September 9, 2004



Mr. Arthur Neal USDA/AMS/TM/NOP U.S. Department of Agriculture 1400 Independence Avenue Room #4008 South Washington, D.C. 20250 80 Rochester Avenue Suite 214 Portsmouth, NH 03801 (603) 431-4242 (603) 430-8029 fax web site: avachem.com email: cheminfo@avachem.com

#### SUBJECT: Amendment No. 2 to Petition to Allow Use of Sucrose Octanoate Esters in Organic Production

Dear. Mr. Neal:

I refer to the "Petition to Allow Use of Sucrose Octanoate Esters as a Synthetic Substance in Organic Production", dated January 22, 2004 and to an Amendment dated May 27, 2004. The latter document is referred to herein as "Amendment No. 1."

This Amendment No. 2 expands Section 12, Petition Justification Statement, of Amendment No. 1 and also clarifies the nature of the petitioned substance relative to Section 6517 (c) (1) (B) (I) of the Act.

#### 1. EXPANSION OF PETITION JUSTIFICATION STATEMENT

**Introduction:** The Petition Justification Statement in Amendment No. 1 presents two examples of commercial organic growers experiencing difficulty maintaining/expanding their organic production because of the limited availability of pest control products approved for organic agriculture. In both instances, availability of the substance that is the subject of this petition would add an important additional means of addressing a pest control problem for which no viable solution currently exists.

This Amendment No. 2 takes a broader approach by comparing the registered commercial agricultural pesticide uses of the petitioned substance with those of the existing substances approved for organic agriculture that are also registered for a similar range of commercial agricultural pesticide uses.

**Other Pesticides Registered for Similar Uses:** The petitioned substance is an EPA-approved insecticide/miticide that is registered for use against soft-bodied insects and mites on a wide range of greenhouse, nursery and field crops. The

attached Table 1 lists seven OMRI-approved substances that are registered for generally similar uses.

**Label limitations:** With respect to efficacy against particular insect types/ life stages, the following limitations of the materials listed in Table 1, based on a review of their pesticide labels<sup>1</sup>, are noted:

- #1 and #6 are not labeled for mites.
- #1 is an insect growth regulator, killing only larval stages of insects and #3 is most effective when applied before insects or eggs are present in large numbers.
- The label for #3 recommends that no more than two consecutive applications of the product be made, followed by at least two applications of an alternative chemistry.
- The label for #4 contains instructions with respect to the timing of application that, for many crop/pest combinations, limit the use of the product to when the crops are dormant.

With respect to impacts on non-target organisms the following limitations, based on language contained in the respective labels, are noted:

- #5 is toxic to fish and #6 is highly toxic to fish.
- #2 is a bee hazard and should not be applied when bees are actively visiting the treatment area.
- The label for #7 contains extensive warnings about phytotoxicity.

**Efficacy Limitations:** More difficult to identify than the specific use limitations noted above are the crop/pest combinations where a particular pesticide product does not provide an acceptable level of efficacy. One of the examples contained in Amendment No. 1 highlights this issue. Three of the substances listed in Table 1 (#1, # 6 and #7), together with the petitioned substance, are labeled for mealy bug control on pineapple and were included in trials in Hawaii that are reported in Amendment No. 1. Only the petitioned substance showed acceptable efficacy; the other substances showed essentially no control.

Without extensive side by side trials, such as the Hawaii trial referred to above, it is difficult to say how many instances there are of substances being labeled for pest/crop combinations for which they are not effective. However, since EPA does not require efficacy data to support the efficacy claims made on pesticide labels, it is unlikely the example given above is a unique case. This further limits the usefulness of any individual pesticide and argues for the availability of multiple organically-approved substances that provide complimentary and/or overlapping pest control.

<sup>&</sup>lt;sup>1</sup> Copies of the pesticide labels for the substances listed in Table 1 are attached.

**Integrated Pest Management:** Increasing attention is being given in both organic and non-organic agriculture to the use of integrated pest management (IPM) involving a range of cultural methods, including promotion of beneficial insects to act as natural predators and rotation of pesticides to avoid resistance build-up in target insect populations. This is an additional reason for expanding the range of pest control products available to organic agriculture; IPM relies heavily on rotating pesticides.

**Summary:** A survey of registered insecticides/miticides available for use in organic agriculture shows that there are seven products with a labeled pest control spectrum generally similar to that of the petitioned substance.

- **Pest Control:** Two of the seven products are not labeled for mites, a major pest category, and a third is most effective when applied at low pest levels. Of the four remaining products available for adult mite suppression, two are intended for use primarily when plants are dormant; the third is intended for use no more than twice consecutively; and the fourth has significant limitations because it is phytotoxic to a range of crops.
- **Environment:** One of the seven products is toxic to fish; a second is highly toxic to fish; and a third is a bee hazard.

The petitioned substance is an effective adult miticide (as well as controlling other pest types); it can be used at all plant growth stages; is not harmful to fish; it is not a hazard to bees (it is registered for use on bees to control *Varroa* mites); and it is not phytotoxic. It therefore compliments the existing substances approved for pest control in organic agriculture from an efficacy standpoint, particularly within the framework of IPM systems, while avoiding the negative environmental effects of some of those substances.

#### 2. SECTION 6517 (C) (1) (B) (i)

The petitioned substance is a soap derived from coconut oil fatty acids or palm kernel oil fatty acids.

I trust the additional information provided above will assist in moving this petition forward. I would be pleased to answer any questions you may have.

Very truly yours

AVA CHEMICAL VENTURES, L.L.C. Anthony Bayrington Managing Member

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# Neemix®

### INSECT GROWTH REGULATOR

Kills/repels a variety of insect pests including whiteflies, caterpillars, leafminers, aphids, and diamondback moths.

# FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:	
Azadirachtin	4.5%
OTHER INGREDIENTS:	
TOTAL:	

This product contains 0.34 pounds of azadirachtin per U.S. 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).

# Certis USA, L.L.C. 9145 Guilford Road Suite 175 Columbia, MD 21046

Manufactured by

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND FIRST AID

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

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear goggles and/or face shield. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Harmful if inhaled. Avoid breathing spray mist. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### FIRST AID

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

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

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 to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

#### **Personal Protective Equipment:**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Vitori.
- · Shoes plus socks.
- · Protective Eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them.

#### USER SAFETY RECOMMENDATIONS Users Should:

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



Net Contents: 1 Quart EPA Reg. No. 70051-9 EPA Est. No. 44616-MO-01 Lot Number:

#### PHYSICAL OR CHEMICAL HAZARDS

Combustible: Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### 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 (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- · Coveralls.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Viton.
- Shoes plus socks.
- · Protective Eyewear

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box 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. Keep unprotected persons out of treated areas until sprays have dried.

#### GENERAL

- · Botanical Insecticide Concentrate.
- · Kills larval stages of insects only.
- · Not for use in food-handling establishments.
- Shake well before using.
- Spraying directly onto the pest and a longer duration of leaf wetting increases effectiveness. Apply in early to mid-morning or late afternoon. This is particularly important with whitefly adults, which are sedentary on the undersides of leaves at these times.
- Maintain Neemix<sup>®</sup> 4.5 in diluted solution at pH between 3-8. Use spray solutions within several hours of preparation for maximum effectiveness. Do not store diluted solution for later use.
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted material prior to root establishment. Do not apply to known spray sensitive plants without testing.
- NEEMIX® 4.5 has been found to be compatible when used in conjunction with most beneficial insects. Conduct a small trial to assure compatibility before using on a large scale.
- For indoor and outdoor use.

#### TANK MIXING

NEEMIX® 4.5 has been found to be compatible with most commonly used fungicides, insecticides, and fertilizers. Check physical compatibility first by using the correct proportion of products in a small jar test. Then, test tankmix combinations for phytotoxicity on a sample of plants prior to use. This must be done with combinations used before as environmental conditions can alter the interaction between compounds. Due to the wide variation in climatic conditions, cultural practices, and other factors, the user assumes full responsibility for any crop damage or other liability resulting from the use of NEEMIX® 4.5 in a tank mix combination. Do not mix NEEMIX® 4.5 with oxidizing agents such as bleach, or strong acids and bases as they will destabilize the product.

#### DIRECTIONS FOR FOOD CROP APPLICATION

#### **General Directions**

- Use care when applying near streams, ponds, lakes or other bodies of water.
- Do not apply NEEMIX<sup>®</sup> 4.5 when weather conditions favor drift or when the likelihood of runoff is high.

#### GREENHOUSE

- For use to control whiteflies, thrips, mealybugs, leafminers, loopers, caterpillars, beet armyworms, and aphids in and around greenhouses and commercial nurseries.
- NEEMIX® 4.5 may be used on all fruits, vegetables, vegetable transplants, and herbs both inside and outside of the greenhouse.
- Dilute NEEMIX® 4.5 at 3.5 to 8.0 fluid ounces per 100 gallons of water (1/4 to 1/2 teaspoon of NEEMIX® 4.5 per gallon of water). Mix thoroughly. Apply at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces to runoff. Use 1-2 gallons of spray solution/1,000 sq. feet. Avoid excessive application.
- For low volume application, apply 0.5 pint of NEEMIX® 4.5 per acre in sufficient water to provide adequate coverage.
- Apply sprays on a preventative 7-day schedule or at the first sign of insect presence. This schedule is effective under low insect pressure. Under high insect pressure, apply every 3-4 days.
- For drench applications in greenhouse plantings, use 2.25 fluid ounces per 100 gallons and apply at the rate of 1 quart of diluted solution per square foot of growing media surface. Repeat at 14-day intervals during the growing season.

#### **Specific Crop Directions**

Application Rate: Apply 0.25-1 pint (4.0-16.0 fluid oz.) of NEEMIX® 4.5 per acre using suitable ground or aerial application equipment, in a manner to obtain uniform and complete plant coverage. For agronomic crops apply using conventional ground application equipment in a minimum of 30 gallons of water and aerial application equipment in a minimum of 3 gallons of water. Avoid over-spraying to the point of excessive runoff. Refer to table for application rates. Use the low rate as a preventative when pest pressure is low, or if used in conjunction with adulticide products. Otherwise, use the high rate. The maximum application rate is 20 grams active ingredient or less per acre according to the tolerance exemption (40 CFR 180.1119).

#### Mode of Action

This product controls targeted insect larvae when ingested or come in contact with it, by interfering with the insects' ability to molt. It is effective on all larval stages and pupae. It also reduces damage by repelling and deterring feeding of all stages of insect.

Pest	Rate Neemix® 4.5 Per Acre* (fluid ounces)	Frequency	Remarks
Sweetpotato Whitefly Low Pressure High pressure	4.0 7.0 fluid oz. 8.0 – 16.0 fluid oz.	4 – 10 days 3 – 7 days	Foliar application to larvae and nymphs
Aphids	5.0 – 7.0 fluid oz.	7 10 days	Suppression and adult feeding deterrence
Leafminer	4.0 7.0 fluid oz.	14 21 days	Foliar application to larvae and nymphs
Armyworms	4.0 – 10.0 fluid oz.	7 – 10 days	Foliar application to larvae
Others (including) Borers Leafhoppers Leafrollers Loopers	7.0 – 16.0 fluid oz.	7 – 10 days	Foliar application to larvae and nymphs

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CITRUS, POME AND STONE FRUITS			
Crops	(including, but not lim	ited to)	
Apples	Jujubes	Peaches	
Apricots	Kumquats	Pears	
Avocado	Lemons	Plums	
Cherries	Limes	Prunes	
Crabapples	Nectarines	Quinces	
Grapefruits	Oranges		
	CUCURBITS		
Crops	(including, but not lim	ited to)	
Balsam pears	Gherkins	Pumpkins	
Cantaloupes	Gourds	Squashes	
Chinese waxgourds	Honeydew melons	Watermelons	
Cucumbers	Mangoes		
BULB, CC	LE AND LEAFY VEC	SETABLES	
Crops	(including, but not lim	ited to)	
Asparagus	Collards	Mustard greens	
Arugula	Cress	Onions	
Broccoli	Endive	Parsley	
Bok choy	Fennel	Rhubarb	
Brussels sprouts	Garlic	Shallots	
Cabbage	Kale	Spinach	
Cauliflower	Kohlrabi	Swiss chard	
Celery	Leek	Turnip tops	
Chinese spinach	Lettuce	Watercress	
LEGUME	AND FRUITING VEG	ETABLES	
Crops	(including, but not lim	ited to)	
Beans	Lentils	Soybeans	
Chick peas	Peanuts	Tomatoes	
Eggplants	Peas		
Ground cherries	Peppers		
	, ,		

#### **ROOT AND TUBER VEGETABLES**

Crops (including, but not limited to)			
Artichokes	Horseradish	Turmeric	
Beets	Parsnips	Turnips	
Carrots	Potatoes	Yam beans	
Cassava	Radishes	Yams	
Ginger	Rutabaga		
Ginseng	Sweet potatoes		

#### SMALL FRUITS AND BERRIES

Crops (including, but not limited to)			
Blackberries	Dewberries	Loganberries	
Blueberries	Elderberries	Raspberries	
Boysenberries	Gooseberries	Strawberries	
Cranberries	Grapes	Youngberries	
Currants	Huckleberries		

#### HERBS AND SPICES Crops (including, but not limited to) Anise Cumin Rosemary Balm Curry leaf Rue Dandelion Basil Sage Borage Dill Savory Camomile Fennel Spearmint Caraway Marigold Sweet bay Catnip Majoram Tarragon Celery Mint Thyme Chives Pennyroyal Wintergreen Coriander Peppermint

#### NUTS

Crops (including, but not limited to)			
Almonds	Cashews	Macadamias	
Beech nuts	Chestnuts	Pecans	
Brazil nuts	Filberts	Pistachios	
Butternuts	Hickory nuts	Walnut <b>s</b>	

#### MISCELLANEOUS

Crops (including, but not limited to)				
Cotton	Corn			
Sweet Corn	Other crops grown for seed			
Alfalfa				

#### **INSECT PESTS CONTROLLED BY NEEMIX® 4.5**

#### Aphids:

Cotton Aphid Green Peach Aphid Black Maringed Aphid Filbert Aphid

#### Armyworms:

Beet Armyworm Fall Armyworm Southern Armyworm Yellowstriped Armyworm

#### Borers:

Peachtwig Borer Squash Vine Borer

#### Caterpillars & Loopers:

Cabbage Looper Diamond Moth Imported Cabbage Looper Navel Orangeworm Soybean Looper Tobacco Budworm Tomato Fruitworm Grapeleaf Skeletonizer Hornworm Fall Webworm Lesser Webworm Pickleworm Rindworm Melonworm Sod Webworm Pecan Nut Casebearer Walnut Caterpillars Hickory Shuckworms Corn Earworms

#### Budworms:

Garden Webworm Tomato Pinworm Grapefruit Worm Filbert Worms

#### Cutworms:

Black Cutworm Citrus Cutworm

#### Leafhoppers:

Grape Leafhopper Potato Leafhopper Variegated Leafhopper Aster Leafhopper

Leafminers: Holly Leafminer Sepentine Leafminer Vegetable Leafminer

#### CHEMIGATION

Refer to supplemental labeling entitled "Certis's Chemigation Bulletin" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

#### Leafrollers:

Oblique Banded Leafroller Omniverous Leafroller Grape Leafroller Fruitree Leafroller Blueberry Leafroller Filbert Leafroller

#### Moths:

Artichoke Plume Moth Codling Moth Gypsy Moth Diamondback Moth Grape Berry Moth

Thrips: Thrips Palmi

#### Whiteflies:

Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly

Psyllids

Spittle Bugs

Mealybugs

#### Beetles, Grubs and Weevils: Pecan Weevils

Chestnut Weevils Colorado Potato Beetle Black Vine Weevil Twig Girdlers Strawberry Beetle Potato Flea Beetle Mexican Bean Beetle Bean Leaf Beetle Flea Beetle Bollweevil

#### Miscellaneous:

Fruitfly Grasshopper Squash Bug Cabbage Maggot Onion Maggot Cherry Fruitworm Grape Leaffolder Pink Bollworm Lygus Bug San Jose Scales Calico Scales Frosted Scales Pecan Leaf Phylloxera Pecan Stem Phylloxera

#### STORAGE AND DISPOSAL

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

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

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on-site or in 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 by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

#### WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

# **Chemigation Bulletin**

GENERAL INFORMATION:

Apply this product only through drip (trickle); sprinkler (solid set, lateral move, end tow, sideroll, center pivot, or hand move); flood (basin); furrow; or border 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, 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.

