

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

JUL 1 9 2007

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Janine M. Polizzi
Kelier and Heckman LLP
Agent for
Petro-Canada America
1001 G Street, Sulte 500W
Washington, DC 20001

Subject:

Label Amendment: Addition of powdery mildew fungi (metoo), a fungicide claim and adding sites within allowed grouping listed on me-too products. Addition of pests listed on me-too products and clarifications of use directions.

Purespray Spray Oil 10E EPA Reg. No. 69526-5

Submissions dated April 5, 2007.

Dear Ms. Pollizi:

The labeling referred to the above listed product, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

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

Please submit two (2) copies of the final printed labels for our files prior to releasing the products for shipment. If you have any questions please call me at (703) 308-8328.

Sincerely yours,

Akiva Abramovitch, Ph. D. Chemist

Insecticide-Rodenticide
Registration Division (7505P)

ACCEPTED
JUL 19 2007

PURESPRAY SPRAY OIL 10E EPA REG. NO. 69526-5

PURESPRAY SPRAY CIL 10E

Zayar Round Horticultural, Insecticide, Miticide and Fungicide Oil

ACTIVE INGREDIENT:
Petroleum Oil 98.00%
INERT INGREDIENTS: 2.00%
Unsulphonated Residue TOTAL 100.00%
Unsulphonated Residue 99.00%
(minimum)
Aromatic Composition by ASTM D2140 0.00%

KEEP OUT OF REACH OF CHILDREN CAUTION

See Below For Additional Precautionary Statements. FIRST AID

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

center or docto	or going for treatment.
If swallowed:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison
1	control center or doctor.
1	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 eye.
	Call a poison control center or doctor for treatment advice.
lf on skin	Take off contaminated clothing.
or clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air.
	 If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
ŀ	Call a poison control center or doctor for further 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. Since systemic toxicity is not expected, the added risk of aspiration from attempts to induce vomiting or lavage are deemed not warranted. FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: PETRO-CANADA 403-296-3000, CANUTEC TRANSPORTATION: 613-996-6666, POISON CONTROL CENTRE.

advice

EPA REG. NO. 69526-5
EPA EST. NO.
NET CONTENTS GAL. (L)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. This product is a potential skin sensitizer. Causes moderate eye irritation. Avoid

contact with eyes, skin, or clothing. Avoid breathing spray mist. Wash thoroughly with Soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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, Butyl,

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, or enclosed cabs 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. Do not apply this product aerially.

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 (PPT), 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 are adming 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: coverals over long-sleeved shirt and long pants, shoes and socks and chemical-resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate).

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 (46 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

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and a coid excess heat. Sarafutly open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not container 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. 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.

GENERAL USE DIRECTIONS

MIXING INSTRUCTIONS

- 1. 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 oil 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.
- 4. Fill the tank with water, adding other desired materials as tank is filling. If wettable powders are used, add and thoroughly mix before adding oil.
- Observe all cautions 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.
- 6. Put injector suction tube into the measured amount of spray oil, opening injector valve to allow the oil to be sucked into the tank, then fill the tank with water.

DO NOT USE THIS MATERIAL IF IT DOES NOT EMULSIFY.

Preharvest Interval - This product 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.

Note: Use efficient equipment of the proper type. Avoid spraying during or immediately prior to temperatures over 95°F or when the temperature approaches freezing, or during hot dry winds, rain or other unsuitable conditions. Or during hot dry winds, rain or other unsuitable conditions. Also 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.

Sulfur: On Grapes: Do not apply sulfur within 10 days of an oil application. On all other Crops: Do not apply micronized sulfur within 10 days of an oil application and do not apply oil within 14 days of an application of wetlable or dusting sulfur.

Tank Mixes: PURESPRAY Spray Oil 10E may be mixed with other pesticides to improve the level of pest control. Users should read and follow all directions and restrictions on the labels of the proposed tank mix products. The combination of PURESPRAY Spray Oil 10E with more than one pesticide is not recommended. Use caution and read all labels thoroughly when using any insecticide or miticide in combination with PURESPRAY Spray Oil 10E. Always carry out a test spray for plant sensitivity before making a full scale application.

