OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

June 06, 2025

**SENT BY EMAIL**

Katy DeGroot
katy@pyxisrc.com
NIMTREE ORGANICS LLC DBA NEEMTREE

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Revision to the Description of Sublabel 4 and other minor label updates.
Product Name: AZAPRO
Admin Number: 94616-3
EPA Receipt Date: 03/27/2025
Action Case Number: 00657952

Dear Katy DeGroot:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Michael Piombino via email at piombino.michael@epa.gov.

Sincerely,

James Parker

James Parker, Team Leader
BPB, BPPD
Office of Pesticide Programs

NOTIFICATION

94616-3

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

06/06/2025

**Master Label includes:**

**Sublabel 1: Commercial Agriculture Use (p. 1-9)**

**Sublabel 2: Turf and Ornamental Use (p. 10-26)**

**Sublabel 3: Home and Garden (p. 27-35)**

**Sublabel 4: Turf and Ornamental market (p. 36-47)**

**Container Base Label (p. 48)**

# AzaPRO

## [Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324
West Linn, OR 97068

## [Sublabel 1: Commercial Agriculture Use]
## {BOOKLET FRONT PANEL LANGUAGE]

# AzaPRO

**[Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]**

**AZADIRACHTIN BASED BOTANICAL, ANTIFEEDANT, REPELLANT AND INSECT GROWTH REGULATOR**

**FOR USE ON GREENHOUSE, INDOOR AND OUTDOOR FOOD CROPS, ORNAMENTAL FLOWERS, HEMP, TREES, SHRUBS AND PLANTS**

[ **FOR ORGANIC PRODUCTION]**

| **ACTIVE INGREDIENT:** | **% By Wt.** |
|---|---|
| Azadirachtin | 1.2% |
| **OTHER INGREDIENTS** | 98.8% |
| **TOTAL** | 100.0% |

Contains 0.0975 lb. (44.2 g) azadirachtin per gallon.

## KEEP OUT OF REACH OF CHILDREN
# CAUTION

Read entire label. Use strictly in accordance with precautionary statements and directions for use, and with applicable state and federal regulations.

[See (inside label booklet / side panel / back panel) for (additional / complete) (First Aid,) Precautionary Statements, Directions for Use, and Storage and Disposal.]

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324
West Linn, OR 97068

Net Contents: _____ [fl. oz.]/[qt]/[gal] (_____ [mL]/[L])

## {LANGUAGE INSIDE BOOKLET}

| FIRST AID | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **HOTLINE NUMBER** | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information about this product call the **NATIONAL PESTICIDE INFORMATION CENTER (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.** For **MEDICAL EMERGENCY**, call the **POISON CONTROL CENTER AT 1-800-222-1222.** | |

### PRECAUTIONARY STATEMENTS
### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves.
- Shoes plus socks

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

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing/PPE immediately if pesticide get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. Treated seed exposed on soil surface may be hazardous to birds, other wildlife, and fish. Cover or collect seeds spilled during loading.

## DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL**

**REGULATIONS.** 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 state or tribal agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 1 0. 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 (WPS).

**Do not enter or allow 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:

- Coveralls
- Chemical resistant gloves
- Shoes plus socks

**NON AGRICULTURAL USE REQUIREMENTS**

The requirements in the box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 1 0). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

For uses that do not fall under the Agricultural Use Requirements: Keep unprotected persons out of treated areas until sprays have dried.

## PRODUCT MODE OF ACTION

AzaPRO 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. The buyer or user is reminded that the degree of efficacy of the product is largely dependent on weather conditions, intensity of pest population, area of application, type of pest, and physical stages of pests and crops.

## GENERAL INFORMATION

Read all directions before using this product.

Apply AzaPRO as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 3½ pints/acre. Refer to the Use Site Section for a complete listing of crops.

## MIXING

Shake well before using. Add required amount of AzaPRO to a clean spray tank with at least one-half of the water to be sprayed. Constant agitation is required, particularly with tank mixes. Agitate the mixture thoroughly and then fill the tank with remaining water and continue agitation. Thorough

mixing is necessary for uniform coverage. Non-uniform mixing can cause crop injury or can result in lowered effectiveness. For tank mixes, add other components to the tank containing the AzaPRO spray mixture and agitate thoroughly. If tank mixture is allowed to sit, agitation is necessary prior to application. Adjusting the spray mixture pH between 5.5-7 and will provide optimal performance. Always use this product promptly after mixing with water and do not let tank mix sit for any extended period.

**COMPATIBILITY:** AzaPRO has been found to be compatible with most commonly used pesticides and fertilizers. To avoid problems, conduct a compatibility test before using this product in a tank mix with other pesticides or with fertilizers. To test for compatibility, mix a small amount of each product, in the appropriate proportions, in a small jar test.

A jar test can quickly determine physical compatibility. The process of conducting jar test is given below:

1. Add one pint of water to a glass jar with a lid. (Use the same water source that will go in the tank.).
2. Check spray water pH and adjust if necessary. Often, the pesticide label will give the optimal pH range for best results.
3. Add the pesticides to the jar you plan to use one at a time and shake vigorously after each addition.
4. After all products have been added, shake again, let the solution stand for 15 minutes and then shake one last time and observe the results. Results: Jar is cool to the touch, and mixture is smooth. Then it is compatible mixture.

**PHYTOTOXICITY:** AzaPRO has been evaluated for phytotoxicity on a wide range of crops and ornamentals. However, since testing on all varieties of all crops and ornamentals is not feasible, testing a small portion of the area to be treated for phytotoxicity is recommended before treating the entire area. Further, all possible combinations or sequences of pesticide sprays, including other fertilizers, surfactants, adjuvants, and other pesticides, have not been tested, thus testing for phytotoxicity of spray mixtures is recommended. It is further recommended that spray equipment used to apply AzaPRO be thoroughly cleaned before use. The addition of spray adjuvants enhances control in some crops under ideal conditions. Addition of certain adjuvants may cause phytotoxicity therefore, the addition of crop oils and other adjuvants should be thoroughly tested before using. Do not add crop oils to spray mixtures on ornamental crops. Captan, Bordeaux mixtures, and highly alkaline products cause unacceptable phytotoxicity and/or reduced effectiveness on target pests. Avoid tank mix combinations of AzaPRO plus compounds known to be incompatible with oil-based formulations to prevent phytotoxicity. "Waxy bloom" on certain crops and ornamental plants is reduced after an AzaPRO application.

## APPLICATION INSTRUCTIONS

For optimal performance spray product as soon as possible when pests are expected or when pests first appear. For foliar applications, apply AzaPRO in sufficient spray volume and with adequate spray pressure to ensure complete and thorough coverage of all plant surfaces including both the top and bottom of leaves. Avoid excessive runoff. Best results are obtained following 2-3 applications made at 7-10 day intervals. When pest pressure is heavy or plant canopy is dense, use higher rates and increase spray frequency. Spraying in the morning or evening hours will provide the best results. Repeat application if rain occurs within two to three hours of spraying.

**SPRAY DIRECTIONS**
Apply AzaPRO as a foliar spray or a drench to soil or non-soil media to control insects. When needed, soil drenches can also be used to control soil-borne pests, including soil-borne larvae of foliar insect pests. When applying as a drench, avoid excessive leaching. AzaPRO can also be applied through sub-surface soil treatment equipment. Always follow equipment manufacturers use directions. AzaPRO may be applied using any powered or manual pesticide application equipment which includes, but is not restricted to, high volume, low volume, ultra-low volume, electrostatic, fogging and chemigation. Follow the original manufacturer's instructions when using these types of equipment.

**DRENCH AND ORNAMENTAL SPRAY DIRECTIONS FOR LABELED PLANTS GROWN IN GREENHOUSES, SHADECLOTHS AND NURSERIES**
When used as a soil drench, apply one pint of finished spray for each gallon of soil in the pot. For most pests apply 18-21 oz. AzaPRO per 100 gallons of water. For treatment of harder to control pests, such as Dipteran leafminers, use up to 2 ounces per 100 gallons of water. Do not exceed 5 oz of AzaPRO per acre per application.

**RATES**
Use AzaPRO at 1-2 pints/acre for most pest and crop conditions. Under extremely heavy pest pressure up to 3 ½ pints may be used. Do not use less than 5 oz. per acre of AzaPRO alone. When tank mixed with other insecticidal products, the rate of AzaPRO may be reduced by ½, but not less than 4 oz per acre. Use up to 2.6 oz I1000 square feet for manure and compost treatments.

## CHEMIGATION

**General Chemigation Instructions**
Apply this product only through low pressure, drip (trickle) or sprinkler (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**Dilute AzaPRO with water before introduction into the system. Use the diluted mixture within 8 hours. Do not apply in irrigation water if the pH exceeds 7.0. The optimum pH range for application is 5.5 6.5. If needed, the pH of the irrigation water can be adjusted by use of a suitable buffering agent. Agitation is necessary. Apply at the rate indicated in APPLICATION INSTRUCTIONS using sufficient water to achieve an even distribution.**

**For Chemigation Systems Connected to Public Water Systems**
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**In addition, all directions and requirements specified for Sprinkler Irrigation Systems must be followed.**

**Sprinkler Irrigation Systems**

- The system must contain a functional check valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**Center pivot, motorized lateral move, or traveling gun types of equipment:**
Inject into the system for one revolution or run. Shut off injection equipment after one revolution or run but continue to operate irrigation system until AzaPRO has been cleared from the last sprinkler head. Do not use end guns. The system should be run at maximum speed for a foliar application.

**Wheel move, side roll, end tow, solid set, or hand move types of equipment:**
Adjust equipment to inject AzaPRO over a 30-60 minute period. Shut off injection equipment. Continue to operate irrigation system until AzaPRO has been cleared from the last sprinkler head. AzaPRO can be injected at the end of the irrigation cycle or as a separate application. Do not use end guns. AzaPRO must be premixed in a supply tank with water and other appropriate tank-mix chemicals. Agitation is necessary at all times.

**Attention must be exercised in irrigation waters with a pH greater than 7. If the irrigation cycle will last longer than 8 hours and the AzaPRO is premixed in the supply tank, the tank mix must be buffered to a pH of 6 or lower.** Please contact your Company sales representative should this situation apply. Application is to be made in sufficient water and of sufficient duration to apply the appropriate rate evenly over the entire treated area.

**No field runoff can be permitted during chemigation.**

## USE SITES

**AGRICULTURAL USE SITES** – Use AzaPRO on agricultural (indoor and outdoor) use sites including, but not limited to, the following:

**BERRIES GROUP, such as:** Blackberry, Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red) Note: For Strawberries – see miscellaneous.

