

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505C) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

NOTICE	OF	PEST!	CIDE

X Registration
Reregistration
(under FIFRA, as amended)

EPA:	Rev.	Nun	ihei

9779-1011

Date of Issuance:

JUN 1 4 2007

Term of Issuance:

Conditional

Name of Pesticide Product:

Spray Oil 470

Name and Address of Registrant (include ZIP Code):

Agriliance, LLC P.O. Box 64089 St. Paul, MN 55164

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.

This product is conditionally registered in accordance with FIFRA Sec. 3(c)(7)(A) provided that you:

- 1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA Sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
- 2. Submit Subgroup B data to complete the data requirement for the 830 series within one year from the date of this registration.
- 3. Make the following changes to the label.
 - a. Revise the EPA Registration Number to read, "EPA Reg. No. 9779-1011".

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

A stamped copy "Accepted with comments" the label is enclosed for your records.

Signature of Approving Official:

Akiva Abramovitch, Ph. D.

Chemist

Insecticides/Rodenticides Branch

Date:

JUN 1 4 2007

Spray Oil 470

A White Mineral Oil for Insect and Disease Control.

ACTIVE INGREDIENT	
Petroleum Oil	98.5%
INERT INGREDIENTS	1.5%
TOTAL	100.0%
•	

with COMMENTS KEEP OUT OF In EPA Letter Dated:

KEEP OUT OF REACH OF CHILDREN

JUN 1 4 2007

CAUTION

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the posticide registered under EPA Reg. No.

FIRST AID

If swallowed:	Call a poison control center or doctor immediately for treatment advice.
,	Do not give any liquid to a person. Do not give anything to an unconscious person.
	 Do not induce vomiting unless told to by a poison control center or doctor.
If in eyes:	 Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
	Call a poison control center or doctor for treatment advice.
If on skin:	Take off contaminated clothing.
	Rinse skin immediately with plenty of water for 15 to 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 further treatment advice.

Have the product container label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Petroleum distillate poses aspiration pneumonia hazard. Only minor irritation should be expected from any type of exposure other than pulmonary aspiration. Ingestion may result in some gastroenteritis and mild diarrhea. Viscosity is such that chemical (hydrocarbon) pneumonia is not a hazard; however, aspiration or lipoid pneumonia of a less severe variety could result from pulmonary aspiration. Since systemic toxicity is not expected, the added risk of aspiration from attempts to induce vomiting or lavage are deemed not warranted. For additional information in case of emergency call toll free 1-877-424-7452.

See Additional Precautionary Statements.

EPA Reg. No. 49779-

Distributed By: Agriliance, LLC P. O. Box 64089, St. Paul, MN 55164-0089 EPA Est. No.

NET CONTENTS

PROP 10/05/06

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

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 the 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, nitrile rubber, neoprene rubber or viton and shoes plus socks.

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

Engineering controls statements: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with 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 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 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 green houses, 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, nitrile rubber, neoprene rubber or viton 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.

Keep children and pets out of the treated area until sprays have dried.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call collect: CHEMTREC (800) 424-9300.

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent

dispersal. Place damaged package in a holding container. Identify contents.

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: Metal: 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. Do not cut or weld metal containers.

Plastic: 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.

MIXING DIRECTIONS

Use only in equipment with sufficient agitation to keep spray thoroughly mixed. Be sure tank is clean. With agitator running, start filling tank with water, add SPRAY OIL 470 when tank is about ½ full. Pump this mixture through the overflow and back into tank for about two minutes. If this mixture turns white, it indicates good emulsification. Fill the tank with water, adding other desired materials as tank is filling. If wettable powders are used, add and thoroughly mix with water before adding SPRAY OIL 470. Addition of an emulsifiable formulation should be done after the SPRAY OIL 470 and water has been thoroughly mixed. Observe all precautions and limitations on labeling of all products used in mixtures. Keep agitator running at all times. If an injector is used, first add 25 to 50 gals, of water to tank with engine running to provide good pressure. Put injector suction tube into the measured amount of SPRAY OIL 470, opening injector valve to allow the SPRAY OIL 470 to be sucked into the tank, then fill the tank with water.

Do not use if this material does not emulsify.

APPLICATION DIRECTIONS

Apply when pests are present and as recommended below. Do not use in undiluted form. Sensitive foliage may be injured.

Evergreens

SPRAY OIL 470 may be used on evergreens, taking into consideration the use precautions noted elsewhere on this label. In order for the spray solution to be effective the target pest and plant should be completely covered. Thorough coverage is essential. Best coverage is achieved with ground equipment using proper spray pressure, gallonage per acre, nozzles, nozzle spacing and tractor speed.