Do not use the following chemicals: captan, Folpet, oxythioquinox (Morestan) organic tin compounds (Du-Ter), during, with or following an oil spray.

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.

A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: anilazine (Dyrene), chlorothalonil (Bravo), dicloran (Botran), dicofol (Kelthane), Diker, dinocap (Karathane), permethrin (Ambush, Pounce).

Do not use chlorothalonii (Bravo) or dimethoate (Cygon) in a spray program with this product on grapes, ornamentals and strawberries. Do not use dicofol (Kelthane) in a spray program with this product on ornamentals and strawberries. Do not use propargite (Omite) with an oil spray or within 30 days before or after an oil spray.

Protect painted surfaces, carpet and furnishings from overspray. May cause discoloration.

FRUIT AND NUT CROPS

APPLES AND PEARS:

PESTS	APPLICATION RATE & TIMING
APPLES AND PEARS:	DORMANT OR DELAYED DORMANT: Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray:
European Fruit Lecanium Scale	Use 3 to 8 gals, per acre in a minimum of 20 to 100 gals, water per acre.)
Olive Scale	
San Jose Scale	· ·
European Red Mite Eggs	·
Two Spotted Spider Mite	FOLIAR SPRAY (Post Bloom):
Pacific Red Mite	
European Red Mite	Use 1 quart-1½ gallons per 100 gals, of water at 100 to 800 gals, per acre. Do not exceed more than 1½ gals per acre per application for SUMMER treatments.(Concentrate Spray: Do not exceed more than 1½ gals, per acre per application.
	Apply a minimum of 20 to 100 gals. water per acre.)
APPLES ONLY:	DORMANT OR DELAYED DORMANT: Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre.
Rosy Apple Aphid Eggs	(Concentrate Spray: Use 3 to 8 gals per acre in a minimum of 20 to 100 gals, water per acre.)
Apple Aphid Eggs	
Fruit Tree Leafroller	GREEN TIP TO DELAYED DORMANT: Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre.
Apple Red Bug	(Concentrate Spray: Use 3 to 12 gals. per acre in a minimum of 20 to 100 gals. water per acre.)

Scurfy Scale	
European Red Mite	COMMENTS: Delayed dormant preferred.
San Jose Scale	DORMANT, GREEN TIP TO DELAYED DORMANT: Use 1 to 2 gals, per 100 gals, of water at 100 to 800 gals, per acre.
Forbes Scale	(Concentrate Spray: Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals, water per acre.)
PEARS ONLY:	DORMANT: Use 1 to 2 gals, per 100 gals, of water at 100 to 800 gals, per acre.
Pear Psylla	(Concentrate Spray: Use 3 to 8 gals, per acre in a minimum of 20 to 100 gals, water per acre.)
	COMMENTS: Apply before eggs are laid.
Fruit Tree Leafroller	DORMANT: Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre.
Pear Leaf Blister Mite	(Concentrate Spray: Use 3 to 12 gals, per acre in a minimum of 20 to 100 gals, water per acre.)

ALMONDS, APRICOTS, CHERRIES, NECTARINES, PEACHES, PISTACHIO, PLUMS AND PRUNES: (Directions for use on Plums and Prunes in California's Sacramento Valley can be found in the table following this one):