**BULB VEGETABLES, such as:** Garlic, Leek, Onion (dry bulb, green and Welch), Shallot

**CEREAL GRAINS and GRAINS GROUP, such as:** Barley, Buckwheat, Corn, Millet (pearl and Proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

**CITRUS FRUITS, such as:** Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sour and sweet), Pummelo, Satsuma mandarin, White Sapote, Uniq Fruit

**COTTON AND TOBACCO**

**CUCURBIT VEGETABLES, such as:** Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Gourd (edible), Muskmelon, Pumpkin, Squash (summer and winter), Watermelon

**FORAGE CROPS,** including but not limited to: Alfalfa, Alfalfa Seed, Clover, Trevoil or Vetch.

**FRUITING VEGETABLES, such as:** Eggplant, Groundcherry, Pepino, Pepper (including bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato

**HERBS AND SPICES GROUP, such as:** Allspice, Angelica, Anise (anise seed and star), Annatto (seed), Balm (lemon balm), Basil, Borage, Burnet, Chamomile, Caper buds, Caraway, Caraway (black), Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese Chive, Cinnamon, Clary, Clove buds, Coriander (cilantro or Chinese parsley – leaf), Coriander (cilantro-seed), Costmary, Cilantro (leaf and seed), Cumin, Curry (leaf), Dill (dillweed and seed), Fennel (common, Florence), Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

**LEGUME VEGETABLES (Succulent or Dried), such as:** Bean, Broad Bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea, Pigeon Pea, Soybean, Sword bean

**LEAFY AND BRASSICA (COLE) VEGETABLES, such as:** Amaranth, Arugula, Broccoli, Broccoli raab (rapini), Brussels Sprouts, Cabbage, Cauliflower, Cardoon, Cavalo broccolo, Celery, Chinese Broccoli (gai lon), Chinese Cabbage (bok choy, Napa), Chinese mustard Cabbage (gai choy), Chinese Celery, Celtuce, Chervil, Chrysanthemum (edible-leaved, Garland), Collards, Corn salad, Cress (garden, upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel (florence), Kale, Kohlrabi, Lettuce (head and leaf), Mizuna, Mustard Greens, Mustard Spinach, Orach, Parsley, Purslane (garden, winter), Radicchio (red chicory), Rape Greens, Rhubarb, Spinach, Spinach (New Zealand, vine), Swiss Chard, Turnip Greens

**MISCELLANEOUS, such as:** Asparagus, Avocado, Banana, Coffee, Cocoa, Cranberry, Fig, Globe artichoke, Grape, Hops, Kiwifruit, Mango, Mushroom, Okra, Olives, Papaya, Pawpaw, Peanut, Persimmon, Pineapple, Pomegranate, Strawberry, Tea, Water chestnut, Watercress, and all other food crops

**POME FRUITS GROUP, such as:** Apple, Crabapple, Loquat, Mayhaw, Quince, Oriental Pear, or Pear *(Comice varieties* such as Concorde, Seckel, Forelle and Gem)*: DO NOT apply more than 24 fl oz/A. DO NOT apply after pink stage of flowering; test small areas of other varieties of pears for plant safety prior to full scale usage.)*

**ROOT AND TUBER VEGETABLE GROUP, such as:** Arracacha, Arrowroot, Artichoke (Jerusalem, Chinese), Beet (garden, sugar), Burdock (edible), Canna (edible), Carrot, Cassava (bitter and sweet), Celeriac (celery root), Chayote (root), Chervil, (turnip-rooted), Chicory, Chufa, Dasheen (taro), Ginger, Ginseng, Horseradish, Leren, Oriental Radish (daikon), Parsley (turnip-rooted), Parsnip, Potato, Radish, Rutabaga, Salsify (oyster plant, black, Spanish), Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam bean (jicama, manioc pea), Yam (true)

**OTHER CROPS**: Hemp

**STONE FRUIT GROUP, such as:** Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum (Chickasaw, Damson, Japanese), Plumcot, Prune

**TREE AND NUT GROUP, such as:** Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut, Hickory nut, Macadamia nut (bush nut), Pecan, Walnut (black and English), Pistachios

**TROPICAL FRUITS, such as**: Papaya, Black Sapote, Canistel, Mamey Sapote, Mango, Sapodilla, Star Apple, Guava, Feijoa, Jaboticaba, Wax Jambu, Star Fruit, Passion Fruit, Acerola, Lychee, Longan, Spanish Lime, Rambutan, Pulasan, Sugar Apple, Atemoya, Custard Apple, Cherimoya, Ilama, Soursop, and Biriba.

**ORNAMENTAL USE SITES —** AzaPRO may be used on Ornamental Use sites including, but not limited to, the following:

**ORNAMENTAL SHRUBS AND PLANTS,** such as**:** Amaranthus, Aster, Azalea, Ferns, Fuschia, Caladium, Carnation, Chrysanthemum, Dahlia, Daisy, Lilies, Ivy, Ficus, Gardenia, Impatiens, Iris, Jasmine, Lilac, Marigold, Philodendron, Poinsettia, Rose, Zinnia

**ORNAMENTAL TREES, such as:** Ash, Birch, Cedar, Cyprus, Dogwood, Fir, Elm, Juniper, Maple, Oak, Pine, Spruce

**CHRISTMAS TREES AND CHRISTMAS TREE PLANTATIONS**

**NON CROP USE SITES** – Use AzaPRO on non-crop use sites including, but not limited to, the following:

**UNCULTIVATED AGRICULTRAL AREAS**, such as: farm yards, fuel storage areas, fence rows, rights-of-way, fallow land; soil bank land, barrier strips

**GENERAL SOIL TREATMENTS, such as**: Manure, Composts, Cull piles, Mulches, soil

application with no mention of crops to be grown (potting soil, tops soil)

## PESTS

**AzaPRO may be used against the following pests:**

Aphids (such as pea aphid, Rosy Apple Aphid), Beetles (such as Japanese beetle), Borers, (such as peachtree borers, peach twig borers), True Bugs, (such as Lygus bugs, stink bugs), Caterpillars, (such as leafrollers, cutworms, loopers, armyworms), Flies (such as walnut husk fly, leafminers and fungus gnats), Leafhoppers, Leafminers, Whiteflies, Mealy Bugs,, Mites, Psyllids (such as pear psylla), Weevils, Scales (such as San Jose scale), Thrips, (such as western flower thrips).

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a dry, cool, well ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

### NOTICE ON CONDITIONS OF SALE

The directions for use of this product are based upon tests believed to be reliable, and the directions for use must be followed. To the extent applicable by law the use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. To the extent applicable by law, the buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

## [Sublabel 2: Turf and Ornamental Use]
## {BOOKLET FRONT PANEL LANGUAGE]

# AzaPRO

**[Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]**

**BOTANICAL INSECTICIDE, REPELLANT, ANTIFEEDANT AND INSECT GROWTH REGULATOR (IGR)**

BOTANICAL PRODUCT FOR CONTROL OF INSECTS ON INDOOR AND OUTDOOR TREES, SHRUBS, FLOWERS, HEMP, FRUIT AND NUT TREES, VEGETABLES AND PLANTS.

INDOOR AND OUTDOOR VEGETABLES, ORNAMENTAL FLOWERS, HEMP, TREES, TURFGRASS, SHRUBS AND PLANTS, INCLUDING PLANTS GROWN IN CONTAINERS, AND INTERIORSCAPES

**[ For Organic Gardening/Production]**

| **ACTIVE INGREDIENT:** | **% By Wt.** |
|---|---|
| Azadirachtin | 1.2% |
| **OTHER INGREDIENTS** | 98.8% |
| **TOTAL** | 100.0% |

Contains 0.0975 lb. (44.2 g) azadirachtin per gallon.

## KEEP OUT OF REACH OF CHILDREN
# CAUTION

Read entire label. Use strictly in accordance with precautionary statements and directions for use, and with applicable state and federal regulations.

[See (side panel / back panel / inside panel) for (additional / complete) (First Aid,) Precautionary Statements, Directions for Use, and Storage and Disposal.]

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324,
West Linn, OR 97068

Net Contents: ____ [fl. oz.]/[qt]/[gal] (____ [mL]/[L])

# {LANGUAGE INSIDE BOOKLET}

| FIRST AID | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **HOTLINE NUMBER** | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information about this product call the **NATIONAL PESTICIDE INFORMATION CENTER (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.** For **MEDICAL EMERGENCY**, call the **POISON CONTROL CENTER AT 1-800-222-1222.** | |

## PRECAUTIONARY STATEMENTS
## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves.
- Shoes plus socks

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

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing/PPE immediately if pesticide get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

# DIRECTIONS FOR USE

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

**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. Neemtree does not intend that this product be reformulated or repackaged except under a toll repackaging agreement.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 1 0. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural products. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE), notification to workers and restricted entry interval. The requirements in this box apply to the uses of this product that are covered by the Worker Protection Standard.

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

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, water, wear coveralls, chemical resistant gloves, shoes plus socks and protective eyewear.

**NON AGRICULTURAL USE REQUIREMENTS**

The requirements in the box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 1 0). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried

## PRODUCT DESCRIPTION:

AzaPRO is a botanical product for control of insects on indoor and outdoor plants including ornamental trees, shrubs, flowers, vegetables, turfgrass, fruit trees and nut trees.

When used as a component of an Integrated Pest Management (IPM) program, AzaPRO provides an effective resistance management tool.

## MODE OF ACTION:

AzaPRO 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.

**INDOOR AND OUTDOOR ORNAMENTAL TREES, SHRUBS, FLOWERS, AND PLANTS ESTABLISHED IN RESIDENTIAL, LANDSCAPE PLANTINGS AROUND INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, PARKS, RECREATIONAL AREAS, GREENHOUSES, SHADECLOTHS, NURSERIES, AND ATHLETIC FIELDS.**

AzaPRO has been evaluated for phytotoxicity on a wide range of ornamentals and crops. However, since testing on all plant varieties is not feasible, test a small portion of the area to be treated for phytotoxicity before treating the entire area. All possible combinations or sequences of pesticide sprays, including other fertilizers, surfactants, adjuvants, and other pesticides have not been tested. Thus, testing for phytotoxicity of spray mixtures is recommended.

The professional user assumes the responsibility for determining the level of tolerance of treated plants to AzaPRO when applied alone or in tank-mix combinations under commercial growing conditions.

Waxy bloom on certain ornamental plants is reduced after an AzaPRO application.

Applications of AzaPRO will remove the glaucus 'blue' coloring from evergreens such as Colorado blue spruce and Koster spruce.

Use AzaPRO Insecticide on the following plants:

| | |
|---|---|
| **Ornamental Plants and Flowers including but not limited to:** | Actinopteris, African violets*, ageratum, aglaonema, Algerian ivy, allamanda, alocasia, amaranthus, anthurium, aphelandra, arborvitae, Artemisia, aster, aucuba ilex, azalea, baby's breath, begonia, Boston fern, bougainvillea, boxwood, brachycome, cacti, calabrese, caladium, calathea, calendula, calla, camellia, carnation, ceanothus, chrysanthemum, cineraria, coleus, columbine, cotoneaster, cyclamen, daffodil, dahlia, daisy, daylily, delphinium, dianthus, dieffenbachia, dogwood, dusty miller, Easter lily, English ivy, euphorbia, fern, ficus, foliage plants, foxglove, freesia, fuschia, gaillardia, gardenia, geranium, gerbera, gladiola, gloxinia, gypsophilla, hedera, hibiscus, hyacinth, hydrangea, ilex, impatiens, iris, ivy, jasmine, lilac, lily, maidenhair fern, mandevilla, marigold, narcissus, nasturtium, orchid*, pansy, pelargonium, peony, peperomia, petunia, philodendron, phlox, photinia, pinks, pittosporum, poinsettia*, pothos, portulaca, primrose, pyracantha, rhododendron, rose*, rosemary, rubber plant, salvia, schefflera, sedum, sempervivum, snapdragon, spathiphyllum, stock, syngonium, tulip, verbena, vinca, wandering jew, yucca, zinnia<br>***Please note that when making applications to these species, spotting of plant foliage is possible.** |
| **Ornamental Trees and Shrubs including but not limited to:** | Andromeda, arborvitae, ash, Austrian pine, azalea, beech, birch, birdsnest spruce, blue spruce, bougainvillea, boxwood, butternut, cedar, charmaecyparis, cherry, cotoneaster, crabapple, cyprus, dogwood, Douglas fir, elm, euonymus, firethorn, forsythia, hackberry, hawthorn, hemlock, hickory, holly, honey locust, horse chestnut, juniper, larch, laurel, lilac, linden, London planetree, magnolia, mandevilla, maple, mimosa, mountain ash, myrtle, oak, pachysandra, peach, photinia, pine, planetree, poplar, privet, purpleleaf wintercreeper, quince, sage, spruce, sycamore, white cedar, white pine, yew |
| Other Crops | Hemp |

## PESTS CONTROLLED OR SUPPRESSED

Use AzaPRO Insecticide against the following pests presented in Table 1.

