



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7504P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:
86330-13

Date of Issuance:
FEB 28 2012

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Terms of Issuance:
Unconditional

Name of Pesticide Product:
SUNSPRAY® ULTRA-FINE YEAR-ROUND PESTICIDAL OIL

HollyFrontier Refining & Marketing, LLC
International Plaza Two, Suite 423
Philadelphia, PA 19113
ATTN: Ms. Nancy Wright, Product Development Specialist

5912421
676/1135
5909162
676/1140
5826972
676/1140
5910741
676/1135
5909163
676/1135
5835539
676/1140

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

EPA received a label amendment request submitted on February 23, 2012, and a Confidential Statement of Formula submitted on January 20, 2012. EPA grants this request under the authority of section 3(c)(5) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended. With this accepted labeling, all requirements set forth in the Reregistration Eligibility Decision for Aliphatic Solvents have been satisfied. Therefore, EPA reregisters the product listed above. This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

.....Continued on Page 2

Signature of Approving Official:

Venus Eagle
Product Manager 01
Insecticide Branch
Registration Division

Date:

FEB 28 2012

Submit one (1) copy of final printed labeling. Amended labeling will supersede all previously accepted labels. A copy of your label stamped "Accepted" is enclosed for your records. Products shipped after 12 months from the date of this Notice or the next printing of your label, whichever occurs first, must bear the new revised label.

Labeling Notes

Before labels are printed, the change identified below should be made to the proposed container label ("Base Label") coded "#13 SS-5209 021612" that was included in your submission of February 23, 2012, for this product.

1. The two qualifying statements ("The expression 'Ultra-Fine[®]' ... product" and "The expression 'Year-Round' ... labeling") on the right panel should be footnoted to the product name, "SunSpray[®] Ultra-Fine[®] YEAR-ROUND PESTICIDAL OIL" (on the left panel), to which they pertain.

Before it is printed, the changes identified below should be made to the proposed booklet labeling (also coded "#13 SS-5209 021612") that was submitted for this product on February 23, 2012.

1. On the first page, the two qualifying statements ("The expression 'Ultra-Fine[®]' ... product" and "The expression 'Year-Round' ... labeling") on the right panel should be footnoted to the product name, "SunSpray[®] Ultra-Fine[®] YEAR-ROUND PESTICIDAL OIL" (on the left panel), to which they pertain.
2. In the second sentence of item "6." in the "DIRECTIONS FOR APPLYING WITH K-1 HOSE-END SPRAYER" (sixth page), "untill" should be changed to "until".

Confidential Statement of Formula

The basic Confidential Statement of Formula (CSF) dated January 20, 2012, is accepted and replaces all CSFs previously accepted for this product.

Follow the enclosed "Minimum Type Size Requirements for Final Printed Label".

If you have any questions or comments regarding this letter, please contact Dr. William W. Jacobs at (703) 305-6406 or via e-mail at jacobs.bill@epa.gov.

SunSpray[®] Ultra-Fine[®]

YEAR-ROUND PESTICIDAL OIL

For Residential Use Only

A superior horticultural spray oil for insect and mite pest management.

Active Ingredient: Mineral Oil* . . . 98.8 wt%
Other Ingredient: Emulsifier 1.2 wt%
Total 100.0%

CAUTION: KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals

CAUTION: Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt, long pants, shoes socks, and chemical-resistant gloves made of Barrier Laminate or Viton.

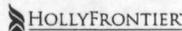
FIRST AID

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes followed by washing with soap and water. Call a poison control center or doctor for treatment advice.
If swallowed: Immediately call a poison control center or doctor. DO NOT INDUCE VOMITING unless told to do so by a poison control center or doctor.
Do not give any liquid to the person.
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 the eye.
Call a poison control center or doctor for treatment advice.
If inhaled: Move person to fresh air. If person is not breathing,

ENVIRONMENTAL HAZARDS

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

EPA Registration No. 86330-13
EPA Establishment No. 86330-OK-1
Net Contents:



HollyFrontier Refining & Marketing, LLC
International Plaza Two, Suite 423 • Philadelphia, PA 19113 • 800-385-2786

The expression "Ultra-Fine®" pertains only to the narrow 10%-90% distillation range of the oil used in this product.