PEST	APPLICATION RATE & TIMING
Black Scale	DORMANT AND DELAYED DORMANT: Use 1 to 3 gals. per 100 gals. of water at 300 to 600 gals. per acre.
European Fruit Lecanium Scale	(Concentrate Spray: Use 6 to 8 gals, per acre in a minimum of 20 gals, of water per acre.)
San Jose Scale	
Olive Scale	COMMENTS: Preferred times of application for European Fruit Lecanium Scale and European Red Mite Eggs is Green Tip
Frosted Scale	to Delayed Dormant, and for San Jose Scale is Dormant, Green Tip to Delayed Dormant.
Aphid Eggs	
European Red Mite Eggs	
Brown Mite Eggs	
Fruittree Leafroller Eggs	
Terrapin Scale	DELAYED DORMANT: Use 2 to 3 gals. per 100 gals. of water at 300 to 600 gals. per acre.
	(Concentrate Spray: Use 8 to 12 gals, per acre in a minimum of 20 gals, of water per acre.)
Cottony Peach Scale	DORMANT: Use 2 to 3 gals, per 100 gals, of water at 300 to 600 gallons per acre.
	(Concentrate Spray: Use 8 to 12 gals, per acre in a minimum of 20 gals, of water per acre.
Two-spotted Spider Mite	FOLIAR SPRAY: Use ½ to 1½ gals, per 100 gals, of water at 300 to 600 gals, per acre.
Pacific Mite	(Concentrate Spray: Do not use more than 4 gals, per acre in a minimum of 20 gals, water per acre.)
European Red Mite	
Brown Mite	COMMENTS: Certain varieties of plums and prunes may be injured by oil sprays, check for tolerance prior to treatment.
	Do not apply to trees lacking moisture.
White Peach Scale on Peaches:	DORMANT: Use 1½ to 2 gals, per 100 gals, of water at 300 to 600 gals, per acre.
Only for use in Georgia, Florida,	(Concentrate Spray: Use 6 to 8 gals, per acre in a minimum of 20 gals, of water per acre.)
South Carolina, North Carolina,	
and Alabama	COMMENTS: Apply before buds begin to swell in the spring. Make 2 applications 7 to 14 days apart, according to local recommendations, during the dormant period.

PLUMS AND PRUNES: (Sacramento Valley of California Only)

PEST	APPLICATION RATE & TIMING
Black Scale	PRE-BLOOM WHEN FRUIT BUDS SHOW GREEN TIPS: Use 1½ to 2 gals. per 100 gals. of water at 300 to 600 gals. per acre.
European Fruit Lecanium Scale	(Concentrate Spray: Use 6 to 8 gals, per acre in a minimum of 20 gals, water per acre.)
San Jose Scale	
Olive Scale	COMMENTS: Application at this time is preferred.
Frosted Scale	·
Mealy Plum Aphid Eggs	
Leaf Curt Plum Aphid Eggs	
Brown Mite Eggs	
European Red Mite Eggs	<u> </u>
Two-spotted Spider Mite	FOLIAR SPRAY: Use ½ to 1 gals. per 100 gals, water at 300 to 600 gals, per acre.
Pacific Mite	(Concentrate Spray, Use 4 to 6 gals, per acre in a minimum of 20 gals, water per acre.)
European Red Mite	
Brown Mite	COMMENTS: Oil sprays may injure certain varieties of plums and prunes, check for tolerance prior to treatment.

AVOCADOS:

PESTS	APPLICATION RATE & TIMING
Avocado Brown Mite	Use ½ to 1 gal. per 100 gals. of water with thorough coverage in 400 to 3000 gals. per acre. (Concentrate Spray: Use 4 to 15 gals.
Thrip	per acre in a minimum of 50 to 100 gals. per acre.)
Pracea Mite	
İ	COMMENTS: Apply through late fall.
i	Consult with your local University of California Cooperative Extension Service for proper timing and application
	parameters.

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04/05/2007

BANANAS, PLANTAINS:

PESTS	APPLICATION RATE & TIMING
Black Leaf Streak	Use ½ to 1½ gals. in 20 to 100 gals. of water per acre.
(Mycosphaerella fijiensis) Black Sigatoka	(Mist Blower: Use 1½ gals, in 6 gals, of water per acre.)
(Mycosphaerella fijiensis var. difformis) Yellow Sigatoka	COMMENTS: Begin application when disease first appears and continue every 10 to 15 days during rainy periods or as is needed. Do not apply when daytime temperatures exceed 80°F as injury may occur. Phytotoxicity may be affected by the quantity of oil used, vigor of trees and temperature at the time of application. Bag
(Mycosphaerella musicola)	fruits, or use a directed spray on unbagged fruits. Bagged fruit improves crop safety whereas unbagged fruit may show phytotoxicity.
	This application is also effective in loosening Sooty Mold Fungus and in preventing its formation by the control of Aphids, Mealybugs, Scales and Whitefly.