**TABLE 1. TARGET PEST SPECIES OF AzaPRO INSECTICIDE.**

| *HEMIPTERA AND HOMOPTERA* | *LEPIDOPTERA* |
|---|---|
| including but not limited to: **true bugs** including boxelder bugs, chinch bugs, lygus bugs and stink bug; **lacebugs**; **leafhoppers** including grape leafhopper, spittlebug, potato leafhopper and variegated leafhopper; **mealy bugs** including apple mealy bugs, citrus mealy bugs, grape mealy bugs; **whiteflies** including greenhouse whitefly, silverleaf whitefly and sweet potato whitefly and woolly whitefly; **aphids** including apple aphid, green peach aphid, melon aphid, pea aphid, potato aphid and rose aphid; **psyllids** including pear psyllids and **scales** including black scale, brown soft scale, California red scale, coffee scale, olive scale, San Jose scale, and cottony cushion scale. | Including but not limited to: **Moths** including European pine shoot moth, pine tip moth and Tussock moth; **leafrollers** including blueberry leafroller, filbert leafroller, fruitree leafroller, citrus leafminers, grape leafroller, oblique banded leafroller, omnivorous leafroller; **Cutworms** including black cutworm and citrus cutworm; **Caterpillars and loopers** including bagworms, budworms, cabbage looper, canker worms, case bearers, caseworms, corn earworm, diamondback moth, fruit worms, grapeleaf skeletonizer, gypsy moth, hornworms, imported cabbageworm, navel orangeworm, soybean looper, spruce budworm, tent caterpillar, tip moths, tent caterpillars, tobacco budworm, tobacco hornworm, tomato pinworm and tussock moth; **Armyworms** including beet armyworm, fall armyworm, lawn armyworm, southern armyworm, and yellow striped armyworm; **webworms** and **leaf perforators**. |
| *COLEOPTERA* | *DIPTERA* |
| including but not limited to: **beetles, grubs, and weevils** including Asian long-horned beetle, bark beetles, black vine weevil, Colorado potato beetle, elm bark beetle, European chafer, flea beetles, Japanese beetle, June beetle, leaf beetles, Mexican bean beetle, Northern masked chafer, rose chafer and Southern masked chafer and twig girders. | Including but not limited to: * **Flies** including Caribbean fruit fly, cherry maggots, crane fly, **fungus gnat**, Hessian fly, oriental fruit fly, Mediterranean fruit fly, marsh crane flies, melon fly, shore fly and walnut husk fly; **leafminers** including citrus leafminers and serpentine leafminers.<br><br>*Not intended for use on public health pests |
| *THYSANOPTERA* | *ACARINA* |
| including but not limited to: **thrips** including citrus thrips, flower thrips, gladiolus thrips, onion thrips, thrips palmi and Western flower thrips. | Including but not limited to: * **mites including,** red spider mites, brown mite, clover mite, conifer spider mite, European red mite, spruce spider mite, and two-spotted spider mite.<br><br>*Not intended for use on public health pests |
| *ORTHOPTERA* | *HYMENOPTERA* |
| including but not limited to: **crickets; grasshoppers; locusts** | Including but not limited to: * **sawflies** including European sawflies, pear sawflies, red-headed pine sawflies, yellow-headed pin sawflies**.**<br><br>***Not intended for use on public health pests |
| *NEMATODA* | |
| **nematodes** (suppression) | |

## SPRAY PREPARATION

AzaPRO is an emulsifiable concentrate to be diluted with water.

**Water as diluent:**
Add one-half the required amount of water to the spray tank, then add AzaPRO slowly with agitation, and complete filling the tank with water. To prevent separation of the emulsion, mix thoroughly and continue agitation while spraying.

This product forms an emulsion and can separate upon extended or prolonged standing. Re-agitate to assure uniformity of the spray mixture.

Adjusting the mixture pH to between 5 and will provide optimal performance. Do not use tank additives that alter the pH of the spray solution above pH. Buffer the spray solution to alter the pH range as appropriate.

Prepare only the volume needed for the intended application and use the spray mixture within 24 hours of preparation.

## TANK MIXTURES

AzaPRO is an emulsifiable concentrate and is compatible with commonly used pesticides and fertilizers. Always check the physical compatibility using a jar test in the correct proportions if needed.

A jar test can quickly determine physical compatibility. The process of conducting jar test is given below:

1. Add one pint of water to a glass jar with a lid. (Use the same water source that will go in the tank.).
2. Check spray water pH and adjust if necessary. Often, the pesticide label will give the optimal pH range for best results.
3. Add the pesticides to the jar you plan to use one at a time and shake vigorously after each addition.
4. After all products have been added, shake again, let the solution stand for 15 minutes and then shake one last time and observe the results. Results: Jar is cool to the touch, and mixture is smooth. Then it is compatible mixture.

If a broader spectrum of control is required tank-mix AzaPRO with insecticides or miticides. If a rapid knockdown of heavy populations is necessary, then include an effective contact insecticide/miticide in combination with AzaPRO.

Tank mixtures are for use only in states where the companion product(s) and the application site are registered.

Always read and follow the directions for use, precautions, and limitations for use on all product labels used in combination. *Applications must follow the precautions and limitations of the most restrictive product label in the mixture. Do not exceed the dosage rates of any product.*

**Select the right companion products:**
IPM uses a variety of control options including biological, chemical, and cultural practices.

Azadirachtin is botanical with growth regulator effect on insects and mites. Companion products include pyrethroids, spinosyns, microbial toxins, and chloronicotinyls that can complement azadirachtin. Formulations of bifenthrin, spinosad, abamectins, and imidacloprid are effective for different pests. Select the product that has been proven to provide adequate performance for the pests you are trying to control.

**Physical Incompatibility**
Do not use AzaPRO with Captan, Bordeaux mixture, triphenyltin hydroxide, lime sulfur, Rayplex iron or other highly alkaline materials as they can cause phytotoxicity and/or reduced efficacy on some target pests. Tank-mix combinations with compounds known to be incompatible with oil-based formulations are not to be used or phytotoxicity will occur.

## ADJUVANTS

The addition of adjuvants may enhance control under certain conditions; the use of adjuvants or oils will cause phytotoxicity and should be thoroughly tested prior to use. Do not add crop oils to spray mixtures intended for use on ornamental plants, flowers, trees, and shrubs.

## APPLICATION EQUIPMENT

**Ground Equipment**
Apply AzaPRO with hand-operated (manual) or power spray equipment suitable for low volume and/or high volume applications. Follow the recommendations of the equipment manufacturer when using backpack sprayers, hose-end sprayers, compression (pump-up) sprayers, and other sprayers suitable for foliar applications of insecticides.

**Chemigation and Subsurface Equipment**
AzaPRO may also be applied through chemigation systems and sub-soil treatment equipment; always follow equipment manufacturer's directions.

## APPLICATION SCHEDULE

For the most effective control, apply the product when pests are expected to appear or as soon as possible after pests appear and are in immature stages. Spray at an interval of seven (7) to ten (10) days or as the situation warrants.

During high pest infestation levels or when canopy is dense use higher dosage (use) 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. For additional guidance, consult with the state agricultural experiment station or local extension horticulturalist/arborist for information on tactics and windows of application.

## APPLICATION RATES

Use AzaPRO on ornamental pests as a spray concentration of 0.25 - 1. 0% vol/vol per treatment with high volume applications in Table 2.

The application rates are specified as rate ranges depending upon the pest infestations:

**Lower rate ranges with a spray concentration of 0.25 0.75% vol/vol:** Use lower rate ranges for light infestations of lepidopterous insects, at the first sign or at the first observation of the early and uniform growth stages of the pest(s), and/or tank mixtures with contact insecticides.

**Medium rate ranges with a spray concentration of 0.75 1.25% vol/vol:** Use medium rate ranges for moderate infestations, when multiple growth stages of the pests are present, and/or heterogeneous pesticide populations are present.

**Upper rate ranges with a spray concentration of 1.25 1.70% vol/vol:** Use upper rate ranges for moderate to heavy pest populations of difficult-to- control pest species, for the late stages of larva/worms, for dense foliage, and/or when re-infestations occur.

**High Volume Applications:**
Apply AzaPRO at spray concentration of 0.25 - 1. 0% v/v in sufficient amounts of water to achieve complete coverage. Use an adequate spray volume to wet the leaves (foliage) and stems. Spray volumes will vary with the plant size. Attempt to penetrate dense foliage. Thorough coverage of the upper and lower leaf surfaces is critical for effective levels of control.

Refer to Table 3 for the amounts of AzaPRO required to prepare spray concentrations of 0.25% to 1.70% for spray volumes of 1 gallon to 200 gallons.

**Specialized Low Volume Applications:**
Select a spray volume to achieve sufficient coverage. Uniform coverage of both upper and lower leaf surfaces is critical for effective insect control.

Apply AzaPRO in a *minimum* spray volume of 5 gallons per acre. Larger plants will require the higher spray volumes (20 - 25 gallons per acre) to obtain sufficient coverage. Do not exceed 20 grams active ingredient per acre per application or 5 fl. oz. of product per acre per application. Refer to Table 4 for the amounts of AzaPRO required to prepare spray concentrations of 0.25% to 1.70% for spray volumes of 5 - 25 gallons per acre.

**TABLE 2. APPLICATION RATES FOR ORNAMENTALS ESTABLISHED IN RESIDENTIAL, LANDSCAPE PLANTINGS AROUND INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, PARKS, RECREATIONAL AREAS, GREENHOUSES, SHADECLOTHS, NURSERIES, AND ATHLETIC FIELDS**

| USE | PESTS | SPRAY CONCENTRATION% | Amounts of AzaPRO | | |
|---|---|---|---|---|---|
| | | | Fluid ounces per gallon | Fluid ounces per 100 gallons | Quarts per 100 gallons |
| Including trees, shrubs, flowers, conifers, evergreens, herbaceous ornamentals, foliage plants, container-grown ornamentals, plants, Hemp, and groundcovers | Armyworms<br>Azalea caterpillars<br>Aphids<br>Bagworms<br>Black vine weevils<br>Boxelder bugs<br>Budworms<br>Cankerworms<br>Cutworms<br>Eastern tent caterpillars<br>Elm leaf beetles<br>European sawflies<br>Fall webworms<br>Flea beetles<br>Forest tent caterpillars<br>Gypsy moth larvae<br>Japanese beetles<br>June beetles<br>Lace bugs<br>Leaf-feeding caterpillars Leafhoppers<br>Leafminers<br>Leaf rollers<br>Leaf skeletonizers<br>Oleander moth larvae<br>Pine sawflies<br>Pine shoot beetles<br>Pinetip moths<br>Plant bugs<br>Sawflies (larva)<br>Scale insects (crawlers) Spruce budworm<br>Striped beetles<br>Striped oakworms<br>Thrips<br>Tussock moth larvae<br>Brown softscale<br>California redscale (crawler)<br>Clover mites Mealybugs<br>Pineneedlescale (crawler) Spider mites<br>Whiteflies<br>and other species identified in Table 1. | Lower rate ranges of 0.25 - 0.75% vol/vol:<br><br>Medium rate ranges of 0.75 - 1.25% vol/vol:<br><br>Upper rate ranges of 1.25 - 1.70% vol/vol: | 0.32-1.0 fl. oz<br><br>1.00-1.60 fl. oz.<br><br>1.60-2.18 fl. oz. | 32-96 fl. oz.<br><br>96-160 fl. oz.<br><br>160-218 fl. oz. | 1.0-3.0 qts.<br><br>3.0-5.0 qts.<br><br>5.0-6.8 qts. |

**TABLE 3. SPRAY PREPARATION FOR HIGH VOLUME APPLICATIONS FOR SPRAY CONCENTRATIONS OF 0.25% to 1.70%.**

| Gallons Of Water | Amounts of AzaPRO For: | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0.25% | 0.50% | 0.75% | 1.00% | 1.25% | 1.50% | 1.70% |
| 1 gallon | 0.32 fl. oz. | 0.64 fl. oz. | 0.96 fl. oz. | 1.28 fl. oz. | 1.60 fl. oz. | 1.94 fl. oz. | 2.18 fl. oz. |
| 5 gallons | 1.60 fl. oz. | 3.2 fl. oz. | 4.8 fl. oz. | 6.4 fl. oz. | 8.0 fl. oz. | 9.7 fl. oz. | 10.9 fl. oz |
| 10 gallons | 3.2 fl. oz | 6.4 fl. oz | 9.6 fl. oz | 12.8 fl. oz | 16.0 fl. oz | 19.4 fl. oz | 21.8 fl. oz |
| 25 gallons | 8.0 fl. oz | 16.0 fl. oz | 24.0 fl. oz | 32 fl. oz | 1.25 qts. | 1.50 qts. | 1.70 qts. |
| 50 gallons | 16.0 fl. oz | 32.0 fl. oz | 1.50 qts. | 2.0 qts. | 2.5 qts. | 3.0 qts. | 3.4 qts. |
| 100 gallons | 1.0 qt. | 2.0 qts. | 3.0 qts. | 4.0 qts. | 5.0 qts. | 6.0 qts. | 6.8 qts. |
| 150 gallons | 1.5 qts. | 3.0 qts. | 4.5 qts. | 6.0 qts. | 7.5 qts. | 9.0 qts. | 10.2 qts. |
| 200 gallons | 2.0 qts. | 4.0 qts. | 6.0 qts. | 8.0 qts. | 10.0 qts. | 12.0 qts. | 13.6 qts. |