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). Adjust the angles of the spray nozzles to achieve complete coverage of the foliage including the lower leaf surfaces. Do not exceed the recommended maximum rates or apply more than recommended. SPRAY OIL 470 may be used up to the day of harvest.

To ensure the best coverage, dilute applications (greater than 150 gallons of spray solution per acre) are recommended. Concentrate applications (usually from 20 to 150 gallons of spray solution) may reduce the coverage and thus the effectiveness. Application volumes depend on the crop type, crop size and target pest. Adjust the spray volume to obtain the best coverage without runoff. Extreme care should be taken when using concentrate sprays as the potential for enhanced crop phytotoxicity is increased. A concentrate application can provide satisfactory results as long as the spray unit is properly engineered, calibrated and operated.

AERIAL APPLICATIONS - Dormant and Delayed Dormant Application Only: Apply 3 to 5 gals. in a minimum of 20 gals. of water per acre. Use only as an emergency application when soil conditions or site does not permit regular ground application.

This product has not been tested on all species or varieties. Before treating a large area, treat a small area and observe prior to full scale application.

Note: Use efficient equipment of the proper type. Avoid spraying during or immediately prior to hot or freezing weather (over 95°F. or under 32°F.), hot dry winds, rain or other unsuitable conditions; avoid over spraying or double spraying. Plants should be sprayed only when in vigorous condition and when their moisture condition is suitable. Before using, make certain spray tank is free of sulfur residues. Do not apply sulfur within 14 days except in the Northwest (Oregon and Washington) where it may be used in combination on Pears as a Post Harvest (after old fruit is off the tree), Dormant and Delayed Dormant (before the scales slip, or at or prior to bud swell) treatment and on Apples prior to or up to the Delayed Dormant (½ inch green) period. In areas west of the Continental Divide do not apply to Captan treated trees within 90 days after or 60 days before this oil. In areas east of the Continental Divide do not apply to Captan treated trees within 10 to 14 days before and after this oil. If in doubt, spray a portion of one tree previously treated with Sulfur or Captan using 1 quart to 25 gallons water. Burn will show in several days if sufficient time has not elapsed.

A period of 14 days must elapse before any of the following chemicals are used before or after an application of SPRAY OIL 470: anilazine, chlorothalonil, dicloran, dicofol, Dikar, dinocap, permethrin.

Do not use chlorothalonil or dimethoate in a spray program with SPRAY OIL 470 on grapes, ornamentals and strawberries. Do not use dicofol in a spray program with SPRAY OIL 470 on ornamentals and strawberries. Do not use propargite with an oil spray or within 30 days before or after an oil spray.

VEGETABLE CROPS

Crop		Pest	Application Rate (gallons of SPRAY OIL 470) per 100 gallons of water	Comments
Asparagus Beets Cauliflower and other Celery Cucurbits Lettuce Pepper Radish Sweet Potato Herbs and Spices Lemon Balm Mint	Beans Cabbage Cole crops Corn Eggplant Melon Potato Squash Tomato Curly Leaf Basil Mexican Oregano	Aphids Mites Beetle Larvae Leafminers Thrips Leafhopper Whitefly	0.75-1	For virus control on cucurbits use 0.75 gallons per 100 g. Spray once or twice weekly depending on the rapid growth of the crop and/or vector pressure. When using to control insect transmitted diseases, use higher pressure 400 psi and ceramic hollow cone nozzles.
Oriental Vegetables Acerola, Atemoy, Balsam pear (Bitter Melon), Carambola, Chinese broccoli (Gai Lon), Chinese cabbage (Gai Choy), Chinese spinache, Chinese waxgourd, Cilantro, Citron melon, Dasheen, Ginger, Ginseng, Japanese artichoke, Japanese radish (Daikon), Rambutan		Aphids Mites Beefle Larvae Leafminers Thrips Leafhopper Whitefly	0.75-1	For virus control on cucurbits use 0.75 gallons per 100 g. Spray once or twice weekly depending on the rapid growth of the crop and/or vector pressure. When using to control insect transmitted diseases, use higher pressure 400 psi and ceramic hollow cone nozzles.