BLUEBERRIES*, BUSHBERRIES*, CANEBERRIES:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Mites	0.75-1.5
Powdery Mildew	
Rust	COMMENTS: Using ground equipment, spray for optimum coverage of leaf surfaces.
	For fungal diseases use at least 200 psi spray pressure.

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

PESTS	APPLICATION RATE & TIMING
Mites	Central California: Apply ½ to 1½ gals. of oil per 100 gals. of water as thorough coverage spray (TC). Alternately, use a low volume
-Citrus Bud	spray (LV) to apply 1 to 10 gals, of oil per acre.
-Citrus Flat	
-Citrus Red	COMMENTS: Apply July through September.
-Citrus Rust	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 foot of tree height over 10 feet. Apply as a low volume spray (LV) 1 to 10 gals, of oil per acre.
Scales	Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.
-Black	
-Brown Soft	COMMENTS: For Lemons and Limes, make applications in all months except December through February; for Grapefruit
-California Red	make applications July through October; for Oranges make applications on Navels July through September and on
-Citricola	Valencias, Tangelos and Tangerines and other citrus hybrids July through October.
-Purple	
-Yellow	
-Red	
Mites	Southern California: Apply ½ to 1½ gals. of oil per 100 gals. water as a thorough coverage spray (TC). Alternately, use a low
-Citrus Bud	volume spray (LV) to apply 1 to 10 gals. of oil per acre.
-Citrus Flat	
-Citrus Red	COMMENTS: For Coastal Lemons and Limes, apply May and June and/or September through December.
-Citrus Rust	For Interior Lemons and Limes, apply in April and May and/or September through November.
<u> </u>	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 foot of tree height over
Scales	10 feet. Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.
-Black	Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.
-Brown Soft	
-California Red	COMMENTS: For Lemons and Limes, make applications in all months except December through February; for Grapefruit
-Citricola	make applications July through October; for Oranges make applications on Navels July through September and on
Purple	Valencias, Tangelos and Tangerines and other citrus hybrids July through October.
-Yellow	
-Red	
Mites	Oxnard Plains Area: Apply ½ to 1½ gals. of oil per 100 gals. of water as a thorough coverage spray (TC). Alternately, use a low
-Citrus Bud	volume spray (LV) to apply 1 to 10 gals, of oil per acre. Apply up to 10 gals, of oil per acre on bearing trees up to 10 feet in height.
-Citrus Flat	Add 1 gal. of oil per acre for each foot of tree height over 10 feet.
-Citrus Red	Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.
-Citrus Rust	
	COMMENTS: Make applications as needed throughout the year.
Scales	·
-Black	
-Brown Soft	
-California Red	
-Citricola	
-Purple	
-Yellow	1
-Red	

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 apply prior to or during a period of excessively high 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 & TIMING
Citrus Rust Mite	5 to 10 gals, of oil per acre. Apply as a dilute spray.
	COMMENTS: Does not control citrus Snow Scale.
Spider Mites	5 to 10 gals. of oil per acre. Apply as a dilute spray.
Scale Insects -Black Soft	5 gals. of oil per acre + 6 pints Ethion 4EC. Apply as a dilute spray.
-Brown Soft	COMMENTS: Summer spray only.
-Chaff	Observe all applicable precautions on Ethion label.
-Glover	Do not apply to Navel oranges.
-Purple	·
-Red	
-Yellow	
Scale Insects	5 to 10 gals. of oil per acre. Apply as a dilute spray.
-Black soft	·
-Brown Soft	
-Chaff	
-Glover	
-Purple	,
-Red	į
-Yellow	
Whitefly	5 gals. of oil per acre. Apply as a dilute spray.
Greasy Spot (Grapefruit)	5 gals. of oil per acre. Apply as a dilute spray.
,	COMMENTS: Tank mix with sufficient copper fungicide to provide 4 lbs. per acre of metallic cooper.
Greasy Spot	5 to 10 gals. of oil per acre. Apply as a dilute spray.
(all other varieties)	
•	COMMENTS: If disease pressure is severe, tank mix 4 lbs. (metallic) cooper per acre. Do not exceed 5 gals. oil if copper used.
Loosening sooty mold	5 to 10 gals, of oil per acre. Apply as a dilute spray.
	COMMENTS: Use higher rate when disease pressure is heavy.