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.

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, discharge the water from the public water system 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.

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

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

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

#### **DRIP TRICKLE CHEMIGATION:**

- 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 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.
- 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 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 (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be

continuous in sufficient water to apply the application rate evenly to the entire treated area.

#### SPRINKLER CHEMIGATION:

- 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 also 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.
- 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 (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply when soils are moderately moist. Use volumes that thoroughly wet the foliage and/or soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.
- 8. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### FLOOD (BASIN), FURROW AND BORDER CHEMIGATION:

- 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 of water source contamination from the backflow if water flow stops.
- 2. 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 (i.e., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 3. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

# FUNGICIDE/MITICIDE/INSECTICIDE

Trilog

#### For use on vegetables, fruits, nuts, melons and agronomic crops For foliar control of fungal disease and insect pests

### **FOR ORGANIC PRODUCTION**

#### ACTIVE INGREDIENT:

Clarified Hydrophobic	Extract of Neem Oil70%	ò
INERT INGREDIENTS		b
TOTAL	100%	- >

This product contains 5.46 lb of clarified hydrophobic extract of neem oil per US gallon.

This container will treat up to 0.5 acres when used at the highest application rate (only for containers less than 5 gallons).

#### KEEP OUT OF REACH OF CHILDREN CAUTION



Net Contents: EPA Reg. No. 70051-2 EPA Est. No.70051-CA-001 Composition covered by US Patents 5,298,251; 5,356,629; 5,372,817; 5,405,612; and 5,409,708. Lot No.:

Manufactured by Certis USA, L.L.C. 9145 Guilford Road Suite 175 Columbia, MD 21046 CERTIS

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

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

#### **FIRST AID**

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

#### **Personal Protective Equipment:**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or Viton.

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.

#### User Safety Recommendations:

Users should:

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

#### BEE HAZARD

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

Shoes plus socks.

#### 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 type of irrigation system. 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 (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- · Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Viton.
- · Shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box 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.

Keep unprotected persons out of treated areas until sprays have dried.

#### **GENERAL INFORMATION:**

- Thorough coverage is necessary to provide good disease and mite control. Trilogy<sup>®</sup> prevents fungal attack of plant tissue and contact activity to mite pressure on the plant. Avoid excessive runoff of spray material for maximum control.
- For optimal performance, do not mix with cold water (less than 45°F).
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted crops prior to root establishment.
- When used in conjunction with beneficial insects, conduct a small trial to assure compatibility before using on a large scale.
- As with other oil-based products, exercise care in timing applications to early morning/late evening to minimize the potential for leaf burn.

#### AGRICULTURAL USE DIRECTIONS

Trilogy<sup>®</sup> is a broad spectrum fungicide of certain diseases and controls mites in citrus, deciduous fruits and nuts, vegetable crops, cereal grains, and other miscellaneous crops.

- Do not use Trilogy® in nurseries, on turf, or landscape plantings.
- Do not use Trilogy<sup>®</sup> after bloom on table grapes or following bunch closure on wine grapes. Do not use Trilogy<sup>®</sup> after pit hardening on stone fruit.
- Use care when applying near streams, ponds, lakes, or other bodies of water. Do not apply Trilogy® when weather conditions favor drift or when the likelihood of runoff is high.
- Apply Trilogy<sup>®</sup> by conventional, low volume, and aerial application equipment.

#### **APPLICATION INSTRUCTIONS**

Ground Application: Apply Trilogy® by ground application in a minimum of 25 gallons of water / acre.

**Chemigation:** Do not apply this product through any type of irrigation system.

Aerial Application: For those crops where aerial applications are indicated, apply a minimum of 5 gallons of water / acre unless otherwise specified. Avoid application under conditions when uniform coverage cannot be obtained or when excessive drift may occur. Do not apply directly to humans, animals or aquatic animals.

#### DILUTION TABLE FOR LOW VOLUME (INCLUDING AERIAL) APPLICATIONS (5-30 gallons per acre)

Gallons of Water	TRILOGY®	DILUTION
5	1 Quart*	5%
10	1 Quart*	2.5%
15	1 Quart*	1.67%
20	1 Quart*	1.25%
25	1 Quart*	1.0%
30	1 Quart*	0.83%

\*For citrus, stone fruit, tropical fruit, pome fruit, and nuts, refer to specific application instructions.

	(25-250 gallons per acre)				
Gallons Water	Gallons of Trilogy® for 0.5% Solution	Gallons of Trilogy® for 1.0% Solution	Gallons of Trilogy® for 1.5% Solution	Gallons of Trilogy® for 2.0% Solution	
25	Use 1.0% solution	0.25 (32 fl. oz.)	0.375 (48 fl. az.)	0.5 (64 fl. oz.)	
50	0.25 (32 fl. oz.)	0.5 (64 fl. oz.)	0.75 (96 fl. oz.)	1.0	
75	0.375 (48 ft. oz.)	0.75 (96 fl. oz.)	1.125	1.5	
100	0.5	1.0	1.5	2.0	
125	0.625 (80 fl. oz.)	1.25	1.875	2.5	
150	0.75	1.5	2.25	3.0	
175	0.875 (112 fl. oz.)	1.75	2.625	3.5	
200	1.0	2.0	3.0	4.0	
225	1.125	2.25	3.375	4.5	
250	1.25	2.5	3.75	5.0	

 For Diseases: Apply Trilogy® as a 1.0% solution in sufficient amounts of water to achieve complete coverage of foliage. (See the following detailed directions per crop groupings). When used as a foliar fungicide, begin applications when conditions are favorable for disease but before infection. Apply

# DILUTION TABLE FOR HIGH VOLUME APPLICATION

Trilogy® every 7-14 days until threat of disease is over. Use Trilogy® in rotation with other fungicides to increase the spectrum of control.

- For Mites: For best results, apply Trilogy® in sufficient amounts of water to achieve complete coverage. Trilogy® is most effective when applied before mites or eggs are present in large numbers. (See the following detailed directions per crop groupings). Apply at a rate of 1.0-2.0% Trilogy®. Reapply Trilogy® every 7-21 days until pressure is over.
- For Insects: For best results, apply Trilogy<sup>®</sup> at 1.0-2.0% in sufficient amounts of water to achieve complete coverage. Trilogy<sup>®</sup> is most effective when applied before insects or eggs are present in large numbers. Repeat application based on pest pressure and field scouting for best results. Use the dilution tables to calculate dilution rates.

#### **MIXING INSTRUCTIONS**

Add Trilogy® to one-half (1/2) full tank under agitation containing water of 45°F or greater before filling to desired level. If water temperature is below 45°F, premix Trilogy® at a 1:1 ratio with tepid water to ensure good emulsification. Then dilute to final volume. When combining with other products, such as wettable powder insecticides or fungicides, add these items first when the tank is approximately 1/3 full. Ensure that there is good agitation while mixing for complete emulsification. Maintain agitation during spray application. Do not use if this oil does not form a uniform, cloudy emulsion.

**TANK MIXING:** Trilogy® has been found to be compatible with most commonly used fungicides, insecticides and fertilizers. Check physical compatibility first with other products before mixing by using a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. After thoroughly mixing, let mixture stand for at least 5 minutes. Growers must tank mix combinations for phytotoxicity on a sample of plants prior to use. *Due to the wide variation in climatic conditions, cultural practices, and other factors, the User assumes full responsibility for any crop damage or other liability resulting from the use of Trilogy® in a tank mix combination. Avoid tank mixes with Captan, Sulfur, chlorothalonil or other chemically similar products as unpredictable results or leaf burn may occur.* 

#### CITRUS

Use Trilogy® on citrus to control diseases to include Anthracnose, Post-Bloom Fruit Drop, and Scab. Apply as a foliar application at the rate of 1.0% in 25-200 gallons of water for high volume applications or a minimum of 0.5 gallons Trilogy® in a minimum of 5 gallons of water per acre for low volume applications. Do not apply more than 2.5 gallons of Trilogy® per acre, per application.

Reapply Trilogy® every 7-14 days until threat of disease is over.

For control of Alternaria and Greasy Spot, apply Trilogy® at a 1.0% solution in 25-125 gallons of water per acre in combination with Copper @ 2.0 lbs a.i. per acre (as found in EPA registered products such as Kocide® and Champ®) as a preventative disease spray tank mixture.

Use Trilogy® on citrus to control mites at a rate of 1.0-2.0% in 25-200 gallons of water for high volume application or 0.5 gallon Trilogy® in a minimum of 5 gallons of water per acre for low volume application. As a dormant oil spray, use Trilogy® as a 2% solution or 1 quart Trilogy® minimum per acre. Do not apply more than 5 gallons of Trilogy® per acre, per application.

#### STONE AND TROPICAL FRUITS

**FUNGICIDE USE:** Apply Trilogy® at a rate of 1.0% in 25-200 gallons of water for high volume applications or 0.5 gallons Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Reapply Trilogy® every 7-14 days until threat of disease is over.

**MITICIDE USE:** Use Trilogy® at first sign of pests or pest damage at the appropriate rate listed below as a foliar spray in sufficient water for thorough coverage. Repeat applications as needed for adequate control every 7-21 days. Apply a 1.0-2.0% solution of Trilogy® for high volume application or a minimum of 1 quart Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Do not apply more than 5 gallons of Trilogy® per acre, per application.

Do not use Trilogy® after pit hardening on stone fruit.

#### VEGETABLE, CEREAL GRAINS AND OTHER MISCELLANEOUS CROPS FUNGICIDE USE

Apply Trilogy® at a rate of 0.5%-1.0% in 25-100 gallons of water per acre or 2 pints Trilogy® in a minimum of 5 gallons of water per acre for low volume applications. Repeat applications every 7-14 days. Apply no more than 2 gallons Trilogy® per acre, per application. Larger plants will require higher amounts of water to obtain good coverage.

#### MITICIDE USE

Apply Trilogy® at a rate of 0.5%-2.0% in 25-100 gallons of water per acre or 2 pints Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons Trilogy® per acre in solution per application. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Reapply Trilogy® every 7-21 days as needed for adequate control. Larger plants will require higher amounts of water to obtain good coverage.

#### POME (DECIDUOUS FRUITS) AND NUTS

**FUNGICIDE USE:** Apply Trilogy® at a rate of 1.0% in 25-100 gallons of water per acre or 0.5 quarts Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2.5 gallons of Trilogy® per acre in solution per application. Repeat applications every 7-14 days.

**MITICIDE USE:** Use Trilogy® at a rate of 1.0-2.0% in 25-100 gallons of water per acre or 0.5 quarts Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons of Trilogy® per acre per solution. Apply at first sign of pests or pest damage. Repeat application as needed for adequate control every 7-21 days. Do not apply more than 5 gallons.Trilogy® per acre, per application.

Walnuts: Avoid spraying after husk split.

CITRUS, POME, STONE, AND TROPICAL FRUITS			
Crops (including but not limited to)			
Apples	Figs	Papayas	
Apricots	Grapefruits	Passion fruit	
Avocados	Guavas	Peaches	
Bananas	Jujubes	Pears	
Calamondin	Kiwifruit	Oriental pears	
Cherries	Kumquats	Pineapples	
Barbados cherries	Lemons	Plantains	
Sour cherries	Limes	Plums	
Sweet cherries	Loquats	Pomegranates	
Cherimoya	Lychee	Prunes	
Citrus citron	Mangoes	Pummelos	
Citrus hybrids	Mandarins	Quinces	
Coconuts	Satsuma mandarins	Tangelos	
Crabapples	Nectarines	Tangerines	
Dates	Olíves		
Feijoa	Oranges		

#### CUCURBITS

Refer to specific application instructions found directly below the heading Agricultural Use Directions.

Crops	(including	but not	imited to)

F <u></u>	
Balsam pears (bitter melons)	Honey balls
Cantaloupes	Melons (incl. hybrids)
Casaba	Honeydew melons
Chinese waxgourds	Muskmelons
Citron melons	Persian melons
Crenshaw	Pumpkins
Cucumbers	Squashes
Gherkins	Watermelons (incl. hybrids)
Gourds	Zucchini

#### SMALL FRUITS AND BERRIES

Refer to specific application instructions found directly below the heading Agricultural Use Directions.

Crops	(including	but not	limited	to)	)
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Blackberries
Blueberries
Boysenberries
Cranberries
Currants
Dewberries
Elderberries
Gooseberries

Grapes Huckleberries Loganberries Olallie berries Raspberries (black & red) Strawberries Youngberries

#### NUTS

Crops (including but not limited to)

Almonds	Filberts
Beech nuts	Hickory nuts
Brazil nuts	Japanese horse chestnuts
Butternuts	Macadamia nuts
Cashews	Pecans
Chestnuts	Pistachios
Chinquapins	Walnuts

#### BULB, COLE AND LEAFY VEGETABLES

Refer to specific application instructions found directly below the heading Agricultural Use Directions.

Crops (including but not limited to)		
Arugula	Garlic	
Broccoli	Greens	
Broccoli raab	Collard greens	
Chinese broccoli (Gai Ion)	Mustard greens	
Brussels sprouts	Rape greens	
Cabbage (head & leaf)	Kale	
Chinese cabbage	Kohlrabi	
(Bok choy, Napa)	Leek	
Chinese mustard cabbage	Lettuce (head & leaf)	
(Gai choy)	Low-bok	
Cauliflower	Onions	
Celery	Orach	
Celtuce	Parsley	
Chervil	Purslane	
Chicory	Raddichio	
Red chicory	Rappini	
Cilantro	Rhubarb	
Collards	Shallots	
Corn salad	Spinach	
Cress	Chinese Spinach	
Watercress	(Amaranth, Tampala)	
Daikon	Swiss chard	
Endive	Turnip tops	
Fennel		

#### LEGUME AND FRUITING VEGETABLES

Refer to specific application instructions found directly below	
the heading Agricultural Use Directions.	

