
Chives	Marjoram	Wintergreen
Coriander	Mint	Woodruff
Costmary	Nasturtium	Wormwood

**Brassica (Cole) Crops, such as:**

Broccoli	Bok choy	Chinese cabbage
Brussels sprouts	Cabbage	Cauliflower

**Leafy Vegetables, such as:**

Chinese spinach	Cress	Orach
Celery	Endive	Parsley
Chervil	Fennel	Rhubarb
Collards	Kale	Spinach
Corn salad	Kohlrabi	Swiss chard
Chrysanthemum (edible)	Lettuce	Turnip tops
	Mustard greens	

**Nuts, such as:**

Almond	Chestnut	Macadamia
Beach nut	Chinquapin	Pecan
Brazil nut	Filberts (hazelnuts)	Pistachio
Butternut	Hickory nuts	Walnuts
Cashew	Lychee nuts	

**Pome Fruits, such as:**

Apple	Mayhaw	Jujube
Crabapple	Pear	
Loquat	Quince	

**Root and Tuber Crops, such as:**

Beet, red	Horseradish	Salisfy
Beet, sugar	Jicama	Sweet potato
Carrot	Parsnip	Tumeric
Cassava	Potato	Turnip
Celeriac	Radish	Yam
Chervil	Radish, Japanese (Daikon)	Yam bean
Dasheen (taro)	Rutabaga	
Ginger		

**Stone Fruits, such as:**

Apricot	Nectarine	Prune
Cherry, sour	Peach	
Cherry, sweet	Plum	

**Miscellaneous Crops, such as:**

Artichoke	Hops	Rambutan
Asparagus	Guayule	Suger Cane
Avocado	Kiwi	Tamarillo
Birdseed	Okra	Tea
Coffee	Palm	Tobacco
Cacao	Papaya	Waterchestnut
Edible Flowers	Pawpaw	Watercr
Feijoa	Persimmon	
Figs	Pineapple	

**GENERAL APPLICATION DIRECTIONS****READ ALL DIRECTIONS BEFORE USING.**

Dilute Azatin® X L in water at a rate up to 21 fluid ounces (20 grams active ingredient) per acre. Apply using any suitable ground or aerial equipment, in a manner to obtain uniform and complete plant coverage.

For crops apply using conventional application equipment in a minimum of 30 gallons of water per acre and aerial application equipment in a minimum of 3 gallons of water per acre.

Avoid overspraying to the point of excessive runoff.

Refer to tables for detailed dilution rates.

Applications should be made when pests first appear and are in their early larval stages. Repeat applications every 7 days or as needed.

For best results, a spreader-sticker should be added at the recommended label rate.

Dilute solutions containing **Azatin® X L** should be maintained at a pH between 3 and 7, and applied soon after preparation. Do not store for later use.

This product may be pre-mixed in a supply tank with water, fertilizer or other appropriate agricultural chemicals. Agitation is necessary (See Mixing Directions). Crop injury or lack of effectiveness can result if uniform distribution is not achieved.

When pest populations are high, use the higher label rates.

#### Application Rates for Whitefly and Other Greenhouse (including Lathe and Shade), Nursery and Interiorscape Pests

Apply **Azatin® XL** at the recommended use dilution rate in 100 gallons of water to assure adequate plant coverage (usually 1-2 gallons of spray solution/1,000 sq. feet).

Pests controlled by Azatin® XL	Rate of Azatin® XL per 100 gallons water	Remarks
Aphids	12 to 16 oz.	Suppression and adult feeding deterrence.
Armyworms	10 to 16 oz.	Foliar application to larvae.
Black Vine Weevil	21 oz./acre	Soil and foliar application to larvae.
Fungus Gnats	8 oz.	Apply as soil drench for maggot control.
Leafminers	10 to 16 oz.	Foliar application to larvae.
Western Flower Thrips	12 to 16 oz.	Suppression of larvae and adult feeding deterrence.
Sweetpotato Whitefly (including strain B)	10 to 16 oz.	Foliar application to larvae and nymphs.
Greenhouse Whitefly	10 to 16 oz.	Foliar application to larvae and nymphs.
Others Bagworms Cankerworms Cutworms Leafhoppers Leafrollers Sawflies Tent Caterpillars	10 to 16 oz.	Foliar application to nymphs/larvae.

#### Application Rates for Key Insect Pests in Vegetables, Fruits, and Nut Crops

Apply **Azatin® XL** at the recommended use dilution rates in sufficient water to assure adequate coverage. (Conventional application equipment apply in a minimum of 30 gallons water per acre). (Aerial application equipment apply in a minimum of 3 gallons water per acre).