Dilute spray: Apply the spray oil 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 oil is added to a partially filled spray tank under proper agitation and all foliage is thoroughly covered.

Precautions in the use of oil include: Do not apply oil spray when trees are wilting. Do not apply oil and sulfur within 3 weeks of each other in Florida or Texas. Oil spray applied after October 1 may increase susceptibility of trees to cold damage and may reduce the fruit crop the following year. Oil sprays 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:

PEST\$	APPLICATION RATE & TIMING
Green Scale	Use 3 to 6 gallons in 100 gallons of water per acre. Use only water as a diluent.
.*	·
	COMMENTS: Apply when insects appear and treat as necessary at 30 to 60 day intervals. Do <u>not</u> 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.

Do not apply the product through any type of irrigation system. Phytotoxicity may be affected by the quantity of oil used, vigor of trees and temperature at the time of application.

FIGS:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Fig Scale	1-3
	COMMENTS: Dormant or Delayed Dormant
Mites	1-2
Mealybug	
Scale	COMMENTS: Foliar Spray

GRAPES:

PESTS	APPLICATION RATE & TIMING
Mealybug	DORMANT: Use 1 to 3 gals, plus the appropriate label rate of insecticide registered for use on grapes in 200 to 300 gals, of water
Mites	per acre.
Leafhopper*	
Whiteflies*	COMMENTS: Do not apply over 300 gals. of water per acre.
Powdery Mildew	
·	Using ground equipment, spray for optimum coverage of leaf surfaces. Repeat sprays every 10-14 days.
	For powdery mildew: Make first application pre-bloom and continue every ten days to three weeks depending on level of disease pressure. Use higher rate and/or shorter spray interval when disease conditions are severe. Oil will remove the bloom on grapes.
ł	Table grapes should not be sprayed within 60 days of harvest.
	On grapes, do not tank mix oil and copper more than once/season. Do not use copper and oil together with fruit present.

OLIVES:

	PESTS	APPLICATION RATE & TIMING
	Otive (Parlatoria) Scale	POSTBLOOM THROUGH AUGUST AND POST-HARVEST: Use 1 to 1½ gals, per 100 gals, of water at 400 to 600 gals, per
	Oleander Scale	acre.
1	Black Scale	
	Mites	COMMENTS: Prebloom to Postbloom Buckshot

PECANS:

PESTS	APPLICATION RATE & TIMING
Scales Aphids (eggs) Mites (eggs)	Use 2 to 3 gallons in 100 gallons of water using a minimum of 200 gallons of water per acre. Use the lower rate of oil when trees are in a weakened condition. (Concentrate Spray: Use 6 to 8 gallons per acre in a minimum of 20 to 125 gallons of water.)
	COMMENTS: Apply from late February until buds first break.

STRAWBERRIES:

PESTS ,	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Leafminers*	0.75
Mites	
Powdery Mildew	COMMENTS: Spray at no less than 400 psi using ceramic spray nozzles (ALBUZ® ATR, lilac color or their equivalent).

TROPICAL FRUIT: Kiwi, Mango, Papaya and Pineapple.

PESTS	APPLICATION RATE & TIMING
KIWI	Use 4 to 6 gallons of oil in a minimum of 100 gallons of water per acre. Use higher rate when scale populations are high.
Latania Scale	
Greedy Scale	COMMENTS: Do not apply after budbreak. Do not use on weak or stressed vines, or where soil moisture is inadequate.
Oleander Scale	
San Jose Scale	
MANGO	Use 1 to 1.5 gallons of oil in 100 gallons of water per acre.
Mites	
Powdery Mildew	COMMENTS: Apply every 2 to 3 weeks as necessary depending on level of pest pressure.
PAPAYA	Use 0.75 to 1.5 gallons in 100 gallons of water per acre.
Mites	
Powdery Mildew	COMMENTS: For Powdery Mildew/Mites: Spray every 10 to 14 days depending on the level of pest pressure. For Virus:
Papaya Ringspot Virus	Initiate spray when seeds are germinated. Spray weekly using 400 psi spray pressure and ceramic hollow cone nozzles.
PINEAPPLE	SPRAY - Use 1 to 2 gallons of oil in 100 gallons of water per acre.
Mealybugs	Dip – Use 1 to 2 gallons of oil in 100 gallons of water, dip for 30 seconds.
Bud Moth	
Chinese Rose Beetle	COMMENTS for Dip Applications: Allow fruit to dry for 1 hour before being stored.

