U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7511M)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
74578-13	8/19/2025

Term of Issuance:
Unconditional

Name of Pesticide Product:
Eco-1 Aza™

Name and Address of Registrant (include ZIP Code):

Arborjet, Inc.
99 Blueberry Hill Road
Woburn, MA 01801

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency. In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:

James Parker, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution Prevention Division (7511M)
Office of Pesticide Programs

Date:
8/19/2025

2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to EPA.[1]

3. Make the following labeling change before you release this product for shipment:

    - Revise EPA Registration Number to read, "EPA Reg. No. 74578-13."

4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

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 FIFRA and is subject to review by 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 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 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 EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 03/01/2024

If you have any questions, please contact Menyon Adams via email at adams.menyon@epa.gov.

Sincerely,

James Parker, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

Enclosure

[1] The cited data (Azadirachtin Summary Document – Registration Review) is not adequate to satisfy these end-use product data requirements. Studies must be performed on the end-use product.

Eco-1 Aza™

[**Alternate Brand Names**: Eco-1 Aza Botanical Insecticide, Eco-1 Aza Insecticide, Eco-1 Aza Liquid, Eco-1 Aza 6.0, Eco-1 Aza IGR, Aza-jet, Aza-jet 6.0, Aza-jet IGR, Aza-jet Liquid]

[Optional Marketing Claims. Location Optional]:

- 4-hour re-entry interval
- 4-hour REI
- Active ingredient botanically-derived from neem
- Anti-feedant
- Anti-molting
- Arboriculture in motion®
- Botanical insecticide
- Botanical insecticide, repellent, anti-feedant, and insect growth regulator
- Can be applied through chemigation
- Compatible with biological-based integrated pest management programs
- Diverse insect pest control, including Thrips, Aphids, White Flies, Scales, Leaf Miners, Emerald Ash Borer, Mites, and Caterpillars.
- Effective against a broad spectrum of insects
- Effective against a broad spectrum of pests, including soil dwelling, piercing, sucking, and chewing insects
- Effective against soil-dwelling pests.
- Effective in tank mixes
- Insect growth regulator
- Low residual
- May be applied as a pre-harvest treatment up to, and including day of harvest
- Micro-injectable and Micro-infusible insecticide®
- Next generation neem®
- No PHI
- No pre-harvest interval
- No surfactants or adjuvants required
- Non-oil-based formulation
- Preventative application that supports integrated pest management programs
- Preventative insect control at larval, pupae, and nymph stages
- Reduced risk to beneficial insects
    - Reduces risk of burning
    - Reduces risk of phytotoxicity
- Repellent
- Short re-entry interval
- Short REI
- Soluble in water
- Systemic and translaminar activity
- Systemic insecticide for micro-injection or micro-infusion®
- Systemic movement

- Systemic, micro-injectable insecticide for use with Arborjet injection systems in the management of Emerald Ash Borer, European Elm Scale, Spongy Moth, Spruce Budworm, Jack Pine Budworm, Tent Caterpillars, Leaf miners, Sawflies, Whiteflies, Aphids, Scales, Psyllids, Mealybugs, Hemlock Wooly Adelgid
- Use as spray, drench, fog, or tree injection
- Use as spray, drench, fog, tree injection, or chemigation
- Use in tank mixes with other commonly used insecticides or fungicides
- Use on containerized and house plants
- Use with Arborjet tree injection systems
- Water-based botanical insecticide
- Water-based formulation
- Wide range of use sites, including but not limited to: ornamentals, fruits, vegetables, turf, food crops, and controlled environment agriculture.

[BOTANICAL BASED INSECTICIDE / NEMATICIDE]

Sublabel A: For Agricultural and Commercial Use
Sublabel B: For Residential Use

Active Ingredient:
Azadirachtin 6%
Other Ingredients: 94%
Total: 100%
[This product contains 0.52 pounds of azadirachtin per U.S. gallon.]

EPA Registration No. 74578-XXX

EPA Establishment No. 74578-MA-001

Batch Code ___

[Sold by]

Arborjet, Inc.
99 Blueberry Hill Road
Woburn, MA 01801
[(978) 935-9070]

Net Contents: [8 fl. oz.], [16 fl. oz.], [32 fl. oz.], [1 liter], [1 gallon], [2.5 gallons], [5 gallons] [30 gallons]

SHAKE WELL BEFORE USING

[Sublabel A: For Agricultural and Commercial Use]

Eco-1 Aza™

[**Alternate Brand Names**: Eco-1 Aza Botanical Insecticide, Eco-1 Aza Insecticide, Eco-1 Aza Liquid, Eco-1 Aza 6.0, Eco-1 Aza IGR, Aza-jet, Aza-jet 6.0, Aza-jet IGR, Aza-jet Liquid]

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Active Ingredient:
Azadirachtin 6%
Other Ingredients: 94%
Total: 100%
[This product contains 0.52 pounds of azadirachtin per U.S. gallon.]

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. For medical emergencies, call the poison control center at 1-800-222-1222.	
If swallowed	▪ Call a poison control center or doctor immediately for treatment advice. ▪ Have person sip a glass of water if able to swallow. ▪ Do not induce vomiting unless told to do so by a Poison Control Center or doctor. ▪ Do not give anything by mouth to an unconscious person.
If on skin or clothing	▪ Take off contaminated clothing. ▪ Rinse skin immediately with plenty of water for 15-20 minutes. ▪ Call a poison control center or doctor for further treatment advice.

[First aid may also be in paragraph form]

[See [Side] [Back] [Panel] [Insert] [Booklet] For [Additional] [Complete] Precautionary [Statements] [Language] [and] [First Aid] [and] [Directions for Use]]

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SHAKE WELL BEFORE USING

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or if absorbed through skin. 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 contaminated clothing and wash before use.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and handlers must wear:

Long-sleeved shirt and long pants
Waterproof gloves
Shoes and 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

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets 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 disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff from treated area may be hazardous to aquatic organisms in neighboring areas.

DIRECTIONS FOR USE

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

Do not apply this product through any irrigation system unless the chemigation instructions on this label are followed. 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 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment 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:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Socks and shoes

[For Field Sprays: Keep unprotected persons out of treated areas until sprays have dried.]

NON-AGRICULTURAL USE REQUIREMENTS

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

PRODUCT DESCRIPTION

Eco-1 Aza is an emulsifiable concentrate containing 6% azadirachtin by weight. It has been evaluated on a wide variety of ornamental, forestry, and food crops. Eco-1 Aza is an insect growth regulator and does not control adult insects.

