

86330-6

10/28/2010

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number: 86330-6
 Date of Issuance: OCT 28 2010

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

Term of Issuance: Unconditional
 Name of Pesticide Product: SUNSPRAY 6E

Name and Address of Registrant (include ZIP Code):

Holly Refining & Marketing-Tulsa, LLC
 1700 South Union Avenue
 Tulsa, OK 74107
 ATTN: Ms. Jennifer Hall

Handwritten:
 S 835539
 676/1140
 S 884664
 676/1135
 S 884662
 676/1135

~~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 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.

Based on your response to the Reregistration Eligibility Decision, EPA has reregistered 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.

The basic Confidential Statement of Formula (CSF) dated September 1, 2009, is accepted and replaces all CSFs previously accepted for this product.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is accepted.

See page 2 for Labeling Notes.

Submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this Notice or the next printing of the label whichever occurs first, must bear the new revised label. A stamped copy of the label is enclosed for your records. If you have any questions, please contact William Jacobs at 703-305-6406 or jacobs.bill@epa.gov.

Signature of Approving Official:
 Venus Eagle, Product Manager 01
 Insecticide-Rodenticide Branch
 Registration Division (7505P)

Handwritten Signature: Venus Eagle

Date: OCT 28 2010

Labeling Notes

The comments below apply to the labeling that was submitted to the Office of Pesticide Programs on October 15, 2010, and received on October 18, 2010.

Container Label

1. In the "**Metal Container:**" paragraph (under "**Container Disposal:**") in the "**STORAGE AND DISPOSAL**" section, "State an local" should be replaced with "State and local".

Booklet

1. In the "**Metal Container:**" paragraph (under "**Container Disposal:**") in the "**STORAGE AND DISPOSAL**" section, "State an local" should be changed to "State and local".
2. On page 3, at the end of the second paragraph in the "**AGRICULTURAL USE REQUIREMENTS**" box, "materia" should be changed to "material". The stray "1," that appears below this box should be deleted.
3. In the fourth sentence under "**APPLICATIONS TO GRAPES**" (page 5), "cabarnet" should be changed to "cabernet".
4. In the last sentence of the second paragraph in the "**Comments**" column in the "**Citrus**" table (page 9, "tank mix" should be changed to "tank-mix".

SUNSPRAY® 6E

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

Active Ingredient: Mineral Oil*	98.8 wt%
Other Ingredient: Emulsifier	1.2 wt%
	100.0 wt%
*Unsulfonated Residue of Mineral Oil	92.0 % Min
*50% Distillation Point of Mineral Oil	414.0 °F
*Flash Point	345.0 °F
Weight per Gallon	7.1 lbs.

* Contains petroleum distillates

CAUTION: KEEP OUT OF REACH OF CHILDREN

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 & 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

Contains petroleum distillates - vomiting may cause aspiration pneumonia. Aspiration may occur after swallowing or vomiting and results in serious, and sometimes delayed, lung injury.

According to the California Safe Drinking Water and Toxic Enforcement Act of 1986 Regulations, otherwise known as "Proposition 65":
ATTENTION: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

PRECAUTIONARY STATEMENTS

Hazards to humans & 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.

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 G on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, flaggers, and other handlers must wear: long-sleeve shirt and long pants, shoes plus socks, and chemical-resistant gloves made of Barrier Laminate or Viton. See engineering controls for additional requirements. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

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.

ENGINEERING CONTROLS FOR AERIAL APPLICATIONS

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

ENVIRONMENTAL HAZARDS

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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Apply this product only as specified on this label.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.
Pesticide Storage: Store in a cool, dry, locked area out of the reach of children. Keep oil container tightly closed in storage to prevent entry of water.

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

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Metal Container: If container is not to be recycled, puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

Plastic Container: If container is not to be recycled, puncture and dispose of it in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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

EPA Reg. No.:

86330-6

ACCEPTED
OCT 28 2010
Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for the
pesticide registered under:



Holly Refining & Marketing-
Tulsa, LLC
1700 South Union Avenue
Tulsa, OK 74107

EPA Registration No. 86330-6
EPA Establishment No. 86330-OK-1
Net Contents: BULK

SS-5305 9/09

30815

40415

SUNSPRAY® 6E

A superior horticultural spray oil for insect and mite pest management

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EPA Registration No. 86330-6

See Additional Precautionary Statements Inside Booklet. See Directions For Use Inside Booklet



Holly Refining & Marketing-Tulsa, LLC
1700 South Union Avenue • Tulsa, OK 74107

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CAUTION

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

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.