**TABLE 4. SPECIALIZED SPRAY PREPARATION FOR LOW VOLUME APPLICATIONS OF 5 - 25 GALLONS PER ACRE WITH SPRAY CONCENTRATIONS OF 0.25% to 1.70%.**

| Spray Concentration Desired, % vol/vol | Spray Volume, Gallons Per Acre | | | | |
|---|---|---|---|---|---|
| | 5 gpa | 10 gpa | 15 gpa | 20 gpa | 25 gpa |
| 0.25% v/v | 1.6 fl. oz/acre | 3.2 fl. oz/acre | 4.9 fl. oz/acre | 6.5 fl. oz/acre | 8.0 fl. oz/acre |
| 0.50% v/v | 3.2 fl. oz/acre | 6.4 fl. oz/acre | 9.6 fl. oz/acre | 12.8 fl. oz/acre | 16.0 fl. oz/acre |
| 0.75% v/v | 4.8 fl. oz/acre | 9.6 fl. oz/acre | 14.4 fl. oz/acre | 19.2 fl. oz/acre | 24.0 fl. oz/acre |
| 1.00% v/v | 6.4 fl. oz/acre | 12.8 fl. oz/acre | 19.2 fl. oz/acre | 25.5 fl. oz/acre | 32.0 fl. oz/acre |
| 1.25% v/v | 8.0 fl. oz/acre | 16.0 fl. oz/acre | 24.0 fl. oz/acre | 32.0 fl. oz/acre | 40.0 fl. oz/acre |
| 1.50% v/v | 9.6 fl. oz/acre | 19.2 fl. oz/acre | 28.9 fl. oz/acre | 38.5 fl. oz/acre | 48.0 fl. oz/acre |
| 1. 70% v/v | 10.8 fl. oz/acre | 21.6 fl. oz/acre | 32.5 fl. oz/acre | 43.3 fl. oz/acre | 54.0 fl. oz/acre |

## SPECIFIC USE INSTRUCTIONS:

**Decision making for IPM:**
Scouting, monitoring, sampling, record-keeping, and predictive models are techniques to determine *if* and *when* insecticide/miticide applications are needed. The application schedule should coincide with the most vulnerable stage of the pest. For azadirachtin, target the most vulnerable stages of young larvae and young nymphs. The early larval stages and the early instar stages are more susceptible to this IGR than the later stages of the same pests.

For *Lepidoptera:*
- Armyworms: Apply when larvae are small.
- Bagworms: Apply when bags are small and larvae are actively feeding.
- Gypsy moth larvae: Apply when larvae are small and all eggs have hatched.
- Spruce budworms: Apply when larvae are exposed and actively feeding.

For *Acarina:*
- Spider mites: Apply when nymphs are first observed and before mite populations have become severe. Use multiple applications with 10-day intervals until infestation is controlled. Thorough coverage of both upper and lower leaf surfaces is needed.

For Thysanoptera:
- Thrips: Apply early at first signs of infestation and repeat until infestation is controlled.

For Hymenoptera:
- Sawfly: Apply when larvae are small. Refer to tree injection method of this label.

For Hemiptera and Homoptera:

- Leafhoppers: Apply when first observed and repeat applications at 5-day intervals.
- Mealybugs: Obtain thorough coverage of leaves and twigs.
- Scale: Obtain thorough coverage of leaves and twigs.

For Coleoptera:

- Beetles: Apply early at first signs of infestation and repeat applications at - 10 day intervals.
- Japanese beetle (adults): Use foliar applications to repel adult feeding and treat at 5 - day intervals.

For Diptera:

- Leafminers: Apply early to larvae when stippling or mining of leaves is first observed. Repeat applications at 10-day intervals until infestation is controlled.

**TURFGRASS ESTABLISHED IN RESIDENTIAL (LAWNS), INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL SITES, PARKS, RECREATIONAL AREAS, GOLF COURSES, SOD FARMS, AND ATHLETIC FIELDS**

Use AzaPRO to control the pests presented in Table 5. Dilute AzaPRO in water.

The most vulnerable stage to this product is young larvae and nymphs. Schedule treatments for the early larval stages and early instars when populations are established, but before turf damage becomes noticeable.

The maximum rate on turfgrass of AzaPRO is 5 .0 fl. oz of product per acre per application or 1.3 fl. oz product per 1,000 sq. ft. per application. Apply at a rate up to 5 fl. oz of product per acre. Use the higher rate specified on this label for moderate to heavy infestations.

**Irrigation:**

Avoid (delay or postpone) irrigation for 12 - 24 hours after application of this product.

**Mowing:**

Avoid (delay or postpone) mowing of the treated area for 12-24 hours after treatment.

Degree day and plant phenology models can assist in developing the appropriate application schedule for the target pests. Consult your state university or local Cooperative Extension Service office for specific pest control application timing in your area.

AzaPRO can be tank mixed with other insecticide/miticides if a broader spectrum of pest control is required. Observe all precautionary statements and follow all label directions of companion product(s).

**Specific Use Instructions:**

1. Armyworms: Apply during the early morning or late afternoon to maximize control.
2. Sod webworm larvae: Applications in the late afternoon or early evening can maximize control.

**TABLE 5. APPLICATION RATES FOR TURFGRASS ESTABLISHED IN RESIDENTIAL (LAWNS), INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL SITES, PARKS, RECREATIONAL AREAS, GOLF COURSES, SOD FARMS, AND ATHLETIC FIELDS.**

| USE | PESTS | Amount of AzaPRO | | Spray Volumes | | Number of Applications Interval Days |
|---|---|---|---|---|---|---|
| | | fl. oz/acre | fl. oz./1,000 sq. ft. | gals. /acre | gals. /1000 sq. ft. | |
| Cool-Season and Warm-Season Turfgrass | *Larvae and nymphs of these pests including but not limited to:*<br>Armyworms<br>Bermudagrass mite<br>Cutworms Grasshopper<br>Sod webworm | Up to 57.0 fl. oz | Up to 1.3 fl. oz | 40 - 100 gpa | 1-2 gal/1,000 sq. ft. | As needed, 7 days |

**DRENCH APPLICATION FOR GREENHOUSES, NURSERIES, INTERIORSCAPES AND FOR PLANTS GROWN IN CONTAINERS:**

Use AzaPRO 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 AzaPRO 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- 14 day intervals until the pest pressure has ended.

**DILUTION TABLE FOR DRENCH APPLICATIONS**

| Gallons of Water | Amount of AzaPRO | | | Application Interval | Number of Applications |
|---|---|---|---|---|---|
| | 0.4% | 0.6% | 0.8% | | |
| 1 gallon | 1 Tbs. | 1.5 Tbs. | 2.0 Tbs. | 10 - 14 days | 2 - 3 |
| 5 gallons | 2. fl. oz | 4.0 fl. oz | 5.5 fl. oz | 10 - 14 days | 2 - 3 |
| 10 gallons | 5.4 fl. oz | 8.0 fl. oz | 11.0 fl. oz | 10 - 14 days | 2 - 3 |
| 100 gallons | 1. qts. | 2.5 qts. | 3.4 qts. | 10 - 14 days | 2 - 3 |

AzaPRO can also be applied through sub-surface treatment equipment. Always follow manufacturer's use directions.

**TREE INJECTION**

Inject AzaPRO into mature trees established in landscapes, residential settings, nurseries, and forestry sites. Use appropriate tree injection equipment and follow the instructions provided by the equipment manufacturer.

**Application Schedule For Tree Injections**
Consult with your state agricultural experiment station, extension specialist, or your local U.S. Forest Service authority for information on the application schedule for specific pests in your area.

**Pests Controlled and Hosts:**

| PESTS | HOSTS |
|---|---|
| Spruce budworm larva | White Spruce<br>Black Spruce Balsam Fir |
| Pine false webworm | Eastern White Pine<br>Red Pine |
| Pine sawfly larvae | White Pine |
| Cedar leafminer | White Cedar |

**Dosage Rate For Tree Injections**
Use appropriate injection equipment. Inject at the rate of 0.37-0.74 fl. oz (11-22 ml) of product per inch tree trunk diameter at breast height. Or inject at the rate of 0.127 - 0.25 grams azadirachtin per inch tree trunk diameter at breast height.

**INSTRUCTIONS FOR 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.
- For best results spray in the morning or evening hours.
- 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 AzaPRO as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 5 fl. ozs. (20 grams active ingredient) per acre (1.33 fl. ozs. per 1,000 sq. ft.) per application. Rates in Table 6 pertain to typical pest infestations.

Apply AzaPRO alone to food crops on the day of harvest.

Dilute AzaPRO with water at 0.5-4.0 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.

**TABLE 6. USE RATES FOR VEGETABLES, HERBS AND SPICES, BERRIES AND FRUIT.**

| 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 |
| *Leafy Vegetables including but not limited to:* **Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Endive, Kale, Lettuce, Spinach** | Leafrollers, Cutworms, Loopers, Armyworms | 0.19 - 0.96 fl. ozs. | ¾ Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Beetles, Weevils, Flies, Thrips, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |

| 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 |
| *Root Vegetables*, *including but not limited to:* **Beet, Carrot, Horseradish, Parsnip, Potato, Radish, Sweet potato, Turnip, Yams** | Beetles, Weevils | 0.11 - 0.25 fl. ozs. | ½ Tbs. - 1 ½ Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Thrips, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Fruiting Vegetables including but not limited to:* **Eggplant, Pepper, Tomatillo, Tomato** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Cucurbit Vegetables including but not limited to:* **Cucumber, Gourd (edible), Muskmelon, Pumpkin, Squash, Watermelon, including Cantaloupe, Casaba, Gherkins, Melons (including hybrids), Zucchini** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Legume Vegetables including but not limited to:* **Bean, Chickpea, Lentil, Pea** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Bulb Vegetables including but not limited to:* **Garlic, Onion, Shallot** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Berries including but not limited to:* **Blackberry, Blueberry, Raspberry, Strawberry, others include: Boysenberry, Currants, Dewberry, Elderberry, Gooseberry, Loganberry** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Herbs and Spices including but not limited to:* **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** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |

| 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 |
| *Nut Trees including but not limited to:* **Almond, Brazil nut, Filbert, Hickory nut, Pecan, Pistachios, Walnut** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Pome Fruits including but not limited to:* **Apple, Quince, or** Pear *(Comice varieties: DO NOT apply more than 24 fl oz/A. DO NOT apply after pink stage of flowering; test small areas of other varieties of pears for plant safety prior to full scale usage.)* | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Stone Fruits including but not limited to:* **Apricot, Cherry, Nectarine, Peach, Plum** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |
| *Citrus Fruits including but not limited to:* **Grapefruit, Lemon, Lime, Orange others include: Citrus Citron, Mandarin (tangerine), Nectarine, Satsuma (orange mandarin), Tangerine** | Beetles, Weevils | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. ozs. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. ozs. | 1 Tbs. - 4 Tbs./gal |

## CHEMIGATION GENERAL INFORMATION

Apply this product only through drip (trickle) or sprinkler irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues can result from non-uniform distribution of treated water.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label- prescribed safety devices for public water systems are in place. Direct your questions concerning calibration to your State Extension Service Specialist, the equipment manufacturer, or other expert. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise.

Dilute AzaPRO with water before introduction into the system. Use the diluted solution within 8 hours. Do not apply in irrigation water if the pH exceeds .0. The optimum pH range for application is 5.5 to 6.5. The pH of the irrigation water can be adjusted by use of a suitable buffering agent. Agitation is necessary. Apply at the specified rate using sufficient water to achieve an even distribution within an 8-hour period. Do not apply **AzaPRO** at a rate that exceeds 3.5 pints active ingredient per acre (5 fl. oz).

<u>If the irrigation cycle will last longer than 8 hours and the AzaPRO is premixed in the supply tank, the tank mix must be buffered to a pH of 8 or lower.</u>

For Chemigation Systems Connected to A Public Water System**:** *Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of a year.*

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top of overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (*e.g.* diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speeds favor drift beyond the area intended for treatment.

