



FOR INDOOR AND OUTDOOR USE ON ORNAMENTAL AND HORTICULTURAL CROPS

Product Information Bulletin

351

#### **GENERAL INFORMATION**

**Azatin XL** is a highly effective biological insect growth regulator (IGR) used to control a broad-spectrum of greenhouse and nursery insects.

**Azatin XL** insecticide is a 3.0% formulation of azadirachtin, a naturally-derived active ingredient that comes from the seeds of the Neem tree.

Common Name: Azadirachtin

Class: Biopesticide insect growth regulator

Packaging: Azatin XL is packaged in quart containers

### RESTRICTED ENTRY INTER-VAL (REI) AND SIGNAL WORD

REI = 4 hours

Signal Word = CAUTION

### PERSONAL PROTECTION EQUIPMENT (PPE)

- Long-sleeved shirt and long pants
- Chemical resistant gloves such as barrier laminate or viton (≥ 14 mil)
- Shoes plus socks
- Protective eyewear

#### **ADVANTAGES OF AZATIN XL**

- Natural fit with IPM programs
- Labeled for use on all greenhouse crops
- Labeled for use on herbs and vegetables
- Controls a broad-range of insects
- 4 hr. REI compared to 12 hr. REI for most IGR's
- Excellent tank mix partner
- Integral component of "Thrips Cocktail"

#### PRODUCT APPLICATION TIPS

- Kills larval stages of insects. Tank mix with adulticide to kill both adults and larvae.
- Spray directly at insect for maximum effectiveness
- Apply in early to mid-morning or late afternoon. This is especially important with whitefly adults which are typically sedentary on the undersides of leaves at this time.
- Make a minimum of two applications, 5 to 7 days apart.
- Maintain Azatin XL in a diluted solution at pH between 3-7 and apply soon after preparation.
- For best results use a spreader sticker at the labeled rates.

#### **MODE OF ACTION**

**Azatin XL** interferes with the key molting hormone, ecdysone, which prevents insects from progressing from one life stage to the next.

#### **USE SITES**

**Azatin XL** may be used indoors, outdoors, in greenhouses, nurseries, and in interiorscapes. Plants may be potted, grown in the soil or in soil-less mixtures, or grown hydroponically.

Azatin XL may be used on the following crops:

- Bedding plants, flowering plants and foliage
- Woody ornamentals
- Trees and shrubs
- Citrus, pome and stone fruits
- Cucurbit vegetables
- Nuts

- Bulb, cole and leafy vegetables
- Legumes and fruiting vegetables
- Root and tuber vegetables
- Small fruits and vegetables
- Herbs and spices

#### **APPLICATION RATES**

**Foliar spray:** Spray **Azatin XL** on a preventative 7-day schedule or at the first sign of insect presence. Foliar spray rates range from 5 to 16 oz. per 100 gallons of water, depending on target insect.

**Drench:** For drench applications, use **Azatin XL** at the rate of 8 oz. per 100 gallons of water. Apply **Azatin XL** in sufficient water and for sufficient duration to distribute evenly to entire treated area.

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

#### **INSECTS CONTROLLED**

| Thrips       | Aphids       |
|--------------|--------------|
| Shore Flies  | Whiteflies   |
| Fungus Gnats | Caterpillars |
| Leafminers   | Mealybugs    |

#### **TANK MIXING**

**Azatin XL** user should adhere to any applicable restrictions on the tank mix product. If the compatibility of tank mix partners is unknown, mixing a small amount of the products in a clear jar is advised prior to mixing a large tank.

#### CHEMIGATION

**Azatin XL** may be applied through drip (trickle), sprinkler, flood (basin), furrow, or border irrigation systems.

See Azatin XL Chemigation Bulletin for specific instructions.

## Suggested Application Schedule for Control of Foliar Feeding Insects

| When          | Azatin® XL +<br>Decathlon® | Marathon®<br>(Granular or<br>Drench) |
|---------------|----------------------------|--------------------------------------|
| Application 1 | X                          |                                      |
| Application 2 | X                          |                                      |
| Application 3 |                            | X                                    |
| Application 4 | X                          |                                      |
| Application 5 | Х                          |                                      |

# Suggested Application Schedule for Control of Fungus Gnats and Shore Fly Larvae

| When          | Azatin® XL<br>(Drench or Sprench) | Marathon®<br>(Granular or Drench) |
|---------------|-----------------------------------|-----------------------------------|
| Application 1 | X                                 |                                   |
| Application 2 | ×                                 |                                   |
| Application 3 |                                   | X                                 |



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