MODE OF ACTION

Eco-1 Aza controls insects in the larval, pupal, and nymphal stages by interfering with the synthesis of ecdysone. Insects typically die between larval to larval, larval to pupal, nymph to nymph molts, or during adult eclosion.

COMPATIBILITY

Eco-1 Aza is compatible with the most commonly used insecticides, fungicides and fertilizers but has not been evaluated with all potential combinations. Do not combine Eco-1 Aza in the spray tank with insecticides, fungicides and fertilizers if there is no previous experience or use of the combination to show it is physically compatible, effective and non-injurious under normal use conditions.

Check the physical compatibility of Eco-1 Aza before tank mixing with other product(s) or liquid fertilizers by using the correct proportion of the products in small test containers. Take three one-quart jars. Add 1 pint of water into each jar. To the first jar, add Eco-1 Aza equivalent to highest label rate and mix. To the second jar, add tank mix product(s) equivalent to highest label rate and mix. To the third jar, add Eco-1 Aza plus tank mix product(s) equivalent to highest label rate and mix. Let the jars stand for 5 minutes and note any differences between the jars. In the jar that has Eco-1 Aza and tank mix product(s), check for any precipitation, separation, layering, extreme color change, bubbling, heating or other signs of incompatibility. Do not use the mixture if there are signs of incompatibility. If no incompatibility appears in the first 5 mins, let the jars sit for another 25 minutes. If the combination stays mixed or can be remixed, it is physically compatible, and can be sprayed with good agitation. If the tank mix combination is physically compatible, test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use Eco-1 Aza with Bordeaux mixture (a mixture of copper sulfate, lime and water), triphenyltin hydroxide, lime sulfur, Rayplex iron or other highly alkaline materials. Use mildly

alkaline mixtures immediately after mixing to prevent loss of insecticidal activity. Do not add additional surfactants to Eco-1 Aza solutions or tank mixes containing Eco-1 Aza.

When using Eco-1 Aza in combination with other products, consider using Eco-1 Aza at the low end of recommended rate range specified in the Use Rate Recommendation tables. Follow the directions for use, precautions, and limitations for use on all of the product labels used in the combination.

Always follow the manufacturer's Directions for Use and Precautionary Statements.

USE SITES

GREENHOUSE, MUSHROOM HOUSE, HYDROPONIC, AND FIELD GROWN FOOD CROPS: Refer to label for complete list.

GREENHOUSE AND FIELD GROWN ORNAMENTAL PLANTS, TREES, AND SHRUBS: Refer to label for complete list.

NON-FOOD USES: Such as athletic fields, barrier strips, campsites, cemeteries, farmyards, fence rows, fuel storage areas, grasslands, pastures, rights-of-way, sheds, soil banks, uncultivated or fallow farmland, vegetative barriers and fences, and areas surrounding agricultural farms or other buildings.

COMPOST AND MANURE TREATMENT: Manure or refuse piles, mulches, cull piles, pretreatment for potting soils or compost for greenhouses, soil application with no mention of crops to be grown (potting soil, top soil).

COMMERCIAL AND INDUSTRIAL AREAS: Food and feed processing plants (fresh fruit and vegetable packing and processing), food marketing, food storage, food distribution, feedlot operations, dairy operations and poultry farms to treat manure on and off-site.

LAWNS, TURF AND TURFGRASS (including golf courses and athletic fields): Bentgrass, Bermuda grass, Bluegrass, Centipede grass, Fescue, Rye grass, St. Augustine grass, Wheatgrass, Zoysia grass.

POULTRY LITTER AND LIVESTOCK BEDDING: For control of litter beetles (such as Darkling, Hide and Carrion Beetles), fowl mites, red poultry mites, and nematodes in poultry houses and livestock facilities.

APPLICATION INSTRUCTIONS

READ ALL DIRECTIONS AND PRECAUTIONS BEFORE USE

Eco-1 Aza is exempt from tolerances and may be applied as directed to any food or non-food crop up to and including the day of harvest at a rate not exceeding 11.25 fl. oz. (20 grams active ingredient) per acre per application.

To apply Eco-1 Aza, select a suitable power or pump pressure sprayer or a hand-held trigger type sprayer that will deliver a fine spray mist to cover all leaf and fruit surfaces. To get complete spray coverage on waxy or pubescent plant surfaces, the addition of small amount of a suitable sticker agent added to the spray mix at the recommended rates may give better foliage coverage, and insect control.

MIXING: **Always shake well before mixing**. Always use this product promptly after mixing with water. Eco-1 Aza will break down in the spray solution if not used within 8 hours. Never allow tank mix to stand overnight. Eco-1 Aza will break down in spray tank mixtures that have pH values exceeding 7.0. The recommended pH range is between 5.5 and 6.5. For optimum performance, a buffering agent may be used. When mixing with other approved agrichemicals, always ensure proper agitation in the spray tank to ensure uniform application.

Using the use tables below, determine the amount of Eco-1 Aza required for the number of acres to be treated. To mix, add at least one half the water to be sprayed to a clean spray tank. Begin agitation and add the determined amount of Eco-1 Aza. Add the remaining water and continue agitation.

Eco-1 Aza disperses freely when added to water. Always use clean equipment. For uniform distribution on plant canopy and proper dilution, always ensure proper agitation in mixing tanks or vessels. When mixing with other agrichemicals, add solid constituents (such as wettable powders, water dispersible granules or micronutrients) last in the form of a slurry.

APPLICATION METHODS AND EQUIPMENT

Eco-1 Aza can be applied as a foliar spray or a drench to soil or soil-less media (e.g., greenhouses and mushroom houses) to control insects and nematodes. When needed, soil drenches can also be used to control soil-borne pests, including soilborne larvae of foliar insect pests. When applying as a drench, avoid excessive leaching. Eco-1 Aza may be applied through sub-surface soil treatment equipment (e.g., turf grass). Eco-1 Aza can also be injected into mature trees (landscaping, forestry, residential, etc.) using appropriate tree injection equipment. To repel adult flies, apply through cold fogging equipment. Always follow equipment manufacturers use directions.

Eco-1 Aza 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 recommendations when using these types of equipment.