**Operation Of Sprinkler Chemigation Or Drip (Trickle) Utilizing A Pressurized Water And Pesticide Injection System:** The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (*e.g.*, diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a dry, cool, well ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

## NOTICE ON CONDITIONS OF SALE

The directions for use of this product are based upon tests believed to be reliable, and the directions for use must be followed. To the extent applicable by law the use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. To the extent applicable by law, the buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

**[Optional Label Claims (may appear throughout the label):]**

- Controls mites, caterpillars, whiteflies, thrips, aphids, and other insects as listed on this label.
- Controls chewing and sucking insects
- Low-odor formulation
- Broad-spectrum control
- Can be applied the day of harvest
- For use on a wide variety of trees, shrubs, flowers, fruit, and nut trees, vegetables, and plants
- Low (Mild) odor
- Systemic and Translaminar Activity
- Ideal Tool for IPM and IRM Programs
- Organic Materials Review Institute (OMRI) Listed
- For Organic Gardening

## [Sublabel 3: Home and Garden Use]
## {BOOKLET FRONT PANEL LANGUAGE]

# AzaPRO

**[Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]**

**Botanical Insecticide, Miticide, and Nematicide**

**REPELLANT, ANTIFEEDANT AND INSECT GROWTH REGULATOR (IGR)**

BOTANICAL PRODUCT FOR CONTRO OF INSECTS ON INDOOR AND OUTDOOR ORNAMENTAL FLOWERS, HEMP, TREES, SHRUBS, VEGETABLES, FRUIT AND NUT TREES, AND PLANTS, INCLUDING PLANTS GROWN IN CONTAINERS, RESIDENTIAL RECIRCULATORY, AEROPONIC, AND HYDROPONIC SYSTEMS, INTERIORSCAPES, HOME AND GARDEN USE.

**[ For Organic Gardening]**

See the Directions for Use for a Complete List of Insects Controlled.

| **ACTIVE INGREDIENT:** | **% By Wt.** |
|---|---|
| Azadirachtin | 1.2% |
| **OTHER INGREDIENTS** | 98.8% |
| **TOTAL** | 100.0% |

Contains 0.34 grams azadirachtin per fluid ounce.

**KEEP OUT OF REACH OF CHILDREN**

# CAUTION

Read entire label. Use strictly in accordance with precautionary statements and directions for use, and with applicable state and federal regulations.

[See (side panel / back panel / inside panel) for (additional / complete) (First Aid,) Precautionary Statements, Directions for Use, and Storage and Disposal.]

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324,
West Linn, OR 97068

Net Contents: ____ [fl. oz.]/[qt]/[gal] (____ [mL]/[L])

# {LANGUAGE INSIDE BOOKLET}

| FIRST AID | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **HOTLINE NUMBER** | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information about this product call the **NATIONAL PESTICIDE INFORMATION CENTER (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.** For **MEDICAL EMERGENCY**, call the **POISON CONTROL CENTER AT 1-800-222-1222.** | |

## PRECAUTIONARY STATEMENTS
## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION**:** Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

## DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS**.

## MODE OF ACTION:

AzaPRO 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.

AzaPRO will provide control results comparable to the synthetic insecticide standards. AzaPRO provides broad spectrum control with very low environmental impact. AzaPRO provides all the benefits of azadirachtin, a proven anti-feedant, insect growth regulator (IGR), anti-ovipository, and repellant, as well as a toxin to soft bodied insect larvae.

The active ingredient in AzaPRO- Azadirachtin – is a unique botanical insecticide, miticide and nematicide.

| | | |
|---|---|---|
| **Mode of Action:** Control of different orders of insects or insects in different phases of their life cycle is due to the complexity of the azadirachtin molecule and the many modes of action inherent in azadirachtin. | Anti-Feedant | Insects feed less or not at all on treated plants. Foliage is not damaged and insects ultimately starve to death. |
| | Insect Growth Regulator (IGR) | Insects fail to mature and reproduce, eliminating populations over time. |
| | Anti-ovipository | Insect do not lay eggs on treated plants. The likelihood of insect infestation is greatly decreased in treated plants. This adds a preventive aspect to your insect control. |
| | Repellant | Insects do not prefer treated plants. |

## PESTS CONTROLLED OR SUPPRESSED

Use AzaPRO against the following pests.
**TARGET PEST SPECIES OF** AzaPRO

| *HEMIPTERA AND HOMOPTERA* | *LEPIDOPTERA* |
|---|---|
| including but not limited to:<br>**true bugs** including boxelder bugs, chinch bugs, lygus bugs and stink bug;<br>**lacebugs**; **leafhoppers** including grape leafhopper, spittlebug, potato leafhopper and variegated leafhopper; **mealy bugs** including apple mealy bugs, citrus mealy bugs, grape mealy bugs;<br>**whiteflies** including greenhouse whitefly, silverleaf whitefly and sweet potato whitefly and woolly whitefly; **aphids** including apple aphid, green peach aphid, melon aphid, pea aphid, potato aphid and rose aphid;<br>**psyllids** including pear psyllids and **scales** including black scale, brown soft scale, California red scale, coffee scale, olive scale, San Jose scale, and cottony cushion scale. | including but not limited to:<br>**moths** including European pine shoot moth, pine tip moth and Tussock moth; **leafrollers** including blueberry leafroller, filbert leafroller, fruitree leafroller, citrus leafminers, grape leafroller, oblique banded leafroller, omnivorous leafroller; **cutworms** including black cutworm and citrus cutworm;<br>**caterpillars and loopers** including bagworms, budworms, cabbage looper, canker worms, case bearers, caseworms, corn earworm, diamondback moth, fruit worms, grapeleaf skeletonizer, gypsy moth, hornworms, imported cabbageworm, navel orangeworm, soybean looper, spruce budworm, tent caterpillar, tip moths, tent caterpillars, tobacco budworm, tobacco hornworm, tomato pinworm and tussock moth;<br>**armyworms** including beet armyworm, fall armyworm, lawn armyworm, southern armyworm, and yellow striped armyworm; **webworms** and **leaf perforators**. |
| *COLEOPTERA* | *DIPTERA* |
| including but not limited to:<br>**beetles, grubs, and weevils** including Asian long-horned beetle, bark beetles, black vine weevil, Colorado potato beetle, elm bark beetle, European chafer, flea beetles, Japanese beetle, June beetle, leaf beetles, Mexican bean beetle,<br>Northern masked chafer, rose chafer and Southern masked chafer and twig girders. | including but not limited to: *<br>**flies** including Caribbean fruit fly, cherry maggots, crane fly, **fungus gnat**, Hessian fly, oriental fruit fly, Mediterranean fruit fly, marsh crane flies, melon fly, shore fly and walnut husk fly; **leafminers** including citrus leafminers and serpentine leafminers.<br><br>*Not intended for use on public health pests |
| *THYSANOPTERA* | *ACARINA* |
| including but not limited to:<br>**thrips** including citrus thrips, flower thrips, gladiolus thrips, onion thrips, thrips palmi and Western flower thrips. | including but not limited to: *<br>**mites including,** red spider mites, brown mite, clover mite, conifer spider mite, European red mite, spruce spider mite, and two-spotted spider mite.<br><br>*Not intended for use on public health pests |

| *ORTHOPTERA*<br>including but not limited to:<br>**crickets; grasshoppers; locusts** | *HYMENOPTERA*<br>including but not limited to: *<br>**sawflies** including European sawflies, pear sawflies, red-headed pine sawflies, yellow-headed pin sawflies**.**<br><br>***Not intended for use on public health pests |
|---|---|
| *NEMATODA*<br>**Nematodes** (suppression) | |

## FOR USE ON ORNAMENTALS AND LANDSCAPE PLANTINGS

| | |
|---|---|
| **Ornamental Plants and Flowers including but not limited to:** | Actinopteris, African violets*, ageratum, aglaonema, Algerian ivy, allamanda, alocasia, amaranthus, anthurium, aphelandra, arborvitae, Artemisia, aster, aucuba ilex, azalea, baby's breath, begonia, Boston fern, bougainvillea, boxwood, brachycome, cacti, calabrese, caladium, calathea, calendula, calla, camellia, carnation, ceanothus, chrysanthemum, cineraria, coleus, columbine, cotoneaster, cyclamen, daffodil, dahlia, daisy, daylily, delphinium, dianthus, dieffenbachia, dogwood, dusty miller, Easter lily, English ivy, euphorbia, fern, ficus, foliage plants, foxglove, freesia, fuschia, gaillardia, gardenia, geranium, gerbera, gladiola, gloxinia, gypsophilla, hedera, hibiscus, hyacinth, hydrangea, ilex, impatiens, iris, ivy, jasmine, lilac, lily, maidenhair fern, mandevilla, marigold, narcissus, nasturtium, orchid*, pansy, pelargonium, peony, peperomia, petunia, philodendron, phlox, photinia, pinks, pittosporum, poinsettia*, pothos, portulaca, primrose, pyracantha, rhododendron, rose*, rosemary, rubber plant, salvia, schefflera, sedum, sempervivum, snapdragon, spathiphyllum, stock, syngonium, tulip, verbena, vinca, wandering jew, yucca, zinnia<br>*** Please note that when making applications to these species, spotting of plant foliage and blossoms is possible.** |
| **Ornamental Trees and Shrubs including but not limited to:** | Andromeda, arborvitae, ash, Austrian pine, azalea, beech, birch, birdsnest spruce, blue spruce, bougainvillea, boxwood, butternut, cedar, charmaecyparis, cherry, cotoneaster, crabapple, cyprus, dogwood, Douglas fir, elm, euonymus, firethorn, forsythia, hackberry, hawthorn, hemlock, hickory, holly, honey locust, horse chestnut, juniper, larch, laurel, lilac, linden, London planetree, magnolia, mandevilla, maple, mimosa, mountain ash, myrtle, oak, pachysandra, peach, photinia, pine, planetree, poplar, privet, purpleleaf wintercreeper, quince, sage, spruce, sycamore, white cedar, white pine, yew |

Waxy bloom on certain ornamental plants will be reduced after an AzaPRO application.

Applications of AzaPRO will remove the glaucus 'blue' coloring from evergreens such as Colorado blue spruce and Koster spruce.

## FOR USE ON GARDEN VEGETABLES, HERBS, SPICES, FRUITS, AND BERRIES

| | |
|---|---|
| Leafy Vegetables including but not limited to: | **Broccoli**, Brussels Sprouts, Cabbage, Cauliflower, Collards, Endive, Kale, **Lettuce**, Spinach |
| Root Vegetables, including but not limited to: | Beet, **Carrot**, Horseradish, Parsnip, Potato, Radish, Sweet potato, Turnip, Yams |
| Fruiting Vegetables including but not limited to: | Eggplant, Pepper, Tomatillo, **Tomato** |
| Cucurbit Vegetables including but not limited to: | **Cucumber**, Gourd (edible), Muskmelon, Pumpkin, Squash, Watermelon, including Cantaloupe, Casaba, Gherkins, **Melons** (including hybrids), Zucchini |
| Legume Vegetables including but not limited to: | Bean, Chickpea, Lentil, **Pea** |
| Bulb Vegetables including but not limited to: | Garlic, **Onion**, Shallot |

| | |
|---|---|
| Berries including but not limited to: | Blackberry, Blueberry, Raspberry, **Strawberry**, others include: Boysenberry, Currants, Dewberry, Elderberry, Gooseberry, Loganberry |
| Herbs and Spices including but not limited to: | 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 |
| Nut Trees including but not limited to: | **Almond**, Brazil nut, Filbert, Hickory nut, Pecan, Pistachios, **Walnut** |
| Pome Fruits including but not limited to: | **Apple**, Quince, or Pear *(Comice varieties: DO NOT apply more than 24 fl oz/A. DO NOT apply after pink stage of flowering; test small areas of other varieties of pears for plant safety prior to full scale usage.)* |
| Stone Fruits including but not limited to: | Apricot, **Cherry**, Nectarine, Peach, Plum |
| Citrus Fruits including but not limited to: | **Grapefruit**, Lemon, Lime, Orange others include: Citrus Citron, Mandarin (tangerine), **Nectarine**, Satsuma (orange mandarin), Tangerine |
| Other Crops | Hemp |

AzaPRO has been evaluated for phytotoxicity on a wide range of ornamentals and garden plants. However, since testing on all plant varieties is not feasible, test a small portion of the area to be treated for phytotoxicity before treating the entire area.