Pests controlled by Azatin® XL	Rate Azatin® XL per acre	Remarks
<b>Aphids, such as:</b> Cotton Aphid Green Peach Aphid Hop Aphid Potato Aphid	10 to 16 oz.	Foliar application, for suppression only
<b>Armyworms, such as:</b> Beet Armyworm Fall Armyworm Southern Armyworm Yellow Striped Armyworm	5 to 16 oz.	Foliar application to larvae
<b>Beetles, such as:</b> Colorado Potato Beetle	5 to 16 oz.	Foliar application to larvae
<b>Caterpillars, such as:</b> Corn Earworm Diamondback Moth Imported Cabbageworm Navel Orangeworm Tobacco Budworm Tobacco Hornworm Tomato Fruitworm Western Grapeleaf Skeletonizer	10 to 21 oz. 10 to 16 oz. 5 to 16 oz. 10 to 21 oz. 5 to 16 oz. 5 to 16 oz. 5 to 16 oz. 5 to 16 oz.	Foliar application to larvae
<b>Cutworms, such as:</b> Citrus Cutworm Black Cutworm	5 to 16 oz. 5 to 10 oz.	Foliar application to larvae
<b>Loopers, such as:</b> Cabbage Looper Soybean Looper	5 to 10 oz.	Foliar application to larvae
<b>Leafminers, such as:</b> Citrus Leafminer Serpentine Leafminer Vegetable Leafminer	10 to 16 oz.	Foliar application to larvae. Use with oil.
<b>Leafhoppers, such as:</b> Grape Leafhopper Variegated Leafhopper	10 to 16 oz.	Foliar application to nymphs. Use equipment to target the underside of leaves.

Pests controlled by Azatin® XL	Rate Azatin® XL per acre	Remarks
<b>Whiteflies, such as:</b> Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 to 21 oz.	Foliar application to nymphs. Use equipment to target undersides of leaves.

\*When using lower rates (less than 10 oz.), combine **AZATIN® XL** with an approved adjuvant such as a non-phytotoxic crop oil, up to 1%. Always ensure good coverage by adjusting spray gallonage. Treat early for best control. Do NOT use less than 10 oz. in California.

#### SPRAY:

High volume—When plant foliage is dense, use the higher label rates and increase spray gallonage to obtain uniform and complete coverage.

Aerial/low/ultra low volume—Apply **Azatin® X L** at rates of 5 to 21 oz./acre (10-21 oz. in California) in a minimum of 3 gallons of water per acre. For best results, ensure uniform and complete plant coverage.

#### DRENCH/CHEMIGATION:

This product is effective as a soil drench for controlling soil-borne insect larvae (e.g. Fungus Gnats).

It is also effective as a soil drench for controlling foliar and soil-borne pests, particularly when alternated with **Azatin® X L** foliar sprays.

Apply **Azatin® XL** in sufficient water and for sufficient duration so as to distribute the recommended rate evenly to the entire treated area.

Apply to moderately moist soils. Use volumes that thoroughly wet the soil, but do not cause significant surface runoff or excessive drip from pots.

#### CHEMIGATION:

Refer to supplemental labeling entitled "Olympic's Chemigation Bulletin" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

#### SPRAY EQUIPMENT

Use suitable equipment that allows for uniform coverage of the targeted treatment area, such as hand or power operated spray equipment.

#### MIXING DIRECTIONS

##### Azatin® XL WITH WATER:

For best results,

1. Use clean equipment.
2. Fill tank  $\frac{1}{2}$  full to  $\frac{3}{4}$  full with water and begin agitation.
3. Add pesticide to the tank.
4. Fill the tank completely with water and mix thoroughly before applying.
5. Adjust spray solution to between 3 to 7 pH, if necessary.
6. Pesticide mix should be applied immediately after mixing.
7. If the mixture is not applied immediately, agitate before application.
8. Thoroughly clean equipment following application.

##### TANK MIXTURES OR FLUID FERTILIZERS:

1. Before using this product in a tank mix with fertilizer or registered pesticide, determine compatibility by conducting a compatibility test with a small amount of each product.
2. Observe all cautions and limitations on labels of all products used in combination.
3. Follow all tank mix directions and observe limitations listed in the combination product(s) label.

##### COMPATIBILITY TEST

A compatibility test should be performed before tank mixing this product with other product(s) or liquid fertilizer(s). Fill three separate 1 quart jars with 1 pint of water or fertilizer. To a first jar add this product and mix well. To a second jar, add the desired other tank mix product(s) and mix well. To a third jar, combine this product with the other tank mix product(s) and mix well. If more than one product is used, add them separately with dry formulations first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. For the appropriate amount of product for this test use the following:

**DRY PRODUCTS**—For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

**LIQUID PRODUCTS**—For each pint to be applied per acre, add 0.5 teaspoons or 2.5 ml to each jar.

Note any differences between the mixtures in the jars (compounds alone vs mixtures) after 15 minutes. Look for evidence of physical incompatibility such as clumping, precipitation, oily residues on the sides of the glass or other signs of incompatibility. If either mixture separates, but can be readily remixed, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, do not use the mixture.

#### WARRANTY

Olympic Horticultural Products Company warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS

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