FOR OUTDOOR AND FIELD APPLICATIONS USING CONVENTIONAL GROUND AND AERIAL SPRAY EQUIPMENT:

Apply Eco-1 Aza in a sufficient volume of water to ensure adequate coverage of plant surfaces. Typically, 30 - 200 gallons per acre for ground applications, depending on crop type, canopy and/or crop growth stage. Refer to tables below to determine appropriate use rates for sites and pests. Use lower end of rate range when infestations are low to moderate. Use higher rates for heavy infestations. For extremely heavy infestation or when plant canopy is dense, Eco-1 Aza may be applied at up to 11.25 fl. oz. per acre.

For aerial applications or low volume sprays applied in 30 gallons of water or less per acre, do not exceed an Eco-1 Aza solution concentration of 0.625% v/v (1:160).

FOR GREENHOUSE AND INDOOR APPLICATIONS USING CONVENTIONAL SPRAY EQUIPMENT:

Apply product in a sufficient volume of water to ensure adequate coverage of plant surfaces. Typically, 16-45 gallons per 10,000 sq. ft. depending on crop type, canopy and/or crop growth stage. Refer to tables below to determine appropriate use rates of Eco-1 Aza for sites and pests. Use lower end of rate range when infestations are low to moderate and higher rates for heavy infestations. For extremely heavy infestation, or when the plant canopy is dense, Eco-1 Aza may

be applied at up to 2.5 fl. oz. per 10,000 sq. ft. It is generally recommended to prepare spray solution with a product concentration of 0.125% v/v – 0.25% v/v (1:800 -1:400). Do not exceed a 0.25% v/v (1:400 dilution rate) on sensitive plants.

Groups of potted plants may be sprayed at a rate of one gallon of finished spray solution per 500 sq. ft.

[**Hose End Sprayer**: Follow use directions on manufacturers hose end sprayer. Fill reservoir with Eco-1 Aza. Set sprayer to deliver a rate of 0.08 to 0.10 fl. oz. per gallon or a 1:1280 – 1:1600 dilution. Spray this solution on the desired treatment surface.]

[**32 oz. Spray Bottle:** For smaller applications, Eco-1 Aza may be diluted into a 32 fluid ounce hand held spray bottle. Follow all label directions for use.

1. Remove cap on side of bottle and fill with hot tap water to the fill line. (Note fill line on bottle).
2. Peel up the resealable label containing ampoules on front of container. Remove one ampoule. Squeeze all contents of ampoule into container. Close cap and shake vigorously. Discard empty ampoule.
3. Spray Eco-1 Aza solution onto plants. Thoroughly wet all surfaces of the plant.

Note: Use entire container contents at the time of application. Do not store diluted product.]

For optimum results, 2 to 3 applications made at 7-to-10-day intervals is recommended, unless otherwise specified. Treat early for best control. Foliar applications should be made to both sides of leaves. In addition, a surfactant used as per the manufacturer's recommendations may improve product performance. The addition of a non – phytotoxic crop oil at rates not exceeding 1.0% (volume / volume) generally enhances insect control.

NOTE: This product has been evaluated for phytotoxicity on a wide range of plants. However, since all combinations or sequences of pesticide sprays including fertilizers, surfactants and adjuvants have not been tested, spray a small area first to make certain no phytotoxicity occurs. Additionally, when applying Eco-1 Aza on sensitive crops, such as leafy vegetables, it is recommended to first test rates as a ground spray on a small portion of the crops to be treated to ensure a phytotoxic response will not occur before spraying the entire crop. Avoid any spray drift on non-target crops or sites by following appropriate spray drift control measures.

USE SITES

Eco-1 Aza is intended for use on indoor, outdoor plants, and food crops such as mushroom houses, plants grown indoors or in greenhouses, controlled environment agriculture, shade cloth, interiorscapes, and nurseries.

Greenhouse food crops: Brassica (Cole) Crops, Cucurbits, Eggplants, Herbs and Spices, Hops, Legumes, Peppers, Tobacco, Tomatoes, and other miscellaneous crops grown in greenhouses.

Root and tuber vegetables: Arracacha, Artichokes, Beets, Carrots, Canna, Cassava, Chicory, Chufa, Dasheen, Ginger, Horseradish, Leren, Jicama, Potatoes, Radishes, Rutabagas, Salsify, Skirret, Sweet Potatoes, Tanier, Turmeric, Turnips, Yam Bean, Yams.

Mushrooms: Agaricus, Enoki, Maitake, Oyster, Shitake, and other specialty mushrooms.

Leafy vegetables (including Brassica Leafy Vegetables): Amaranth, Arugula, Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Cauliflower, Cardoon, Cavalo Broccoli, Celery, Celtuce, Chervil, Chinese Cabbage (Bok Choy, Napa), Collards, Corn Salad, Cress, Endives, Fennel, Frisee, Kale, Kohlrabi, Lettuce, Mizuna, Mustard Greens, Parsley, Purslane, Rape Greens, Radicchio, Rhubarb, Spinach, Swiss Chard, Turnip Greens

Legume vegetables: Beans (Field, Kidney Etc.), Chickpeas, Cowpeas, Guar, Jackbeans, Lablab Beans, Lentils, Peas, Pigeon Peas, Soybeans, Sword Beans.

Fruiting vegetables: Eggplants, Ground Cherries, Pepinos, Peppers, Pimentos, Tomatillos, Tomatoes.

Cucurbit vegetables: Bitter Melons, Chayotes, Chinese Wax Gourds, Citron Melons, Cucumbers, Gherkins, Gourds, Muskmelons (Cantaloupes, Casabas Crenshaw), Pumpkins, Squash, and Watermelons.

Citrus fruits: Calamondins, Citrus Citrons, Citrus Hybrids, Grapefruits, Kumquats, Lemons, Limes, Mandarins, Oranges, Pummellos, Satsuma Mandarins, White Sapote

Pome fruits: Apples, Crabapples, Loquats, Mayhaws, Oriental Pears, Pears, Quinces.

Stone fruits: Apricots, Cherries, Nectarines, Peaches, Plums, Prunes.

Berries: Blackberries And Caneberries, Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Loganberries, Raspberries, Strawberries, Youngberries.

Cereal grains: Barley, Buckwheat, Corn, Millet, Oats, Popcorn, Rice, Rye, Sorghum, Teosintes, Triticale Hybrids, Wheat, Wild Rice.