	Crops (including but not limited to)
Beans	Peanuts

Broad beans	Pepinos
Calabaza	Peppers
Chickpeas	Pigeon peas
Eggplants	Snow peas
Ground cherries	Soybeans
Guar	Tomatillos
Lentils	Tomatoes
Peas	

#### **ROOT AND TUBER VEGETABLES**

Refer to specific application instructions found directly below the heading Agricultural Use Directions.

Crops (including but not limited to)	
Artichokes	Potatoes
Beets	Sweet potatoes
Cardone	Radishes
Carrots	Rutabaga
Cassava	Taro (Dasheen)
Ginger	Turmeric
Ginseng	Turnips
Horseradish	Yams
Parsnips	Yam beans

#### HERBS AND SPICES

Refer to specific application instructions found directly below the heading Agricultural Use Directions.

Crops (including but not limited to)	
Anise	Marigold
Balm	Marjoram
Basil	Mint
Borage	Nasturtium
Camomile	Pennyroyal
Caraway	Peppermint
Catnip	Rosemary
Celery	Rue
Chives	Sage
Coriander	Savory
Cumin	Spearmint
Curry leaf	Sweet bay
Dandelion	Tarragon
Dill	Thyme
Fennel	Wintergreen

#### C PS

rennei	wintergreen	
CEREAL GRAINS AND	OTHER MISCELLANEOUS CRO	
Crops (incl	uding but not limited to)	
Acerola Alfalfa Araacaga (Apio) Asparagus Barley Breadfruit Buckwheat Canola Coffee Coriander Corn Popcorn Sweet corn Cotton	Kinep Mushrooms Nispero Oats Okra Quenepa Rice Safflower Seagrapes Sesame Sorghum Soursup (Quanabanas) Star apples Sugarcane	
Hops Jicama Jojoba	Sunflowers Tobacco Wheat	

Pest Control	Suppression	Diseases
Aphids	Whiteflies	Alternaria
Mealybugs	Thrips	Anthracnose
Mites		Early blight
Rust mites		Leaf blight
Spider mites		Botrytis
Scales (Soft scale)		Greasy spot
		Leaf Spot
		Downy mildew
		Post-bloom fruit drop
	Powdery mildew	
	Molds	
	Scabs	
		Rusts
		Shothole

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

**Pesticide Disposal:** Wastes resulting from the use of this product must 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 by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### WARRANTY

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Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

Kocide® is a registered trademark of Griffin L.L.C. Champ® is a registered trademark of Agtrol Chemical Products





#### **Controls Mites and Insects**



JH Biotech, Inc. Ventura, Ca TEL: (800) 428-3493 www.jhbiotech.com

**NOTICE:** Before using this product, read the entire Statement Of Pratical Treatment, Warranty, Directions for Use, and Storage and Disposal Instructions as well as any Supplemental Labeling.

This product is exempt from registration with the Federal EPA under section 25(b) of FIFRA. GC-Mite has not been registered with the Environmental Protection Agency. JH Biotech, Inc. represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide and Rodenticide Act.

#### U.S. Patented and Patent Pending CAUTION KEEP OUT OF REACH OF CHILDREN

#### PRECAUTIONARYSTATEMENTS

#### Hazard to Humans and Domestic Animals

Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

#### STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a Physician or Poison Control Center. Drink one or two glasses of water. Do not induce vomiting. If person is unconscious, do not give anything by mouth or induce vomiting.

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

IF ON SKIN: Wash with plenty of soap and water. Get medieal attention if irritation persists.

IF INHALED: Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers should wear long-sleeved shirt and long pants, waterproof gloves, shoes plus soeks, and protective eyewear.

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

#### **ACTIVE INGREDIENTS:**

Cottonseed Oil	40%
Clove Oil	20%
Garlic Oil	10%
<b>INERT INGREDIENTS</b>	30%
Sorbitol, Oleic Acid, Lauric	Acid, Stearic Acid,
Molasses, Sugar	
TOTAL	100%



# Net Contents: U Quart 2.5 Gallons

#### DIRECTIONS FOR USE

Read entire label before using this product. 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.

#### SHAKE WELL BEFORE USE. USE DILUTION IMMEDIATELY. DO NOT STORE DILUTED SOLUTION.

**Pre-harvest Interval:** GC-Mite may be applied to the all crop types listed in the **APPLICATION RATE TABLE** at any time, up to and including the day of harvest. **There is no pre-harvest interval.** 

For early entry to treated areas that involves contact with anything that has been treated such as plants, soil, or water, wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus soeks, and protective eyewear.

#### NOTICE TO BUYER

To the extent permitted by law, all conditions and warranties, and statutory or other rights of action which buyer or any other user may have against JH Biotech, Inc. or Seller are hereby excluded. JH Biotech, Inc. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by JH Biotech, Inc. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. JH Biotech, Inc.'s liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price thereof.

#### **LIMITEDWARRANTY**

Manufacturer or seller makes no warranty, whether expressed or implied, concerning the use of this product other than that for the purposes indicated on the label. Neither manufacturer nor seller shall be liable for any injury or damage caused by this product due to misuse, mishandling, or any application not specifically described on the label.

#### APPLICATION INSTRUCTIONS

GC-Mite is a pesticide for use against the mite and insect pests listed in the **APPLICATION RATE TABLE**. See Supplemental labeling for specific uses on food and ornamental crops. The pest must come in contact with GC-Mite in order to be affected. Always follow these directions:

- Testing to date indicates GC-Mite may cause injury to some plant species at sensitive stages of growth. Open blooms of certain plants can also be damaged. Do not apply to stressed or wilted plants, or to newly transplanted material prior to root establishment.
- GC-Mite has not been tested on all plant varieties or in all tank mixes. Before applying to a larger number of plants, test GC-Mite on a small number of plants for potential damage.
- We recommend making no more than two consecutive applications of GC-Mite. After two applications, rotate to an alternative chemistry for at least two applications.
- Apply early in the morning or late afternoon when the temperature is lower.
- Spray directly onto pest(s).
- Make applications before noticeable foliar damage occurs.
- Thorough spray coverage is essential for good pest control.
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, pest pressure and weather conditions after spraying.
- Local conditions may affect the use of GC-Mite. Consult your local State Extension Specialist for specific recommendations related to local crop protection problems.
- Spray water/spray tank solutions should not be below pH 3.0 or above 8.0. GC-Mite works best in a pH range of 3.5 to 7.5. Use outside this range may cause product degradation. If necessary, buffer water to near neutral pH.
- Do not mix GC-Mite with oxidizing agents such as bleach, bases or strong acids as they will destabilize the product.
- Avoid application when drying of product is not possible for prolonged periods.

#### APPLICTION RATE

In general, add 1 gallon of GC-Mite for every 100 gallons of water to be applied. Add to mixing tank with half of the amount of water you wish to apply. Allow the solution to completely mix then add the remaining water to the tank. Refer to supplemental labeling for specific use and directions.

#### MIXING INSTRUCTIONS

GC-Mite may be applied using conventional ground application equipment. Aerial application equipment is not recommended. Use quantities of water sufficient to provide thorough coverage of infested plants. Add enough water to spray tank to allow maximum agitation. With agitator running, slowly add the appropriate amount of GC-Mite. Continue agitation. Add remainder of water and agitate until thoroughly mixed. Maintain suspension while loading and spraying. Do not mix more GC-Mite than can be used in a 12 hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the **APPLICATION RATE TABLE**.

NOTE: All applications should be proceeded by a phytotxicity check to ensure that the material is safe for that particular plant variety. We recommend that prior to treatment of a large number of plants, new species, or varieties, treat a few plants with GC-Mite and observe if there is any phytotoxicity. It is best to treat plants after they've adjusted to environmental changes, i e. temperature, water, light intensity, new containers, new area, transplanting, wind, high humidity, etc. Do not use if sulfur is present on plant tissues.

#### TANKMIXING

GC-Mite has not been tested for use in a tank mix with many commonly used insecticides, fungicides, or spray tank adjuvants. We recommend testing all tank mix combinations for physical compatibility and plant safety. Consult your dealer or manufacturer for specific recommendations. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitations and precautions. Read and follow label instructions.

#### STORAGE AND DISPOSAL

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

**STORAGE:** Keep this product in containers stored upright and secured with the original closure. Do not store this product near heat sources. Do not store near food or feedstuffs.

4-4-03-AG

#### Food Crop Supplemental Label





JH Biotech, Inc. Ventura, Ca TEL: (800) 428-3493 www.jhbiotech.com

This product is exempt from registration with the Federal EPA under section 25(b) of FIFRA. GC-Mite has not been registered with the Environmental Protection Agency. JH Biotech, Inc. represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide and Rodenticide Act.

#### **U.S. Patented and Pantent Pending**

GC-MITE APPLICATION & USE TABLE GC-Mite is exempt from tolerances on most food crops. GC-Mite is a contact miticide/insecticide for use on food crops.

CROPS	PESTS	RATE PER ACRE
(GC-Mite can be applied to most crops) Berrics Strawber- ries Raspberries Fruit Trees Pome Fruit Stone Fruit Avocado Citrus Nuts Grapes Vegetables Beans Lettuce Potatoes Sweet Potatoes Spinach Cole Crops Broccoli Cabbage Melons & Cucurbits Peppermint & Herbs	Most Spider Mites Two-spotted Mite European Rcd Mite Texas Six-spotted Spider Mite Pacific Mite Milamette Mite Persea Mite Rust Mite Silver Mite Avocado Thrips Citrus Thrips Greenhouse Thrips Cabbage Aphid Green Peach Aphid Black Aphid Brown Aphid	Mix I gallon of GC-Mite concentrate per 100 gallons of spray water, Apply 100-200 gallons of solution per acre, or enough to cover the entire surface of infected tissues.Mix VolumeFL. OZ. 1 Gallon1 Gallon1.5 5 Gallon5 Gallon7 10 Gallons10 Gallons14 25 Gallons25 Gallons32 100 Gallons100 Gallons128Apply no more than once in a 7 day period. Repeat application as necessary. Coverage is essential to establish control. The use of a spreader/ sticker may increase contact and efficacy of treatment.

#### MIXING INSTRUCTIONS

GC-Mite may be applied using conventional ground application equipment. Aerial application equipment is not recommended. Use quantities of water sufficient to provide thorough coverage of infested plants. Add enough water to spray tank to allow maximum agitation. With agitator running, slowly add the appropriate amount of GC-Mite. Continue agitation. Add remainder of water and agitate until thoroughly mixed. Maintain suspension while loading and spraying. Do not mix more GC-Mite than can be used in a 12 hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the **AP-PLICATION RATE TABLE.** 

**NOTE:** All applications should be proceeded by a phytotoxicity check to ensure that the material is safe for that particular plant variety. We recommend that prior to treatment of a large number of plants, new species, or varieties, treat a few plants with GC-Mite and observe if there is any phytotoxicity. It is best to treat plants after they've adjusted to environmental changes, i.e. temperature, water, light intensity, new containers, new area, transplanting, wind, etc.

#### **TANK MIXING**

GC-Mite has not been tested for use in a tank mix with many commonly used insecticides, fungicides, or spray tank adjuvants. We recommend testing all tank mix combinations for physical compatibility and plant safety. Consult your dealer or manufacturer for specific recommendations. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitations and precautions. Read and follow label instructions. **Ornamental Crop Supplemental Label** 



Broad Spectrum Miticide/Insecticide

**Controls Mites and Insects** 



JH Biotech, Inc. Ventura, Ca TEL: (800) 428-3493 www.jhbiotech.com

This product is exempt from registration with the Federal EPA under section 25(b) of FIFRA. GC-Mite has not been registered with the Environmental Protection Agency. JH Biotech, Inc. represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide and Rodenticide Act.

#### U.S. Patented and Patent Pending

#### **GC-MITE APPLICATION & USE TABLE**

Ornamental Crops	PESTS	RATE PER ACRE
Bedding Plants, Flowers (Greenhouse and Field), Greenhouse Omamen- tals Greenhouse	Most Spider Mites Two-spotted Mite European Red Mite Texas Six-spotted Spider Mite Pacific Mite Willamette Mite	Mix 1 gallon of GC-Mite concentrate per 100 gallons of spray water. Apply enough to cover the entire surface of in- fested tissues. <u>Mix Volume</u> <u>FL. OZ.</u> <u>L.5</u>
vegetables, Bare Root Stock,	Persea Mite Rust Mite Silver Mite	5 Gallon         7           10 Gallons         14           25 Gallons         32           100 Gallons         128
Container Stock Fresh Cut Flowers Ornamentals	Avocado Thrips Citrus Thrips Flower Thrips Greenhouse Thrips	Apply no more than once in a 7 day period. Repeat application as necessary. Coverage is essential to establish control.
	Cabbage Aphid Green Peach Aphid Black Aphid Brown Aphid	The use of a spreader/ sticker may increase contact and efficacy of treatment.

#### MIXING INSTRUCTIONS

GC-Mite may be applied using conventional ground application equipment. Aerial application equipment is not recommended. Use quantities of water sufficient to provide thorough coverage of infested plants. Add enough water to spray tank to allow maximum agitation. With agitator running, slowly add the appropriate amount of GC-Mite. Continue agitation. Add remainder of water and agitate until thoroughly mixed. Maintain suspension while loading and spraying. Do not mix more GC-Mite than can be used in a 12 hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the **AP-PLICATION RATE TABLE.** 

**NOTE:** All applications should be proceeded by a phytotoxicity check to ensure that the material is safe for that particular plant variety. We recommend that prior to treatment of a large number of plants, new species, or varieties, treat a few plants with GC-Mite and observe if there is any phytotoxicity. It is best to treat plants after they've adjusted to environmental changes, i.e. temperature, water, light intensity, new containers, new area, transplanting, wind, etc.

#### **TANK MIXING**

GC-Mite has not been tested for use in a tank mix with many commonly used insecticides, fungicides, or spray tank adjuvants. We recommend testing all tank mix combinations for physical compatibility and plant safety. Consult your dealer or manufacturer for specific recommendations. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitations and precautions. Read and follow label instructions.

4-4-03-ORN



# Specimen Label



www.stollerusa.com 1-800-539-5283

# STOLLER® Golden Pest Spray Oil™

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

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye injury. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

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.

#### ENGINEERING CONTROL STATEMENTS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **COMMERCIAL AGRICULTURE - ENVIRONMENTAL HAZARDS**

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 contaminate water when cleaning equipment or disposing of equipment washwater. Do not dump rinse water into sewers or other bodies of water.

#### HOME AND GARDEN - ENVIRONMENTAL HAZARDS

Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### 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 (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker 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 and shoes plus socks.

#### COMMERCIAL AGRICULTURE - STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**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.

#### HOME AND GARDEN - STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**Disposal:** Securely wrap original container in several layers of newspaper and discard in trash.