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Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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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.**

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 soil or water, is: coveralls, shoes plus socks, and chemical-resistant gloves made of any waterproof material

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

USE SITE RESTRICTIONS

This product may be used to control mite and insect pests on deciduous fruit, nut and vine crops including almonds, apples, apricots, avocado, cherries, figs, grapes, kiwifruit, nectarines, olives, pears, peaches, persimmons, plums, prunes, walnuts and citrus. This product may also be applied to corn and sugar beets. **Do not use this product in Landscape, Greenhouse or Nursery Production Areas.**

PESTS CONTROLLED

This product controls mite and insect pests in the egg stage including: spider and eriophyid mites, armored and soft scale, mealybugs, psyllids, aphids, leafrollers and leafhoppers. This product also kills other immature forms if spray covers the insect. This product can be applied up to harvest.

MIXING DIRECTIONS

1. Add sufficient water to the mixing tank to allow proper agitation by pump or paddles.
2. Add other pesticides that are to be part of the mix. If a wettable powder formulation is to be added, mix the water and powder thoroughly so that the powder is totally suspended in the water before the oil is added. If other pesticide to be added is an emulsifiable formulation, do so after the oil and water have been thoroughly mixed.
3. Add oil under agitation when tank is 3/4 full. Top off with water to form milky solution.
4. Maintain agitation until solution is used.
5. In small equipment lacking agitators, stir or shake diluted spray frequently during application.
6. Read and follow all directions and restrictions on the labels of the proposed tank-mix products.
7. Flush fluid in sprayer hose lines back into tank reservoir if fluid is allowed to stand for more than 20 minutes.

APPLICATION INSTRUCTIONS

The target pest must be completely covered 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.

DILUTE APPLICATIONS use the minimum 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 300-600 gallons per acre or as low as 100 gallons per acre for smaller trees. For mature citrus trees this can be as much as 600-2000 gallons per acre, depending on the tree size. For avocado trees this can be as much as 700-1800 gallons per acre. Dilute applications ensure the best coverage.

CONCENTRATE APPLICATIONS (usually 45 to 125 gallons spray per acre) may reduce coverage and effectiveness. Concentrate application includes the use of low volume (from 10 to 100 gallons spray per acre) sprayers. A concentrate application can provide satisfactory results as long as the spray unit is properly engineered, calibrated and operated. Speed of travel for ground application is extremely important. Tractor speed from 1 M.P.H. to 4 M.P.H. is recommended depending on crop, crop size and target pest. Low volume applications of Sunspray will require approximately the same amount of oil per acre as dilute sprays but applied with much less water. Spray oil calculations should be based on no run off of the oil phase of the mixture.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., ground, aerial, and airblast) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product. Do not apply at wind speeds greater than 15 mph at the application site. Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions.

GROUND-BASED EQUIPMENT APPLICATION: Apply using a nozzle height of no more than 4 feet above the ground or crop canopy. Do not apply at wind speeds greater than 15 mph at the application site. Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

AIRBLAST EQUIPMENT APPLICATION: For airblast applications, turn off outward pointing nozzles at row ends and when spraying outer row. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

AERIAL APPLICATIONS: Use only as an emergency application when soil conditions do not permit regular ground application. Apply quantity of product shown for each listed crop for control of listed insects in sufficient water to make a minimum of 20 gals. dilute spray per acre. For aerial applications of agricultural products, do not release spray at a height greater than 10 feet above the ground, top of crops, or above the orchard canopy. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Leave at least one swath unsprayed at the down-wind edge of the treated field. Do not apply at wind speeds greater than 15 mph at the application site. Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

TIMING OF TREATMENT

The applicator must determine the precise timing to fit local growth and climatic conditions. **DO NOT EXCEED MAXIMUM RATES OR APPLY MORE OFTEN THAN SPECIFIED IN THIS BOOKLET. THIS PRODUCT MAY BE USED UP TO THE DAY OF HARVEST.**

TANK MIXES

Do not tank-mix with any herbicides. Do not tank-mix with any insecticide, fungicide or miticide whose label indicates that it should not be used with oil. Consult local pest management information regarding other insecticides that may be tank-mixed with oil. This information should indicate rates for the insecticide and the oil along with more precise information as to the best time for application. It is important for users to read and follow all directions and restrictions on the labels of the proposed tank-mix products. Check tank mixture for physical and chemical compatibility. Mix only enough material to do the job.