The expression "Year-Round" means that this product may be used at any time of year, provided that the user adheres to the temperature and humidity restrictions stated in the attached booklet labeling.

Additional information contained inside booklet on application, precautionary statements, storage and disposal.

call 911 or an ambulance, then give artificial respiration, if possible. Call a poison control center or doctor for further 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 1-918-594-6000 for emergency medical treatment information.

NOTE TO PHYSICIAN

This product contains petroleum distillates and may pose an aspiration pneumonia problem. Aspiration may occur after swallowing, or vomiting and results in serious, and sometimes delayed lung injury.

* Contains petroleum distillates

#13 SS-5209 021612

Base Label

ACCEPTED
FEB 28 2012

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for the
pesticide registered under:

EPA. Reg. No: 86330-13

rec'd 2/23/12

4 of 20

SunSpray®
Ultra-Fine
YEAR-ROUND PESTICIDAL OIL
For Residential Use Only

UPC CODE AREA
0 71536 00760 3

A superior horticultural spray oil for
insect and mite pest management

| | |
|---------------------------------|----------|
| Active Ingredient: Mineral Oil* | 98.8 wt% |
| Other Ingredient: Emulsifier | 1.2 wt% |
| Total | 100.0% |

* Contains petroleum distillates

For dormant and growing season applications.

- Makes up to a 100 gallons.(for a gallon)
- Makes up to 25 gallons.(for a quart)
- Makes up to 12 gallons.(for a pint)
- Effectively kills insects year-round
- A superior horticultural spray oil

This product controls Adelgids, Aphids, Lace Bugs, leafhoppers, Leafminers (larvae), Mealybugs, Mites, Plant Bugs, Psyllids, Sawfly larvae, Scales, Thrips, Whitefly and eggs of Aphids, Mites and hairless caterpillars on landscape, trees, plants, shrubs and flowering plants, houseplants, vegetables, fruit and nut trees, and home greenhouse plants. This product can be applied up to harvest.

Ultra-Fine is a concentrate and must be mixed with water according to the mixing directions inside.

Follow the specified dilution rate for the particular plant and pest being sprayed. This quart makes up to 25 gallons of spray when diluted with water.

Additional information contained inside booklet on application, precautionary statements, storage and disposal.

READ DIRECTIONS THOROUGHLY BEFORE USING. TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, MANUFACTURER AND SELLER WILL NOT ACCEPT LIABILITY FOR DAMAGE OR INJURY RESULTING FROM MISUSE OF THIS PRODUCT.

The expression "Ultra-Fine®" pertains only to the narrow 10%-90% distillation range of the oil used in this product.

The expression "Year-Round" means that this product may be used at any time of year, provided that the user adheres to the temperature and humidity restrictions stated in the attached booklet labeling.

CAUTION:

KEEP OUT OF REACH OF CHILDREN

EPA Registration No. 86330-13

EPA Establishment No. 86330-OK-1

Net Contents: 1 Quart

Batch/Lot#

#13 SS-5209 021612



HollyFrontier Refining & Marketing, LLC
International Plaza Two, Suite 423 • Philadelphia, PA 19113
800-395-2786

rec'd 2/23/12

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals

CAUTION: Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves made of Barrier Laminate or Vitron.

USER SAFETY RECOMMENDATIONS

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

FIRST AID

If on skin or clothing:

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

If swallowed: Immediately call a poison control center or doctor.
DO NOT INDUCE VOMITING unless told to do so by a poison control center or doctor.

Do not give any liquid to the person.
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 the eye.
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, if possible. Call a poison control center or doctor for further 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 1-918-594-6000 for emergency medical treatment information.

NOTE TO PHYSICIAN

This product contains petroleum distillates and may pose an aspiration pneumonia problem. Aspiration may occur after swallowing or vomiting and results in serious, and sometimes delayed lung injury.