#### COMMERCIAL AGRICULTURE - MIXING DIRECTIONS

- Consult application rate tables to determine appropriate amounts of Golden Pest Spray Oil and water to mix.
- 2. Shake well before using.
- 3. Add sufficient water to the mixing tank to allow proper agitation.
- 4. Add oil under agitation when 3/4 full topping off with water to form milky solution.
- 5. For best results, maintain agitation until solution is used.

In small equipment lacking agitation, stir or shake diluted spray frequently during application.

#### HOME AND GARDEN - MIXING DIRECTIONS

- 1. Consult application rate tables to determine appropriate amounts of Golden Pest Spray Oil and water to mix.
- 2. Shake well before using.
- 3. Fill the sprayer one-half full with water.
- 4. Add the recommended amount of Golden Pest Spray Oil.

5. Agitate the mixture and then complete filling the sprayer with the required amount of water.

6. If using small equipment lacking agitation, stir or shake diluted spray frequently during application.

#### **COMMERCIAL AGRICULTURE - APPLICATION INSTRUCTIONS**

Completely cover the target pest with spray. Oil residue on the plant surface often acts as a feeding and ovipositioning deterrent. However, the primary target is the pest itself as oil is a contact pesticide. Spray only when the temperature is above 40°F and there is no danger of freezing.

#### TIMING THE TREATMENT

See table on this label for general use. Consult your State Agricultural Experiment Station or State Extension Service Specialists to determine timing of application to fit local growing and climatic conditions. Do not exceed maximum rates or apply later than recommended.

One application of Golden Pest Spray Oil should be applied to deciduous shrubs and trees in the dormant season to control scales and mites.

#### TANK MIXING

Golden Pest Spray Oil is permitted to be tank mixed with other pesticides. Use the resulting tank in accordance with the more restrictive label limitations and precautions. Do not exceed dosage rates. Before tank mixing with other labeled products, check for tank mix compatibility.

#### GENERAL RECOMMENDATIONS FOR APPLICATION TO ALMONDS, APPLES, APRICOTS, CHERRIES, FIGS, OLIVES, PEACHES, NECTARINES, PEARS AND PRUNES

Completely cover all tree parts to achieve adequate control. Oil atone will control low to moderate infestations. Combine oil with other compatible insecticides for controlling higher scale infestations. If oil is combined with another insecticide, use the lowest rate of oil stated for a selected application. Consult the local pest management guidelines for more details as to the rates and times of application for your specific location.

#### CITRUS

Oil applied after October 1 may increase cold damage to trees. Observe all cautions and limitations on labels of all products used in mixtures. Check mixture for chemical and physical compatibility. Do not use Golden Pest Spray Oil in combination with or immediately preceding the application of Captan or Sevin.

#### SHADE TREE AND ORNAMENTAL PLANT RESTRICTIONS

Oil has the potential to remove the glaucous (blue) bloom from such evergreens as Colorado blue spruce and Koster spruce. Do not spray on walnut foliage. Use lower dosage on oil sensitive plants such as Chamaecypris, Cryptomeria, Japanese Holly, Juniper, Spruce, and Smoke Tree. Red Cedar and Douglas Fir have a tendency toward sensitivity.

#### **GREENHOUSE AND SHADEHOUSE**

Although no problems with phytotoxicity have been seen at provided rates, the applicator is to conduct a phytotoxicity test on 1 or 2 of the specific plants to be treated. Determine application safety during the bloom period for each individual species of plant by conducting a small test.

#### USE PRECAUTIONS

Keep oil container tightly closed in storage to prevent entry of water. Spray only when temperature is above 40°F and there is no danger of freezing. Avoid spraying when temperatures are excessively high and avoid spraying when plants are suffering from lack of moisture. Sensitive foliage is susceptible to injury.

**Gypsy Moth Egg Mass Recommendation:** Use Golden Pest Spray Oil for application to gypsy moth egg masses to prevent hatch of eggs. Mix equal amounts of Golden Pest Spray Oil and water and apply to egg masses as a 50% mix. Make a new mix each day treatments are made. Treat egg masses that have been deposited on trees, ground litter, outdoor household articles, recreational vehicles, firewood, nursery stock, rocks, ships, boats and other forms of transportation, or on other articles moved in interstate commerce.

With use of a small hand sprayer, treat individual egg masses until they are completely saturated with the spray solution. Keep the mix agitated while treating. Do not apply with mist blower or aircraft. It is important that the egg mass is saturated with spray. Following treatment, leave the egg masses in place or remove and incinerate.

**Dilute Applications** is defined as the number of gallons needed to completely cover all the tree surfaces, but not to the point of runoff. For most tree fruits, this can be as much as 300-400 gallons per acre or as low as 100 gallons per acre for smaller trees. For mature citrus trees, this can be as much as 800-1500 gallons per acre.

Low Volume Applications will require the same amount of oil per acre as dilute sprays but applied with much less water (10 to 80 gallons per acre). Base spray oil calculations on no run-off of the oil phase of the mixture.

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# STOLLER® Golden Pest Spray Oil™ (

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Crops	Insects Controlled	Dilute Spray (Gals. Oil Per 100 Gals. Water)	Low Volume Application (Gals. Oil Per Acre)	Time of Application & Comments
Alfalfa (seed crop only)	Spider <b>m</b> ites	1		Apply when insects first appear. Repeat weekly for additional control.
Almonds	Spider mites, aphid eggs, scales	1	2 to 4	Dormant*
Apples	Apple red bug, European fruit Lecanium scale	2	4 to 6	Dormant
	European red mite	2	4 to 6	Green tip to delayed dormant 1/2" green
	San Jose scale	2	· 4 to 6	Delayed dormant 1/2" green**
	Fruit tree leaf roller	3	4 to 6	Dormant
	Scurfy scale	3	4 to 6	Delayed dormant to 1/2" green
Apricots	European fruit Lecanium scale	2	4 to 6	Dormant to delayed dormant 1/2" green
Blueberries	Scales	3	3	Dormant
	Mites	2	2	Apply when insects first appear. Repeat weekly for additional control.
Cherries (sweet & tart)	San Jose scale	2	4 to 6	Dormant
Citrus	Texas citrus mite, citrus rust mite, citrus red mite, loosening sooty mites	1	6 to 15 Apply in sufficient water and manner to assure thorough distribution.	Use Golden Pest Spray Oil for application to citrus at post bloom, summer or fall spray application. Do not apply when trees are in or near wilting.
Corn (field & sweet)	Fall army worms, root worms, ear worms	2	2	Apply when insects first appear. Repeat weekly for additional control.
Cotton	Aphids, whitefly, spider mites	1 to 2	2	Apply when insects first appear. Repeat weekly as needed.
Figs	Scale (severe)	2	4 to 6	Dormant/delayed dormant
Grapes	Mealy bugs	1	2	Dormant
Vectarines	San Jose scale	2	4 to 6	Dormant
Olives	Scales	1	2	Prebloom or postbloom to buckshot
Peaches	Cottony peach scale	2	4 to 6	Dormant
Pears	Fruit tree leaf roller, pear leaf blister mite	3	4 to 6	Dormant
Pecans	Obscure scale	3	6 to 8	Dormant
Prunes	European fruit	2	4 to 6	Dormant to delayed dormant

For delay of fruit tree bloom, spray 5 gallons in 100 gallons of water per acre in late spring before bud break as a concentrate spray. Repeat after 7 days if frost danger to bloom persists.

 $\mu_{c}$  )  $\rho_{S}$  \*Dormant season: After leaf fall and before bud break in the spring.

\*\*Delayed dormant season: After bud break with some green leaf showing.

#### COMMERCIAL AGRICULTURE--APPLICATION RATES

Crops or Plants	Insects Controlled	Application Rate	Time of Application & Comments Controlled
Flower and foliage plants includ- ing azalea, begonia, bulbs, camel- lia, carnation, chrysanthemum, gardenia, geranium, hibiscus, Impatiens, English ivy, marigold, pansy peony, philodendron, rose, and others	Aphids, certain caterpillars, mealy- bugs, scales (immature), spider mites, whiteflies (immature)	Low volume: 2 gals./acre	Apply once a week when insects first appear. Decrease the frequency as the pest is controlled.
Greenhouse and shadehouse crops such as azalea, camellias, gardenias, other nursery orna- mental plants, leaf polish for hardy houseplants	Aphids, fungus gnats, lace bugs, leafminers, mealybugs, scale insects, spider mites, white- flies, whitefly larvae	Dilute: 1 to 2 gals. per 100 gals. water	Apply once a week when insects first appear. Decrease the frequency as the pest is controlled. Use the lower rate as a leaf polish.
Shade trees and shrubs including conifers, deciduous broadleaf evergreens & woody ornamentals	Aphids, adelgids, certain caterpillars, gall mites, lace bugs, leaf beetle larvae, mealybugs	Dilute: 2 to 3 gals. per 100 gals. water	Apply once a week when insects first appear. Decrease the frequency as the pest is controlled.
Vegetables such as asparagus, beans, beets, cabbage, cauli- flower, celery, corn, cucurbits, eggplant, lettuce, melon, peas, potatoes, peppers, squash, toma- toes	Aphids, mites, beetle larvae, leafmin- ers, certain caterpillars, psyllids, white- flies, leafrollers, armored scale, soft scale, mealybugs, webworms, canker- worms, plant bugs, leafhoppers, thrips	Low volum <b>e:</b> 2 gals, per acre	Apply once a week when insects first appear. Decrease the frequency as the pest is controlled.

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# The Premiere White Mineral Oil\* For Control Of Fungal Diseases, Aphid-Transmitted Plant Viruses And Phytophagous Insects And Mites.

Flower Farms, Inc.

ACTIVE INGREDIENT: PARAFFINIC OIL . . . .

# KEEP OUT OF REACH OF CHILDREN CAUTION

#### FIRST AID

IF SWALLOWED - Call poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. IF INHALED - Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. IF ON SKIN OR CLOTHING - Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-7STYLET (778-9538) for emergency medical treatment information.

#### NOTE TO PHYSICIAN: MAY POSE AN ASPIRATION PNEUMONIA HAZARD.

For additional Precautionary Statements see inside booklet.

UMS Flower Farms Inc 1105 25th Ave., Vero Beach, FL 32960 PH: 1-866-7STYLET (1-866-778-9538) FAX: (561) 567-9394 Email: styletoil@aol.com www.stylet-oil.com



EPA Registration No.: 65564-1 EPA Establishment No.: 14774-FL-07: 55206-MI-001

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97.1%

2.9% 100.0%

GALLONS NET U.S. STANDARD

Unsulfonated Residue of the Oil ..... 99.1% Flash Point ...... 345°F

### PREHARVEST INTERVAL No Interval Required

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Harmful if swallowed. If swallowed do not induce vomiting. Call a physician. Avoid breathing vapors and spray mists.

#### **Personal Protective Equipment:**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

• Long sleeved shirt and long pants

• Chemical-resistant gloves, such as barrier laminate or nitrile rubber, neoprene rubber or viton

Shoes plus socks

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.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish. 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 waters. Apply this product only as specified on the label.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### 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 (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

Coveralls

· Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton

• Shoes plus socks

#### STORAGE AND DISPOSAL

**STORAGE** - Keep drum tightly closed in storage to prevent entry of water. Do not freeze. Store drum on side. Roll drum before use if stored over-season. **DISPOSAL PROHIBITIONS**: Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohibited. Pesticide disposal waste resulting from the use of this product may be disposed of on site or at 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 by other procedures approved by State and local authorities. Consult Federal, State or local disposal authorities for approved alternative procedures.

#### **APPLICATION INFORMATION**

#### METHOD OF APPLICATION/ EQUIPMENT

Use the following application method information unless otherwise directed under "Timing/Remarks" for a particular crop/pest.

#### APPLICATION RATE

From 25-150 gallons of dilute spray emulsion per acre depending on plant size. Thorough coverage is necessary. A tractor speed of 3.5-4 mph (6-7 kph) is recommended. Vary the quantity of spray applied by changing the number of nozzles used, not by changing either tractor speed or spray pressure.

# TIMING OF APPLICATIONS

For use as an insecticide: Spray should be initiated as soon as plants emerge. Plants should be sprayed weekly or twice weekly depending on level of pest infestation. Continue sprays through harvest.

For use as a fungicide: Spray weekly or once every two weeks depending on level of disease pressure.

For use in mitigating aphid transmission of plant viruses: Initiate sprays when winged aphids first appear. Spray weekly or twice weekly depending on level of disease/vector pressure. For cucurbits, begin spraying when 50% of plants germinate. Cucurbits should be sprayed twice weekly during rapid growth phase.

#### EQUIPMENT

Thorough coverage is essential. Best coverage is achieved with ground equipment using proper spray pressure, gallonage per acre, nozzles (generally hollow cone), nozzle spacing and tractor speed.

Do not apply this product through any type of irrigation system (chemigation).

For vegetables/plant virus: Spray at no less than 400 psi using ceramic hollow cone nozzles (ALBUZ® ATR (lilac); HCA (green) color or their equivalent). For fungicide use: Application system used for insects/plant virus is not required. However, maximum coverage and least potential for phytotoxicity results from use of this system. When using conventional application equipment, spray for coverage of upper leaf surface.

#### ADDITIONAL COMMENTS ON SPRAYING

**Do not** spray wet foliage. **Do not** spray when freezing temperatures are anticipated within 48 hours of an oil application, above 90° F (32° C) or when plants are under heat or moisture stress.

On vegetables: Do not apply when temperatures are below  $50^{\circ}$  F ( $10^{\circ}$  C).

#### **COMPATIBILITY INFORMATION**

Add the oil to tank mix formulations as the last ingredient. Local climactic conditions can adversely affect the persistence of oil on a crop. On crops where tank mixes and/or spray intervals have not been previously used, spray a small area with the recommended nozzles and spray pressure and wait several days. If sufficient time between sprays has not elapsed, phytotoxicity will normally occur in several days. Chemicals which are phytotoxic when used alone will be more phytotoxic when used with oil.

TANK MIXING: Mix Organic JMS Stylet-Oil<sup>®</sup> only with those chemicals registered for use on the specific crop to be treated. When using Organic JMS Stylet-Oil<sup>®</sup> in tank mixtures, observe all limitations, precautions and rate recommendations which appear on the label for these products: acephate (Orthene), benomyl (Benlate), copper ammonium carbonate (CCN), copper hydroxide (Kocide), fenvalerate (Asana XL), Mancozeb, Maneb, methamidophos (Monitor), metalaxyl (Ridomil) and triadimefon (Bayleton).

Do Not tank mix Organic JMS Stylet-Oil with spreader stickers, Nu-Film-P or Nu-Film-17 (pinolene based products). Wait at least 10 days between an oil application and spraying pinolene-based products with fruit present.

Do Not tank mix Organic JMS Stylet-Oil<sup>®</sup> with highly ionized nutrient spray materials (Nutri-Leaf) (20-20-20), Bayfolan. These materials can be sprayed separately from oil. Organic JMS Stylet-Oil<sup>®</sup> is compatible with urea (up to 5 lb. per 100 gal.) and epsom salt (MgSO4) (3 lb. per 100 gal.).