Forage Crops: Alfalfa, Clover, Trefoil, Vetch

Herbs and spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Black And White Peppers, Borage, Burnet, Chamomile, Caper Buds, Cardamom, Caraway, Cassia, Catnip, Celery Seeds, Chervil, Chives, Cinnamon, Clary, Cloves, Coriander (Cilantro), Costmary, Cilantro, Cumin, Curry Leaf, Dills, Fennels, Fenugreek, Grains Of Paradise, Horehound, Hyssop, Juniper Berry, Lavender, Lemongrass, Lovage, Mace, Marigolds, Marjoram, Mustard Seeds, Nasturtium, Nutmeg, Parsley, Pennyroyal, Poppy Seeds, Rosemary, Rue, Saffron, Sage, Savory, Sweet Bay (Bay Leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood and other miscellaneous herbs.

Bulb vegetables: Garlic, Leeks, Onions, Shallots.

Nuts: Almonds, Beechnuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Chinquapin, Filberts, Hickory Nuts, Lychee Nuts, Macadamias, Pecans, Pistachios, Walnuts.

Oilseed crops: Canola, Castor, Cotton Seed, Crambe, Guar, Jojoba, Peanut, Rape, Safflower, Sesame, Soybean, Sunflower.

Tropical fruits: Atemoya, Banana, Breadfruit, Canistel, Cherimoya, Durian, Guava, Lychee, Longan, Malanga, Mango, Papaya, Passionfruit, Spanish Lime, Starfruit, Sugar Apple

Miscellaneous food and non-food crops: Asparagus, Avocado, Birdseed, Cacao, Coffee, Cotton, Cranberry, Edible Flowers, Feijoa, Figs, Ginseng, Globe Artichokes, Grapes, Guayule, Hops, Kiwi, Okra, Olives, Palms, Papaya, Pawpaw, Persimmon, Pineapple, Pomegranate, Rambutan, Sugarcane, Tamarillo, Tea, Tobacco, Water Chestnut, Watercress, and all other food crops.

Bedding Plants, Flowers, Ornamental Plants, Potted Plants and Foliage: Actinopteris, African Violets, Ageratum, Aglaonema, Allamanda, Algerian Ivy, Alocasia, Anthurium, Aphelandra, Artemisia, Aster, Aucuba Azalea, Baby's Breath, Begonia, Bougainvillea, Boston Fern, Boxwood, Brachycome, Cacti, Calabrese, Caladium, Calla, Calathea, Calendula, Carnation, Chrysanthemum, Cineraria, Coleus, Columbine, Cotoneaster, Cyclamen, Daffodil, Dahlia, Daisy, Daylily, Delphinium, Dianthus, Dieffenbachia, Dusty Miller, Easter Lily, English Ivy, Euphorbia, Fern, Ficus, Foxglove, Freesia, Fuchsia, Gaillardia, Gardenia, Geranium, Gerbera, Gladioli, Gloxinia Gypsophilla, Hedera ,Hibiscus, Hyacinth, Hydrangea, Impatiens, Iris, Ivy, Lily, Maidenhair Fern, Mandevilla, Marigold, Narcissus, Nasturtium, Orchid, Pansy, Pelargonium, Peony, Peperomia, Petunia, Philodendron, Phlox, Photinia, Pittosporum, Pinks, Poinsettia, Pothos, Portulaca, Pyracantha, Rosemary, Rose, Rubberplant, Salvia, Schefflera, Sedum, Sempervivum, Snapdragon, Spathiphyllum, Stock, Syngonium, Tulip, Verbena, Vinca, Wandering Jew, Yew, Yucca, Zinnia.

Ornamental Trees And Shrubs: Andromeda, Arborvitae, Ash, Austrian Pine, Azalea, Beech, Birch, Birds Nest Spruce, Blue Spruce, Bougainvillea, Boxwood, Butternut, Camellia, Cedar, Chamaecyparis, Cherry, Crabapple, Cyprus, Dogwood, Douglas Fir, Elm, Euonymus, Firethorn, Forsythia, Hackberry, Hawthorn, Hemlock, Hickory, Holly, Honey Locust, Horse Chestnut, Ilex, Juniper, Larch Laurel, Lilac, Linden, London Plane, Magnolia, Maple, Mimosa, Mountain Ash, Myrtle, Oak, Pachysandra, Peach Pine, Photinia, Plane Tree, Pines, Poplar, Privet, Quince, Rhododendron, Roses, Spruce, Sycamore, White Cedar, White Pine.

Turf And Turfgrass: Bentgrass, Bermuda Grass, Bluegrass, Centipede Grass, Fescue, Ryegrass St. Augustine, Wheatgrass, Zoysia Grass.

Other Crops: Hemp

USE RATES FOR LISTED PESTS

Eco-1 Aza is intended for use on outdoor plants and food crops, mushroom houses, plants grown indoors or in greenhouses, shade cloth, interiorscapes and nurseries. It can be used to control any of the insects and nematodes listed below.

Use the tables below to determine the appropriate use rate for your site / pest combination. Rates provided are in ounces of Eco-1 Aza per area or row-length.

NOTE: When infestation is heavy, or when plant canopy is dense, Eco-1 Aza may be used up to but not exceeding 11.25 fl. oz. per acre. When combining with other insecticides, use at the low end of recommended rate of Eco-1 Aza.

USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	**RATE Ounces of Eco-1 Aza/ Acre**	**REMARKS**
WHITEFLIES: Greenhouse whiteflies, Silverleaf whiteflies, Woolly whiteflies	4-10 fl. oz.	Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves.
LEAFMINERS: Azalea, leafminers, Birch Leafminers, Citrus leafminers, Serpentine leafminers, Vegetable leafminers	5-8 fl. oz.	Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves
SCALES: Brown soft scales, California red scales, Coffee scales, Olive scales, San Jose scales	5-8 fl. oz.	Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
MEALY BUGS: Citrus mealybugs	5-8 fl. oz.	Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
GRASSHOPPERS and LOCUSTS	5-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7-10 days. Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops. Repeat application every 5 to 7 days.
MITES: Banks mite, Clover mite, Citrus Rust mite, Citrus Red mite, European Red Mite, Hemlock Rust mite, Honey Locust mite, Pacific mite, Spruce mite, Two spotted Spider mite	5-8 fl. oz.	Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
THRIPS: Citrus thrips, Onion thrips, Thrips palmi,	5-8 fl. oz.	Spray when pests first appear. Repeat every 5 to 7 days.
APHIDS: Cotton aphids, Green peach aphids, Pea aphids, Potato aphids	5-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7-10 days. Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops: Repeat application every 5 to 7 days.
PSYLLIDS: Pear psylla	4-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7-10 days. Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops. Repeat application every 5 to 7 days.
LEAFHOPPERS: Grape leafhoppers, Potato Leafhopper, Variegated Leafhopper	5-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7-10 days. Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops: Repeat application every 5-7 days.
BUGS: Boxelder bugs, Chinch bugs, Lygus bugs Spittle bugs, Stink bugs.	5-8 fl. oz.	Spray nymphs early.

