



005481-00476-041699

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Systems Integration Group, Inc.

PM 91

5481-476

4-16-99

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division
(7511C) 401 M St., S.W.
Washington, D.C. 20460

EPA Reg. Number: 5481-476

Date of Issuance: APR 16 1999

NOTICE OF PESTICIDE:
[X] Registration
Reregistration

Term of Issuance: Unconditional

Name of Pesticide Product: AMVAC Aza 3% EC

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Dr. Robert R. Stewart
Registration Agent for AMVAC Chemical Corporation
Technology Sciences Group Inc.
1101 17th Street, NW., Suite 500
Washington, DC 20036

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.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered 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 Agency.

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

- 1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c) (5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the labeling changes below before you release the product for shipment:
a). Revise the EPA Registration Number to read, "EPA Reg. No. 5481-476."

Signature of Approving Official: see page 2 JEA

Date: APR 16 1999

EPA Form 8570-6

CONCURRENCES

Table with columns for SYMBOL, SURNAME, and DATE, containing handwritten entries like '7511C', 'Loranzu', and '4/14/99'.

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EPA Reg. No. 5481-476

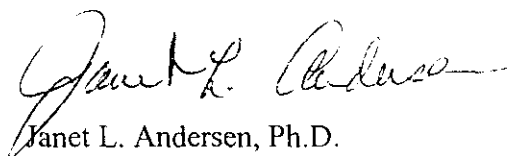
2. Submit five(5) copies of the revised final printed labeling for the record.

If these conditions are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6 (e). Your release for shipment of the product constitutes acceptance of these conditions.

This registration does not eliminate the need for continual reassessment of the pesticide. If EPA determines at any time, that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under section 3(c)(2)(B) of FIFRA.

A stamped copy of the label is enclosed for your records.

Sincerely,



Janet L. Andersen, Ph.D.  
Director  
Biopesticides and Pollution  
Prevention Division (7511C)

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**MASTER LABEL**

This master label bears direction for both agricultural and commercial use.

**AMVAC AZA 3% EC**  
**BOTANICAL INSECTICIDE/NEMATICIDE**

For use on turfgrass, outdoor shrubs, trees and ornamentals  
For ornamental greenhouse, shadehouse, interiorscape and nursery use  
For mushroom house use  
For use on outdoor food crops

For controlling and repelling Insects such as aphids, armyworms, beetles, budworms, cutworms, fungus gnats, leafhoppers, leafminers, leafrollers, lepidopterous larvae, loopers, mushroom flies, sawflies, thrips, webworms, and whiteflies; and plant parasitic nematodes such as dagger, golden, and root knot nematodes.

**ACTIVE INGREDIENT:** Azadirachtin ..... 3.00%  
**OTHER INGREDIENTS:** ..... 97.00%  
100.00%

Contains 0.27 lb (121 grams) of azadirachtin per gallon

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

**FIRST AID**

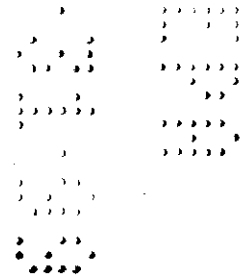
**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention.

AMVAC CHEMICAL CORPORATION  
4100 E. Washington Blvd.  
Los Angeles, CA 90023, U.S.A.

Net Contents \_\_\_\_\_  
EPA Reg. No. 5481-\_\_\_\_\_  
EPA Est. No. 5481-CA-1

**ACCEPTED**  
APR 16 1999  
Under the Federal Insecticides,  
Fungicides, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No. 5481-476



# AMVAC AZA 3% EC

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear long-sleeved shirt and long pants, socks and shoes, and goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant (such as barrier laminate, butyl, nitrile, neoprene, polyvinyl chloride, or viton) gloves
- Goggles or face shield
- Socks and shoes

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### USER SAFETY RECOMMENDATIONS

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

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product if bees are visiting the treatment area.

FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY

Transportation: Chemtrec.....1-800-424-9300  
 Medical: Hazard Information Services (H.I.S.)1-800-228-5635, Extension 169

# AMVAC AZA 3% EC

## 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 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 12 hours.

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, wear:

- Coveralls over long-sleeved shirt and long pants
- Goggles or face shield
- Waterproof gloves
- Socks and chemical resistant footwear

### NON-AGRICULTURAL USE REQUIREMENTS

These requirements apply to uses of this product that are NOT within the WPS 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

AMVAC AZA 3% EC is an emusifiable concentrate containing 3.0% by weight azadirachtin. It has been evaluated on a wide variety of ornamental, forestry, and food crops. No phytotoxicity at recommended field rates has been observed. AMVAC AZA 3% EC is an insect growth regulator and does not control adult insects. However, AMVAC AZA 3% EC is also effective as a repellent towards some adult species, as detailed below. AMVAC AZA 3% EC is an effective resistance management tool when used in an Integrated Pest Management (IPM) spray program.

### MODE OF ACTION

AMVAC AZA 3% EC 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.

### COMPATIBILITY

AMVAC AZA 3% EC has been found to be compatible with the most commonly used insecticides, fungicides and fertilizers. Compatibility should be checked by using the correct proportion of the products in a small test container. Growers should then test the tank-mix combinations for possible adverse effects (such as settling out, flocculation, etc.) and for phytotoxic effects on a small sample of plants prior to use. As environmental conditions can alter the interactions between compounds, a compatibility test is recommend for both new and previously used combinations. Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use AMVAC AZA 3% EC with Bordeaux mixture, triphenyltin hydroxide, lime sulfur, Rayplex iron or other highly alkaline materials. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

When using AMVAC AZA 3% EC in combination with other products, use AMVAC AZA 3.0% EC at the rate, or half the rate, specified in the Use Rate Recommendation table.

Follow the directions for use, precautions and limitations for use on all of the product labels used in the combination. Some suggested tank mix combinations are as follows:

- AMVAC AZA 3% EC plus non-phytotoxic crop oil\*
- AMVAC AZA 3% EC plus endosulfan\*
- AMVAC AZA 3% EC plus chlorpyrifos\*
- AMVAC AZA 3% EC plus acephate\*
- AMVAC AZA 3% EC plus *Bacillus thuringiensis*\* (BT)
- AMVAC AZA 3% EC plus bifenthrin\*
- AMVAC AZA 3% EC plus esfenvaterate\*
- AMVAC AZA 3% EC plus abamectin\*
- AMVAC AZA 3% EC plus diflubenzuron\*
- AMVAC AZA 3% EC plus pyrethrum+piperonyl butoxide (for fogging use)\*

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

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# APPLICATION INSTRUCTIONS

## READ ALL DIRECTIONS AND PRECAUTIONS BEFORE USE

AMVAC AZA 3% EC 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 22.5 fl oz (20 grams active ingredient) per acre per application. No more than seven applications of this product may be made during any one growing season.

**MIXING:** Shake well before mixing. Always use this product promptly after mixing with water. AMVAC AZA 3% EC will break down in the spray solution if not used within 8 hours. Never allow tank mix to stand overnight. AMVAC AZA 3% EC 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 AMVAC AZA 3% EC required for the number of acres to be treated. To a clean spray tank add at least one half the water to be sprayed. Begin agitation and add the determined amount of AMVAC AZA 3% EC. Add the remaining water and continue agitation.

AMVAC AZA 3% EC 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 METHOD AND EQUIPMENT:** AMVAC AZA 3% EC 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 soil-borne larvae of foliar insect pests. When applying as a drench, avoid excessive leaching. AMVAC AZA 3% EC can also be applied through sub-surface soil treatment equipment (e.g. turfgrass). To repel adults, apply through fogging equipment. Always follow equipment manufacturers use directions.

AMVAC AZA 3% EC 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.



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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 both side of leaves. In addition, a surfactant used 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.