**Do Not Use** the following chemicals: captan, Folpet, oxythioquinox (Morestan), organic tin compds. (Du-Ter), during, with or following an oil spray. **Do Not Use** propargite (Omite) with an oil spray. Do not apply propargite within 30 days of an oil application.

**Do Not Use** chlorothalonil (Bravo) or dimethoate (Cygon) in a spray program with Organic JMS Stylet-Oil<sup>®</sup> on the following crops: grapes, ornamentals and strawberries. Do not use dicofol (Kelthane) in a spray program with Organic JMS Stylet-Oil<sup>®</sup> on ornamentals and strawberries.

**Do Not Use** the following chemicals with Organic JMS Stylet-Oil<sup>®</sup> unless at least two weeks have elapsed between the use of oil and the chemical anilazine (Dyrene), chlorothalonil (Bravo), dicloran (Botran), dicofol (Kelthane), Dikar, dinocap (Karathane), permethrin (Ambush, Pounce). **Copper: On grapes Do not** use copper and oil together with fruit present.

Sulfur: On grapes: Do not apply sulfur within 10 days of an oil application. On all other crops: Do not apply micronized sulfur within 10 days of an oil application and do not apply oil within 14 days of an application of wettable or dusting sulfur.

#### GREENHOUSE

For greenhouse use: Apply recommended rate for control of the greenhouse pest. Use ceramic hollow cone nozzles (ALBUZ<sup>®</sup> ATR (lilac); HCA (green) color or their equivalent). Apply weekly or every two weeks depending on level of pest infestation. From 20-100 gallons of dilute spray emulsion per acre, depending on plant size. Spray to the point of runoff. Vary quantity of spray applied by changing the number of nozzles used, not by changing spray pressure, speed of sprayer or size of nozzle.

CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Almonds Apricots	Scale, Mites Fruit Tree Leafroller*	1-1.5 gal 2-3 gal	Dormant/delayed dormant.
	Scale, Mites	l gal	Summer (foliar or cover sprays). Also postharvest. Do not apply to oil sensitive varieties.
Apple Apple Red Bug European Fruit Lecanium Sca San Jose scale Fruit Tree Leafroller* European Red Mite	European Fruit Lecanium Scale San Jose scale Fruit Tree Leafroller*	1-2 gal	Dormant/delayed dormant to 1/2" Green.
	Scurfy Scale	3 gal	-
	Mites (including European Red Mite) Rust mite*, Leafhopper* San Jose Scale Rosy Apple Aphid* Fruit Tree Leafroller*	1-2 gal	Summer Use (foliar or cover sprays). Apply every 10-14 days depending on level of pest pressure. Also Postharvest to reduce overwintering pest pressure. Do not spray oil sensitive varieties.
	Powdery Mildew	I-2 gal	Apply at tight cluster and continue every 10-14 days through second cover spray. Use higher rate and/or shorter spray interval when disease conditions are severe.

(continued)

CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Cherries	Fruit Tree Leafroller*	1-2 gal	Dormant/delayed dormant.
	Mites, Scale	1-2 gal	Summer Use. Apply when mites first appear. Repeat sprays every 10-14 days. Postharvest sprays may be made to maintain control and reduce over- wintering pest pressure. Do not apply to oil sensitive varieties.
	Powdery Mildew	1-2 gal	Preharvest Use: Use up to pit hardening stage. Apply at 10-14 day interval- shorten interval and/or use higher rate when disease conditions are severe. Do not use Guthion during, with or following the use of oil. Postharvest applications may be made to maintain control and reduce overwintering inoculum.
Mango*	Mites	1-1.5 gal	Apply every 2-3 weeks as necessary depending on level of pest pressure.
	Powdery Mildew	1-1.5 gal	For Powdery Mildew: Begin application before bloom. Repeat at bloom and every 2-3 weeks as necessary.
Olives	Mites, Scale	1.5 gal	Prebloom to Postbloom Buckshot.
Papaya*	Mites, Powdery Mildew Papaya ringspot virus	0.75-1.5 gal	For powdery mildew/mites: Spray every 10-14 days depending on level of pest pressure. For virus: Initiate sprays when seeds are germinated. Spray weekly using 400 psi spray pressure and ceramic hollow cone nozzles.
Nectarines	Fruit Tree Leafroller*	2.5 gal	Dormant to delayed dormant.
Peaches	Cottony Peach Scale, Mites, Scale	3 gal 1-2 gal	
	Mites, Scale	1-2 gal	Summer Use (foliar or cover sprays). Postharvest applications can be made to maintain control and reduce over-wintering pressure.
	Powdery Mildew	1-2 gal	For powdery mildew begin at 5% bloom and continue at 10-14 day intervals until terminal growth phase stops. Do not apply to oil sensitive varieties.
Pears	Fruit Tree Leafroller* Pear Leaf Blister Mite Pear Psylla*	3 gal 2 gal	Dormant to Delayed Dormant -up to and including petal fall.
	Red Spider Mites San Jose & Italian Pear Scale (Summer forms)	l gal 1-1.5 gal	Summer Use (foliar or cover sprays). Postharvest applications may be made to maintain control and reduce overwintering inoculum. Do not spray oil sensitive varieties.
	Leafhopper* Pear Psylla*	1-1.5 gal 1.5-2 gal	
	Powdery Mildew	I-2 gal	Apply at bud burst and continue every 10-14 days. Use higher rate and/or shorter spray interval when disease conditions are severe.
Pecans	Obscure Scale	3 gal	Dormant.
Plums,	European Red Mite	2 gal	Dormant to 1/2" Green.
Prunes	European Fruit Lecanium Scale Mites, Scale	2 gal 1-1.5 gal	
	Mites, Scale	1-1.5 gal	Summer Use (foliar or cover sprays.) Watch for oil sensitive varieties. Spray a test area first.
Walnuts	Mites, Scale	1-1.5 gal	Delayed Dormant.
	Mites, Scale	0.5-1 gal	Late Spring to mid-summer. Do not apply after husk split. Do not spray oil sensitive varieties.

\*Asterisk denotes crop, pest Not approved in California

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CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Asparagus Bean Cabbage Cauliflower Celery Cucumber Cucurbits Eggplant	Leafhopper*, Leafminers, Mites, Whiteflies, Alternaria Leafspot, Gummy Stem Blight, Powdery Mildew, Rust	3-6 qts	Using ground equipment, spray for thorough coverage of upper leaf surface For <b>aphid-transmitted plant viruses</b> and <b>insect</b> control use 400 psi spray pressure and ceramic hollow cone nozzles. For <b>fungal diseases</b> use at least 200 psi spray pressure.
Lettuce Melon Okra Pepper Potato Pumpkin Squash Tomato	Cucumber Mosaic Virus, Papaya Ringspot Virus, Pepper Mottle Virus, Potato Leafroll Virus, Potato Virus Y Tobacco Etch Virus, Watermelon Mosaic Virus 2, Zucchini Yellow Mosaic	3 qts	

CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Blueberries Bushberries Caneberries	Mites, Powdery Mildew, Rust	3-6 qts	Using ground equipment, spray for optimum coverage of leaf surfaces. For fungal diseases use at least 200 psi spray pressure.
Strawberries	Leafminers*, Mites, Botrytis, Powdery Mildew	3 qts	Spray at no less than 400 psi using ceramic spray nozzles (ALBUZ <sup>®</sup> ATR, lilac color or their equivalent).
Grapes	Mealybugs, Mites, Leafhopper*, Whiteflies*,	1-2 gal	Using ground equipment, spray for optimum coverage of leaf surfaces. Repeat sprays every 10-14 days.
	Powdery Mildew, Botrytis		<ul> <li>For powdery mildew-Make first application pre-bloom and continue every ten days to three weeks depending on level of disease pressure. Use higher rate and/or shorter spray interval when disease conditions are severe.</li> <li>For Botrytis Bunch Rot-Initiate sprays at bloom and repeat prior to bunch closing and veraison. Final application at harvest if needed. Use higher rate when disease conditions are severe.</li> <li>Oil will temporarily remove the bloom on grapes.</li> <li>Table grapes should not be sprayed within two weeks of harvest.</li> <li>Do not use copper and oil together with fruit present.</li> </ul>
Hops*	Mites, Powdery Mildew	l-2 gal	For powdery mildew: Initiate sprays at early leaf stage. Continue sprays every 10-14 days. Mite control will be effective under the same spray interv as powdery mildew sprays. Discontinue sprays at burr development.

CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Cotton Field Corn Sugar beets Sweet Corn Tobacco	Earworm, Fall armyworm, Corn rootworm, Leafhopper, Leafminer, Mites, Whiteflies, Cercospora	3-6 qts	Using ground equipment, spray for optimum coverage of leaf surfaces. For fungal diseases use at least 200 psi spray pressure.

\*Asterisk denotes crop, pest Not approved in California

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CROP	PEST	Rate/100 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Apples Cherries Peaches	Mites	1-2 gal	For mites apply every 10-14 days. Use higher rate and or shorter interval during heavy mite infestation.
Pears	Powdery Mildew	1-2 gal	For powdery mildew control, begin spraying before disease first appears. Spray every 10 -14 days, using at least 200 psi spray pressure and targeting spray for thorough coverage of leaf surfaces. Use higher rate and more fre- quent interval under heavy disease pressure.

CROP	PEST	Rate/1 gal. water	TIMING & REMARKS (See Application/Compatibility Sections also)
Chrysanthemum Diffenbachia Philodendron Poinsettia	Leafminers, Mealybugs, Mites, Scale insects, Whiteflies,	l oz	Use ALBUZ <sup>®</sup> ATR nozzles, lilac color or their equivalent. Apply weekly or every two weeks depending on level of pest infestation. From 20-100 gallons of dilute spray emulsion per acre, depending on plan size. Spray to the point of runoff. Vary quantity of spray applied by changing the number of nozzles used, not by changing pressure, speed of sprayer or nozzle size.
Roses	Black spot, Powdery Mildew	1-2 oz	

CROP	PEST	Rate/A	TIMING & REMARKS (See Application/Compatibility Sections also)
Bluegrass Fescues Orchardgrass Perennial Rye-grass	Powdery Mildew, Rust	1-2 gal/A	With ground equipment, apply for thorough coverage when powdery mildew and rust pustules are noticeable and increasing in number, in late spring or early fall. Repeat at 14-21 day intervals. Use higher rate under severe disease pressure. Spray with a minimum of 20 gal/A of water.

CROP	PEST	Rate/A	TIMING & REMARKS (See Application/Compatibility Sections also)
Peppermint Spearmint	Mites, Powdery Mildew	1-2 gal/A	With ground equipment, apply for thorough coverage when powdery mildew is present or mint is 5-6" tall. Repeat at 14-21 day intervals. Use higher rate under severe disease pressure. Spray with a minimum of 20 gal/A of water.

\*Asterisk denotes crop, pest Not approved in California

#### CONDITIONS OF SALE AND WARRANTY

JMS Flower Farms, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. JMS Flower Farms, Inc., MAKES NO OTHER EXPRESS OR IMPLIED WAR-RANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Critical and unforeseeable factors beyond JMS Flower Farms, Inc. control prevent it from eliminating all risks in connection with the use of this product. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather conditions, presence of other materials, drift to other crops or property, the manner of use or application, or failure to follow label directions will be assumed by the Buyer or User. Handling, storage and use of the product by Buyer and User are beyond the control of JMS Flower Farms, Inc. In no case shall JMS Flower Farms, Inc. be held liable for consequential, special or indirect damages resulting from the use of this product. The limit of JMS Flower Farms, Inc., liability shall be the purchase price for the quantity involved.

# Crop Protection EC $1.4_{ m III}$

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# Specimen Label

- Contains pyrethrum—a botanical insecticide derived from chrysanthemums
- Provides rapid knockdown and kill of plant pests
- For use on growing crops and ornamentals
- Can be used on day of harvest
- Controls key livestock pests
- Controls more than 100 insects

#### OF CHILDREN **CAUTION PRECAUCÍON** 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)

KEEP OUT OF REACH

#### **FIRST AID**

#### **IF SWALLOWED:**

- Call 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 the
- poison control center or doctor.Do not give anything by mouth to an unconscious
- person.

#### IF IN EYES:

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

#### IF ON SKIN OR CLOTHING:

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

#### IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambuiance, then give artificial respiration, preferably by mouth-tomouth, if possible.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call the International Poison Center at 1-888-740-8712.

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

ACTIVE INGREDIENT:

Avoid breathing vapors or spray mist. Avoid contact with skin or eyes. This pesticide may cause skin sensitization reactions in certain individuals. Avoid contamination of food or feedstuffs.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: Longsleeved shirt and long pants; Chemical-resistant gloves, such as, Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton; Shoes plus socks.

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.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.240 (d) (4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### User Safety Recommendations:

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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 highly toxic to fish. 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. Drift from treated areas may be hazardous to organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters.

#### AGRICULTURAL USE REQUIREMENTS

100.00%

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 (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls;
- Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton;
- · Shoes plus socks.

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 requirement specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box 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.

Keep unprotected persons out of treated areas until sprays have dried.

Wear protective clothing when using or handling this product to help avoid exposure to eyes and skin. Eye protection, gloves, a longsleeved shirt and long-pants are recommended.

Allow spray to dry before allowing adults, children or pets on treated areas.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.



Pyrethrins .....1.40%

OTHER INGREDIENTS ......98.60%

#### FOR THE CONTROL OF INSECTS:

Including, but not limited to: Ants, Aphids, Apple Maggot, Armyworms, Artichoke Plume Moth, Asparagus Beetle, Beet Armyworm, Bagworm, Bean Beetles, Beetles, Blister Beetles, Blow Flies, Biting Flies, Boll Weevil, Cabbage Looper, Cankerworms, Carrot Weevil, Caterpillars, Clover Mite, Clover Weevil, Cockroaches, Codling Moth, Colorado Potato Beetles, Crane Flies, Crickets, Cross-striped Cabbageworm, 12-spotted Cucumber Beetle, Cucumber Beetles, Darkling Beetles (lesser meal worm), Deer Fly, Deer Tick, Earwigs, Diamondback Larvae, Eastern Tent Caterpillar, Elm Leaf Beetle, European Corn Borer, European Pine Tip Moth, Face Fly, Fall Webworm, Fire Ants, Firebrats, Fireworms, Flea Beetles, Flies, Forest Tent Caterpillar, Fungus Gnats, Fruit Files, Fruittree Leafroller, Glassy Winged Sharpshooter, Grape Leafhopper, Grape Leaf Skeletonizer, Green Fruit Worm, Green Peach Aphids, Greenhouse Thrips, Gypsy Moth (adults and larvae), Harlequin Bug, Hornets, Horn Fly, Hornworm, Horse Fly, House Fly, Imported Cabbageworm, Indian Meal Moth, Japanese Beetle, Katydids, Lace Bugs, Leafhopper, Leafrollers, Leaftiers, Lice, Loopers, Lygus, Mealy Bugs, Mediterranean Flour Moth, Mexican Bean Beelle, Midges, Millipedes, Mosquitoes, Mushroom Flies, Navel Orangeworm, Onion Maggot, Pear Psylla, Potato Leafhopper, Psyllids, Rice Weevil, Saw-toothed Grain Beetle, Scale, Silverfish, Skippers, Sowbugs, Spiders, Stable Fly, Stink Bugs, Tabanidae, Tarnished Plant Bug, Thrips, Tomato Hornworm, Vinegar Flies, Wasps, Webworms, Whiteflies and Yellowjackets.