CHAFERS: European Chafer, Northern Masked Chafer, Rose Chafer	5-8 fl. oz.	Spray when pests first appear. Repeat application every 5-7 days.
FLIES: Blueberry maggots, Cherry maggots, Crane flies, Fruit flies, Midges, Onion maggots, Walnut husk flies, Fungus Gnat, Hessian Fly, Marsh Crane Fly, Melon Fly, Midges, Shore Fly	5-8 fl. oz.	For food crops: Spray when pests first appear. For non-food crops: Drench soil to kill larvae.
SAWFLIES: European pine sawflies, Yellow headed pine sawflies	5-8 fl. oz.	Treat larvae early
CATERPILLARS and MOTHS: Armyworms, Beet Armyworm, Fall Armyworm, Lawn Armyworm, Southern Armyworm, Yellowstriped Armyworm, Artichoke plume moths, Bagworms, Black Cutworm, Bollworms, Budworms, Cabbage butterflies, Cabbage Loopers, Cankerworms, Caseworms, Citrus Cutworm, Corn earworms, Cutworms, Diamond-backed moths, European Pine Shoot Moth, Fall Cankerworm, Fruitworms, Grapeleaf skeletonizers, Gypsy moths, Hickory shuckworms, Hornworms, Imported cabbage worms, Leaf perforators, Leafrollers, Melonworms, Navel Orange worms, Oblique banded leafrollers, Omnivorous leafrollers. Oriental fruit moths, Pickle worms, Pine tip moths, Pinworms, redbanded leaf rollers, Sod webworms, Soybean loopers, Spring Cankerworm, Tent caterpillars, Tobacco budworms, Tobacco Hornworm, Tomato Fruitworm Tomato Pinworm, Tussock moths.	4-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7- 10 days. Use in combination with 0.25 – 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops: Repeat application every 5 to 7 days.
BEETLES and GRUBS: Bark Beetles, Blueberry flea beetles, Boll weevils, Colorado potato beetles, Flea beetles, Japanese beetles, Leaf beetles, Mexican bean beetles, Pepper weevils, Phylloxera, Rose Chafers, Twig girdlers, Elm Leaf Beetle, Cucumber Beetle, June Beetle.	4-8 fl. oz.	Spray when pests first appear. For food crops: Repeat application after 7-10 days. Use in combination with 0.25 – 1.0% non- phytotoxic crop oil in sufficient water to cover undersides of leaves. For non-food crops. Repeat application every 5 to 7 days.
WEEVILS: Black vine weevils, Strawberry vine weevils	5-8 fl. oz.	Make foliar applications to deter adult feeding. Make at least 3 to 4 applications 10 days apart.
BORERS: Peach twig borers, Peachtree borers, Dogwood borers, Cranberry borers.	5-8 fl. oz.	Spray soon after egg hatch. For food crops: Use in combination with 0.25% - 1.0% nonphytotoxic crop oil in sufficient water to cover undersides of leaves.
MOLE CRICKETS	5-8 fl. oz.	Spray nymphs soon after egg hatch.
NEMATODES: Burrowing nematodes, Dagger nematodes, Golden nematodes, Root knot nematodes	8 fl. oz.	Apply in sufficient amount of water to penetrate in the soil to a depth of 12 inches. Repeat applications every 3 or 4 weeks or as needed.

USE RATES FOR MUSHROOMS

PEST	RATE Ounces of Eco-1 Aza/ 1,000 sq. ft.	REMARKS
Mushroom flies, Nematodes, Phorid flies	0.25 fl. oz.	Apply as drench to the casing layer, media, or compost. Make at least 4 to 5 applications 7 to 10 days apart. To repel adults, apply with fogging equipment at first sign of activity. For mushroom house use: mix into the casing layer, or into media during the spawn run. Can be applied between breaks until the final flush.

USE RATES FOR MANURE PILES

PEST	RATE Ounces of Eco-1 Aza/ 1,000 sq. ft.	REMARKS
Mushroom flies, Nematodes, Phorid flies	0.25 fl. oz.	For Manure Piles and Compost: Surface treat and incorporate using appropriate equipment when the manure piles are moist. Avoid treating when manure is too wet. Directly spray on to areas where flies are actively breeding.

USE RATE FOR TURFGRASS

PEST	RATE Ounces of Eco-1 Aza/ 1,000 sq. ft.	REMARKS
Sod Webworms, Armyworms, Grubs, Cutworms, Aphids, Cinchbugs, Billbugs, Leafhoppers, Ants, and Chiggers	4-10 fl. oz.	Irrigate well before applying. Use a suitable pressure sprayer and mix ½- ¾ tablespoon in 3 gal. of water and apply to 2,500 sq. ft of turf. Apply when insect larvae first appear. Repeat application in 10 to 14 days if necessary. The use of an approved “spreader sticker” may help the spray to penetrate turf down to the larvae/worm feeding area.
Nematodes	8 fl. oz.	Apply in sufficient amount of water to penetrate in the soil to a depth of 12 inches. Repeat applications every 3 or 4 weeks or as needed.

Eco-1 Aza can also be applied through sub-surface soil treatment equipment (e.g., turf grass).

FOR USE INDOORS OR IN GREENHOUSES

Use the table below to determine the appropriate use rate for each pest.

NOTE: When infestation is heavy, or when plant canopy is dense, Eco-1 Aza may be used up to but not exceeding 11.25 fl. oz. per acre or 2.5 fl. oz. per 10,000 sq. ft. When combining with other insecticides, use at the low end of recommended rate of Eco-1 Aza.

USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORSCAPE, CONTROLLED ENVIRONMENT AGRICULTURE, AND NURSERIES		
PEST	**RATE Ounces of Eco-1 Aza/ 10,000 sq. ft.**	**REMARKS**
WHITEFLIES: Greenhouse whiteflies, Silverleaf whiteflies, Sweet potato Whitefly, Woolly whiteflies	1.0-1.75 fl. oz.	Ensure good coverage to top and bottom of leaves against larvae and pupae. Can be applied after bract formation on poinsettias (test for phytotoxicity prior to large scale use).
LEAFMINERS: Serpentine leafminers	1.0-1.75 fl. oz.	Spray early. Make 2 to 3 applications in rotation with adulticides such as pyrethroids.
SOFT SCALES	1.0-1.75 fl. oz.	Use in combination with 0.5 – 1.0% nonphytotoxic crop oil in sufficient water to cover twigs and leaves.
MEALY BUGS	1.0-2.0 fl. oz.	Always use in combination with 0.5 – 1.0% non – phytotoxic crop oil.
THRIPS: Western flower thrips	1.0-2.0 fl. oz.	Spray when pests first appear. Repeat every 5 to 7 days.
MITES: Banks mite, Clover mite, Citrus Rust mite, Citrus Red mite, European Red Mite, Hemlock Rust mite, Honey Locust mite, Pacific mite, Spruce mite, Two-spotted Spider mite	1.0-2.0 fl. oz.	Use in combination with 0.25 – 1.0% nonphytotoxic crop oil in sufficient water to cover twigs and leaves.
APHIDS: Green peach aphids, Pea aphids, Cotton aphids, Rose aphids, Apple Aphid, Melon Aphid, Potato Aphid	1.0-2.0 fl. oz.	Spray when pests first appear. Addition of 0.5 – 1.0% non-phytotoxic crop oil will enhance efficacy.
LACE BUGS: Azalea lace bugs	1.0-2.0 fl. oz.	Spray when pests first appear.
FLIES: Crane flies, Fungus gnats, Shore flies, Blueberry maggots, Caribbean Fruit Fly, Cherry maggots, Fruit flies, Hessian Fly, Marsh Crane Fly, Melon Fly, Midges, Onion maggots, Walnut husk fly	1.0-2.0 fl. oz.	Add at least 1 pint of mixture per gallon pot as soil drench. Repeat application every 7 days for 3 weeks. For poinsettias, lilies and bedding plants, also make 1 application 10 to 15 days prior to shipping plants to prevent adult emergence.
CATERPILLARS: Armyworms, Bagworms, Cutworms, Leafhoppers, Leafrollers, Loopers, Spruce budworms, Webworms	1.25-2.0 fl. oz.	Spray when pests first appear.
BORERS: Peachtree borers	1.0-2.0 fl. oz.	Spray when pests first appear. Repeat as needed.
BEETLES: Bark beetles, Flea beetles, Japanese beetles, Cucumber beetle	1.0-2.0 fl. oz.	Spray when pests first appear. Repeat as needed.
WEEVILS: Black vine weevils, strawberry vine weevils	1.0-2.0 fl. oz.	Make foliar applications to deter adult feeding. Drench soil at a rate of 1 pint per gallon pot during spring and fall periods to control larvae. Make at least 3 to 4 applications 10 days apart
NEMATODES: Burrowing nematodes, Dagger nematodes, Golden nematodes, Root knot nematodes	1.0-2.0 fl. oz.	Drench at least 1 pint of mixture per gallon pot once a week for 4 weeks. Avoid leaching – drench until moist to the touch. For heavy infestations, use twice the rate and drench more frequently.

Soil Drench: This product is effective as a soil drench for controlling larvae and other immature stages of soil borne insect pests such as but not limited to larvae of leaf miners, root aphids, shore flies, cutworms, beetle grubs, fungus gnats/mushroom flies, and nematodes.

Dilute Eco-1 Aza with water at a rate of 0.15%-0.30%. Rate table below provides the amount of Eco-1 Aza for different drench volumes of water.

Mix the solution thoroughly and apply to moderately moist soils at a rate of 1 pint of finished solution for each gallon of soil in the pot or 45-55 gallons of mixed solution per 1000 sq. ft. of soil. Use volumes that thoroughly wet the soil, but do not cause significant surface runoff or excessive drip from pots. Make 3-5 applications at 7–10-day interval until pest pressure subsides.

Use higher rates (0.2%-0.3%) and apply at shorter intervals (7 days) for difficult to control insect pests and nematodes and/or when pest infestation is high.

SOIL DRENCH APPLICATIONS

Gallons of Water	**Amount of Eco-1 Aza (fl. oz.)**			**Amount of Eco-1 Aza (mLs)**		
	0.15%	0.2%	0.30%	0.15%	0.2%	0.30%
1.0	0.15	0.2	0.3	4	6	9
5.0	0.75	1	1.5	22	30	44
10.0	1.5	2	3	44	59	89
100.0	15	20	30	444	591	887

NOTE: For soil-less media do not exceed concentrations greater than 0.05% Eco-1 Aza.

[**Hydroponic Applications**: Use Eco-1 Aza for control of immature stages (larvae/nymphs) of foliar and soil-borne insect pests in hydroponic systems.

Dilute Eco-1 Aza with water at a rate of 0.10%-0.25% v/v. The rate table below provides Eco-1 Aza amounts for different volumes of water.

Mix or agitate treated water thoroughly for uniform distribution across the entire hydroponic system. After adding Eco-1 Aza, solution may need to be buffered to a pH ideal for crop growth and applications be made during early morning hours to maximize root uptake. Repeat applications at 7-10-day intervals as necessary until sufficient control of pest pressure subsides.

Use higher rates (0.2%-0.25%) and apply at shorter intervals (7 days) for difficult to control insect pests and/or when pest infestation is high.]

HYDROPONIC APPLICATIONS

Gallons of Water	Amount of Eco-1 Aza (fl. oz.)			Amount of Eco-1 Aza (mLs)		
	0.125%	0.2%	0.25%	0.125%	0.2%	0.25%
1.0	0.125	0.2	0.25	3.75	6	7
5.0	0.625	1	1.25	18	30	37
10.0	1.25	2	2.5	37	59	74
100.0	12.5	20	25	370	591	740

POULTRY LITTER AND LIVESTOCK BEDDING: Apply to poultry and livestock bedding, litter, floors, walls, cages, nest boxes, nest pads and other housing equipment where insect pests collect, travel, rest, hide, harbor or breed. Apply when animals are not in the immediate area being treated. Animals may reenter treated area once spray solution has thoroughly dried. Do not contaminate food, feed, potable water or watering equipment.