### AMVAC AZA USE RATE RECOMMENDATIONS FOR KEY PESTS BY USE SITE

AMVAC AZA 3% EC 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 following insects and nematodes.

Use the tables below to determine the appropriate use rate for your site/pest combination. Rates are provided in ounces of AMVAC AZA 3.0% E.C. per area or row-length. When infestation is heavy, or when plant canopy is dense, AMVAC AZA 3.0% EC may be used at a rate up to twice (2x) that shown in the table below, not to exceed 22.5 oz E.C./acre. When combining with other insecticides, use half the recommended rate of AMVAC AZA 3.0% EC.

USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	RATE OZ of 3% EC/ACRE	REMARKS
WHITEFLIES, such as: Greenhouse whiteflies, Silverleaf whiteflies, Woolly whiteflies	8	Use in combination with 0.25- 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves.
LEAFMINERS, such as: Azalea leafminers, Birch leafminers, Citrus leafminers, Serpentine leafminers, Vegetable leafminers	10	Use in combination with 0.25- 1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves.

USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	RATE OZ of 3% EC/ACRE	REMARKS
SCALES, such as: Brown soft scales, California red scales, Coffee scales, Olive scales, San Jose scales	10	Use in combination with 0.25-1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
MEALY BUGS, such as: Citrus mealybugs	10	Use in combination with 0.25-1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
THRIPS, such as: Citrus thrips, Onion thrips, <i>Thrips palmi</i> ,	10	Spray when pests first appear. Repeat every 5 to 7 days.
APHIDS, such as: Cotton aphids, Green peach aphids, Pea aphids, Potato aphids	10	Spray when pests first appear. <u>For food crops:</u> 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. <u>For non-food crops:</u> Repeat application every 5 to 7 days.
PSYLLIDS, such as: Pear psylla	8	Spray when pests first appear. <u>For food crops:</u> 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. <u>For non-food crops:</u> Repeat application every 5 to 7 days.

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USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	RATE OZ of 3% EC/ACRE	REMARKS
BUGS, such as: Boxelder bugs, Chinch bugs, Lygus bugs, Spittle bugs, Stink bugs	10	Spray nymphs early.
FLIES, such as: Blueberry maggots, Cherry maggots, Crane flies, Fruit flies, Midges, Onion maggots, Tip worms, Walnut husk flies	10	<u>For food crops:</u> Spray when pests first appear. <u>For non-food crops:</u> Drench soil to kill larvae.
SAWFLIES, such as: European pine sawflies, Yellow headed pine sawflies	10	Treat larvae early.
CATERPILLARS such as: Armyworms, Artichoke plume moths, Bagworms, Bollworms, Budworms, Cabbage butterflies, Cabbage Loopers, Cankerworms, Caseworms, Corn earworms, Cutworms, Diamond-backed moths, Fireworms, Fruitworms, Grapeleaf skeletonizers, Gypsy moths, Hickory shuckworms, Hornworms, Imported cabbage worms, Leafperforators, Leafrollers, Melonworms, Navel	8	Spray when pests first appear. <u>For food crops:</u> 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. <u>For non-food crops:</u> Repeat application every 5 to 7 days.

USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	RATE OZ of 3% EC/ACRE	REMARKS
Orangeworms, Oblique-banded leafrollers, Omnivorous leafrollers, Oriental fruit moths, Pickleworms, Pine tip moths, Pinworms, Red-banded leaf rollers, Sod webworms, Soybean loopers, Tent caterpillars, Tobacco budworms, Tussock moths		
BEETLES, such as: 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	8	Spray when pests first appear. <u>For food crops:</u> 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. <u>For non-food crops:</u> Repeat application every 5 to 7 days.
WEEVILS, such as: Black vine weevils, Strawberry vine weevils	10	Make foliar applications to deter adult feeding. Make at least 3 to 4 applications 10 days apart.
BORERS, such as: Peach twig borers, Peachtree borers, Dogwood borers, Cranberry borers	10	Spray soon after egg hatch. <u>For food crops:</u> Use in combination with 0.25-1.0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves.
MOLE CRICKETS	10	Spray nymphs soon after egg hatch.