#### **DIRECTIONS FOR USE**

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

USED ALONE: Apply 16 ounces (1 pint) to 64 ounces (2 quarts) per acre by ground in sufficient water for thorough coverage. This product may be applied by air at the rate of 16 to 64 ounces per acre in a minimum of 5 gallons of water. Mix only enough for immediate use. Spraying should begin when the insects first appear. Do not wait until the plants are heavily infested. Repeat as required to maintain effective control.

#### It is recommended that the final spray mix be buffered to a pH of 5.5-7.0.

To avoid possible harm to honey bees, it is advisable to apply in the early morning or late evening hours.

USED AS A TANK MIX: This product may be tank mixed with other insecticides, acaricides, fungicides, adjuvants and wetting agents. This application should conform to accepted use precautions and directions for both products. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

Prior to tank-mixing, a compatibility test should be conducted using the proper proportions of products and water to ensure the physical compatibility of the mixture.

USE THROUGH IRRIGATION SYSTEMS (CHEMIGATION): Refer to supplemental labeling entitled "DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS" (available through your distributor) for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on the chemigation is followed.

PyGanic<sup>®</sup> Crop Protection EC 1.4n may be used on most crops because its active ingredient is exempt from tolerances when applied to growing crops. The crop grouping scheme used on this label was devised by the Environmental Protection Agency to expedite minor use pesticide registration. Each crop grouping on this label contains the phrase "including, but not limited to," and then lists a number of crops in each group. This wording allows the use of PyGanic<sup>®</sup> Crop Protection EC 1.4n on crops that may not be specifically listed on this label (providing that the group to which the crop belongs is listed).

#### **GROWING CROPS (OUTDOORS AND IN GREENHOUSES):**

ROOT AND TUBER VEGETABLES: Including, but not limited to: Arracacha, Arrowroot, Purple Arrowroot, Japanese Artichoke, Jerusalem Artichoke, Garden Beets, Sugar Beets, Edible Burdock, Edible Canna, Carrots, Cassava (bitter or sweet), Celeriac (celery root), Chayote (root), Chervil (turnip rooted), Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Japanese Radish (Daikon), Rutabaga, Salsify, Black Salsify, Spanish Salsify, Sweet Potato, Tanier, Turmeric, Turnip, Yam (true), Yam Bean.

LEAVES OF ROOT AND TUBER VEGETABLES: Including, but not limited to: Garden Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac (celery root), Chervil (turnip rooted), Chicory, Dasheen (taro), Parsnip, Radish, Japanese Radish (Daikon), Rutabaga, Black Salsify, Sweet Potato, Tanier, Turnip, Yam (true).

BULB VEGETABLES: Including, but not limited to: Garlic, Great-headed Garlic, Leek, Onion (bulb and green), Welch, Shallot.

LEAFY VEGETABLES: Including, but not limited to: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula, Cardoon, Celery, Chinese Celery, Celluce, Chervil, Cilantro, Corn Salad, Chrysanthemum (edible-leaved), Chrysanthemum (gardiand), Cress (garden, water), Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Fennel (Florence), Lettuce (head and leafy), Orach, Parsley, Purslane (garden and winter), Radiochio, Rhubard, Spinach, Fine Spinach (Malabar, Ceylon), Spinach (New Zealand), Swiss Chard. BRASSICA (COLE) LEAFY VEGETABLES: Including, but not limited to: Broccoli, Chinese Broccoli (Gai Lon), Broccoli Raab (Rapini), Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo Broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

LEGUME VEGETABLES (SUCCULENT OR DRIED): Including, but not limited to: Adzuki Beans, Field Beans, Kidney Beans, Lima Beans, Moth Beans, Mung Beans, Navy Beans, Pinto Beans, Rice Beans, Runner Beans, Snap Beans, Tepary Beans, Urd Beans, Wax Beans, Asparagus Beans, Black-eyed Peas, Catjang, Chinese Longbeans, Cowpeas, Chowder Peas, Southern Peas, Yard-Longbeans, Broad Beans (fava beans), Chick Peas (garbanzo beans), Guar, Jackbean (sword bean), Lablab Bean (hyacinth bean), Lentils, Peas (garden peas, field peas, sugar snap peas, English pea, snow pea), Pigeon Peas, Soybeans, Sweet Lupin Beans, White Lupin Beans, White Sweet Lupin, Sword Bean.

FOLIAGE OF LEGUME VEGETABLES: Including, but not limited to: Plant part of any legume vegetable included in the legume vegetable group that will be used as animal feed including any variety of Beans, Field Peas. Soybeans.

FRUITING VEGETABLES: Including, but not limited to: Eggplant, Ground Cherry, Okra, Pepinos, Pepper (bell pepper, chili pepper, cooking peppers, pimentos, sweet peppers), Tomatillo, Tomatoes.

CUCURBIT VEGETABLES: Including, but not limited to: Balsam Apple, Balsam Pear (bitter melon), Chayote (fruit), Chinese Waxgourd (Chinese preserving melon), Chinese Cucumber, Citron Melon, Cucumber, Gherkin, Edible Gourds, Melons (including hybrids, cantaloupe, casaba, crenshaw, golden pershaw melon, honeydew melons, honey balls, mango melon, muskmelon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Squash (summer and winter), Watermelon (including hybrids).

CITRUS FRUITS: Including, but not limited to: Calamondin, Citrus Citron, Citrus Hybrids, Grapefruit, Kumquats, Lemons, Limes, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma Mandarin, (Citrus spp. includes chironja, tangelos, tangors).

POME FRUITS: including, but not limited to: Apple, Crabapple, Loquat, Pear, Mayhaw, Oriental Pear, Quince.

STONE FRUITS: Including, but not limited to: Apricot, Cherry (sweet and sour), Nectarine, Peach, Plum, Prune, Chickasaw Plum, Damson Plum, Japanese Plum, Plumcot.

SMALL FRUITS AND BERRIES: Including, but not limited to: Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Olallie Berry, Raspberry (black and red), Strawberry, Youngberry.

TREE NUTS: Including, but not limited to: Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia Nut (bush nut), Pecan, Pistachio, Walnut, Black and English (Persian).

ORIENTAL VEGETABLES: Including, but not limited to: Acerola, Atemoya, Balsam Pear (bitter melon), Carambola, Japanese Artichoke, Chinese Broccoli (Gai Lan), Chinese Cabbage (Bok Choy, Napa), Chinese Mustard Cabbage (Gai Choy), Dasheen, Ginger, Ginseng, Chinese Longbeans, Mung Beans, Citron Melon, Japanese Radish (Daikon), Chinese Spinach, Chinese Waxgourd, Cilantro, Citron Melon, Rambutan, Water Chestnut.

SUBTROPICAL FRUITS: Including, but not limited to: Avocado, Banana, Carob, Barbados Cherry, Cherimoya, Dates, Durian (jackfruit), Feijoa, Figs, Guava, Kiwifruit, Lychee, Mango, Papaya, Passion Fruit, Persimmon, Pineapple, Pomegranate.

CEREAL GRAINS: Including, but not limited to: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl Millet, Popcorn, Rice, Rye, Sorghurn (Milo), Teosine, Triticale, Wheat, Wild Rice.

FORAGE, FODDER AND STRAW OF CEREAL GRAINS: Including, but not limited to: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl, Popcorn, Rice, Rye, Sorghum (milo), Teosine, Triricale, Wheat, Wild Rice.

GRASSES FOR SEED, FORAGE, FODDER AND HAY Including, but not limited to: any Grass (Gramineal family, green or cured, except sugarcane and those listed in the cereal grains group), that will be fed to or grazed by livestock, all Pasture and Range Grasses and Grasses grown for hay and silage, Bermuda Grass, Bluegrass, Bromegrass, Fescue.

NON-GRASS ANIMAL FEEDS: Including, but not limited to: Alfalfa, Velvet Bean, Clover, Kudzue, Lespedeza, Lupine, Sainfoin, Trefoil, Crown Vetch, Milk Vetch.

HERBS AND SPICES: Including, but not limited to: Allspice, Angelica, Anise (anise seed), Anise [star], Annatto (seed), Balm (lemon balm), Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Caraway (black), Cardamom, Cassia bark, Cassia buds, Catnip, Cetery seed, Chervil (dried), Chicory, Chive (Chinese), Cinnamon, Clary, Clove buds, Coriander (cilantro or Chinese parsley) (leaf), Coriander (cilantro) (seed), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Fennel (common), Fennel [Florence] (seed), Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper Berry, Lavender, Lemongrass, Lovage (leaf), Lovage (seed), Mace, Marigold, Marjoram (includes sweet or annual marjoram, Wild marjoram or oregano and pot marjoram), Mustard (seed), Nasturtium, Nutmeg, Oregano, Mint, Paprika, Parsley (dried), Pennyroyal, Pepper [lolack], Pepper [white], Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory [summer and winter], Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

ADDITIONAL CROPS: Including, but not limited to: Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Olives, Peanuts, Pineapple, Rice, Safflowers, Sesame, Sugar Cane, Sunflower, Tea.

ORNAMENTALS: Including, but not limited to: African Violet, Ageratum. Aster, Azalea, Begonia, Calceolaria, Calendula, Calla, Carnellia, Carnation, Ceanothus, Cineraria, Chrysanthemum, Coleus, Cyclamen, Cypress, Daffodil, Dahlia, Delphinium, Dogwood, Elm, Eucalyptus, Fern, Ficus, Foliage Plants, Fuchsia, Gardenia, Geranium, Gladiolus, Gloxinia, Gypsophila, Holly, Hyacinth, Hydrangea, Iris, Lily, Maidenhair Fern, Marigold, Narcissus, Palm, Pansy, Peony, Pelargonium, Petunia, Philodendron, Phlox, Pine, Pyracantha, Rhododendron, Roses, Rubber Plant, Snapdragon, Sweet Pea, Tulips, Viburnum, Wandering Jew, Yew, Zinnia and Andromeda, Arborvitae, Ash, Beech, Birch, Boxwood, Cotoneaster, Crabapple, Euonymus, Fir, Firethorm, Forsythia, Hawthorm, Hemlock, Hickory, Honey Locust, Horse Chestnut, Juniper, Larch, Laurel, Lilac, Linden, Mimosa, Myrtle, Oak, Pine, Privet, Tulip Tree, Viburnum, Willow.

FOR CONTROL OF ANTS ON ORCHARD FLOORS: Apply as a broadcast spray to the entire orchard floor using ground spray equipment at 5 to 18 fl. oz. per acre in 25 or more gallons of water. For best results use the high rate for heavy infestations and the lower rate for light infestations.

Do not apply where weed growth or other obstructions would impede uniform coverage of the orchard floor. Mow or chemically control weeds before the application. Foliar applications of PyGanic<sup>®</sup> Crop Protection EC 1.4n may be made in addition to the orchard floor treatment.

**IMPORTANT NOTE:** Plant safety is an important consideration when using insecticides in a greenhouse. However, it is not possible to evaluate the phytotoxicity of PyGanic® Crop Protection EC 1.411 on numerous plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of PyGanic® Crop Protection EC 1.411, or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10 day period.

#### USE ON GREENHOUSE FRUIT, VEGETABLE, FLOWER AND FOLIAGE PLANTS:

USED ALONE: Combine 16 ounces (1 pint) to 32 ounces (1 quart) with 30 gallons of water for applications with conventional hydraulic sprayers or 1 to 2 ounces per gallon of water for applications with compressed sprayers.

#### FOR USE OUTDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:

USED ALONE: Combine 3.5 to 7 pints of PyGanic<sup>®</sup> Crop Protection EC 1.411 with 100 gallons of water for applications with conventional hydraulic and airblast sprayers or 3.5 to 7 pints of PyGanic<sup>®</sup> Crop Protection EC 1.411 with 10 gallons of water for applications with low volume mist blowers or 1 to 2 fl. oz. per gallon water for applications with compressed air sprayers.

#### USE INDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:

USED ALONE: Combine 3.5 to 7 pints of PyGanic<sup>®</sup> Crop Protection EC 1.41 with 100 gallons of water for applications with conventional hydraulic sprayers or 1 to 2 fl. oz. of PyGanic<sup>®</sup> Crop Protection EC 1.411 per gallon of water for applications with compressed air sprayers.

#### USE WITH HYDROPONICALLY GROWN VEGETABLES AND ORNAMENTALS

AS A WATER SYSTEM TREATMENT: To control aquatic diptera larvae, apply PyGanic<sup>®</sup> Crop Protection EC 1.411 to the water at the rates outlined in the following table:

Pyrethrins Concentration	ml ofPyGanic® Crop Protection EC 1.4	Gallons of Water
0.1 ppm	286	10,000
0.01 ppm	28.6	10,000
0.001 ppm	2.86	10,000

FOR USE AROUND HOMES AND OTHER BUILDINGS: Use this concentrate at 1 part to 13 parts water (10 fl. oz. with one gallon of water) to control insects in Turf, Omamental Plants, Gardens, Landscaping, Foundation Walls and Perimeters.

#### FOR USE AS A LIVESTOCK AND POULTRY SPRAY:

- 1) To kill and repel Horn Flies, House Flies, Mosquitoes and Gnats, dilute at the rate of 5 to 10 fluid ounces per gallon of water and apply to wet the hair thoroughly with particular attention to topline, underline, flanks, withers and other infested areas. Repeat treatment at intervals of 5 to 12 days for small insect populations or as needed when flies are emerging in large numbers.
- 2) To kill and repel Stable Flies, Horse Flies and Deer Flies, dilute at the rate of 9 to 14 fluid ounces per gallon of water and apply at a quart per adult animal to wet the hair thoroughly with particular attention to the legs, flanks, barrel, topline and other body areas commonly attacked by these flies. Repeat treatment each week as needed.
- 3) To kill and repel Face Flies dilute at the rate of 9 fluid ounces per gallon of water and apply using spray which produces large wetting droplets. Apply to the face of the animal in the morning before releasing to pasture. Apply sufficiently to wet the face but not more than 1-1/2 ounces of diluted solution per animal. Repeat daily as needed.
- 4) For effective control of Biting and Sucking Lice on cattle, horses, sheep, goats and hogs, dilute at the rate of 1 quart with 16 gallons of water (3 fluid ounces with 1 gallon) and spray to thoroughly wet the hair of the animal including the head and brush of the tail. Repeat treatment in 10 days to kill newly hatched Lice.
- 5) To control Poultry Lice, using a dilution of 9 to 14 ounces of concentrate per gallon of water spray roosts, walls and nests or cages thoroughly. It is not necessary to remove poultry from the housing unit during treatment. This should be followed by spraying over the birds with a fine mist.
- 6) For control of Bedbugs and Mites on poultry and in poultry houses, dilute at the rate of 9 to 14 fluid ounces per gallon of water and spray crevices of roost poles, cracks in walls and cracks in nests where the Bedbugs and Mites hide. This should be followed by spraying over the birds with a fine mist.
- 7) To control Sheep "Tick" or Ked, dilute at the rate of 5 to 10 fluid ounces per 4 gallons of water and thoroughly wet all portions of the body by dipping or by spraying with sufficient pressure and with a nozzle adjustment to give penetration of the wool. Treat at a rate sufficient to wet the animal.
- 8) To kill Fleas and Ticks on livestock and pets and to obtain protection against reinfestation, dilute at the rate of 9 fluid ounces per gallon of water and wet the animal by dipping or spraying. For best results against Fleas and Ticks on dogs and cats the kennels and/or animal quarters and bedding should be treated.
- 9) To control Adult Darkling Beetle (lesser meal worm) in poultry houses. Dilute 1-3 fl. oz. of PyGanic<sup>®</sup> Crop Protection EC 1.4µ per gallon of water. Using a power or proportioner-type sprayer, apply a uniform spray until wet at pressures of 80 to 100 pounds per square inch to surfaces such as interior walls, roosting posts, structural support pillars and other surfaces where Adult Beetles are observed. One gallon of spray mixture covers 250-500 sq. ft. Do not contaminate food/feed or water. For maximum effectiveness, treatments should coincide with each growout or sanitation procedure. Indoor control can be enhanced by making perimeter treatments around the outside of buildings. To prevent immigrating Adult Beetles, apply a uniform band of spray 2 feet up and 1-4 feet out from the foundation.