ENVIRONMENTAL HAZARDS

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

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep oil container tightly closed in storage to prevent entry of water or other contaminants. Store in a cool, dry, locked area out of the reach of children or pets. Do not store this product in direct sunlight for prolonged periods of time. This product should be stored in its original container only.

Container Disposal:

Disposal: Nonrefillable container. Do not reuse or refill this container.

If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

LIMITED WARRANTY AND LIABILITY

This product conforms to the description and is suitable for the uses set forth on this label but is strictly limited to those uses solely as directed under the specified label conditions, and only if purchased in the original unopened container.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, MANUFACTURER AND SELLER DISCLAIM ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE (except as specified on this label). Buyer and all users shall assume all risk, liability and damage if this product is used, stored, handled or applied other than as specifically set forth on this label. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, LIABILITY OF MANUFACTURER AND SELLER AND USER'S REMEDIES SHALL BE LIMITED TO REFUND OF THE PURCHASE PRICE OR REPLACEMENT OF THE SPECIFIC QUANTITY INVOLVED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

Note: This pesticide is to be sold ONLY in this original unopened container.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This product may only be used in residential home and garden areas. Do not apply this product by air or through any type of irrigation system. Do not enter or allow others to enter treated areas until sprays have dried.

USE PRECAUTIONS

Keep the oil container tightly closed in storage to prevent entry of water. All horticultural oils interfere with or slow plant transpiration and respiration during the period of evaporation. Therefore, do not spray plants under stress (i.e., drought, disease) and do not apply during periods of prolonged high temperature (above 90 degrees F) combined with high relative humidity (above 90%).

Do not tank-mix with any fungicides or herbicides. The following guidelines must be followed:

Do not tank-mix with any insecticide or miticide whose label indicates that it should not be used with oil.

Read and follow all directions and restrictions on the labels of the proposed tank-mix products. SunSpray Ultra-Fine should not be combined with more than one additional pesticide. Use caution and read all labels thoroughly when using any insecticides or miticides in combination with SunSpray Ultra-Fine. Always conduct a test spray for plant sensitivity prior to making a full scale application.

The following list of pesticides represents some of the compounds and their common names that should not be used with SunSpray Ultra-Fine, however this list is

not exhaustive: anilazine (Dyrene), captan (Captan), captofol (Difolatan), cyprex (Dodine), chlorothalnil (Bravo), dimethoate (Cygon), dinocap (Karathene), dithianon (Delan), fentin hydroxide (Supertin), fenitacetate (Fentin), folpet (Folpet), methiocarb (Metmercapturon), oxythioquinox (Morestan), PMA (Agrosun), propargite (Omite), lime sulfur, wettable sulfur or any other product containing sulfur. Keep spray equipment used for these other products separate from the equipment used for SunSpray Ultra-Fine or make sure the sprayer is thoroughly cleaned so that no residue from these other products remain. Do not use with Sevin 50W formulation (Carbaryl) on deciduous fruit trees.

Do not enter or allow others to enter into treated areas until sprays have dried.

MIXING INSTRUCTIONS

Make sure the spray equipment to be used is clean, dry and odor free.

1. Fill the spray tank or bottle 3/4 full with water.
2. SHAKE THE CONTAINER OF SUNSPRAY ULTRA-FINE VIGOROUSLY PRIOR TO MEASURING OUT THE DESIRED AMOUNT. Add the appropriate amount of SunSpray Ultra-Fine to the water and shake.
3. Fill the remaining 1/4 of the spray tank or bottle with water and shake again. The solution should look milky, if it doesn't, do not use it.
4. During application shake the solution frequently. Do not apply to plants if the solution has been sitting for more than 10 minutes without shaking it before resuming application.
5. Do not premix SunSpray Ultra-Fine and water. Mix just enough for the immediate use.

6. 2 tablespoons = 1 fluid ounce.
4 tablespoons = 1/4 cup = 2 fluid ounces.