There are no restrictions on applying AzaPRO up to the time of harvest.

## SPRAY PREPARATION

AzaPRO is an emulsifiable concentrate to be diluted with water.

This product forms an emulsion and which separates upon extended or prolonged standing. Re-agitate to assure uniformity of the spray mixture.

**Prepare only the volume needed for the intended application and use the spray mixture within 24 hours of preparation.**

## TANK MIXTURES

AzaPRO is an emulsifiable concentrate and is compatible with commonly used pesticides and fertilizers. Always check the physical compatibility using a jar test in the correct proportions if needed.

A jar test can quickly determine physical compatibility. The process of conducting jar test is given below:

1. Add one pint of water to a glass jar with a lid. (Use the same water source that will go in the tank.).
2. Check spray water pH and adjust if necessary. Often, the pesticide label will give the optimal pH range for best results.
3. Add the pesticides to the jar you plan to use one at a time and shake vigorously after each addition.
4. After all products have been added, shake again, let the solution stand for 15 minutes and then shake one last time and observe the results. Results: Jar is cool to the touch, and mixture is smooth. Then it is compatible mixture.

If a broader spectrum of control is required tank-mix AzaPRO with insecticides or miticides. If a rapid knockdown of heavy populations is necessary, then include an effective contact insecticide/miticide in combination with AzaPRO.

Always read and follow the directions for use, precautions, and limitations for use on all product labels used in combination. *Applications must follow the precautions and limitations of the most restrictive product label in the mixture. Do not exceed the dosage rates of any product.*

**Select the right companion products:**
IPM uses a variety of control options including biological, chemical, and cultural practices. AzaPRO is botanical with growth regulator effect on insects and mites. Companion products include pyrethroids, spinosyns, microbial toxins, and chloronicotinyls that complement azadirachtin. Formulations of bifenthrin, spinosad, abamectins, and imidacloprid are effective for different pests. Select the product that has been proven to provide adequate performance for the pests you are trying to control.

**Physical Incompatibility**
Do not use AzaPRO with Captan, Bordeaux mixture, triphenyltin hydroxide, lime sulfur, Rayplex iron or other highly alkaline materials as they can cause phytotoxicity and/or reduced efficacy on some target pests. Phytotoxicity will occur if tank-mix combinations with compounds known to be incompatible with oil-based formulations are used.

## APPLICATION EQUIPMENT

Apply AzaPRO with hand-operated (manual) or power spray equipment suitable for low volume and/or high volume applications. Follow the recommendations of the equipment manufacturer when using backpack sprayers, hose-end sprayers, compression (pump-up) sprayers, and other sprayers suitable for foliar applications of insecticides.

## APPLICATION SCHEDULE

For the most effective control, apply the product when pests are expected to appear or as soon as possible after pests appear and are in immature stages. Spray at an interval of seven (7) to ten (10) days or as the situation warrants.

During high pest infestation levels or when canopy is dense use higher dosage (use) rates and increase the spray frequency. For best results, spray in the morning or evening hours. Repeat spraying if rain occurs within two to three hours of spraying. For additional guidance, consult with your state agricultural experiment station or local extension horticulturist/arborist for information on tactics and windows of application.

## APPLICATION METHODS

- 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.
- For best results, spray in the morning or evening hours.
- Repeat spraying if rain occurs within two to three hours of spraying.

Apply AzaPRO as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 1.33 fl. oz. per 1,000 sq. ft. per application.

Apply AzaPRO alone to food/garden crops on the day of harvest.

Dilute AzaPRO with water at a rate of 0.5-4.0 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.

## FOLIAR APPLICATION

| USE | SPRAY CONCENTRATION% | Amounts of AzaPRO | |
|---|---|---|---|
| | | Fluid Ounces (Tbs.) Per Quart | Fluid Ounces (Tbs.) Per Gallon |
| Including trees, shrubs, flowers, conifers, evergreens, herbaceous ornamentals, foliage plants, container-grown ornamentals & garden plants, Hemp, and groundcovers | Lower rate ranges of 0.25 - 0.75% vol/vol: | 0.08 – 0.25 fl. oz. (1/6 — 1/2 Tbs.) | 0.32 – 1.0 fl. oz. (2/3 – 2.0 Tbs.) |
| | Medium rate ranges of 0.75 - 1.25% vol/vol: | 0.25 – 0.40 fl. oz. (1/2 — 5/6 Tbs.) | 1.0 – 1.6 fl. oz. (2.0 Tbs. – 1 2/3 Tbs.) |
| | Upper rate ranges of 1.25 - 1.70% vol/vol: | 0.40 – 0.50 fl. oz. (5/6 – 1.0 Tbs.) | 1.6 – 2.0 fl. oz. (1 2/3 – 4 Tbs.) |

## DRENCH APPLICATION

Use AzaPRO 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 AzaPRO. Target the initial application of a soil drench treatment to coincide with the early stages of young larvae and young nymphs.

Dilute AzaPRO with water for concentrations of 0.4 to 0.8% vol/vol. See use rate table below. Add the required amount of AzaPRO to a clean bucket with at least one-half of the water to be drenched. Agitate the mixture thoroughly and then fill with the remaining water and continue agitation until the product is thoroughly dispersed. Drench the soil in the pot with one (1) pint of finished product dilution 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. Make two to three (2-3) applications at 10-14 day intervals until the pest pressure has ended. With high insect pressure make applications every 5 to 6 days. Additional applications of AzaPRO may be required with increased and prolonged pest infestation.

## DILUTION TABLE FOR DRENCH APPLICATIONS

| Gallons of Water | Amount of AzaPRO | | | Application Interval |
|---|---|---|---|---|
| | 0.4% | 0.6% | 0.8% | |
| 1 gallon | 1 Tbs. | 1.5 Tbs. | 2.0 Tbs. | 10 - 14 days |
| 1 gallon | 0.5 fl. oz. | 0.8 fl. oz. | 1.0 fl. oz. | 10 - 14 days |
| 5 gallons | 2. fl. oz. | 4.0 fl. oz. | 5.0fl.oz. | 10 - 14 days |
| 10 gallons | 5.4 fl. oz. | 8.0 fl. oz. | 10.0 fl. oz. | 10 - 14 days |

## RESIDENTIAL RECIRCULATORY, AEROPONIC, AND HYDROPONIC APPLICATION

Use AzaPRO in recirculatory, aeroponic, or hydroponic systems for the control of foliar pests, soil borne insect larvae, including soil borne larvae of foliar pests such as fungus gnats, nematodes or soil borne thrips for interiorscapes, hydroponic, aeroponic and container plants.

Dilute AzaPRO with water for concentrations of 0.1% to 0.8% volume/volume in a recirculatory or in a hydroponic liquid system. See use rate table below. Agitate the mixture thoroughly until the product is thoroughly dispersed.

For fungus gnats, use the 0.6% volume/volume concentration. For mushroom fly maggot control, use the 0.6% volume/volume concentration. For leafminers and other difficult to control pests, use the 0.8% volume/volume concentration. Make two to three (2-3) applications at 10-14 day intervals until the pest pressure has ended. With high insect pressure applications make applications every 5 to days. Additional applications of AzaPRO may be required with increased and prolonged pest infestation.

## DILUTION TABLE FOR RECIRCULATORY, AEROPONIC, AND HYDROPONIC APPLICATIONS

| Gallons of Water | Amount of AzaPRO | | | | | Application Interval |
|---|---|---|---|---|---|---|
| | 0.1% | 0.2% | 0.4% | 0.6% | 0.8% | |
| 1 gallon | ¼ Tbs. | ½ Tbs. | 1 Tbs. | 1.5 Tbs. | 2.0 Tbs. | 7 - 14 days |
| 1 gallon | 0.14 fl. oz. | 0.25 fl. oz. | 0.5 fl. oz. | 0.8 fl. oz. | 1.0 fl. oz. | 7 - 14 days |
| 5 gallons | 0. fl. oz. | 1.3 fl. oz. | 2.5 fl. oz. | 4.0 fl. oz. | 5.0 fl. oz. | 7 - 14 days |
| 10 gallons | 1.4 fl. oz. | 2.6 fl. oz. | 5.0 fl. oz. | 8.0 fl. oz. | 10.0 fl. oz. | 7 - 14 days |

Preventive applications as a recirculatory system application may be warranted for certain pests.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a dry, cool, well ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

## NOTICE ON CONDITIONS OF SALE

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Plant injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Neemtree. To the extent consistent with applicable law, all such risks shall

be assumed by the user or buyer.

**[Optional Label Claims (may appear throughout the label):]**

- Controls mites, caterpillars, whiteflies, thrips, aphids, and other insects as listed on this label.
- Controls chewing and sucking insects
- Low-odor formulation
- Broad-spectrum control
- Can be applied the day of harvest
- For use on a wide variety of trees, shrubs, flowers, fruit and nut trees, garden vegetables and plants
- Low (Mild) odor
- Spray and Drench
- Controls chewing and sucking insects
- Broad spectrum insect and mite control
- Rose Spray
- For Use on Roses and Flowers
- Vegetable Garden Spray
- For Use on Tomatoes and Garden Vegetables
- Controls Japanese Beetle on Roses
- Insect and Mite Control for the Home Garden Vegetables
- Complete Insect and Mite Control for Flowers
- Three applications in 30 days provides complete plant protection
- Quadruple action insect control – Antifeedant, Insect Growth Regulator, Anti-ovipository, Repellant
- Single product; multiple action
- A proven botanical pesticide born out of a decade of intense global research
- Works effectively against a broad spectrum of pests on a standalone basis on a variety of vegetable crops
- Controls insect pest during various stages of growth
- The benefits to your insect control program are multiple
- Controls Insects Systemically
- Taken up through the roots, controls insects on the leaves
- Insects stop feeding when they feed on treated plants
- For foliar and systemic insect control
- For Use on Flowers, Ornamentals, and Landscape Plantings
- For Use on Garden Crops, Vegetables, Herbs, Spices, Fruits, and Berries
- Three in one product – Insecticide, Miticide, and Nematicide
- Brought to you Exclusively by General Hydroponics – Bringing Nature and Technology Together (logo)
- Systemic and Translaminar Activity
- Ideal Tool for IPM and IRM Programs
- Organic Materials Review Institute (OMRI) Listed
- For Organic Gardening

**[Sublabel 4:- Turf and Ornamental market~~Turf and Ornamental Use~~]**
**{BOOKLET FRONT PANEL LANGUAGE]**

# AzaPRO

**[Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]**

## Botanical Insecticide, Miticide, and Nematicide

**REPELLANT, ANTIFEEDANT AND INSECT GROWTH REGULATOR (IGR)**

BOTANICAL PRODUCT FOR CONTROL OF INSECTS ON INDOOR AND OUTDOOR ORNAMENTAL FLOWERS, HEMP, TREES, SHRUBS, VEGETABLES, FRUIT AND NUT TREES, PLANTS, INCLUDING PLANTS GROWN IN CONTAINERS, RECIRCULATORY, AEROPONIC, AND HYDROPONIC SYSTEMS, AND INTERIORSCAPES

**[ For Organic Gardening]**

See the Directions for Use for a Complete List of Insects Controlled.

| **ACTIVE INGREDIENT:** | **% By Wt.** |
|---|---|
| Azadirachtin | 1.2% |
| **OTHER INGREDIENTS** | 98.8% |
| **TOTAL** | 100.0% |

Contains 0.34 grams azadirachtin per fluid ounce.

**KEEP OUT OF REACH OF CHILDREN**

# CAUTION

Read entire label. Use strictly in accordance with precautionary statements and directions for use, and with applicable state and federal regulations.

[See (side panel / back panel / inside panel) for (additional / complete) (First Aid,) Precautionary Statements, Directions for Use, and Storage and Disposal.]

