



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 10, 2022

Juli Mann  
Principal Consultant for Petro Canada Lubricants, Inc., DBA Intelligro  
TSG Consulting  
1150 18th Street NW, Suite 1000  
Washington, DC 20036

Subject: Registration Review Label Mitigation for Aliphatic Solvents  
Product Name: SPRAY OIL 13E  
EPA Registration Number: 69526-6  
Application Date: June 5, 2020  
Decision Number: 563601

Dear Ms. Mann:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Aliphatic Solvents Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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Decision No. 563601

If you have any questions about this letter, please contact Marisa Wright by phone at 202-566-2335, or via email at [wright.marisa@epa.gov](mailto:wright.marisa@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

# Spray Oil 13E

<b>ACTIVE INGREDIENT:</b>	<b>BY WEIGHT</b>	
Mineral Oil*: .....	98.00%	
<b>INERT INGREDIENTS:</b> .....	<b>2.00%</b>	
<b>TOTAL:</b> .....	<b>100.00%</b>	
Unsulfonated Residue: .....	99.00% (minimum)	
Aromatic Composition by ASTM D2140: .....	0.0%	

\*Contains petroleum distillates

## KEEP OUT OF REACH OF CHILDREN CAUTION

FORMULATED FOR:  
INTELLIGRO  
2310 LAKESHORE ROAD WEST  
MISSISSAUGA, ONTARIO, CANADA  
L5J 1K2

Patent(s): [www.suncor.com/patents](http://www.suncor.com/patents)  
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### 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

<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on Skin Or Clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
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 risks of aspiration from attempts to induce vomiting or lavage are deemed not warranted.	
<b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: INTELLIGRO: 1-844-388-2665, CANUTEC TRANSPORTATION: 613-996-6666, POISON CONTROL CENTRE.</b>	

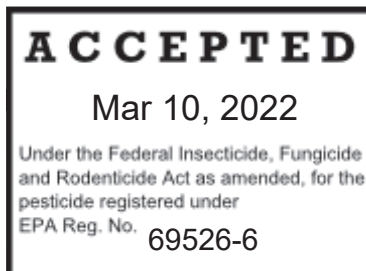
EPA REG. NO. 69526-6

EPA EST. NO. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GAL ( \_\_\_\_\_ L)

[Batch/Lot Number]

Edit date: 07-MAR-2020  
Text in [brackets] will not appear on final label



**PRECAUTIONARY STATEMENTS**  
**Hazards to Humans and Domestic Animals**  
**CAUTION**

Harmful if swallowed. 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):**

Handlers must wear:

- Long-sleeve shirt, long pants, and
- Shoes plus socks.

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.

**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. Users should remove clothing and/or 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.

**ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment wash water or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Avoid drift or run off into storm drains, drainage ditches, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to maximize the chances that wind, or rain will not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

**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. Do not apply this in a way that will contact adults, children, or pets, directly or through drift.

Only protected handlers may be in the area during application. **Aerial application of this product is prohibited.**

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

##### [Rigid, nonrefillable containers equal to or less than 5 gallons:]

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. If recycling is unavailable, puncture and dispose of container in sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

##### [Rigid, nonrefillable containers greater than 5 gallons:]

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse (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. **[For Plastic containers greater than 5 gallons:]** If recycling is unavailable, puncture and dispose of container in sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **[For Metal containers greater than 5 gallons:]** If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by other procedures approved by state and local authorities.

### MIXING INSTRUCTIONS

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 1/2 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 them 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. 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.**

### USE RESTRICTIONS AND PRECAUTIONS

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 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 30 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 (1/2 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.

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), Dikar, dinocap (Karathane), permethrin (Ambush, Pounce).

Do not use chlorothalonil (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.

## **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**IMPORTANCE OF DROPLET SIZE:** An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

**SHIELDED SPRAYERS** Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **SPRAY DRIFT – Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **SPRAY DRIFT – Handheld Technology Applications:**

Take precautions to minimize spray drift.