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USE RATES FOR OUTDOOR PLANTS INCLUDING: FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
PEST	RATE OZ of 3% EC/ACRE	REMARKS
NEMATODES, such as: Burrowing nematodes, Dagger nematodes, Golden nematodes, Root knot nematodes	15	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.

\* When infestation is heavy, or when plant canopy is dense, AMVAC AZA 3% EC may be used at a rate up to twice (2x) that shown in the above table, not to exceed 22.5 oz/acre. When combining with other insecticides, half the rate of AMVAC Aza 3% EC is recommended.

USE RATES FOR MUSHROOMS		
PEST	RATE* OZ of 3% EC /1000 SQ FT	REMARKS
Mushroom flies, Nematodes, Phorid flies	0.5	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.

\* Do not exceed 0.5 oz. AMVAC AZA 3% E.C. per 1000 square feet.  
**For Use Indoors or in Greenhouses**

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

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individual plants should thoroughly wet both sides of the leaves without causing runoff. Mix spray solution according to the following table. For the treatment of small areas add 1.0 oz of AMVAC AZA 3% E.C. to 10 gallons of water. One gallon of finished spray will treat 500 square feet. When used as a drench, apply 1 pint of finished spray for each gallon of soil in the pot. For large areas, use 100 to 200 gallons of finished spray per acre. Do not exceed 22.5 ozs of AMVAC AZA 3% E.C. per acre per application.

<b>USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORSCAPE, AND NURSERIES</b>		
<b>PEST</b>	<b>RATE*</b> OZ of 3% EC /100 GAL.	<b>REMARKS</b>
WHITEFLIES, such as: Greenhouse whiteflies, Silverleaf whiteflies	10	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, such as: Serpentine leafminers	10	Spray early. Make 2 to 3 applications in rotation with adulticides such as pyrethroids.
SOFT SCALES	10	Use in combination with 0.5-1.0% non-phytotoxic crop oil in sufficient water to cover twigs and leaves.
MEALY BUGS	8	Always use in combination with 0.5-1.0% non-phytotoxic crop oil.
THRIPS, such as: Western flower thrips	8	Spray when pests first appear. Repeat every 5 to 7 days.
APHIDS, such as: Green peach aphids, Pea aphids, Cotton aphids, Rose aphids	8	Spray when pests first appear. Addition of 0.5-1.0% non-phytotoxic crop oil will enhance efficacy.

**USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORSCAPE, AND NURSERIES**

PEST	RATE* OZ of 3% EC /100 GAL.	REMARKS
LACEWINGS, such as: Azalea lacewings	8	Spray when pests first appear.
FLIES, such as: Crane flies, Fungus gnats, Shore flies	8	Add at least 1 pint of finished spray per gallon pot as soil drench. Repeat 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 such as: Armyworms, Bagworms, Cutworms, Leafhoppers, Leafrollers, Loopers, Spruce budworms, Webworms	8	Spray when pests first appear.
BORERS, such as: Peachtree borers	10	Spray when pests first appear. Repeat as needed.
BEETLES, such as: Bark beetles, Flea beetles, Japanese beetles	10	Spray when pests first appear. Repeat as needed.
WEEVILS, such as: Black vine weevils, strawberry vine weevils	8	Make foliar applications to deter adult feeding. Drench soil at a rate of 1 pint of finished spray per gallon pot during spring and fall periods to control larvae. Make at least 3 to 4 applications 10 days apart.

USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORESCAPE, AND NURSERIES		
PEST	RATE* OZ of 3% EC /100 GAL.	REMARKS
NEMATODES, such as: Burrowing nematodes, Dagger nematodes, Golden nematodes, Root knot nematodes	8	Drench at least 1 pint of finished spray 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.