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324,
West Linn, OR 97068

Net Contents: ____ [fl. oz.]/[qt]/[gal] (____ [mL]/[L]

## {LANGUAGE INSIDE BOOKLET}

| FIRST AID | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **HOTLINE NUMBER** | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information about this product call the **NATIONAL PESTICIDE INFORMATION CENTER (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.** For **MEDICAL EMERGENCY**, call the **POISON CONTROL CENTER AT 1-800-222-1222.** | |

### PRECAUTIONARY STATEMENTS
### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION**: Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

Applicators and handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves.
- Shoes plus socks

Follow the 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.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing immediately if pesticide get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediate after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.** 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.

Do not apply this product through any type of irrigation system

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 1 0. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural products. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE), notification to workers and restricted entry interval. The requirements in this box apply to the uses of this product that are covered by the Worker Protection Standard.

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

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, water, wear coveralls, chemical resistant gloves, shoes plus socks and protective eyewear.

### NON AGRICULTURAL USE REQUIREMENTS

The requirements in the box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 1 0). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried

## MODE OF ACTION:

AzaPRO 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.

AzaPRO will provide control results comparable to the synthetic insecticide standards. AzaPRO provides broad spectrum control with very low environmental impact. AzaPRO provides all the benefits of azadirachtin, a proven anti-feedant, insect growth regulator (IGR), anti-ovipository, and repellant, as well as a toxin to soft bodied insect larvae.

The active ingredient in AzaPRO - Azadirachtin – is a unique botanical insecticide, miticide and nematicide.

| | | |
|---|---|---|
| **Mode of Action:** Control of different orders of insects or insects in different phases of their life cycle is due to the complexity of the azadirachtin molecule and the many modes of action inherent in azadirachtin. | Anti-Feedant | Insects feed less or not at all on treated plants. Foliage is not damaged and insects ultimately starve to death. |
| | Insect Growth Regulator (IGR) | Insects fail to mature and reproduce, eliminating populations over time. |
| | Anti-ovipository | Insect do not lay eggs on treated plants. The likelihood of insect infestation is greatly decreased in treated plants. This adds a preventive aspect to your insect control. |
| | Repellant | Insects do not prefer treated plants. |

## PESTS CONTROLLED OR SUPPRESSED

Use AzaPRO against the following pests.

## TARGET PEST SPECIES

| *HEMIPTERA AND HOMOPTERA* | *LEPIDOPTERA* |
|---|---|
| including but not limited to:<br>**true bugs** including boxelder bugs, chinch bugs, lygus bugs and stink bug;<br>**lacebugs**; **leafhoppers** including grape leafhopper, spittlebug, potato leafhopper and variegated leafhopper; **mealy bugs** including apple mealy bugs, citrus mealy bugs, grape mealy bugs;<br>**whiteflies** including greenhouse whitefly, silverleaf whitefly and sweet potato whitefly and woolly whitefly; **aphids** including apple aphid, green peach aphid, melon aphid, pea aphid, potato aphid and rose aphid;<br>**psyllids** including pear psyllids and **scales** including black scale, brown soft scale, California red scale, coffee scale, olive scale, San Jose scale, and cottony cushion scale. | including but not limited to:<br>**moths** including European pine shoot moth, pine tip moth and Tussock moth; **leafrollers** including blueberry leafroller, filbert leafroller, fruitree leafroller, citrus leafminers, grape leafroller, oblique banded leafroller, omnivorous leafroller; **cutworms** including black cutworm and citrus cutworm; **caterpillars and loopers** including bagworms, budworms, cabbage looper, canker worms, case bearers, caseworms, corn earworm, diamondback moth, fruit worms, grapeleaf skeletonizer, gypsy moth, hornworms, imported cabbageworm, navel orangeworm, soybean looper, spruce budworm, tent caterpillar, tip moths, tent caterpillars, tobacco budworm, tobacco hornworm, tomato pinworm and tussock moth;<br>**armyworms** including beet armyworm, fall armyworm, lawn armyworm, southern armyworm, and yellow striped armyworm; **webworms** and **leaf perforators**. |
| *COLEOPTERA* | *DIPTERA* |
| including but not limited to:<br>**beetles, grubs, and weevils** including Asian long-horned beetle, bark beetles, black vine weevil, Colorado potato beetle, elm bark beetle, European chafer, flea beetles, Japanese beetle, June beetle, leaf beetles, Mexican bean beetle, Northern masked chafer, rose<br>chafer and Southern masked chafer and twig girders. | including but not limited to: *<br>**flies** including Caribbean fruit fly, cherry maggots, crane fly, **fungus gnat**, Hessian fly, oriental fruit fly, Mediterranean fruit fly, marsh crane flies, melon fly, shore fly and walnut husk fly; **leafminers** including citrus leafminers and serpentine leafminers.<br><br>*Not intended for use on public health pests |

| | |
|---|---|
| *THYSANOPTERA*<br>including but not limited to:<br>**thrips** including citrus thrips, flower thrips, gladiolus thrips, onion thrips, thrips palmi and Western flower thrips. | *ACARINA*<br>Including but not limited to: *<br>**mites including,** red spider mites, brown mite, clover mite, conifer spider mite, European red mite, spruce spider mite, and two-spotted spider mite.<br><br>*Not intended for use on public health pests |
| *ORTHOPTERA*<br>including but not limited to:<br>**crickets; grasshoppers; locusts** | *HYMENOPTERA*<br>including but not limited to: *<br>**sawflies** including European sawflies, pear sawflies, red-headed pine sawflies, yellow-headed pin sawflies**.**<br><br>*****Not intended for use on public health pests |
| *NEMATODA*<br>**Nematodes** (suppression) | |

## FOR USE ON ORNAMENTALS AND LANDSCAPE PLANTINGS

| | |
|---|---|
| | Actinopteris, African violets*, ageratum, aglaonema, Algerian ivy, allamanda, alocasia, amaranthus, anthurium, aphelandra, arborvitae, Artemisia, aster, aucuba ilex, azalea, baby's breath, begonia, Boston fern, bougainvillea, boxwood, brachycome, cacti, calabrese, caladium, calathea, calendula, calla, camellia, carnation, ceanothus, chrysanthemum, cineraria, coleus, columbine, cotoneaster, cyclamen, daffodil, dahlia, daisy, daylily, delphinium, dianthus, dieffenbachia, dogwood, dusty miller, Easter lily, English ivy, euphorbia, fern, ficus, foliage plants, foxglove, freesia, fuschia, gaillardia, gardenia, geranium, gerbera, gladiola, gloxinia, gypsophilla, hedera, hibiscus, hyacinth, hydrangea, ilex, impatiens, iris, ivy, jasmine, lilac, lily, maidenhair fern, mandevilla, marigold, narcissus, nasturtium, orchid*****, pansy, pelargonium, peony, peperomia, petunia, philodendron, phlox, photinia, pinks, pittosporum, poinsettia*****, pothos, portulaca, primrose, pyracantha, rhododendron, rose*, rosemary, rubber plant, salvia, schefflera, sedum, sempervivum, snapdragon, spathiphyllum, stock, syngonium, tulip, verbena, vinca, wandering jew, yucca, zinnia<br>***Please note that when making applications to these species, spotting of plant foliage and blossoms is possible.** |
| **Ornamental Trees and Shrubs including but not limited to:** | Andromeda, arborvitae, ash, Austrian pine, azalea, beech, birch, birdsnest spruce, blue spruce, bougainvillea, boxwood, butternut, cedar, charmaecyparis, cherry, cotoneaster, crabapple, cyprus, dogwood, Douglas fir, elm, euonymus, firethorn, forsythia, hackberry, hawthorn, hemlock, hickory, holly, honey locust, horse chestnut, juniper, larch, laurel, lilac, linden, London planetree, magnolia, mandevilla, maple, mimosa, mountain ash, myrtle, oak, pachysandra, peach, photinia, pine, planetree, poplar, privet, purpleleaf wintercreeper, quince, sage, spruce, sycamore, white cedar, white pine, yew |

Waxy bloom on certain ornamental plants will be reduced after an application.

Applications will remove the glaucus 'blue' coloring from evergreens such as Colorado blue spruce and Koster spruce.

## FOR USE ON VEGETABLES, HERBS, SPICES, FRUITS, AND BERRIES

| | |
|---|---|
| Leafy Vegetables including but not limited to: | **Broccoli**, Brussels Sprouts, Cabbage, Cauliflower, Collards, Endive, Kale, **Lettuce**, Spinach |
| Root Vegetables, including but not limited to: | Beet, **Carrot**, Horseradish, Parsnip, Potato, Radish, Sweet potato, Turnip, Yams |
| Fruiting Vegetables including but not limited to: | Eggplant, Pepper, Tomatillo, **Tomato** |
| Cucurbit Vegetables including but not limited to: | **Cucumber**, Gourd (edible), Muskmelon, Pumpkin, Squash, Watermelon, including Cantaloupe, Casaba, Gherkins, **Melons** (including hybrids), Zucchini |
| Legume Vegetables including but not limited to: | Bean, Chickpea, Lentil, **Pea** |
| Bulb Vegetables including but not limited to: | Garlic, **Onion**, Shallot |

| | |
|---|---|
| Berries including but not limited to: | Blackberry, Blueberry, Raspberry, **Strawberry**, others include: Boysenberry, Currants, Dewberry, Elderberry, Gooseberry, Loganberry |
| Herbs and Spices including but not limited to: | 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 |
| Nut Trees including but not limited to: | **Almond**, Brazil nut, Filbert, Hickory nut, Pecan, Pistachios, **Walnut** |
| Pome Fruits including but not limited to: | **Apple**, Quince, or Pear *(Comice varieties: DO NOT apply more than 24 fl oz/A. DO NOT apply after pink stage of flowering; test small areas of other varieties of pears for plant safety prior to full scale usage.)* |
| Stone Fruits including but not limited to: | Apricot, **Cherry**, Nectarine, Peach, Plum |
| Citrus Fruits including but not limited to: | **Grapefruit**, Lemon, Lime, Orange others include: Citrus Citron, Mandarin (tangerine), **Nectarine**, Satsuma (orange mandarin), Tangerine |
| Other Crops | Hemp |

This product has been evaluated for phytotoxicity on a wide range of ornamentals and garden plants. However, since testing on all plant varieties is not feasible, test a small portion of the area to be treated for phytotoxicity before treating the entire area.

There are no restrictions on applying this product up to the time of harvest.

## SPRAY PREPARATION

This product is an emulsifiable concentrate to be diluted with water.

This product forms an emulsion and which separates upon extended or prolonged standing. Re-agitate to assure uniformity of the spray mixture.

**Prepare only the volume needed for the intended application and use the spray mixture within 24 hours of preparation.**

## TANK MIXTURES

This product is an emulsifiable concentrate and is compatible with commonly used pesticides and fertilizers. Always check the physical compatibility using a jar test in the correct proportions if needed.

A jar test can quickly determine physical compatibility. The process of conducting jar test is given below:

1. Add one pint of water to a glass jar with a lid. (Use the same water source that will go in the tank.).
2. Check spray water pH and adjust if necessary. Often, the pesticide label will give the optimal pH range for best results.
3. Add the pesticides to the jar you plan to use one at a time and shake vigorously after each addition.
4. After all products have been added, shake again, let the solution stand for 15 minutes and then shake one last time and observe the results. Results: Jar is cool to the touch, and mixture is smooth. Then it is compatible mixture.

If a broader spectrum of control is required tank-mix this product insecticides or miticides. If a rapid knockdown of heavy populations is necessary, then include an effective contact insecticide/miticide in combination with this product.

Always read and follow the directions for use, precautions, and limitations for use on all product labels used in combination. *Applications must follow the precautions and limitations of the most restrictive product label in the mixture. Do not exceed the dosage rates of any product.*

**Select the right companion products:**
IPM uses a variety of control options including biological, chemical, and cultural practices. This product is botanical with growth regulator effect on insects and mites. Companion products include pyrethroids, spinosyns, microbial toxins, and chloronicotinyls that complement azadirachtin. Formulations of bifenthrin, spinosad, abamectins, and imidacloprid are effective for different pests. Select the product that has been proven to provide adequate performance for the pests you are trying to control.

**Physical Incompatibility**
Do not use this product with Captan, Bordeaux mixture, triphenyltin hydroxide, lime sulfur, Rayplex iron or other highly alkaline materials as they can cause phytotoxicity and/or reduced efficacy on some target pests. Phytotoxicity will occur if tank-mix combinations with compounds known to be incompatible with oil-based formulations are used.