USE RATES FOR POULTRY LITTER AND LIVESTOCK BEDDING

PEST	RATE Ounces of Eco-1 Aza/ 10,000 sq. ft.	REMARKS
Litter Beetles (Darkling, Hide and Carrion), Northern Fowl Mites, Red Poultry Mites, Nematodes	1.0-2.0 fl. oz.	Apply in a sufficient volume of water to thoroughly ensure coverage. Concentrate sprays under feed and watering lines or in other areas where insect pests collect.

TREE TRUNK INJECTION

Eco-1 Aza can be injected into mature trees (landscaping, forestry, residential, etc.) using appropriate tree injection equipment. Inject at a rate of 2 – 4 mLs (0.075 – 0.15 fl. oz.) per inch of tree trunk diameter, and repeat application as needed.

Measure tree diameter in inches at breast height (DBH) which is approximately 4.5 feet from the ground. If measuring the circumference of the tree, divide circumference by 3 to get DBH. Inject with suitable equipment that ensures uniform and slow delivery of the product. Evenly space drill holes (7/32, 9/32 or 3/8" diameter) approximately 6 inches apart at the base of the tree. The holes should extend into the bark and be approximately 5/8 to 1 1/2 inch into sapwood of the tree.

To determine dosage per injection site, divide total dose by number of injection sites.

USE DIRECTIONS FOR TREE TRUNK INJECTION OR TREE TREATMENT

PEST	RATE mLs per inch tree diameter (fl. oz. per inch DBH)
Emerald Ash Borer, European Elm Scale, Spongy Moth, Spruce Budworm, Jack Pine Budworm, Tent Caterpillars, Leaf miners, Sawflies, Whiteflies, Aphids, Scales, Psyllids, Mealybugs, Hemlock Wooly Adelgid	2 to 4 mL (0.075 – 0.15 fl. oz.)

DIRECTIONS FOR TREE INJECTION

Tree DBH"	mL /inch DBH	mL Dose /tree
5-7	2	10 - 14
8-16	3	24 - 48
17-25+	4	68 - 100

*Make applications at or near the base of the trunk, generally within 12" of the soil level for best distribution within the canopy. Work around the tree placing the injection points 4 to 8" from each other. Select locations on the trunk free of defect or decay, injecting into healthy sapwood tissues, avoiding valleys in the trunk.

Directions For Use in Ash Trees Against Emerald Ash Borer by Tree Injection
Make annual applications in the spring during EAB adult emergence (eclosion). Emergence is timed to black locust flowering, a phenological indicator.

Make applications to trees that are in good health, generally with less than 40% canopy decline symptoms.

Directions For Use in Linden Trees Against Japanese Beetle Control by Tree Injection
Make applications in linden trees after flowering. Eco-1Aza will deter Japanese beetles from feeding on foliage.

Directions For Use Against Aphids, Psyllids, Soft Scales (Including European Elm Scale), Whiteflies and Other Honey Dew Producing Insects by Tree Injection
Make applications when insect feeding is first detected early in the growing season.

Directions For Use Against Birch Leafminer by Tree Injection
Make applications when adults emerge. Adults emerge in May to late June to early July, depending on temperature and humidity, when first birch leaves emerge.

Directions For Use Against Lepidopteran Defoliators by Tree Injection
Make applications in spring prior to bud break for very early caterpillars (i.e., winter moth) and at new leaf after bud break to early instars. Eco-1 Aza acts both as an antifeedant and Insect growth regulator to caterpillars.

Directions For Use in Elm Trees Against European Elm Scale By Tree Injection
Make applications in spring prior to bud break to control overwintering adult scales. Make a second application after crawlers hatch, post shoot elongation. Alternatively, make applications in summer to target scales on foliage and follow-up after leaf drop to target adults on shoots.

USE RATES FOR PALM INJECTION

Palm Size Class	Canopy Spread(ft.)	Trunk heigh (ft.)	Dose (mLs per palm)
Small	6-12	5-19	16
Medium	12-24	20-39	24
Large	24-48	40-100	32

**a single injection point is generally required when injecting palms, though up to three evenly distributed around the trunk may be used. Sterilize drill and injection needle between injection points and palms using a solution of equal parts 70% isopropyl alcohol and water or 25% chlorine bleach (3 parts water, 1 part chlorine bleach).

In general, make applications to palms when plants are actively uptaking water and solutes from the soil. Water logged soils tend to slow uptake, while moist soils favor uptake by stem injection.

If you intend to use as a tank mix, check the compatibility by using a jar test before adding two products into injection equipment.

Directions for Bark Spray Applications

DIRECTIONS FOR BARK SPRAY APPLICATIONS FOR ARMORED & SOFT SCALES, WOOLLY APHIDS & ADELGIDS

Dilute 3.0 to 6.25 fl. oz. in 25 gallons water. Make applications to crawlers (first instars) for best results. Make applications every 7 to 10 days until sufficient control is obtained. Adelgids are most active in spring and fall, during cool weather. Spray both bark and foliage for best results against armored scales such as oyster shell scale on lilacs.

Directions for Foliar Applications

DIRECTIONS FOR FOLIAR SPRAYS FOR DEFOLIATORS & SKELETONIZERS INCLUDING CATERPILLARS & JAPANESE BEETLES

Dilute 8.0 to 25.0 fl. oz. in 100 gallons (1 to 1.5 tsp. /gal or 5 to 7.5 mLs/gal). Make applications when early instar larvae appear for caterpillar defoliators. Make applications to Japanese beetles when adults first appear. Repeat applications every 7 to 10 days until sufficient antifeedant activity and deterrence is obtained.]

CHEMIGATION

General Information

This product may be applied only through drip (trickle) or sprinkler (center pivot, lateral move, end tow, side roll, traveler, big gun, solid set, or hand move), flood (basin) 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. If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts. 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. 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 Eco-1 Aza 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 for application is a range of 5.5 to 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 recommended in the Directions for Use using sufficient water to achieve an even distribution within an 8-hour period. Do not apply Eco-1 Aza at a rate that exceeds 20 grams active ingredient per acre (11.25 fl. oz. of Eco-1 Aza). If applying Eco-1 Aza in combination with other products refer to the compatibility statement in the DIRECTIONS FOR USE section.

General Requirements

1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

4) 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.

5) 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.

6) Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

7) Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

8) All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Specific Requirements for Chemigation Systems Connected to Public Water Systems

1) 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 the year.

2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) 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 outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

4) 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.

5) 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.

6) 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.

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

Specific Requirements for Sprinkler Chemigation

1) 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.

2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3) 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.

4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6) 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 filled with a system interlock.