\* When infestation is heavy, or when plant canopy is dense, AMVAC AZA 3% EC may be used at a rate up to twice (2x) that shown in the above table, not to exceed 22.5 oz/acre. When combining with other insecticides, half the rate of AMVAC Aza 3% EC is recommended.

### USE SITES

AMVAC AZA 3% EC CAN BE USED ON:

**GREENHOUSE FOOD CROPS, such as:**

*Brassica* (cole) crops, cucurbits, eggplants, herbs and spices, legumes, peppers, tomatoes, and other miscellaneous crops grown in greenhouses.

**MUSHROOMS, such as:**

*Agaricus*, enoki, maitake, oyster, shitake, and other specialty mushrooms.

**FOOD CROPS, including:**

**Root and tuber vegetables, such as:** Artichokes, beets, carrots, ginger, horseradish, potatoes, radishes, rutabagas, sweet potatoes, turmeric, turnips, yams

**Leafy vegetables (including *Brassica* leafy vegetables), such as:** Amaranth, broccoli, Brussels sprouts, cabbage, cauliflower, celery, chervil, Chinese cabbage, collards, cress, endives, fennel, kale,



kohlrabi, lettuce, mizuna, mustard greens, parsley, purslane, rape greens, rhubarb, spinach, Swiss chard

**Legume vegetables, such as:** beans (field, kidney etc.), chickpeas, cowpeas, guar, jackbeans, lablab beans, lentils, peas, pigeon peas, soybeans, sword beans

**Fruiting vegetables, such as:** Eggplants, groundcherries, pepinos, peppers, pimentos, tomatillos, tomatoes

**Cucurbit vegetables, such as:** bitter melons, Chayotes, chinese wax gourds, citron melons, cucumbers, gherkins, gourds, muskmelons (such as cantaloupes, casabas cranshaw etc.), pumpkins, squash, watermelons

**Citrus fruits, such as:** Calamondins, citrus citrons, citrus hybrids, grapefruits, kumquats, lemons, limes, mandarins, oranges, pummellos, satsuma mandarins

**Pome fruits, such as:** Apples, crabapples, loquats, mayhaws, oriental pears, pears, quinces.

**Stone fruits, such as:** Apricots, cherries, nectarines, peaches, plums, prunes

**Berries, such as:** Blackberries and caneberries, blueberries, currants, cranberries, elderberries, gooseberries, huckleberries, loganberries, raspberries, strawberries, youngberries

**Cereal grains, such as:** Barley, buckwheat, corn, millet, oats, popcorn, rice, rye, sorghum, teosintes, triticale hybrids, wheat, wild rice

**Herbs and spices, including but not limited to:** Allspice, angelica, anise, annatto, balm, basil, black and white peppers, borage, burnet, camomile, caper buds, cardamom, caraway, cassia, catnip, celery seeds, chervil, chives, cinnamon, clary, cloves, coriander (cilantro), costmary, cumin, curry leaf, dills, fennels, fenugreek, grains of paradise, horehound, hyssop, juniper berry, lavender, lemongrass, lovage, triage, marigolds, marjoram, mustard seeds, nasturium, nutmeg, parsley, pennyroyal, poppy seeds, rosemary, rue, saffron, sage, savory, sweet

bay (bay leaf), tansy, tarragon, thyme, vanilla, wintergreen, woodruff, wormwood

**Bulb vegetables, such as:** Garlic, leeks, onions, shallots

**Nuts, such as:** Almonds, beechnuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapin, filberts, hickory nuts, lychee nuts, macadamias, pecans, pistachios, walnuts

**Oilseed crops, such as:** Canola, castor, crambe, guar, jojoba, peanuts, rape, safflower, sesame, soybean, sunflower

**Tropical fruits, such as:** Atemoyas, bananas, breadfruits, cherimoyas, durians, guavas, malangas, mangos, papayas, passionfruits, starfruits