WALNUTS:

PEST	APPLICATION RATE & TIMING
Black Scale	DELAYED DORMANT: Use 4 to 6 gals, per acre in 200 to 500 gallons of water per acre.
Calico Scale	
European Fruit Lecanium Scale	COMMENTS: Use only on trees that have not suffered from lack of moisture at any time during the growing season, Do not
Frosted Scale	apply to orchards where soil moisture is low.
Olive Scale	Trees must be fully dormant.
San Jose Scale	Do not apply after husk split.
European Red Mite Eggs	·
Walnut Aphid Eggs	
Spider Mites	SUMMER FOLIAR (when leaves fully expanded): Use 4 to 6 gals, per acre in 200 to 500 gals, water per acre.
Soft Scales	

VEGETABLE CROPS OUTDOOR AND GREENHOUSE

ASPARAGUS, BEANS, BEETS, CABBAGE, CAULIFLOWER and other Cole crops, CELERY, CUCURBITS, EGGPLANT, LETTUCE, MELON, PEPPER, POTATO, PUMPKIN, RADISH, SQUASH, SWEET POTATO, TOMATO, HERBS AND SPICES (Curly Leaf Basil, Lemon Balm, Mexican Oregano, Mint), ORIENTAL VEGETABLES (Acerola, Atemoy, Balsam pear (Bitter melon), Carambola, Chinese broccoli (Gai Lon), Chinese cabbage (Gai Choy), Chinese spinach, Chinese waxgourd, Cilantro, Citron melon, Dasheen, Ginger, Ginseng, Japanese artichoke, Japanese radish (Daikon), Rambutan):

PESTS .	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Aphids	
Mites	0.25-1
Beetle Larvae	1
Leafminers	COMMENTS: For virus control on cucurbits use 0.75 gallons per 100 g.
Thrips	Spray once or twice weekly depending on the rapid growth of the crop and/or vector pressure.
Leafhopper	When using to control insect transmitted disease, use higher pressure 400 psi and ceramic hollow cone nozzles.
Whitefly	
Powdery Mildew	

ORNAMENTALS

FOLIAGE ORNAMENTALS & BEDDING PLANTS:

PESTS	APPLICATION RATE & TIMING (ounces of oil per gallon of water)
Aphids	1-2.5 oz. per gallon
Adelgids	
1	COMMENTS: Summer (Foliar or Cover): Do not spray plants during flowering.

SHADE TREES** AND SHRUBS INCLUDING CONIFERS, DECIDUOUS BROADLEAF EVERGREENS & WOODY ORNAMENTALS, ORNAMENTAL TREES**, SHRUBS ALONG CITY STREETS, OTHER RIGHTS-OF-WAY INCLUDING CONIFERS, DECIDUOUS AND BROADLEAF EVERGREENS:

PESTS	APPLICATION RATE & TIMING (ounces of oil per gallon of water)
Aphids	Winter Dormant Period:
Adelgids	
Enophyid Mites	2.5-4 oz. per gallon
Gall Mites	
Honey Locust Plant Bug	•
Lace Bug	Summer (Foliar or Cover):
Leaf Beetle Larvae	
Leafminer	1-2.5 oz. per galton
Leafrollers	
Mealybugs	COMMENTS: Do not spray more than 1 time per week. Do not spray when there is obvious moisture deficit in leaves, or the plant
Psyllids (immature)	is under stress. For fall dormant applications, reduce rate to 2 gallons oil per 100 gallons water and limit use only to American Red
Red Mites	Oak, Japanese Black Pine, Dogwood, Weeping Cherry, Cornelian Cherry, Crabapple, Norway Maple, Purple Plum.
Sawfly (larvae)	
Scales (immature)	NOTE: May cause discoloration of Blue Spruce. Do not use on conifers or ferns not tolerant to oil sprays. Use enough spray
Spider Mites	solution to completely penetrate the leaf canopy and cover both top and bottom of all of the leaves and stems until wet but without
Webworms	significant runoff.
Whiteflies	