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

Specific Requirements for Flood (Basin), Furrow and Border Chemigation

1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

a. 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.

b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

c. 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.

d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

f. 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 filled with a system interlock.

Specific Requirements for Drip (Trickle) Chemigation

1) 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.

2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3) 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.

4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6) 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 filled with a system interlock.

Application Instructions

1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.

2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.

3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

4) Do not apply Eco-1 Aza in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

[Use the following for containers 5 gallons or less:] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

[Use the following for containers greater than 5 gallons:] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, insuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration.

WARRANTY CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY NOTICE:

Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ARBORJET or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ARBORJET and Seller harmless for any claims relating to such factors. ARBORJET warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ARBORJET and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARBORJET MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE. To the extent consistent with applicable law, in no event shall ARBORJET or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ARBORJET AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT,

NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ARBORJET OR SELLER, THE REPLACEMENT OF THE PRODUCT. ARBORJET and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of ARBORJET.

[Sublabel B: For Residential Use]

Eco-1 Aza™

[**Alternate Brand Names**: Eco-1 Aza Botanical Insecticide, Eco-1 Aza Insecticide, Eco-1 Aza Liquid, Eco-1 Aza 6.0, Eco-1 Aza IGR, Aza-jet, Aza-jet 6.0, Aza-jet IGR, Aza-jet Liquid]

[BOTANICAL BASED INSECTICIDE / NEMATICIDE]

Active Ingredient:
Azadirachtin 6%
Other Ingredients: 94%
Total: 100%
[This product contains 0.52 pounds of azadirachtin per U.S. gallon.]

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. For medical emergencies, call the poison control center at 1-800-222-1222.	
If swallowed	▪ Call a poison control center or doctor immediately for treatment advice. ▪ Have person sip a glass of water if able to swallow. ▪ Do not induce vomiting unless told to do so by a Poison Control Center or doctor. ▪ Do not give anything by mouth to an unconscious person.
If on skin or clothing	▪ Take off contaminated clothing. ▪ Rinse skin immediately with plenty of water for 15-20 minutes. ▪ Call a poison control center or doctor for further treatment advice.

[First aid may also be in paragraph form]

[See [Side] [Back] [Panel] [Insert] [Booklet] For [Additional] [Complete] Precautionary [Statements] [Language] [and] [First Aid] [and] [Directions for Use]]

EPA Registration No. 74578-XXX
EPA Establishment No. 74578-MA-001
Batch Code ___

[Sold by]
Arborjet, Inc.
99 Blueberry Hill Road
Woburn, MA 01801
[(978) 935-9070]

Net Contents: [8 fl. oz.], [16 fl. oz.], [32 fl. oz.], [1 liter], [1 gallon], [1/2 gallon], [2.5 gallons], [5 gallons]

SHAKE WELL BEFORE USING

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or if absorbed through skin. 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 contaminated clothing and wash before use.

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 disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff from treated area may be hazardous to aquatic organisms in neighboring areas.

DIRECTIONS FOR USE

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

Eco-1 Aza controls insects in the larval, pupal, and nymphal stages by interfering with the metabolism of ecdysone. Insects typically die between larval to larval, larval to pupal, nymph to nymph molts, or during adult eclosion. Eco-1 Aza may be applied as directed to any food or non-food crop up to and including the day of harvest.

APPLICATION INSTRUCTIONS

<u>Hand-held Sprayers</u>

Per Gallon of Mix:

1. Add ½ volume of water to the container
2. Add 1 – 2 teaspoons (5 to 10 mLs) of Eco 1 Aza
3. Fill container to the 1-gallon mark. Cap and shake well. Spray Eco-1 Aza solution onto plants. Thoroughly wet all surfaces of the plant.

Per Quart Spray Bottle:

1. Add ½ volume of water to the container
2. Add ¼- to ½-teaspoon (1.25 – 2.5 mLs) of Eco 1 Aza
3. Fill container with water. Cap and shake well. Spray Eco-1 Aza solution onto plants. Thoroughly wet all surfaces of the plant.

Note: Use entire mixed solution at the time of application. Do not store diluted product. For optimum results, 2 to 3 applications made at 7-to-10-day intervals is recommended, unless otherwise specified. Foliar applications should be made to top and under sides of leaves. Apply as a fine spray to both sides of leaf surfaces to run-off. Do not over apply. Make applications when insects first appear and are in their early larval stages. Repeat applications every 7 days, or as needed. When insect populations are high, apply on a 3–4-day interval until insect numbers are reduced.

NOTE: This product has been evaluated for phytotoxicity on a wide range of plants. However, since all combinations or sequences of pesticide sprays including fertilizers, surfactants and adjuvants have not been tested, spray a small area first to make certain no phytotoxicity occurs.

ORNAMENTAL PLANTS
Eco-1 Aza controls the following pests on Ornamental Trees, Shrubs, Plants, Bedding Plants, Flowers, and Potted Plants:

PESTS
Leafminers Aphids Beetles Soft Scales Lace Bugs Borers Mealy Bugs Flies Nematodes Thrips Caterpillars Weevils Mites

FRUIT AND VEGETABLE CROPS
Eco-1 Aza controls the following pests on Fruit and Vegetable crops:

PESTS Whiteflies Sawflies Chafers Leafminers Caterpillars Flies Scales Moths Leafhoppers Mealy Bugs Beetles Bugs Grasshoppers Grubs Psyllids Locusts Weevils Aphids Nematodes Mites Borers Thrips Mole Crickets

CROPS
Broccoli Lettuce Spinach Potatoes Sweet Potatoes Radishes Turnips Beans Eggplants Tomatoes Peppers Cucurbits Squash Melons Berries Stone Fruits Apples Pears Garlic Onions Asparagus Corn Herbs Strawberries

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original containers in areas inaccessible to children.

Pesticide Disposal and Container Handling:
Nonrefillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available.

Refillable container [(32 oz. spray bottle)]. Refill this container with pesticide only. Do not reuse this container for any other purpose. Place in trash or offer for recycling if available. Call your local solid waste agency for disposal instructions.

WARRANTY

This material conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. To the extent consistent with applicable law, the seller shall not be liable for timing, unfavorable temperatures, water conditions, presence of other materials, method of application, weather, watering practices, nature of soil, disease problem, condition of crop, incompatibility with other chemicals, pre-existing conditions and other conditions influencing the use of this product. Buyer assumes all risks associated with the use, storage, or handling of this material not in strict accordance with directions given herewith. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTIBILITY IS MADE.