For maximum effectiveness, treatments should coincide with poultry house clean out and litter replacement as this activity will tend to flush Beetles to vertical surfaces where they will be exposed to the spray.

FOR USE IN BARNS, DAIRIES, MILKING PARLORS, MILKING ROOMS AND POULTRY HOUSES: To control flying insects including, but not limited to: Flies, Fruit Flies, Mosquitoes, Gnats, Wasps, Homets and Small Flying Moths, dilute at the rate of 9 fluid ounces per gallon of water. Apply as a fog or fine mist (at approximately 2 ounces per 1000 cubic feet of space), directing the nozzle for maximum coverage and above livestock and poultry toward the ceiling and upper corners of the area being treated. For best results, close doors and windows before spraying and keep them closed for 10 to 15 minutes. Applicator should vacate the treated area and ventilate it prior to returning.

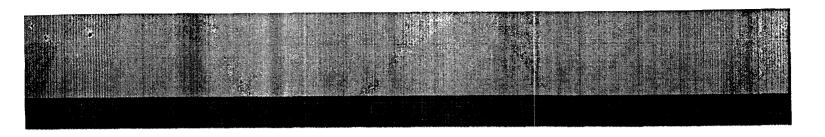
#### STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, dry place. Keep container closed.

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) and offer for recycling or reconditioning, or dispose of in a sanitary landfill or by other approved State and Local procedures.





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FOR COMMERCIAL USE

ACTIVE INGREDIENT	
Potassium salts of fatty acids	49%
INERT INGREDIENTS	51%
TOTAL 1	00%

## 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.). See following pages for additional precautionary statements.

EPA Registration No. 53219-6

M-Pede, Mycogen, M and Design, and the Rainbow Design are trademarks of Mycogen Corporation

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#### MYCOGEN CORPORATION 5501 Oberlin Drive San Diego, CA 92121 1-800-992-5994

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#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### 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 (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, and shoes plus socks.

**NON - AGRICULTURAL USE REQUIREMENTS** The requirements in this box 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.

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#### GENERAL INFORMATION

M-Pede<sup>®</sup> is an effective contact insecticide, miticide and fungicide for control of soft bodied insects, mites and powdery mildew. The formulation is based on potassium salts of naturally derived fatty acids. This product may be used to control targeted pests on crops which include vegetables, grapes and other small fruits, tree fruits, tree nuts, cotton, tobacco, shrubs, shade and ornamental trees, turf, foliage and flowering plants growing outdoors, in greenhouses and in interiorscapes. This product can be applied up to harvest.

#### PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals: Warning - Causes substantial but temporary eye injury or skin irratation. Do not get in eyes, on skin or on clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing before reuse.

**First Aid: If swallowed:** Call a physician or Poison Control Center. Do not induce vomiting. Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are not available, large quantities of water. Avoid alcohol.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention if irritation persists.

Probable mucosal damage may contraindicate the use of gastric lavage.

**Environmental Hazards:** This product may be hazardous to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Physical or Chemical Hazards: Flammable. Keep away from heat and open flame.

**Personal Protective Equipment:** Some materials that are chemical-resistant to this product are listed

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below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the diluted product through application or other tasks must wear: longsleeved shirt and long pants, shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear. Coveralls over short-sleeved shirt and short pants, chemical resistant-gloves such as butyl rubber, nitrile rubber, neoprene rubber or PVC, chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and chemical-resistant apron when cleaning equipment, mixing or loading. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

#### User Safety Recommendations:

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

For emergency medical information, call toll free 1-800-992-5994

#### PESTS CONTROLLED

This product may be used as a foliar spray to control or suppress soft bodied pests which include: adelgid, aphid, caterpillars, earwig, lace bug, leafhopper, leafminer, mealybug, mole cricket, plant bug, psyllid, sawfly larva, scale, spider mite, tent caterpillar, thrips, whitefly, gypsy moth, and chinch bug. This product provides curative control of powdery mildew.

#### MIXING AND APPLICATION

Rates

 Rate when used alone: Use a 2% v/v solution of this product.

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- Rate when used in tank mixes: To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a recommended product.
- Refer to individual sections of this label for specific use rates for control of pests on specific crops.
- Rates are often provided as a % volume/volume (v/v) solution. A 2% v/v solution is prepared by adding 2 parts of M-Pede to 98 parts of spray solution.

#### Rate Table

Total Mix Volume	% v/v Solution	Amount o English	of M-Pede (Metric)	Table- spoons
1 gal. (3.785 liters)	0.5% 1% 1.5% 2%	0.63 oz. 1.25 oz. 2.0 oz. 2.5 oz.	(19 ml) (38 ml) (57 ml) (76 ml)	2.5 tbsp. 3 <sup>1</sup> / <sub>4</sub> tbsp.
100 gal. (378.5 liters)	0.5% 1% 1.5% 2%	1 gal. 1.5 gal.	(1.9 liters) (3.8 liters) (5.7 liters) (7.6 liters)	

#### **Timing of Application**

- Initiate applications as soon as pest is observed, or as needed to avoid economic injury. Repeat applications at one to two week intervals, or as needed, to control reinfesting or increasing pest populations.
- Do not make repeat applications at less than 7 day intervals, or make more than 3 sequential applications at 7 to 14 day intervals unless your prior experience has shown the use pattern to be non-injurious to the type and the developmental stage of plant(s) to be treated under local growing conditions.

#### Mixing

- Always determine the compatibility of water, pesticides and other tank additives with this product prior to addition to the spray tank. Determine compatibility by conducting a jar test using proportional quantities of each material.
- For best results, use freshly mixed spray made with soft water. If water has high mineral content (hardness > 300 ppm or 17.5 grains/gallon), check for compatibility as described above. If needed, add an approved compatibility agent to the tank prior to the addition of this product. Do not lower the pH of the final spray mixture below 8.0.
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- A defoaming agent may be needed for use in sprayers equipped with an agitator.
- This product is compatible with many pesticides which include: Agri-mek®, Ambush®, Apollo®, Azatin®, Asana XL®, Avid®, Bayleton®, Baythroid®2, Bidrin®, Bolstar®6, Capture®, Cygon®, diazinon, Dursban®, Eagle®, Guthion®, Lannate®, Lorsban®, Margosan O®, malathion, Mavrik Aquaflow®, Monitor®, Orthene®, Ovasyr®, Pageant®, Pipron®, Pounce®, Pyrellin®, Pyrenone®, Rally®, Rubigan®, Savey®, Sevin®, Thiodan®, Phaser®, Talstar®, Vendex® and Zephyr®.
- Unless otherwise noted, do not tank mix this product with adjuvants such as penetrators, spreader stickers or activators, gibberellic acid, calcium nitrate or diatomaceous earth, foliar nutrients, alkaline based chelating agents (such as EDTA), Aliette<sup>®</sup>, chlorothalonil and pesticides containing sulfur or metallic ions (such as: manganese, magnesium, iron, zinc, etc.) as they may be physically incompatible and/or phytotoxic.
- Do not mix with Carzol<sup>®</sup> as they are physically incompatible
- Do not mix M-Pede with sulfur. Do not use within 3 days of a sulfur application.
- Use freshly prepared spray solutions.

When using this product in a tank mix, read and follow all product labels. The recommended order of mixing is:

- Compatibility agent (if needed)
- \* Wettable and soluble powders
- \* Flowable liquids
- Emulsifiable oils and concentrates
- \* M-Pede
- Application of spray mixtures should conform to use precautions and directions for all products included in the tank mix. Combinations should be kept agitated and sprayed promptly after mixing.

#### Application

 This product may be applied with most types of ground or aerial spray equipment. Do not use with pulse or thermal fogger applicators. Do not apply through any type of irrigation system.



- This product must come into contact with the targeted soft bodied pests or powdery mildew to be effective. Complete coverage of pests is essential for maximum control. Direct sprays to contact the pests. In general adequate coverage requires a minimum of 50 gallons of total spray volume per acre. Higher volumes may be required on larger perrenial crops.
- Apply promptly after mixing with other pesticides to avoid or reduce alkaline hydrolysis of certain pesticides.
- Avoid applications when wind conditions impair thorough coverage.
- Unless otherwise noted, do not tank mix this product with adjuvants such as penetrators, spreader stickers or activators, gibberellic acid, calcium nitrate or diatomaceous earth, foliar nutrients, alkaline based chelating agents (such as EDTA), Aliette", chlorothalonil and pesticides containing sulfur or metallic ions (such as: manganese, magnesium, iron, zinc, etc.) as they may be physically incompatible and/or phytotoxic.
  Avoid applications on new transplants and unrooted
- Avoid applications of new transplants and unlotted cuttings.
  Apply M-Pede solutions to wet (minimize run-off) to
- Apply M-Pede solutions to wet (minimize run-off) to decrease the potential for injury on foliage, fruit and flowers of sensitive plants.

**Notes to User:** Understanding Plant Sensitivity Sensitivity of plants to this product can be influenced by several factors which include: pest and disease pressure, cultivar, plant vigor, environmental conditions (temperature, relative humidity, moisture availability, light intensity, etc.), spray concentration, companion products, spray additives, pH of spray mixtures, delivery volume as well as the timing, number and frequency of applications.

- Potential for plant injury increases when this product is used under the following conditions:
  - Plants are stressed, such as under hot (> 90° F), humid and/or drought conditions.
  - \* More than 3 sequential applications are made at 7 day intervals.
  - \* The pH of the final spray mixture is lowered below 8.0.
  - High volume applications cause the spray to collect on the bottom of fruit such as apple, pear, nectarine, orange and grape.
  - Tender new foliage is present on narrow leaf evergreen trees and shrubs.

- Tender new foliage is present on narrow leaf evergreen trees and shrubs.
- \* When existing insect, mite or disease pressure has already stressed plant foliage or damaged fruit (for example, mite burn on leaves).
- Mixing sulfur (micronized and flowable) with this product or applying this product within 3 days of a sulfur application will increase potential for sulfur burn on sensitive plants such as grapes. Avoid tank mixes with wettable sulfur during hot weather (> 90° F).
- Application of this product may result in removal of the glaucous bloom from spruces and the waxy bloom on grapes.
- Evaluate the effect of this product alone or in combination with desired companion product(s) on a few test plants prior to full scale applications when sensitivity of plant species or cultivars under local use conditions is unknown.
- Do not apply to very sensitive plants such as: horse chestnut, Japanese maple, mountain ash, Cherimoya, bleeding heart or sweetpeas.
- The following plants may be sensitive to this product: bald cypress, begonia, chrysanthemum, Crown of Thorns and other Euphorbia, cucumber, delicate ferns, narrow leaf evergreens (especially when stressed or when tender new growth is present), Dieffenbachia, fuschia, gardenia, impatiens, Asiatic and Oriental lily varieties, jade plant, lantana, ornamental ivy, palms, poinsettia, redbud, river birch, schefflera, Zebra plant and some succulents. Test first on a few plants prior to broad scale applications when sensitivity under local use conditions is unknown.
- Flowers of plants including African violet, ageratum, azalea, begonia, camellia, chrysanthemum, dahlia, geranium, gloxinia, impatiens, lily, marigold, orchid, pansy, petunia, poinsettia bracts, rose, salvia, snap-dragon, vinca and zinnia may be injured when sprayed with this product. Safety to blooms should be determined for each individual cultivar of plant to be treated by conducting a small test under local use conditions.

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#### INSECTICIDAL/MITICIDAL AND FUNGICIDAL USES

#### VEGETABLES, HERBS AND SPICES

(Greenhouse and Outdoor)

Vegetables: Artichoke\*, Asparagus, Brassica (cole), (such as: bok choy, broccoli, broccoli raab, Brussels sprout, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, collard greens, kale, kohlrabi, mustard greens, napa cabbage and Swiss chard), Bulb (such as: green onion, leeks, garlic and onion), Cucurbit (such as: cucumber, melon, pumpkin and summer squash), Fruiting (such as: eggplant, pepper and tomato), Leafy (such as: celery, endive, escarole, lettuce and spinach), Legume (such as: bean, pea and soybean), Root and tuber (such as: beet, carrot, horseradish, potato, radish, rutabaga, shallot, sugarbeet and yam), Herbs and spices: (such as: basil, chive, dill, marjoram, parsley and sage). Watercress\*

\*Not for use in California

**Use Recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on pgs. 6-9 of this label for general rate, timing and application information except as noted below.

PEST	RECOMMENDATIONS
Leafminer and green peach aphid	Apply this product only in tank mix combination with a labeled companion insecticide.
Other aphids	To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a recommended rate of products such as Thiodan (endosulfan), Phosdrin (mevinphos), or Orthene (acephate).
Whiteflies	Apply a 1-2% v/v solution of this product for stand alone use. To achieve enhanced and residual pest control, use a 1-2% v/v solution of this product in combination with a recom- mended rate of a product such as Thiodan (endosulfan), or Asana XL (fenvalerate). Lower rates (0.25-1% v/v solution) may be applied in knock down/suppression of adult whiteflies.

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Thrips, plant bugs, spider mites, broad mites, russet mites and leafhoppers	See MIXING AND APPLICATION SECTION on pgs 6-9 for information on rates, mixing and application.
Powdery mildew	Greenhouse Cucumber: For stand alone use, apply a 1.5-2% v/v solution of this product when the first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Schedule a follow-up fungicide application within 7-10 days after each application when this
Powdery mildew	product is used alone.
	For tank mix use, apply a 1-2% v/v solution of this product with a recommended fungicide to achieve protectant/residual control of powdery mildew.
	For additional instructions, see Application Guidelines and Notes to User: Understanding Plant Sensitivity sections on pgs. 8-9 of this label.