This product may be used:

1. as a carrier for *Bacillus thuringiensis* when applied through a mist blower or cold fog machine;
2. in a tank mix with Lorsban on apples, pears, plums, prunes, peaches, sweet corn and field corn;
3. in a tank mix with Supracide* on apples, pears, plums, prunes, peaches, and citrus (oranges, grapefruit, and lemons).
4. as a spreader or carrier for some synthetic organic insecticides.

**Note: Supracide is a "RESTRICTED USE PESTICIDE".*

APPLICATIONS TO ALMONDS, APPLES, APRICOTS, CHERRIES, PEACHES, NECTARINES, PEARS, PLUMS AND PRUNES.

Completely cover all tree parts to achieve adequate control. Oil alone will control low to moderate infestations. Oil may be combined with other compatible insecticides for controlling higher scale infestations or to achieve better control of Peach Twig Borer. Caution is required when combining certain miticides or insecticides due to possible increased phytotoxicity when applied to foliage. Do not apply over certain fresh market fruits after the bloom starts to form as the oil spray will remove the waxy bloom. Consult the local pest management guidelines or Agricultural Extension Service for more details as to the rates and times of application for your specific location.

APPLICATIONS TO CITRUS

Oils applied after October may increase cold damage to trees. Oils applied in August and September may affect solid contents and retard coloring.

APPLICATIONS TO GRAPES

The oil application should be made before mites reach high populations. Vineyards should be vigorous and supplied with sufficient water prior to application. Do not allow excessive webbing or burning. No sensitivity to Sunspray treatments has been seen in the vineyards of cabernet, merlot, chardonnay or ribier when used for insect control. Do not mix Sunspray with dicofol (Kelthane), Captan, or sulfur since all can cause phytotoxicity in some varieties. Use airblast sprayers to avoid plant injury and reduce effect on the bloom of table grapes.

USE PRECAUTIONS

Keep oil container tightly closed in storage to prevent entry of water. Store drum on its side. Roll drum before use. All horticultural oils interfere with or slow plant transpiration and respiration during the period of evaporation. Phytotoxicity may result if this product is sprayed on plants during periods of prolonged high temperature and high relative humidity. Do not spray to plants under stress (i.e. drought, disease). Do not spray immediately prior to, during or following unusually cold weather or freezing temperatures. The following list of pesticides represents some of the compounds that should not be used with Sunspray, however this list is not exhaustive: anilazine (Dyrene), captan (Captan), captofol (Difolatan), cyrex (Dodine), Chlorothalonil (Bravo), dimethoate (Cygon), dinocap (Karathene), dithianon (Delan), fentin hydroxide (Supertin), fentinacetate (Fentin), folpet (Folpet), methiocarb (Metmercapturon), oxythioquinox (Morestan), PMA (Agrosun), propargite (Omite), lime sulfur, wettable sulfur or any other product containing sulfur. For fungicides not included in this listing, consult the label of the specific fungicide formulation for compatibility information when used with oil. Consult your local extension agent for local recommendations relative to a specific fungicide/oil mix on a specific crop. Keep the spray equipment used for these products separate from the equipment used for Sunspray. Do not use with Sevin 50W formulation (carbaryl) on deciduous fruit trees.

