

# AZATROL<sup>®</sup> HYDRO

## BOTANICAL INSECTICIDE

REPELLENT | ANTI-FEEDANT  
INSECT GROWTH REGULATOR



**ACTIVE INGREDIENT:**

Azadirachtin..... 1.2%

**OTHER INGREDIENTS:**..... 98.8%

Contains 0.0987 lb. azadirachtin per gallon. **TOTAL 100.0%**

### KEEP OUT OF REACH OF CHILDREN CAUTION

**HOME AND GARDEN USE  
NOT FOR COMMERCIAL USE**



**READ THE ENTIRE LABEL FIRST.  
OBSERVE ALL PRECAUTIONS AND  
FOLLOW DIRECTIONS CAREFULLY.**

### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if absorbed through skin or if inhaled. Avoid breathing vapor. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash clothing before reuse.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

- Long sleeved shirt and pants
- Waterproof gloves
- Shoes plus socks

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

**User Safety Recommendations**

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**First Aid**

**If on skin or clothing:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center 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 mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

**If in eyes:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of medical emergency involving this product, you may call toll free, 1-877-800-5556 for additional treatment information.

**Environmental Hazards**

This pesticide is toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains,

drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

### 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.

Read entire label. Use strictly in accordance with precautionary statements and directions, and with applicable state and federal regulations. This is an end use product. PBI/Gordon Corporation does not intend that this product be reformulated or repackaged except under a toll repackaging agreement.

**PRODUCT DESCRIPTION:**

Azatrol<sup>®</sup> Hydro Botanical Insecticide is a botanical product for control of insects on indoor and outdoor plants including ornamental trees, shrubs, flowers, garden vegetables, fruit trees, and nut trees.

Azatrol<sup>®</sup> Hydro Botanical Insecticide has repellent, anti-feedant properties and acts as an oviposition deterrent for some insects. When used as a component of an Integrated Pest Management (IPM) program, Azatrol<sup>®</sup> Hydro Botanical Insecticide provides an effective resistance management tool.

**MODE OF ACTION:**

Azatrol<sup>®</sup> Hydro Botanical Insecticide controls target pests on contact or by ingestion. The product acts on pests by way of repellence, anti-feedance, and interference with the molting process.

Azadirachtin, an insect growth regulator (IGR), mimics the pests' hormones and disrupts distinct stages of growth and development of insects and mites. The primary mode of action of azadirachtin is an interference with synthesis and metabolism of ecdysone and the juvenile hormone. Ecdysone is the molting hormone of insects, and azadirachtin can regulate growth leading to death before or during molting.

**HYDROPONIC APPLICATIONS**

Hydroponic applications of Azatrol<sup>®</sup> Hydro Botanical Insecticide control a broad spectrum of insect pests.

- Schedule hydroponic applications on 7 to 10 day intervals depending on the severity of the pest problem.
- Prepare (Mix) solutions of Azatrol<sup>®</sup> Hydro Botanical Insecticide with water at concentrations of 0.4% to 0.8% vol/vol. The lower concentration (0.4%) and the longer interval (10 days) will be adequate for low to moderate pest pressure. Use the higher concentration (0.8%) and shorter interval (7 days) for high pest pressure. Refer to the chart below for the preparation of 1 to 10 gallons.

Gallons of Water	Amount of Azatrol <sup>®</sup> Hydro Botanical Insecticide	
	Low to Moderate Pest Pressure at 0.4%	Moderate to High Pest Pressure at 0.8%
1 gallon	0.5 fl.oz. (1 tbs)	1 fl.oz. (2 tbs)
2 gallons	1.0 fl.oz. (2 tbs)	2 fl.oz. (4 tbs)

Equal measures: 1 fl.oz. = 2 Tablespoons (tbs) 8 fl.oz. = 1 cup

**DRENCH APPLICATIONS:**

Azatrol<sup>®</sup> Hydro Botanical Insecticide as a soil drench for effective control of soil-borne insect larvae, including soil-borne larvae of foliar pests, such as fungus gnats, nematodes, or soil borne thrips. When applying as a drench, avoid excessive leaching.