APPLICATION INSTRUCTIONS

- The best times to spray are early evening and early morning.
- To be effective, the spray solution must completely cover the targeted pest and plant.
- Do not exceed the maximum rates or apply more often than specified in this booklet.
- Some plant species are sensitive to oil. A small number of plants should be test sprayed prior to general spraying.
- Use caution on open blooms - bleaching and spotting have been observed on the open bloom of some types of plants.
- This product may be used up to day of harvest.
- The effectiveness of Ultra-Fine may be reduced if prolonged temperatures below 50°F are experienced. This is due to the reduced respiration rate of the insect at these lower temperatures.
- Protect painted surfaces, carpet and furnishings from overspray. May cause discoloration.

DIRECTIONS FOR APPLYING WITH HOSE-END SPRAYER PROVIDED WITH PURCHASE

These directions apply only to the hose end sprayer that is given away with the purchase. When a hose end sprayer is given away with the purchase of SunSpray Ultra-Fine Year-Round Pesticidal Oil, follow the instructions below:

1. Turn valve switch located on top of hose end sprayer to the OFF position, perpendicular (right angle) to water flow.

2. Attach longer end of hose end nozzle onto water hose.
3. Remove product cap and save.
4. Place dip tube into bottle of product so flange rests on neck of the bottle.
5. Then screw bottle to the applicator until tight.
6. When ready to spray; point applicator away from face.
7. Turn on water supply at spigot.
8. Turn valve switch to the ON position, parallel to water flow.
9. When spraying is complete, turn valve switch to the OFF position.
10. Turn off water supply at spigot.
11. Remove sprayer from hose end bottle.
12. Leave dip tube and flange in bottle, and replace cap on bottle.
13. Rinse sprayer and let air dry prior to storage.
14. If bottle is empty, discard bottle and sprayer (See back panel for Storage and Disposal Instructions for insecticide).

IMPORTANT

Do not use this attachment in home greenhouses or on houseplants. For use only when application rates are between 2.5 and 5.0 tblsp oil/1 gallon water. For all other application rates, refer to the tables 1, 3, 4, 5A, 5B and 5C section for tank- and bottle-mixing.

Due to the force of the spray solution stream, use care when applying to delicate plants.

Do not empty the entire bottle of Ultra-Fine on one plant. Apply to runoff (ie: until plant is thoroughly saturated and spray solution runs off plant). Do not re-apply during a single application

(ie: once runoff has occurred, do not come back and re-spray it).

Do not use attachment if it is chipped, bent or damaged.

This attachment is intended for use only with this bottle of Ultra-Fine. Discard the attachment after this bottle has been emptied.

DIRECTIONS FOR APPLYING WITH K-1 HOSE-END SPRAYER

This hose end sprayer should only be used with SunSpray Ultra-Fine Year-Round Pesticidal Oil. Use of this sprayer with other pesticides may lead to plant damage due to product incompatibility.

Directions for Use with K-1 Hose End Sprayer

1. Shake well before using.
2. Make sure control lever located on the side of the hose end sprayer is in the **OFF** position.
3. If the sprayer is not in the **OFF** position, bend safety tab down to the right and turn control lever to the **OFF** position.
4. Once the control lever is in the **OFF** position, attach the hose end sprayer to the water hose.
5. Turn on water supply at the spigot.
6. Turn the control lever to the **ON** position. To do this bend the safety tab down to the right and turn the control lever until it lines up with the word: **ON**.
7. When spraying is complete, turn control lever to the **OFF** position as directed in step 3.
8. Turn off water supply at spigot.

9. If bottle is empty discard bottle as per the instructions on the back panel (see Storage and Disposal instructions for insecticides).

10. The sprayer and dip-tube may be cleaned and saved for future use with another Ultra-Fine purchase. This hose end attachment should only be used with SunSpray Ultra-Fine Year-Round Pesticidal Oil. Use of this sprayer with other pesticides may lead to plant damage as a result of product incompatibility.

NOTE: This sprayer may be used to just spray water. To only spray water follow steps 1-5 and then turn the control lever to the **WATER** position. Once watering is completed, continue with steps 7-10. No SunSpray Ultra-Fine Year-Round Pesticidal Oil should be expelled when the control lever is in the **WATER** position. This water spray is an option provided to the user to water plants that are not currently being sprayed with the Ultra-Fine product for pest control.