Crops	Insect Control Aid	Application Rate			Time of Application (Stage of Development)
		Dilute Spray per 100 Gal. Water	Concentrate Gallons Oil Per Acre	Aerial* Gallons Oil Per Acre	
Almonds	Mite Eggs European Red Mite Brown Mite	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Scales San Jose Scale	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Fruit Tree Leaf Roller Eggs	1.5 - 2.0	6 - 8	6 - 8	Dormant or Delayed Dormant.
	Peach Twig Borer	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
					If applying oil alone for moderate to severe San Jose Scale infestations use the dilute application only. Do not use oil on water-stressed trees.
Apples	Apple Red Bug	1.5 - 2.0	6 - 8	6 - 8	Dormant through Tightcluster.
	Fruit Tree Leaf Roller (Eggs)	1.5 - 2.0	4 - 8	4 - 8	
	European Red Mite (Eggs)	1.5 - 2.0	6 - 8	6 - 8	
	Aphid Eggs	1.5 - 2.0	4 - 8	4 - 8	
	Scales San Jose Scale European Fruit Lecanium Scale Scurfy Scale Italian Pear Scale	1.5 - 2.0	6 - 8	6 - 8	

* Aerial application should be used only as emergency application when soil conditions do not permit regular ground application.

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		Dilute Spray per 100 Gal. Water	Concentrate Gallons Oil Per Acre	Aerial* Gallons Oil Per Acre	
Apricots	Mite Eggs European Red Mite Brown Mite	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Aphid Eggs	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Scales European Fruit Lecanium Scale San Jose Scale	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Fruit Tree Leaf Roller Eggs	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Peach Twig Borer	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant. Do not use on water-stressed trees.
Cherries (sweet & tart)	Mite Eggs European Red Mite Brown Mite	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Aphid Eggs	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Fruit Tree Leaf Roller Eggs	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Scales European Fruit Lecanium Scale Black Scale San Jose Scale	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Cherry Leafhopper Eggs	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant.
	Peach Twig Borer	1.5 - 2.0	4 - 8	4 - 8	Dormant or Delayed Dormant. Do not apply oil to water- or disease-stressed trees.
Blueberries	Scales Mites	3.0	NR	NR	Dormant.

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NR = Not Recommended

Crops	Insect Control Aid	Application Rate			Time of Application (Stage of Development)
		Dilute Spray per 100 Gal. Water	Concentrate Gallons Oil Per Acre	Aerial* Gallons Oil Per Acre	
Figs	Scales	1.5 - 2.0	6 - 8	6 - 8	Dormant or Delayed Dormant.
Grapes	Mealybugs	1 gal/acre	NR	NR	Dormant.
Olives	Scales	1.5	NR	NR	Pre-bloom or post-harvest. Apply 400-1500 gal dilute spray per acre. Spray at night or early morning if temperatures are expected to exceed 90°F during the day.
Pears	Mite Eggs European Red Mite Brown Mite Pear Leaf Blister Mite	1.5 - 2.0	4 - 6	4 - 6	Dormant or Delayed Dormant.
	Scales European Fruit Lecanium Scale San Jose Scale	1.5 - 2.0	4 - 6	4 - 6	Dormant.
	Mealybugs (Eggs & Crawlers)	1.5 - 2.0	4 - 6	4 - 6	SJS - Do not apply to heavy infestations. Dormant or Delayed Dormant.
	Fruit Tree Leaf Roller (Eggs)	1.5 - 3.0	4 - 6	4 - 6	Dormant.
	Pear Psylla	1.5 - 2.0	4 - 6	4 - 6	Dormant. Make sure root zone is wet from rain or irrigation.
	Pecans	Obscure Scale	3.0	6 - 8	6 - 8
Peaches & Nectarines	Mite Eggs European Red Mite	1.0 - 1.5	4 - 6	4 - 6	Dormant.
	Scales Cottony Peach Scale San Jose Scale	1.0 - 2.0	4 - 6	4 - 6	Dormant.
	Fruit Tree Leaf Roller (Eggs)	1.0 - 1.5	4 - 6	4 - 6	Dormant.
	Peach Twig Borer	1.0 - 1.5	4 - 6	4 - 6	Dormant. Do not use on water-stressed trees.