**FRUIT AND NUT CROPS  
APPLES AND PEARS:**

<b>PESTS</b>	<b>APPLICATION RATE &amp; TIMING &amp; TIMING</b>	<b>COMMENTS</b>
<b>APPLES AND PEARS:</b> European Fruit Lecanium Scale Olive Scale San Jose Scale European Red Mite Eggs	<b>DORMANT OR DELAYED DORMANT:</b> Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.)	
Two Spotted Spider Mite Pacific Red Mite European Red Mite	<b>FOLIAR SPRAY (Post Bloom):</b> <b>East of the Mississippi:</b> Use 1 quart to 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 50 gals. water per acre.) <b>West of the Mississippi:</b> Use 1 qt. to 1½ gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Do not exceed more than 1½ gals. per acre per application. Apply a minimum of 20 to 100 gals. water per acre.)	
<b>APPLES ONLY:</b> Rosy Apple Aphid Eggs Apple Aphid Eggs	<b>DORMANT OR DELAYED DORMANT:</b> Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.)	
Fruit Tree Leafroller Apple Red Bug Scurfy Scale  European Red Mite	<b>GREEN TIP TO DELAYED DORMANT:</b> Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Use 3 to 12 gals. per acre in a minimum of 20 to 100 gals. water per acre.)	<b>Delayed dormant preferred.</b>
San Jose Scale Forbes Scale	<b>DORMANT, GREEN TIP TO DELAYED DORMANT:</b> Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.)	
<b>PEARS ONLY:</b> Pear Psylla	<b>DORMANT:</b> Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. (Concentrate Spray: Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.)	<b>Apply before eggs are laid.</b>
Fruit Tree Leafroller Pear Leaf Blister Mite	<b>DORMANT:</b> Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre. (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):

PESTS	APPLICATION RATE & TIMING	COMMENTS
Black Scale European Fruit Lecanium Scale San Jose Scale Olive Scale Frosted Scale Aphid Eggs European Red Mite Eggs Brown Mite Eggs Fruittree Leafroller Eggs	<b>DORMANT AND DELAYED DORMANT:</b> Use 1 to 3 gals. per 100 gals. of water at 300 to 600 gals. per acre. (Concentrate Spray: Use 6 to 8 gals. per acre in a minimum of 20 gals. of water per acre.)	Preferred times of application for European Fruit Lecanium Scale and European Red Mite Eggs are Green Tip to Delayed Dormant, and for San Jose Scale are Dormant, Green Tip to Delayed Dormant.
Terrapin Scale	<b>DELAYED DORMANT:</b> 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	<b>DORMANT:</b> 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.)	
Two-spotted Spider Mite Pacific Mite European Red Mite Brown Mite	<b>FOLIAR SPRAY:</b> Use ½ to 1½ gals. per 100 gals. of water at 300 to 600 gals. per acre. (Concentrate Spray: Do not use more than 4 gals. per acre in a minimum of 20 gals. of water per acre.)	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: Only for use in Georgia, Florida, South Carolina, North Carolina, and Alabama.	<b>DORMANT:</b> Use 1½ to 2 gals. per 100 gals. of water at 300 to 600 gals. per acre. (Concentrate Spray: Use 6 to 8 gals. per acre in a minimum of 20 gals. of water per acre.)	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)**

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

**AVOCADOS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Avocado Brown Mite Thrip Pracea 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. per acre in a minimum of 50 to 100 gals. per acre.)	<b>Apply through late fall. Consult with your local University of California Cooperative Extension Service for proper timing and application parameters.</b>