Do not water plants that are to be sprayed with Ultra-Fine directly before, after or during the intended spray time interval.

IMPORTANT

Do not use this attachment in home greenhouses or on houseplants. For use only when application rates are between 2.5 and 5.0 tblsp oil/1 gallon water. For all other application rates, refer back to the tables 1,3, 4, 5A, 5B, 5C for tank- and bottle-mixing.

Due to the force of the spray solution stream, use care when applying to delicate plants.

Do not empty the entire bottle of Ultra-Fine on one plant. Apply to runoff (ie: until plant is thoroughly saturated and spray solution runs off plant). Do not re-apply during a single application (ie: once runoff has occurred, do not come back and re-spray it).

Do not use attachment if it is chipped, bent or damaged.

TABLE 1 - HOME LANDSCAPE
(Shade Trees, Shrubs, Ornamentals, Flower and Foliage Plants)

| TREE OR PLANT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION |
|---|---|--|--------------------------|
| Shade Trees* and Shrubs including Conifers, Deciduous Broadleaf Evergreens & Woody Ornamentals Ornamental Trees*, Shrubs including Coni- fers, Deciduous and Broadleaf Evergreens | Aphids Adelgids Eriophyid Mites Gall Mites Honeylocust Plant Bug | 5.0 - 7.5 | Winter Dormant Period |
| | Lace Bug Leaf Beetle Larvae Leafminer Leafroller Mealybug | 2.5 - 5.0 | Summer (Foliar or Cover) |
| Flowering and Foliage plants including Roses and other Flowering Shrubs Foliage Ornamentals & Bedding plants | Psyllids (immature) Sawfly Larvae Scales (immature) Spider Mites | 5.0 - 7.5 | Winter Dormant Period |
| | Webworms Whitefly | 2.5 - 5.0 | Summer (Foliar or Cover) |

* Oil removes the glaucous (blue) bloom from such evergreens as Colorado Blue Spruce and Koster Spruce. Always use lower dosage or test spray oil sensitive plants such as Cryptomeria, Smoke Tree, Chamaecyparis, Juniper, Japanese Holly and Spruce. Tendency towards sensitivity: Red Cedar and Douglas Fir. Do not spray when buds have fully opened and shoot elongation is occurring. Do not spray Walnut foliage.

NOTE: Up to 4 applications during the growing season are typically sufficient to control pests. Use a 2 week minimum application interval. For fall dormant applications, reduce rate to 5 tablespoons per gallon and limit use only to: American Red Oak, Japanese Black Pine, Dogwood, Weeping Cherry, Cornelian Cherry, Crabapple, Norway Maple, Purple Leaf Plum.

Powdery Mildew Control on Ornamentals

Apply a rate of 2.5 - 5.0 tablespoons Ultra-Fine per 1 gallon water from midsummer to early fall every 2-4 weeks to zinnia, lilac, azalea, monarda, phlox, helianthemum and aster. If application to other woody or herbaceous ornamental plants is desired, conduct a small scale test on specific plants that are to be treated to check for sensitivity to the oil treatment. Ultra-Fine is not effective if the plant canopy is extremely dense because adequate spray coverage is difficult to attain. Greenhouse applications should be at the 2.5 tablespoon rate and a test spray should be conducted due to increased sensitivity of greenhouse grown plants.

TABLE 2 - HOUSEPLANTS

| PLANT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | COMMENTS |
|---|---|--|--|
| DIEFFENBACHIA DRACAENA FERNS PALMS SCHEFFLERA | Aphids Leafminers Mealybugs Scales Spider Mites Whitefly | 2.5 | Do not apply to plants in direct sunlight behind glass. Due to varietal differences in response to a treatment of Ultra-Fine at the specified rates, conduct a small test on 1 or 2 plants of the specific variety to be treated. |
| CHRYSANTHEMUM GARDENIAS JADE PLANT PHILODENDRON | | 2.5 - 5.0 | |

Protect floor, floor coverings and furnishings from overspray.