		Application Rate (gallons of SPRAY OIL 470)	
Crop	Pest	per 100 gailons of water	Comments
Almond Apricot	Mites (eggs) San Jose Scale	2	Dormant or Delayed Dormant
Cherry Pistachio	Fruit Tree Leafroller (eggs)	3	
	Mites Scales	1-1.5	Summer (foliar or cover) or postharvest. Do not spray oil on sensitive varieties. Do not apply to trees lacking moisture.
Apple /	Aphid (eggs) Apple Red Bug Mite (eggs) Scales	2	Dormant to delayed dormant to ½ inch green.
	Fruit Tree Leafroller (eggs)	. 3	
•	Mites	1-2	Summer (foliar or cover). Do not spray oil on sensitive varieties.
Avocado Hass variety only	Avocado Brown Mite	0.75-1	Apply through late fall. Consult with your local University of California Cooperative
riado tanoty omy	Pracea Mite		Extension Service for proper timing and application parameters.
Bananas	Black Leaf Streak	0.5-1.5	Begin application when disease first appears and continue even
Plantains	(Mycosphaerella		10 to 15 days during rainy periods or as needed. Do not apply
	fijiensis)	(Mist Blower: 1½ gals. in a	when daytime temperatures exceed 80°F as injury may occur.
, ,	Black Sigatoka	minimum of 6 gals.	Phytotoxicity may be affected by the quantity of oil used, vigor of
•	(Mycosphaerella fijiensis	water/acre)	trees and temperature at the time of application.
	var. difformis)		Bag fruits or avoid direct spraying on unbagged fruits. This
	Yellow Sigatoka	1-1.5	application is also effective in loosening Sooty Mold Fungus and
	(Mycosphaerella		in preventing its formation by the control of Aphids, Mealybugs,
	musicola)		Scales and Whitefly.
Blueberries	Mites	0.75-1.5	Using ground equipment, spray for optimum coverage of leaf
Bushberries	Powdery Mildew		surfaces. For fungal diseases use at least 200 psi spray
Caneberries	Rust		pressure,
Figs	Fig Scale	1-3	Dormant or Delayed Dormant
	Mites	1-2	Foliar Spray
	Mealybug Scale	,	·
Grapes	Mealybugs Mites Leafhopper*	1-2	Using ground equipment, spray for optimum coverage of leaf surfaces. Repeat sprays every 10-14 days.

Crop	Whiteflies*		Pest		Application Rate (gallons of SPRAY OIL 470) per 100 gallons of water	Comments
	Powdery Mildew			For powdery mildew – Make first application pre-bloom a continue every ten days to three weeks depending on leve disease pressure. Use higher rate and/or shorter spray into when disease conditions are severe. Oil will remove the bloom on grapes. Table grapes should not be sprayed within 60 days of har On grapes, do not tank mix oil and copper more than once/season. Do not use copper and oil together with fruit present.		ree weeks depending on level of rate and/or shorter spray interval severe. grapes. prayed within 60 days of harvest. oil and copper more than
Kiwi · '	Latania Scale Greedy Scale Oleander Scale San Jose Scale	minimum of 1 water per acre		Do no Do no inade	t apply after budbreak. t use on weak or stress quate.	ed vines, or where soil moisture is
Mango	Mites Powdery Mildew	100 gallons o	gallons of oil in f water per acre.	pest p	ressure.	necessary depending on level of
Olive .	Mites Scales		1.5	ļ	oom to Postbloom Buck	,
Papaya -	Mites Powdery Mildew Papaya Ringspot Virus	Use 0.75 to 1 gallons of wat	.5 gallons in 100 er per acre.	depen when pressi	ding on the level of pes seeds are germinated. are and ceramic hollow	Spray every 10 to 14 days of pressure. For Virus: Initiate spray Spray weekly using 400 psi spray cone nozzles.
Peach Nectarine	Aphid (eggs) Mite (eggs) Fruit Tree Leafroller (eggs) San Jose Scale		2-3	Dorma Use h	ant or Delayed Dormani igher rates for leafroller	and scales.
	Mites` Scales		1-2	Summ	ner (foliar or cover) or p	ostharvest.
Pear	Mite (eggs) Pear Psylla Scales Fruit Tree Leafroller (eggs)		3	Dorma	ant or Delayed Dormani	(up to and including petal fall).
	Mites Pear Psylla		1-2 .5-2	Summ	ner (foliar or cover) or pot t spray oil on sensitive	ostharvest.
Pecan	Aphid (eggs) Mite (eggs) Scales		3	Dorma	ant	eties or after husk split.
Pineapple 、	Mealybugs Bud Moth Chinese Rose Beetle	oil in 100 gallo acre.		Allow	fruit to dry for 1 hour be	fore being stored.
Plum . Prune	Aphid (eggs) Mite (eggs) Scales		5-2	½ inch	· 	
·	Mites Scales	1.	-1.5	Do no	er (foliar to cover) or po apply to certain fresh r s the oil spray will remo sitive varieties.	ostharvest. market fruits after bloom starts to . ove the waxy bloom. Do not spray oil
Strawberries	Leafminers* Mites Powdery Mildew	0	.75	Spray		using ceramic spray nozzles heir equivalent).
Walnut	Mite (eggs) Scales		1-2		ed Dormant apply to sensitive varie	eties or after husk split.