#### FRUIT AND NUT CROPS

Citrus fruits (such as: citron, grapefruit, kumquat, lemon lime, tangelo, and tangerine), Pome fruits (such as: apple, crabapple, pear and quince), Stone Fruits (such as: apricot, cherry, nectarine, peach, plum and prune), Small Fruits and Berries (such as: blackberry, blueberry, cane berries, cranberry, currants, grape, raspberry, strawberry, boysenberry, and olallieberry) and Tree Nuts (such as: almond, chestnut, filbert, pecan, pistachio, black and English walnut).

**Use Recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICA-TION SECTION of this label for general rate, timing and application information except as noted below.

 For all Fruit and Nut Crops: Apply to wet (minimize run off) with an air blast or other appropriate sprayer. Application of excessive water volumes will increase the potential for fruit injury by causing collection of spray on the bottom of fruit, especially when poor drying conditions exist.

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- Grapes: This product may alter the waxy bloom and or cause marking on the surface of grapes which can affect the quality rating of table grapes at harvest. To reduce potential for fruit injury, do not apply in greater than 75 gallons of water per acre on table grapes after berries are 6 -7 mm in diameter. Do not apply this product to Calmeria or Italia varieties of grapes.
- **Citrus:** Precaution: Fruit marking may occur when sooty mold is present.
- Pears: Applications of this product are not recommended after the delayed dormant stage on fresh market pear varieties including d'Anjou and Asian pears. Applications after fruit set may cause marking which can reduce market value of the fruit.
- Stone Fruits: Concentrate (air blast) applications are recommended with a maximum volume of 100 gallons per acre on smooth skinned fruits and 175 gallons per acre on peaches. Do not make dilute spray applications on smooth skinned fruit after fruit formation. This product is not recommended for use on yellow skinned nectarine varieties.

PEST	RECOMMENDATIONS
Citrus rust mite	Apply a 1-2% v/v solution of this product. Use of a suitable citrus spray oil in combination with this product applied to wet (minimize run-off) with an air blast or other appropriate sprayer may help improve performance.
European red mite, Pacific mites, two spotted mites, Wilamette mite	Apply a 1-2% v/v solution of this product to control motile stages. To achieve enhanced and residual control, use a 1-2 % v/v solution of this product in combi nation with recommended products such as Vendex or Kelthane.

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To achieve enhanced and residual control, use a 1 - 2% v/v solution of this product in combination with recommended products such as Thiodan.
To achieve enhanced and residual control, use of a 1 -2 % v/v solution of this product in combination with recommended products such as Pyrellin or Pyrenone. Scout and make first application to control nymphs during the first generation (first brood) when the majority of nymphs are in the third - fourth instars. This product is effective for late season and preharvest suppression of leafhoppers in wine and raisin grapes.
Apply a 1-2% v/v solution of this product at delayed dormant to control winterform and newly hatched nymphs. Make follow up applications on processing pears at petal fall and turn down for control of 1st and 2nd generation nymphs before they mature into fourth instars.
Apply a 1-2% v/v solution of this product. Addition of an appropriate spray oil to this product may help improve performance. Time sprays to coincide with pre-pink or pink stages of apples.

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White apple leafhopper	To achieve enhanced and residual control, use a 1 -2% v/v solution of this product in combination with recommended products such as Thiodan. Target 1st generation nymphs before they mature into flyers.
Other aphids, campyloma, mealybugs, rust mites, pear slug (sawfly larvae) scale crawlers, leafhoppers and whiteflies	See MIXING AND APPLICATION section on pg. 3 for information on rates, mixing and application.
Curative control for powdery mildew	Grapes: Apply a 1-2% v/v solution of this product to control powdery mildew spores and hyphae. Initiate sprays at bud break or as appropriate based on local powdery mildew control recommendations. Repeat at 7 to 10 day intervals, or as needed through veraison. Schedule a follow-up fungicide application within 7 to 10 days after each application when M-Pede is used alone. Use this product in a scheduled preventive spray program with recommended fungicides such as Bayleton, Rally, Rubigan and/or sulfur to achieve protectant/residual control of powdery mildew. Do not mix with sulfur. Do not use within 3 days of sulfur application. This product may be applied in tank mixes with fungicides such as Bayleton, Rally or Rubigan.
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Curative control for powdery mildew	Tank mix this product at the rate of 1-2% v/v with labeled rates of companion pesticides. Rates of M-Pede below 1.5% v/v will not be fungicidal against powdery mildew.
	Complete coverage of grape clusters as well as leaf surfaces is essential for effective control.
	For additional instructions on use with sulfur, see Application Guidelines and Notes to User: Understanding Plant Sensitivity sections on pgs. 3-4 of this label.

#### **FIELD CROPS**

Alfalfa\*, Canola\*, Cotton, Peanut\*, Soybean, Tobacco\* and Wheat\*: for control of aphid, caterpillars (in tank mix combination only), exposed thrips, greenbug, fleahopper, plant bug (such as lygus and stink bugs), spider mite and whitefly.

Refer to the MIXING AND APPLICATION SECTION on pg. 3 of this label for general rate, timing and application information except as noted below.

# SPECIFIC RECOMMENDATIONS Stand alone applications:

 Use 4 pints of this product per acre when applications are made in 3 - 25 gallons of water per acre. Use a 2% v/v spray solution of this product when 25 or more gallons of water are applied per acre.

#### **Tank Mixtures:**

• When used in combination with other insecticides, use 0.75 to 4 pints of this product per acre

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when applied in 3 - 25 gallons of water per acre. Use a 1 -2 % v/v solution of this product when greater than 25 gallons of water are applied per acre.

- To achieve enhanced and residual control of caterpillars, use this product in combination with recommended insecticides such as Baythroid, Bolstar and Orthene.
- To achieve enhanced and residual control of other insects (aphids, thrips, greenbug, fleahopper, plant bug, spider mite, white fly), use this product in combination with recommended insecticides such as Bidrin, Thiodan, Phaser, Orthene, Asana, Capture or Zephyr.
- In situations where thorough coverage of pests is not possible or practical, it is recommended that this product be tank mixed with one of the companion pesticides listed above.
- This product may be used in tank mixes with penetrator type adjuvants for application to cotton, peanuts and tobacco only if prior use under local use conditions has demonstrated plant safety.
- Not for use in California

# HOPS\*, COFFEE\*, BANANA\* AND PINEAPPLE\*:

**Use recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICA-TION SECTION on pg. 6 of this label for general rate, timing and application information except as noted below.

**Pests controlled:** aphid, leafhopper, mealybug, spider mite, plant bug, scale, exposed thrips and whitefly.

Rate when used in tank mixes: To achieve enhanced and residual pest control, use a 1 to 2%

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v/v solution of this product in combination with a recommended companion product. Use a 1% v/v rate with most companion pesticides targeted at the same pest(s) as M-Pede. Lower rates (0.25 - 1.0 % v/v solution) of this prod-

uct may be used in tank mixes for knockdown/suppression of adult whiteflies.

See Application Guidelines and Notes to User: Understanding Plant Sensitivity on pgs. 8-9 of this label for additional comments.

Not for use in California

#### TURF

PEST	RECOMMENDATIONS		
Chinch bug, cutworm, flea, greenbug, grub, mites, mole cricket and sod webworm	For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on pg. 3 of this label for general rate, timing and application information except as noted below.		
	Rate when used in tank mixes: To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with recommended products such as: Pageant, Dursban, malathion, diazinon or Orthene.		
	For use on mole crickets, irrigate turf prior to application of this product to bring mole crickets to the surface.		

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#### ORNAMENTAL LANDSCAPE TREES AND SHRUBS, CHRISTMAS TREES, ROSES, FLOWERS, BEDDING AND INDOOR PLANTS

**Pests controlled:** adelgid, ants, aphid, buck moth larvae, earwig, elm leaf beetle larvae, sawfly larvae, gypsy moth eggs and larvae, Japanese beetle, lace bug, leafhopper, mealybug, rust mite, phylloxera, spider mite, shore fly, plant bug, psyllid, scale, tent caterpillar, exposed thrips, whitefly and powdery mildew.

**Use recommendations:** For stand alone use, apply a 1-2% v/v solution of this product, unless otherwise noted. Refer to the MIXING AND APPLICATION SECTION on pg. 6 of this label for general rate, timing and application information except as noted below.

**Rate when used in tank mixes:** To achieve enhanced and residual pest control, use a 1 to 2 % v/v solution of this product in combination with a recommended product. Tank mixes with products containing Chlorothalonil should be avoided as they can cause severe phytotoxicity. Lower rates (0.25 - 1.0 % v/v solution) of this product may be used in tank mixes for knockdown/suppression of adult whiteflies.

**Note:** Unless otherwise noted, apply this product to wet (minimize run off). If wilting occurs a few hours after application, rinse with a clean water spray. Since applications may cause injury to flowers of some plant cultivars, test product on a few flowering plants under local use conditions prior to large scale use.

PEST	RECOMMENDATIONS		
Adelgid, psyllid, scale on trees and shrubs	Spray to wet infested plant surface.		
Balsam woolly adelgid	Spray trees thoroughly when nymphs are abundant in early spring and/or fall. Make a second application 10 days later.		

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Cooley Spruce gall adelgid	Apply a 4% v/v solution to spruce in fall or spring when females begin egg laying. On Douglas fir, control exposed "woolly aphids" in early spring immediately before bud break (April) or in the fall (SeptOct.) after foliage has hardened off.
Hemlock woolly adelgid	Apply this product immediately after detecting an adelgid infestation to avoid the spread of the pest. In regions with heavy infestations and on trees with a history of infestation, a total of four applications made in April/May, June, August/September and October may be necessary. Because it is a contact insecticide, do not use this product as a preventative control measure.
Conifer and pine needle scale	When insects first appear, apply a 1 to 2% v/v spray to thoroughly wet crawlers.
Tent caterpillar	Apply a 3% v/v solution. Spray directly on young larvae when congregated on outside of tent or dismantle tents and spray to thoroughly wet larvae.
Spider mite	Wet underside of leaves and needle sheaths. Wait 7-10 days to allow viable eggs to hatch and make a second application before mites reach egg laying maturity. For residual control, apply in a tank mix combination with a labeled companion product such as Avid.

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Earwig	Spray directly on insects after disturbing their hiding place.				
Leafminer (Dipteran)	Apply in tank mix combination with a labeled companion insecticide such as Avid which has residual activity.				
Whiteflies	Scout plants regularly and apply a 1 to 2% v/v solution when pests first appear. Make a second application 7 days later to target newly hatched nymphs. Make additional applications at weekly intervals, but avoid more than three consecutive weekly applications Do not apply to poinsettia bracts. To achieve enhanced and residual pest control, use a 1 to 2% v/v solution of this product in combination with recommended products such as:Avid, Dursban, Mavrik Aquaflow, Pounce, Talstar or Tempo. Lower rates (0.25 - 1% v/v solution) of this product may be used in tank mixes for knockdown/ suppression of adult whiteflies.				
Gypsy moth	To suppress gypsy moth populations, apply a 3% v/v solution directly to the larvae.				
Blossom thrips on African violets	Spray to contact thrips on blooms.				
Euonymous scale	Thoroughly wet crawlers with a 2% solution. Delayed dormant applications of this product (1 % v/v solution) plus summer oil (1 % v/v solution) will also be effective.				

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Spruce spider mite on conifers	Apply 1-2% solution of this product to thoroughly wet infested needles. Repeat application after 7 days if needed.
Powdery mildew on greenhouse grown roses	Apply a 1-2% solution of this product to control powdery mildew spores and hyphae. Initiate sprays when first signs of powdery mildew appear and repeat at 7 to 10 day intervals, or as needed. Alternate applications of this product with other recommended fungicides to avoid making more than three successive applications of this product at intervals of 7 days or less. Roses may be treated with sublimated sulfur using sulfur-heating pots or similar devices before or after treatment with M-Pede. To minimize the potential for plant injury, allow 24 hours to elapse between M-Pede and sublimated sulfur applications. Mixing other forms of sulfur (sprayable or dusting) or applying this product within up to 5 days of a sulfur application may also increase the
	during hot weather (>90°F)

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#### STORAGE AND DISPOSAL

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

**STORAGE:** Store only in original container; in a dry place; inaccessible to children and pets. Do not store full or partial containers in direct sunlight. Keep container tightly sealed 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:** Do not reuse empty container. Triple rinse, then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

#### LIMIT OF WARRANTY AND LIABILITY

This product conforms to the description on this label and is reasonably fit for the purpose set forth on this label when used according to the label directions and under the specified label conditions. THE MANUFACTURER DISCLAIMS ANY AND ALL OTHER EXPRESS OR IMPLIED WAR-RANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. Buyer and all users assume all risks and responsibility for loss or damage if this product is used, stored, handled or applied under an

condition not reasonably foreseeable or beyond the manufacturer's control, or not as explicitly set forth in this label. THE LIMIT OF THE MANUFACTURER'S LIABILITY SHALL BE THE PURCHASE PRICE FOR THE QUANTI-TY INVOLVED. IN NO EVENT SHALL THE MANUFAC-TURER BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. The use of M-Pede alone and/or in combination with certain insecticides and miticides is covered by one or more of the following U.S. patent #'s: 4774234, 4861762, 4870102, 5192546, 4826678, 4983591, 4904645, 5047424, 5030658 and 5093124.

Patent for use as a fungicide is pending.

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TABLE 1: OMRIAPPROVED INSECTICIE	DES/MITICIDES WITH	AGRICULTURAL USE LABELI	NG SIMILAR TO SUCROSE OCTANOATE				
DMRI GENERIC CATEGORY	REFERENCE	ACTIVE INGREDIENT	BRAND NAME	COMMENTS			
	NUMBER						
leem Extract and Derivatives	#1	Azadirachtin	Neemix 4.5	1. Not labeled for miles			
		· · · · · · · · · · · · · · · · · · ·	• • • • • • • • •	2. Kills larval stages of inser	ts only.		
······································			· · · · ·	•		•	
	#2	Extract of Neem Oil	Trilogy	<ol> <li>Most effective when appl</li> <li>Bee hazard; do not apply</li> </ol>	pplied before insects or eggs are present in large numbers. ply when bees are actively visiting the treatment area.		
Dils- Nonsynthetic Source	#3	Cotton oil/clove oi∦	GC-Mite	· · · · · · · · · · · · · · · · · · ·	····		i i i i i i i i i i i i i i i i i i i
		garlic oil	· · · · · · · · · · · · · · · · · · ·		· · · · ·		
and the second product of the second product	<b>#</b> 4	Soybean oil	Golden Pest Spray Oil	ana an			
· · · · · · · · · · · · · · · · · · ·			······	· •			
oils-Petroleum-Based - Narrow Range	<b>#</b> 5	Parafinic oil	Organic JMS Stylet-Oil	Toxic la fish.	···· ·	•	
······			· · · · · · ·	• •	· - · · ·		
Pyrethrum	#8	Pyrethrins	PyGanic Crop Protection EC 1.4	1. Not labeled for mites. 2. Highly toxic to fish			
\$0ap	47	Potassium salts of	M-Pede	1. Label contains extensive	warning about phylo	loxicity	
		fatty acids			······································		