NOTE: Do Not exceed 3 consecutive applications without allowing a two week application interval.

TABLE 3- VEGETABLES OUTDOOR AND HOME GREENHOUSE

| VEGETABLE | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION |
|---|--|---|--|
| ASPARAGUS BEANS BEETS CABBAGE CAULIFLOWER (OTHER COLE CROPS) CORN CUCURBITS EGGPLANT LETTUCE MELONS PEPPERS POTATOES RADISHES SQUASH SWEET POTATO TOMATOES HERB AND SPICES CURLY LEAF BASIL LEMON BALM MEXICAN OREGANO SPEARMINT | Aphids Mites Beetle Larvae Leafminers Leafhopper Whitefly Thrips | 2.5 - 5.0 | Do not exceed 4 applications in a growing season. Apply at intervals of at least 2 weeks. |

Disease Control For Vegetables

Apply a rate of 2.5 - 5.0 tablespoons Ultra-Fine per 1 gallon water to control powdery mildew on cucurbits, melons and squash; gummy stem blight and *Alternaria* leaf blight on melons. Application should be made when the disease is first noticed and continue on a weekly basis to both the upper and lower leaf surfaces. If application to other vegetables listed above is desired, conduct a small scale test spray. Greenhouse applications should be at the 2.5 tablespoon rate.

TABLE 4 - SMALL FRUITS

| SMALL FRUIT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION |
|--------------|-------------------------|---|---|
| BLUEBERRIES | Mites | 7.5 | Dormant. |
| | Sawfly (eggs) Scales | 5.0 | Summer. |
| STRAWBERRIES | Aphids Mites | 2.5 | Dormant and Summer. |
| GRAPES | Mealybugs Mites | 2.5 - 5.0 5.0 | Dormant. Bud swell or shoot growth of 5-7 cm in spring. |
| | Mites | 5.0 | Postharvest. |

Grape vines should be vigorous and supplied with ample water prior to application. No sensitivity to Ultra-Fine treatments have been seen on the following grape varieties; Cabernet, Merlot, Chardonnay and Ribier. Variety sensitivity may be observed per growing condition; test spray first.

TABLE 5A - FRUIT TREES

| FRUIT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION (STAGE OF DEVELOPMENT) |
|--------|---|--|---|
| APPLES | Aphids (eggs) Apple Red Bug Mites (eggs) including European Red Mite Scales (hard and soft) Scurfy Scale* Fruit Tree Leaf Roller (eggs)* | 5.0 - 7.5 | Dormant or Delayed Dormant to 1/2* Green. |
| | Mites | 2.5 | Summer (Foliar or Cover) or Postharvest. Do not apply over fruit after waxy bloom forms. |
| PEARS | European Red Mite (eggs) Pear Leaf Blister Mite (eggs)* Pear Psylla Scales Fruit Tree Leaf Roller (eggs)* | 5.0 - 7.5 | Dormant or Delayed Dormant (up to and including petal fall). |
| | Two-Spotted Spider Mite Brown Mite Pear Rust Mite Pear Leaf Blister Mite* Pear Psylla* | 2.5 - 5.0 | Summer (Foliar or Cover) or Postharvest. |

* Use maximum rate specified

TABLE 5B - FRUIT & NUT TREES

| FRUIT AND NUTS | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION (STAGE OF DEVELOPMENT) |
|---------------------------------|---|--|---|
| ALMONDS APRICOTS CHERRIES | Aphids (eggs) Fruit Tree Leaf Roller (eggs) Tent Caterpillars San Jose Scale | 5.0 - 7.5 | Dormant or Delayed Dormant. |
| | Mites and Scales | 2.5 - 4.0 | Summer (Foliar or Cover) or Postharvest. - Application should not be made on oil sensitive varieties. - Do not apply to trees lacking adequate moisture. |
| PEACHES NECTARINES | Aphids (eggs)* Fruit Tree Leaf Roller (eggs) Mites (eggs) Cottony Peach Scale San Jose Scale | 5.0 - 7.5 | Dormant or Delayed Dormant. |
| | Mites Scales (immature) | 2.5 - 5.0 | Summer (Foliar or Cover) or Postharvest. |