CITRUS: (California Only) – Grapefruit, Lemons, Limes, Oranges (Navel and Valencia), Tangelos and Tangerines and other citrus hybrids

Mites -Citrus Red	-Citrus Rust	Apply ½ to 1½ gals. of oil per 100 gals. of water as thorough coverage spray (TC). Alternately, use a low volume spray (LV) to apply 1 to 10 gals. of oil per acre.
Scale Insects		Apply up to 10 gals. of oil per acre on bearing trees up to 10 feet in height. Add 1 gal. of oil per acre for each
-Black -Citicola -Red	-Brown Soft -Purple -Yellow	foot of height over 10 feet. Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.

Thorough coverage spray (TC): Applications achieving a uniform film wetting of all portions of the tree at 250 to 4500 gallons of spray solution per acre, the total volume is dependent of the size of the trees.

Low-volume spray (LV): Applications with droplet depositions achieved on all interior and exterior parts of the tree using 10 to 100 gallons of spray solution per acre. Do not make an oil spray application within 2 weeks prior to or after an application of sulfur. On Citrus do not make an oil application within 60 days prior to or after an application of sulfur. Do not apply prior to or during period of excessively high summer temperatures. Do not apply oil spray when trees show stress. Consult with your local University of California Cooperative Extension Specialist for proper timing and spray program.

CITRUS: (Florida and Texas) - Grapefruit, Lemons, Limes, Oranges, Tangelos and Tangerines and other citrus hybrids

PESTS	APPLICATION RATE-GALS. SPRAY OIL 470	COMMENTS
Citrus Rust Mite	5 to 10 gals, per acre. Apply as a dilute spray.	Does not control citrus Snow Scale.
Spider Mites	5 to 10 gals, per acre. Apply as a dilute spray.	
Scale insects	5 gals. per acre.	Summer spray only.
-Black Soft	Apply as a dilute spray.	Do not apply to Navel oranges.
-Brown Soft		
-Chaff		
-Glover		• ,
-Purple	•	
-Red		
-Yellow	C to 40 male many and the second	
Scale Insects -Black Soft	5 to 10 gals. per acre. Apply as a dilute spray.	
-Brown Soft		
-Chaff		
-Glover		
-Purple		
-Red		
-Yellow		
Whitefly	5 gals, per acre, Apply as a dilute spray.	
Greasy Spot	5 gals. per acre. Apply as a dilute spray.	Tank mix with sufficient copper fungicide to
(Grapefruit)		provide 4 lbs. per acre of metallic copper.
Greasy Spot	5 to 10 gals. per acre. Apply as a dilute spray.	If disease pressure is severe, tank mix 4 lbs.
(all other varieties)		(metallic) copper per acre. Do not exceed 5
		gals. oil if copper used.
Loosening sooty mold	5 to 10 gals. per acre. Apply as a dilute spray.	Use higher rate when disease pressure is
		heavy.

Dilute spray: Apply the SPRAY OIL 470 application rate in up to 4500 gallons of water per acre, or 30 to 35 gallons per tree, to over 45 gallons per tree for large trees.

Best results can be obtained when the SPRAY OIL 470 is added to a partially filled spray tank under proper agitation and all foliage is thoroughly covered.

Precautions in the use of SPRAY OIL 470 include: Do not apply SPRAY OIL 470 when trees are wilting. Do not apply SPRAY OIL 470 and sulfur within 3 weeks of each other in Florida or Texas. SPRAY OIL 470 applied after October 1 may increase susceptibility of trees to cold damage and may reduce the fruit crop the following year. SPRAY OIL 470 applied in the fall may inhibit solids formation in the juice and retard coloring of fruit and should not be applied within 60 days of anticipated harvest. Sensitive foliage may be injured.

Florida growers consult the Florida Citrus Spray and Dust Schedule, or your Agricultural Experiment Station or State Extension Service Specialist for complete details on the spraying program best suited to your locale. Texas growers consult with your Agricultural Experiment Station or State Extension Specialist for complete details on the spraying program suited to your locale.

COFFEE

PESTS	APPLICATION RATE-GALS. SPRAY OIL 470	COMMENTS
Green Scale	Use 3 to 6 gallons in 100 gallons of water per acre. Use only water as a diluent.	Apply when insects appear and treat as necessary at 30 to 60 day intervals. Do not exceed 18 gallons of oil per acre in a growing season. Do not apply within 30 days of harvest when berries are handpicked. Oil residues make picking difficult.