FLOWERING AND FOLIAGE PLANTS INCLUDING ROSES AND OTHER FLOWERING SHRUBS: DURING WINTER AND DORMANT PERIODS

PESTS	APPLICATION RATE & TIMING (ounces of oil per gallon of water)
Same as above	Winter Dormant Period:
	2-5.4 oz. per gallon

CHRISTMAS TREES**:

PESTS	APPLICATION RATE & TIMING (ounces of oil per gallon of water)
Scale (soft & hard) (immature)	2-3
Spider Mites	
Adelgids	COMMENTS: Winter
Aphids	0.75-2
1	
	COMMENTS: Summer

Use a lower concentration for more sensitive plants.

04/05/2007

^{**} This product 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 CONTAINER PLANTS IN INTERIORSCAPES

Frequency of Application: For the 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. Protect painted surfaces, carpet and furnishings from overspray. May cause discoloration.

AGERATUM, CROWN OF THORNS, DIEFFENBACHIA, FERNS, FICUS, LISIANTHUS, ORCHID, PALMS, PETUNIA, POINSETTIA, SCHEFFLERA, SUNFLOWER:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Aphids	0.5-1
Fungus Gnats	
Leafminers	COMMENTS: Due to varietal differences in response to a treatment of this product at the recommended rate, we recommend
Mealybugs	conducting a small test on 1 or 2 plants of the specific variety to be treated.
Scales (soft & hard)	
Spider Mites	
Thrips	
Whitefly	
Powdery Mildew	

LEAF POLISH FOR HARDY PLANTS:

PESTS	APPLICATION RATE & TIMING (ounces of oil per gallon of water)

AGLAONEMA, ASTER, AZALEAS, BEGONIAS, BROWALLIA, CAMELLIAS, CARNATION, CELOSIA, CHRYSANTHEMUM, COLEUS, COSMOS, DUSTY MILLER, EASTER LILIES, GARDENIAS, GERBERA, HELLICHRYSUM, HIBISCUS FOLIAGE, HYDRANGEA, JADE PLANT, MARIGOLD, NEW GUINEA IMPATIENS, NICOTONIA, PHILEDENDRON, PORTULACA, REIGER BEGONIAS, SNAPDRAGON, ZINNIAS:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Aphids	1-2
Fungus Gnats	
Leafminers	COMMENTS: Due to varietal differences in response to a treatment of this product at the recommended rate, we recommend
Mealybugs	conducting a small test on 1 or 2 plants of the specific variety to be treated.
Scales (soft & hard)	
Spider Mites	
Thrips	
Whitefly	
Powdery Mildew	

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.

CORN (Sweet & Field), SUGAR BEETS:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Aphids	Com: 1-2
Mites	Sugar Beets: 2
Leafminers	
Corn Earworm	
Rootworm	·
Armyworm	
Whitefly	

HOPS*:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Mites	1-2
Powdery Mildew	
	COMMENTS:
1	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:

PESTS	APPLICATION RATE & TIMING (gallons of oil per 100 gallons of water)
Aphids	0.75-1
Mites	
Beetle Larvae	
Leafminers	·
Thrips	·
Leafhopper	
Whitefly	·

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.

CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT BECAUSE OF SUCH FACTORS AS WEATHER CONDITIONS, PRESENCE OF OTHER MATERIALS, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF PETRO-CANADA LUBRICANTS, THE MANUFACTURER OR SELLER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW NEITHER PETRO-CANADA LUBRICANTS, THE MANUFACTURER OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. EXCEPT AS WARRANTED BY THIS LABEL, PETRO-CANADA LUBRICANTS, THE MANUFACTURER OR SELLER MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. EXCEPT AS PROVIDED BY APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND PETRO-CANADA LUBRICANTS', THE MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

FORMULATED FOR

PETRO-CANADA LUBRICANTS 2489 NORTH SHERIDAN WAY MISSISSAUGA, ONTARIO L5K 1A8

^{*}Asterisk denotes crop, pest Not approved in California.