* Use maximum rate specified

TABLE 5B - FRUIT & NUT TREES (continued)

| FRUIT AND NUTS | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | TIME OF APPLICATION (STAGE OF DEVELOPMENT) |
|-----------------|---|--|--|
| PLUMS PRUNES | Aphids (eggs) Scales Mites (eggs) | 4.0 - 5.0 | Dormant or Delayed Dormant to 1/2" Green Tip. |
| | Mites Scales | 2.5 - 4.0 | Summer (Foliar or Cover) Postharvest. Do not apply over certain fresh market fruits after bloom starts to form as the oil spray will remove the waxy bloom. Application should not be made over oil sensitive varieties. |
| PECANS | Aphids (eggs) Scales Mites (eggs) | 7.5 | Dormant |

TABLE 5C - CITRUS TREES

| CITRUS | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | COMMENTS |
|---|---|--|--|
| LEMON* GRAPEFRUIT | Mites Scales including California Red Scale | 2.5 - 4.0 | For best results, spray during Fall, early Winter & Spring months when red scale are more easily controlled and trees are generally less reactive to oil. For all citrus oil sprays ensure ade- quate moisture: leaves should not wilt before noon. |
| NAVEL & VALENCIA ORANGES, OTHER CITRUS VARIETIES INCLUDING NON-BEARING* | Mites including Rust Mite Spider Mite Scales including Black Scale California Red Scale Whitely & Blackly Sooty Mold | 2.5 - 4.0 | Oils applied after Oct. may in- crease cold damage to trees. Oils applied in Aug. and Sept. may affect solids content and retard coloring. |

TABLE 6 - HOME GREENHOUSE

| PLANT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | SPECIFIC COMMENTS |
|--|---|--|--|
| AGERATUM CROWN OF THORNS DIEFFENBACHIA FERNS FICUS LISIANTHUS ORCHID PALMS PETUNIA POINSETTIAS SCHEFFLERA SUNFLOWER | Aphids Fungus Gnat Leafminers Mealybugs Scales (soft & hard) Spider Mites Whitefly | 2.5 | Due to varietal differences in response to a treatment of Ultra-Fine at the specified rate, conduct a small test on 1 or 2 plants of the specific variety to be treated. Frequency of Application: For the greenhouse pests listed, use once a week initially, then as the pest is controlled, decrease the frequency to every 2-3 weeks as needed. Do not use on Poinsettia bracts. |

Some plants are more sensitive to oil treatments if any of the following conditions are present when application is made;

- High humidity (> 74%)
- An overcast or cloudy day
- Inadequate air flow
- A small greenhouse where the sunlight is magnified causing a fast build-up of temperature and light intensity.

TABLE 6 - HOME GREENHOUSE (continued)

| PLANT | PEST | APPLICATION RATE Tablespoons of Ultra-Fine per 1 Gallon Water | SPECIFIC COMMENTS |
|---|---|--|---|
| AGLAONEMA ASTER AZALEAS BEGONIAS BROWALLIA CAMELLIAS CARNATION CELOSIA CHRYSANTHEMUM COLEUS COSMOS DUSTY MILLER EASTER LILIES GARDENIAS GERBERA HELLIChRYSUM HIBISCUS FOLIAGE HYDRANGEA JADE PLANT NEW GUINEA IMPATIENS NICOTONIA PHILODENDRON PORTULACA REIGOR BEGONIAS SNAPDRAGON MARIIGOLD ZINNIAS | Aphids Fungus Gnat Leafminers Mealybugs Scales (soft & hard) Spider Mites Whitefly | 2.5 - 5.0 | Due to varietal differences in response to a treatment of Ultra-Fine at the specified rate, conduct a small test on 1 or 2 plants of the specific variety to be treated. <i>Frequency of Application:</i> <i>For the greenhouse pests listed, use once a week initially, then as the pest is controlled, decrease the frequency to every 2-3 weeks as needed.</i> |