ORNAMENTALS

Сгор	Pest	Application Rate (ounces per gallon of water)	Comments
Foliage Ornamentals* & Bedding Plants*	Aphids Adelgids	1-2.5 oz. per gallon	Summer (Foliar or Cover): Do not spray plants during flowering.
Shade Trees** and Shrubs Including	Aphids Adelgids	Winter Dormant Period:	CAUTION: Spray no more than 4 times during the growing season; Use a 2-week minimum application
Conifers, Deciduous Broadleaf, Evergreen &	Eriophyid Mites Gall Mites	2.5-4 oz. per gallon	interval. Do not spray when there is obvious moisture deficit in leaves, or the plant is under stress. For fall
Woody Ornamentals	Honey Locust Plant Bug Lace Bug Leaf Beetle Larvae	Summer (Foliar or Cover):	dormant applications, reduce rate to 2 gallons oil per 100 gallons water and limit use only to: American Red Oak, Japanese Black Pine, Dogwood, Weeping Cherry,
Ornamental Trees** Shrubs along city streets, other rights-of- way including Conifers, Deciduous and Broadleaf Evergreens	Leafminer Leafrollers Mealybugs Psyllids (immature) Red Mites Sawfiy (larvae) Scales (immature) Spider Mites	1-2.5 oz. per gallon	Cornelian Cherry, Crabapple, Norway Maple, Purple Plum. NOTE: May cause discoloration of Blue Spruce. Do not use on conifers or ferns not tolerant to oil sprays. Use enough spray solution to completely penetrate the leaf canopy and cover both top and bottom of all of the leaves and stems until wet but without significant runoff.
	Webworms Whiteflies		Do not spray during flowering.
Flowering and Foliage Plants* (including Roses and other Flowering Shrubs)	Same as above	Winter Dormant Period: 2.5-4 oz. per gallon	Do not spray during flowering.
Christmas Trees**	Scale (soft & hard) (immature) Spider Mites	2.3 0.75-2	Winter Summer

Use a lower concentration for more sensitive plants.

* Do not apply more than 0.75%v/v, do not spray when ambient temperatures exceed 75° F. Test at least 3 plants of all varieties prior to any extensive

sprays.

** SPRAY OIL 470 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, Chamaecypris, Juniper, Japanese Holly and Spruce. Tendency toward sensitivity: Red Cedar and Douglas Fir.

GREENHOUSE AND OUTDOOR

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.

Application safety during bloom period should be determined for each individual species of plant to be treated by conducting a small test.

Crop		Pest	Application Rate (gallons of SPRAY OIL 470) per 100 gallons of water	Comments
Ageratum Dieffenbachia Ficus Orchid Petunia Schefflera	Crown of Thorns Ferns Lisianthus Palms Poinsettia Sunflower	Aphids Fungus Gnats Leafminers Mealybugs Scales (soft & hard) Spider Mites Thrips Whitefly	0.5-1	Due to varietal differences in response to a treatment of SPRAY OIL 470 at the recommended rate, we recommend conducting a small test on 1 or 2 plants of the specific variety to be treated.
Leaf Polish for hardy plants			1	
Aglaonema Azaleas Browallia Carnation Chrysanthemum Cosmos Easter Lilies Gerbera Hibiscus Foliage Jade Plant New Guinea Impatiens Philedendron Reiger Begonias Zinnias	Aster Begonias Camellias Celosia Coleus Dusty Miller Gardenias Hellichrysum Hydrangea Marigold Nicotonia Portulaca Snapdragon	Aphids Fungus Gnats Leafminers Mealybugs Scales (soft & hard) Spider Mites Thrips Whitefly	1-2	Due to varietal differences in response to a treatment of SPRAY OIL 470 at the recommended rate, we recommend conducting a small test on 1 or 2 plants of the specific variety to be treated.

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.

FIELD CROPS

Crop	Pest	٠	Application Rate (gallons of SPRAY OIL 470) per 100 gallons of water	Comments
Corn (sweet & field) Sugar Beets	Corn Earworm	Armyworm Leafminers Rootworm	Corn: 1-2 Sugar Beets: 2	
Hops	Mites Powdery Mildew		1-2	For powdery mildew: Initiate sprays at early leaf stage. Continue sprays every 10-14 days. Mite control will be effective under the same spray interval as powdery mildew sprays. Discontinue sprays at burr development.
Tobacco	Aphids Leafminers Mites Whitefly	Beetle Larvae Leafhopper Thrips	0.75-1	

This product has not been tested on all species or varieties. Before treating a large area, treat a small area and observe prior to full scale application.

LIMITATION OF LIABILITY

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