**Miscellaneous food and non-food crops, such as:** Asparagus, avocados, birdseed, cacao, coffee, edible flowers, feijoa, figs, ginseng, grapes, guayule, hops, kiwis, okras, olives, palms, papayas, pawpaws, persimmons, pineapples, rambutans, sugarcane, tamarillos, tea, tobacco, waterchestnuts, watercress

**ORNAMENTAL PLANTS, such as:** African violets, ageratum, aster, aucuba, begonia, cacti, calendula, calla, carnation, ceanothus, chrysanthemum, cineraria, coleus, cotoneaster, cyclamen, daffodil, dahlia, delphinium, ficus, foliage plants, fuschia, gardenia, geranium, gloxinia, hyacinth, hydrangea, iris, ivy, lily, maidenhair fern, marigold, narcissus, orchid, pansy, pelargonium, peony, phlox, pittosporum, poinsettia, pyracantha, rubber plant, snapdragon, stock, tulip, wandering jew, yew, yucca, zinnia

**ORNAMENTAL TREES AND SHRUBS, such as:** Andromeda, arbovitae, ash, Austrian pine, azalea, beech, birch, birdsnest spruce, blue spruce, bougainvilla, boxwood, butternut, camellia, cedar, chamaecyparis, cherry, crabapple, cyprus, dogwood, douglas fir, elm, euonymus, firethorn, forsythia, hackberry, hawthorn, hemlock, hickory, holly, honeylocust, horsechestnut, ilex, juniper, larch laurel, lilac, linden, London plane, magnolia, manvillia, maple, mimosa, mountain ash, myrtle, oak, pachysandra, peach pine, photinia, pines, planetree, poplar, privet, quince, rhododendron, roses, spruce, sycamore white cedar, and white pine.



# CHEMIGATION OF AMVAC AZA 3% EC

## 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 AMVAC AZA 3% EC 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 AMVAC AZA 3% EC at a rate that exceeds 20 grams active ingredient per acre (22.5 fl oz of E.C.). If applying AMVAC AZA 3% EC in combination with other products refer to the compatibility statement in the USE PRECAUTION section.

## OBSERVE THE FOLLOWING PRECAUTIONS IF YOUR CHEMIGATION SYSTEM IS 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 a 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 of overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

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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, or in the cases where there is not a 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.

**STATEMENTS CONCERNING THE OPERATION OF SPRINKLER CHEMIGATION; 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 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.

**STATEMENTS CONCERNING THE OPERATION OF FLOOD (BASIN) IRRIGATION UTILIZING GRAVITY FLOW OR PRESSURIZED WATER AND PESTICIDE INJECTION SYSTEM.**

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 back flow if water flow stops.

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Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- a. The system must contain a functional interlocking check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of the 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 to 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 fitted with a system interlock.

## STORAGE AND DISPOSAL

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

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

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

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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## IMPORTANT: PLEASE READ BEFORE USE

By using this product, the user accepts the following: LIMITED WARRANTY:

AMVAC warrants that (a) this product conforms to the chemical description on its label; (b) this product is reasonably fit for the purposes stated on its label, subject to the inherent risks referred to herein, when used in accordance with its directions; and (c) that the directions, cautions and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and plants, and upon reports of field experience. Testing has not been performed on all varieties of food crops, and plants, in all states, or under all application, weather and crop conditions. There are no express warranties other than those set forth herein. AMVAC neither makes nor intends, nor does it authorize any agent or representative to make, any other warranty, express or implied. AMVAC expressly excludes and disclaims all implied warranties of merchantability, fitness for particular purpose, or any other warranty of quality or performance.

This warranty does not extend to, and the user shall be solely responsible for, any loss or damage that results from the use of this product in any manner that is inconsistent with this label's directions, or cautions.

User's exclusive remedy and AMVAC 's or seller's exclusive liability for any claim loss, damage, or injury resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort, or otherwise, shall be limited, at AMVAC 's option, to replacement, or repayment of the purchase price for, the quantity of product with respect to which damages are claimed. In no event shall AMVAC or Seller be liable for special, indirect, or consequential damages resulting from the use or handling of this product.