* Aerial application should be used only as emergency application when soil conditions do not permit regular ground application.
NR = Not Recommended

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Crops	Insect Control Aid	Application Rate			Time of Application (Stage of Development)
		Dilute Spray per 100 Gal. Water	Concentrate Gallons Oil Per Acre	Aerial* Gallons Oil Per Acre	
Plums & Prunes	Mite Eggs European Red Mite Brown Mite	1.5 - 2.0	4 - 6	4 - 6	Dormant or Delayed Dormant.
	Scales European Fruit Lecanium Scale San Jose Scale	1.0 - 1.5	4 - 6	4 - 6	Dormant or Delayed Dormant.
	Aphids Eggs	1.0 - 1.5	4 - 6	4 - 6	Dormant or Delayed Dormant.
	Peach Twig Borer	1.0 - 1.5	4 - 6	4 - 6	Dormant or Delayed Dormant. Oil applications to kill overwintering eggs may cause some young shoot burn or dieback. Always apply oil to well watered trees. Do not use on Queen Ann variety of Plum.
Sweet Corn Field Corn	Ear Worms Corn Root Worm	2.0	NR	NR	Spring-Early.
Sugar Beets	Mites Leaf Miner	2 gal/acre	NR	NR	As Needed.

* Aerial application should be used only as emergency application when soil conditions do not permit regular ground application.
NR = Not Recommended

Crops	Insect Control Aid	Dilute Spray Gals./100 Gals.	Concentrate** Gal./Acre	Comments
Citrus*	Citrus Rust Mite Scale Insects Greasy Spot Disease	0.5 - 1.5	4 - 22	Spray during Fall, early Winter & Spring months when red scale are more easily controlled and trees generally less reactive to oil. For all citrus oil sprays ensure adequate soil moisture: leaves should not wilt before noon. For low volume oil spray treatment during the Spring, application should be discontinued as soon as temperatures go above 90°F during the day or relative humidity is expected to go down to 20 percent or below. Oils should not be used in late Fall if there is any danger of damage from cold. The addition of a tank mix pesticide will improve performance against scales.
	Spider Mites Whitefly Loosens Sooty Mold	0.75	6 - 11	

*Do not exceed a maximum of 159 pounds of active ingredient (in a maximum volume of 1500 gallons of spray mix per acre) when treating citrus in Florida and Texas (based on dilute spray, with 1.5 gallons of product mixed per 100 gallons of water). Do not exceed a maximum of 212 pounds of active ingredient (in a maximum volume of 2000 gallons of spray mix per acre) when treating citrus in California (based on dilute spray, with 1.5 gallons of product mixed per 100 gallons of water).** Apply in sufficient water and manner to assure thorough distribution.

Crops or Plants	Insect Control Aid	Application Rate 6E Gals. per	Time of Application (Stage of Development)
Shade Trees and Shrubs Including Conifers, Deciduous Broadleaf Evergreens & Woody Ornamentals along city streets and other rights-of-way and in and around habitable buildings.	Aphids Adelgids Eriophyid Mites Gall Mites Honey Locust Plant Bug Lace Bug Leaf Beetle Larvae Leafminer Leaf Roller Mealybugs Psyllids (immature) Sawfly (larvae) Scales (immature) Spider Mites Webworms Whiteflies	2	Dormant.
Azalea	Azalea Bark Scale European Red Mite	2	Dormant to Bud Break
Dogwood	Dogwood Scale San Jose Scale	2	Dormant to Bud Break
Flowering Cherry	Azalea Bark Scale European Red Mite	2	Dormant to Bud Break
Flowering Crab Apple	Azalea Bark Scale European Red Mite	2	Dormant to Bud Break
Euonymus	San Jose Scale Euonymus Scale	2	Dormant to Bud Break
Holly	Holly Scale	2	Dormant to Bud Break
Hawthorn	San Jose Scale	2	Dormant to Bud Break
Juniper	Juniper Scale	2	Dormant to Bud Break
Lilac	San Jose Scale	2	Dormant to Bud Break
Pines	Pine Needle Scale	2	Dormant to Bud Break
Privet	White Peach Scale	3	Dormant to Bud Break
Rhododendron	Azalea Bark Scale	2	Dormant to Bud Break
Rose	Rose Scale	2	Dormant.
Spiraea	San Jose Scale	2	Dormant to Bud Break.

(Use a lower concentration for more sensitive plants)

NOTES:



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