Preventive applications as a soil drench may be warranted for certain pests. Soil drench applications of azadirachtin will have a slower rate of activity because of soil absorption when compared to foliar applications of azadirachtin. Target the initial application of a soil drench treatment to coincide with the early stages of young larvae and young nymphs.

Dilute Azatrol<sup>®</sup> Hydro Botanical Insecticide with water for concentrations of 0.4 to 0.8% vol/vol. Drench the soil in the pot with one (1) pint of finished spray per 1.0 gallon of soil. For fungus gnats, use the 0.4% spray concentration. For mushroom fly maggot control, use the 0.6% vol/vol spray concentration. For leafminers and other difficult to control pests, use the 0.8% vol/vol spray concentration. Two to three (2-3) applications should be scheduled at 10 to 14 day intervals until the pest pressure has ended.

Gallons of Water	Amount of Azatrol® Hydro Botanical Insecticide			Application Interval	Number of Applications
	0.4%	0.6%	0.8%		
1 gallon	1 Tbs.	1.5 Tbs.	2.0 Tbs.	10 to 14 days	2 to 3
5 gallons	2.5 fl.oz.	4.0 fl.oz.	5.0 fl.oz.	10 to 14 days	2 to 3
10 gallons	5.0 fl.oz.	8.0 fl.oz.	10.0 fl.oz.	10 to 14 days	2 to 3

Azatrol® Hydro Botanical Insecticide can also be applied through sub-surface treatment equipment. Always follow manufacturer's use directions.

**INSTRUCTIONS FOR GARDEN CROPS, VEGETABLES, HERBS AND SPICES, FRUITS, AND BERRIES**

- For the most effective control, spray the product as soon as possible after pests appear and are in immature stages.
- Spray at an interval of seven to ten days or as the situation warrants. During high pest infestation levels use higher label rates and increase the spray frequency.
- Spraying in the morning or evening hours is recommended.
- Repeat spraying if rain occurs within two to three hours of spraying.

**SPRAY EQUIPMENT**

Use any suitable application equipment to ensure uniform coverage.

**USE RATES**

Apply Azatrol® Hydro Botanical Insecticide as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 57 fl.oz. (20 grams active ingredient) per acre (1.33 fl.oz. per 1,000 sq.ft.) per application. Rates in Table 1 pertain to typical pest infestations.

Apply Azatrol® Hydro Botanical Insecticide alone to food/garden crops on the day of harvest.

Dilute this product with water at 0.5 to 4.0 tablespoons (Tbs) per gallon of water. For hose end sprayers, set the RATE PER GALLON at the dial setting of 1 to 4 Tbs. depending on the crop and pests. Use the lower RATE PER GALLON for low to moderate infestations and use the higher specified RATE PER GALLON for severe infestations.

CROP	PESTS such as:	Dilution Rate for Sprayers	
		Fl.Ozs. of product per 1,000 Sq.Ft.	Tbs. of product per 1.0 gallon of water
<i>Leafy Vegetables:</i> <b>Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Endive, Kale, Lettuce, Spinach</b>	Leafrollers, Cutworms, Loopers, Armyworms	0.19 to 0.96 fl.oz.	3/4 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Beetles, Weevils, Flies, Thrips, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Root Vegetables:</i> <b>Beet, Carrot, Horseradish, Parsnip, Potato, Radish, Sweet potato, Turnip, Yams</b>	Beetles, Weevils	0.11 to 0.22 fl.oz.	1/2 Tbs. to 1.5 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Thrips, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Fruiting Vegetables:</i> <b>Eggplant, Pepper, Tomatillo, Tomato</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal

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CROP	PESTS such as:	Dilution Rate for Sprayers	
		Fl.Ozs. of product per 1,000 Sq.Ft.	Tbs. of product per 1.0 gallon of water
<i>Cucurbit Vegetables:</i> <b>Cucumber, Gourd (edible), Muskmelon, Pumpkin, Squash, Watermelon, including Cantaloupe, Casaba, Gherkins, Melons (including hybrids), Zucchini</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Legume Vegetables:</i> <b>Bean, Chickpea, Lentil, Pea</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Bulb Vegetables:</i> <b>Garlic, Onion, Shallot</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Berries:</i> <b>Blackberry, Blueberry, Raspberry, Strawberry, others include: Boysenberry, Currants, Dewberry, Elderberry, Gooseberry, Loganberry</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Herbs and Spices:</i> <b>Chive, Dill, Fennel, Mustard, Sage, Sweet bay, others include: Anise, Balm, Basil, Black pepper, Borage, Caraway, Catnip, Chamomile, Coriander, Cumin, Curry leaf, Dandelion, Fenugreek, Horehound, Hyssop, Marjoram, Marigold, Mint, Nasturtium, Pennyroyal, Peppermint, Rosemary, Savory, Spearmint, Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal

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**TABLE 1. USE RATES FOR GARDEN CROPS, VEGETABLES, HERBS AND SPICES, BERRIES AND FRUIT (cont.).**

CROP	PESTS such as:	Dilution Rate for Sprayers	
		Fl.Ozs. of product per 1,000 Sq.Ft.	Tbs. of product per 1.0 gallon of water
<i>Nut Trees:</i> <b>Almond, Brazil nut, Filbert, Hickory nut, Pecan, Pistachios, Walnut</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Pome Fruits:</i> <b>Apple, Pear, Quince</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Stone Fruits:</i> <b>Apricot, Cherry, Nectarine, Peach, Plum</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal
<i>Citrus Fruits:</i> <b>Grapefruit, Lemon, Lime, Orange others include: Citrus Citron, Mandarin (tangerine), Nectarine, Satsuma (orange mandarin), Tangerine</b>	Beetles, Weevils	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	Thrips	0.29 to 0.96 fl.oz.	2 Tbs. to 4 Tbs./gal
	True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites	0.24 to 0.96 fl.oz.	1 Tbs. to 4 Tbs./gal

**TRIGGER SPRAYERS**

Use trigger sprayers for foliar sprays of individual plants. Apply this product when pests are expected to appear or as soon as possible after pests appear and are in immature stages.

Direct the spray to the target pests and provide uniform coverage of the plants. Thorough coverage of the upper and lower leaf surfaces is critical for effective levels of control. Spray at intervals of seven (7) to ten (10) days or as the situation warrants.

Prepare only the amount of spray solution needed for the individual plants to be treated. Refer to the chart below for the amounts of Azatrol® Hydro Botanical Insecticide required to prepare a spray concentration of 1.70% vol./vol. for 1 pint to 1 gallon of spray solution.

DILUTION TABLE FOR TRIGGER SPRAYERS			
Amount of Water	Amount of Azatrol® Hydro Botanical Insecticide		
	Fluid ounces (fl.oz.)	Millimeters (ml)	Tablespoons (tbs)
1 pint	0.28	8	1/2
2 pints	0.56	16	1
4 pints	1.12	34	2
6 pints	1.68	50	3
8 pints, 1 gallon	2.24	66	4
Equal measures: 0.5 fl.oz. = 15 ml = 1 tbs.			

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep containers tightly closed and in original containers when not in use. Store in a cool, dry place, away from direct sunlight, feed or foodstuffs. Do not store below 50°F (10°C) or above 95°F (35°C).

**PESTICIDE DISPOSAL AND CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**LIMITED WARRANTY AND DISCLAIMER**

FOR USE ONLY AS DIRECTED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. If these terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full. The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere.

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