## APPLICATION EQUIPMENT

Apply this product with hand-operated (manual) or power spray equipment suitable for low volume and/or high volume applications. Follow the recommendations of the equipment manufacturer when using backpack sprayers, hose-end sprayers, compression (pump- up) sprayers, and other sprayers suitable for foliar applications of insecticides.

## APPLICATION SCHEDULE

For the most effective control, apply this product when pests are expected to appear or as soon as possible after pests appear and are in immature stages. Spray at an interval of seven (7) to ten (10) days or as the situation warrants.

During high pest infestation levels or when canopy is dense use higher dosage (use) rates and increase the spray frequency. For best results, spray in the morning or evening hours. Repeat spraying if rain occurs within two to three hours of spraying. For additional guidance, consult with your state agricultural experiment station or local extension horticulturalist/arborist for information on tactics and windows of application.

## APPLICATION METHODS

Apply this product as directed to any food or non-food crop up to and including the day of harvest, at a maximum rate of 1.33 fl. oz. per 1,000 sq. ft. per application.

Dilute this product with water at a rate of 0.5 - 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.

## FOLIAR APPLICATION

| USE | SPRAY CONCENTRATION% | Amounts Fluid Ounces (Tbs.) Per Quart | Amounts Fluid Ounces (Tbs.) Per Gallon |
|---|---|---|---|
| Including trees, shrubs, flowers, conifers, evergreens, herbaceous ornamentals, foliage plants, container-grown ornamentals & garden plants, Hemp, and groundcovers | Lower rate ranges of 0.25 - 0. 5% vol/vol: | 0.08 - 0.25 fl. oz. (1/6 – 1/2 Tbs.) | 0.32 - 1.0 fl. oz. (2/3 - 2.0 Tbs.) |
| | Medium rate ranges of 0. 5 - 1.25% Vol/vol: | 0.25 - 0.40 fl. oz. (1I2 - 5I6 Tbs.) | 1.0 - 1.6 fl. oz. (2.0 Tbs. - 1 2/3 Tbs.) |
| | Upper rate ranges of 1.25 - 1.0% vol/vol: | 0.40 - 0.50 fl. oz. (5/6 - 1.0 Tbs.) | 1.6 - 2.0 fl. oz. (1 2/3 - 4 Tbs.) |

## DRENCH APPLICATION

Use this product 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 this product**.** Target the initial application of a soil drench treatment to coincide with the early stages of young larvae and young nymphs.

Dilute this product with water for concentrations of 0.4 to 0.8% volume/volume. See use rate table below. Add the required amount of this product to a clean bucket with at least one-half of the water to be drenched. Agitate the mixture thoroughly and then fill with the remaining water and continue agitation until the product is thoroughly dispersed.

Drench the soil in the pot with one (1) pint of finished product dilution per 1.0 gallon of soil. For fungus gnats, use the 0.4% spray concentration. For mushroom fly maggot control, use the 0.6% volume/volume spray concentration. For leafminers and other difficult to control pests, use the 0.8% volume/volume spray concentration. Make two to three (2–3) applications at 10-14 day intervals until pest pressure has ended. With high insect pressure make applications every 5 to 6 days. Additional applications of this product may be required with increased and prolonged pest infestation.

### DILUTION TABLE FOR DRENCH APPLICATIONS

| Gallons of Water | Amount | | | Application Interval |
|---|---|---|---|---|
| | 0.4% | 0.6% | 0.8% | |
| 1 gallon | 1 Tbs. | 1.5 Tbs. | 2.0 Tbs. | 10 - 14 days |
| 1 gallon | 0.5 fl. oz. | 0.8 fl. oz. | 1.0 fl. oz. | 10 - 14 days |
| 5 gallons | 2.5 fl. oz. | 4.0 fl. oz. | 5.0 fl. oz. | 10 - 14 days |
| 10 gallons | 5.0 fl. oz. | 8.0 fl. oz. | 10.0 fl. oz. | 10 - 14 days |

## RECIRCULATORY, AEROPONIC, AND HYDROPONIC APPLICATION

Use this product in recirculatory, aeroponic, or hydroponic systems for the control of foliar pests, soil borne insect larvae, including soil borne larvae of foliar pests such as fungus gnats, nematodes or soil borne thrips for interiorscapes, hydroponic, aeroponic and container plants.

Dilute this product with water for concentrations of 0.1% to 0.8% volume/volume in a recirculatory or in a hydroponic liquid system. See use rate table below. Agitate the mixture thoroughly until the product is thoroughly dispersed.

For fungus gnats, use the 0.6% volume/volume concentration. For mushroom fly maggot control, use the 0.6% volume/volume concentration. For leafminers and other difficult to control pests, use the 0.8% volume/volume concentration. Make two to three (2-3) applications at 10-14 day intervals until the pest pressure has ended. With high insect pressure applications make applications every 5 to days. Additional applications of this product may be required with increased and prolonged pest infestation.

### DILUTION TABLE FOR RECIRCULATORY, AEROPONIC, AND HYDROPONIC APPLICATIONS

| Gallons of Water | Amount | | | | | Application Interval |
|---|---|---|---|---|---|---|
| | 0.1% | 0.2% | 0.4% | 0.6% | 0.8% | |
| 1 gallon | ¼ Tbs. | ½ Tbs. | 1 Tbs. | 1.5 Tbs. | 2.0 Tbs. | 7 - 14 days |
| 1 gallon | 0.14 fl. oz. | 0.25 fl. oz. | 0.5 fl. oz. | 0.8 fl. oz. | 1.0 fl. oz. | 7 - 14 days |
| 5 gallons | 0. fl. oz. | 1.3 fl. oz. | 2.5 fl. oz. | 4.0 fl. oz. | 5.0 fl. oz. | 7 - 14 days |
| 10 gallons | 1.4 fl. oz. | 2.6 fl. oz. | 5.0 fl. oz. | 8.0 fl. oz. | 10.0 fl. oz. | 7 - 14 days |

Preventive applications as a recirculatory system application may be warranted for certain pests.

**T**his product can also be applied through sub-surface treatment equipment. Always follow manufacturer's use directions.

## FOLIAR APPLICATION – SPECIFIC PESTS OF VEGETABLES, HERBS AND SPICES, BERRIES AND FRUIT

| 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 |
| *Leafy Vegetables including but not limited to:* **Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Endive, Kale, Lettuce, Spinach** | Leafrollers, Cutworms, Loopers, Armyworms | 0.19 - 0.96 fl. oz. | ¾ Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Beetles, Weevils, Flies, Thrips, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Root Vegetables, including but not limited to:* **Beet, Carrot, Horseradish, Parsnip, Potato, Radish, Sweet potato, Turnip, Yams** | Beetles, Weevils | 0.11 – 0.25 fl. oz. | ½ Tbs. - 1 ½ Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Thrips, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |

| 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 |
| *Fruiting Vegetables including but not limited to:* **Eggplant, Pepper, Tomatillo, Tomato** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Cucurbit Vegetables including but not limited to:* **Cucumber, Gourd (edible), Muskmelon, Pumpkin, Squash, Watermelon, including Cantaloupe, Casaba, Gherkins, Melons (including hybrids), Zucchini** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Legume Vegetables including but not limited to:* **Bean, Chickpea, Lentil, Pea** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Bulb Vegetables including but not limited to:* **Garlic, Onion, Shallot** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Berries including but not limited to:* **Blackberry, Blueberry, Raspberry, Strawberry, others include: Boysenberry, Currants, Dewberry, Elderberry, Gooseberry, Loganberry** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Herbs and Spices including but not limited to:* **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** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |

| 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 |
| *Nut Trees including but not limited to:* **Almond, Brazil nut, Filbert, Hickory nut, Pecan, Pistachios, Walnut** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Pome Fruits including but not limited to:* **Apple, Quince, or** Pear *(Comice varieties: DO NOT apply more than 24 fl oz/A. DO NOT apply after pink stage of flowering; test small areas of other varieties of pears for plant safety prior to full scale usage.)* | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Stone Fruits including but not limited to:* **Apricot, Cherry, Nectarine, Peach, Plum** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz. | 1 Tbs. - 4 Tbs./gal |
| *Citrus Fruits including but not limited to:* **Grapefruit, Lemon, Lime, Orange others include: Citrus Citron, Mandarin (tangerine), Nectarine, Satsuma (orange mandarin), Tangerine** | Beetles, Weevils | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | Thrips | 0.29 - 0.96 fl. oz. | 2 Tbs. - 4 Tbs./gal |
| | True Bugs, Leafhoppers, Whiteflies, Aphids, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Mites | 0.24 - 0.96 fl. oz | 1 Tbs. - 4 Tbs./gal |

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a dry, cool, well ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

## NOTICE ON CONDITIONS OF SALE

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Plant injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Neemtree. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**[Optional Label Claims (may appear throughout the label):]**

- Controls mites, caterpillars, whiteflies, thrips, aphids, and other insects as listed on this label.
- Controls chewing and sucking insects
- Low-odor formulation
- Broad-spectrum control
- Can be applied the day of harvest
- For use on a wide variety of trees, shrubs, flowers, fruit and nut trees, vegetables
- Low (Mild) odor
- Spray and Drench
- For use with recirculatory, aeroponic, and hydroponic systems
- Contains azadirachtin from Neemtree
- Tough Pests. Easy Solution.
- Controls chewing and sucking insects
- Broad spectrum insect and mite control
- Can be applied up to and on the day of harvest for all food & nonfood use plants
- Rose Spray
- For use on Roses and Flowers
- Controls Japanese Beetle on Roses
- Complete Insect and Mite Control for Flowers
- Three applications in 30 days provides complete plant protection
- Quadruple action insect control – Antifeedant, Insect Growth Regulator, Anti-ovipository, Repellant
- Single product; multiple action
- A proven botanical pesticide
- Works effectively against a broad spectrum of pests on a standalone basis on a variety of vegetable crops
- Controls insect pest during various stages of growth
- The Benefits to your insect control program are multiple
- Controls Insects Systemically
- Taken up through the roots, controls insects on the leaves
- Insects stop feeding when they feed on treated plants
- For foliar and systemic insect control
- For Use on Flowers, and Ornamentals
- For Use on Crops, Vegetables, Herbs, Spices, Fruits, and Berries
- Three in one product – Insecticide, Miticide, and Nematicide
- Brought to you Exclusively by General Hydroponics – Bringing Nature and Technology Together (logo)
- Organic Materials Review Institute (OMRI) Listed
- For Organic Gardening

## {LANGUAGE ON LABEL PERMANENTLY AFFIXED TO CONTAINER WHEN BOOKLET IS USED}

# AzaPRO

## [Alternate Brand Names: AzaPRO Botanical, DrActin Botanical, NeemOrix Botanical, NeemEssensence Botanical]

**AZADIRACHTIN-BASED BOTANICAL PESTICIDE**
**INSECTICIDE / NEMATICIDE / MITICIDE**

**[ FOR ORGANIC PRODUCTION/GARDENING]**

| **Active Ingredient:** | **By Wt.** |
|---|---|
| Azadirachtin | 1.2% |
| **Other Ingredients:** | 98.8% |
| **Total:** | **100.0%** |

Contains 0.0975 lb. (44.2 g) azadirachtin per gallon.

## KEEP OUT OF REACH OF CHILDREN

# CAUTION

| **FIRST AID** | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| **HOTLINE NUMBER** | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information about this product call the **NATIONAL PESTICIDE INFORMATION CENTER (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.** For **MEDICAL EMERGENCY**, call the **POISON CONTROL CENTER AT 1-800-222-1222.** | |

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if absorbed through skin or swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container in a dry, cool, well ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container ¼ full with water and recap. Shake 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances.

See inside label booklet for additional Precautionary Statements and Directions for Use.

#### NOTICE ON CONDITIONS OF SALE

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Plant injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Neemtree. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer

**EPA Reg. No. 94616-3** **EPA Est. No.:**

**Manufactured for:**
Neemtree
19363 Willamette Dr. # 324,
West Linn, OR 97068

Net Contents: _____ [fl. oz.]/[qt]/[gal] (_____ [mL]/[L]

[EPA Date]