**BANANAS, PLANTAINS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Black Leaf Streak <i>(Mycosphaerella fijiensis)</i> , Black Sigatoka <i>(Mycosphaerella fijiensis var. difformis)</i> Yellow Sigatoka <i>(Mycosphaerella musicola)</i>	Use ½ to 1½ gals. in 20 to 100 gals. of water per acre. (Mist Blower: Use 1½ gals. in 6 gals. of water per acre.)	<b>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 fruits, or use a directed spray on unbagged fruits. Bagged fruit improves crop safety whereas unbagged fruit may show phytotoxicity.</b> 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	COMMENTS
Mites Powdery Mildew Rust	Use 0.75 - 1.5 gals. in 100 gals. of water per acre.	Using ground equipment, spray for optimum coverage of leaf surfaces. For <b>fungal diseases</b> 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	COMMENTS
<p>Mites</p> <ul style="list-style-type: none"> <li>- Citrus Bud</li> <li>- Citrus Flat</li> <li>- Citrus Red</li> <li>- Citrus Rust</li> </ul> <p>Scales</p> <ul style="list-style-type: none"> <li>- Black</li> <li>- Brown Soft</li> <li>- California Red</li> <li>- Citricola</li> <li>- Purple</li> <li>- Yellow</li> <li>- Red</li> </ul>	<p><b>Central California:</b> 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.</p> <p>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.</p> <p>Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.</p>	<p><b>Apply July through September.</b></p> <p><b>For Lemons and Limes, make applications in all months except December through February; for Grapefruit make applications July through October; for Oranges make applications on Navels July through September and on Valencias, Tangelos and Tangerines and other citrus hybrids July through October.</b></p>
<p>Mites</p> <ul style="list-style-type: none"> <li>- Citrus Bud</li> <li>- Citrus Flat</li> <li>- Citrus Red</li> <li>- Citrus Rust</li> </ul> <p>Scales</p> <ul style="list-style-type: none"> <li>- Black</li> <li>- Brown Soft</li> <li>- California Red</li> <li>- Citricola</li> <li>- Purple</li> <li>- Yellow</li> <li>- Red</li> </ul>	<p><b>Southern California:</b> Apply ½ to 1½ gals. of oil per 100 gals. water as a thorough coverage spray (TC). Alternately, use a low volume spray (LV) to apply 1 to 10 gals. of oil per acre.</p> <p>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.</p> <p>Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.</p>	<p><b>For Coastal Lemons and Limes, apply May and June and/or September through December. For Interior Lemons and Limes, apply in April and May and/or September through November.</b></p> <p><b>For Lemons and Limes, make applications in all months except December through February; for Grapefruit make applications July through October; for Oranges make applications on Navels July through September and on Valencias, Tangelos and Tangerines and other citrus hybrids July through October.</b></p>
<p>Mites</p> <ul style="list-style-type: none"> <li>- Citrus Bud</li> <li>- Citrus Flat</li> <li>- Citrus Red</li> <li>- Citrus Rust</li> </ul> <p>Scales</p> <ul style="list-style-type: none"> <li>- Black</li> <li>- Brown Soft</li> <li>- California Red</li> <li>- Citricola</li> <li>- Purple</li> <li>- Yellow</li> <li>- Red</li> </ul>	<p><b>Oxnard Plains Area:</b> Apply ½ to 1½ gals. of oil per 100 gals. of water as a thorough coverage spray (TC). Alternately, use a low 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. Add 1 gal. of oil per acre for each foot of tree height over 10 feet.</p> <p>Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre.</p>	<p><b>Make applications as needed throughout the year.</b></p>

Thorough coverage spray (TC): Applications achieving a uniform film wetting of all portions of the tree at 250 to 2000 gallons of spray solution per acre. The total volume needed is dependent on the size of the trees. Maximum application rate for citrus in California is 212 pounds active ingredient per acre (maximum 2000 gallons of spray mix per acre; based on thorough coverage spray, with 1.5 gallons of product mixed per 100 gallons of water).

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

Dilute spray: Apply the spray oil application rate in up to 1500 gallons of water per acre, or 10 to 12 gallons per tree, to over 15 gallons per tree for large trees. Improved control can be obtained when the oil is added to a partially filled spray tank under proper agitation and all foliage is thoroughly covered. The maximum application rate for citrus in Texas and Florida is 159 pounds active ingredient per acre (maximum 1500 gallons of spray mix per acre; based on dilute spray, with 1.5 gallons of product mixed per 100 gallons of water).

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:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Green Scale	Use 3 to 6 gals. in 100 gals. of water per acre. Use only water as a diluent.	<b>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 <u>not</u> apply within 30 days of harvest when berries are handpicked. Oil residues make picking difficult.</b>

Do not apply this 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	COMMENTS
Fig Scale	Use 1 to 3 gals. in 100 gals. of water per acre.	<b>Dormant or Delayed Dormant</b>
Mites Mealybugs Scale	Use 1 to 2 gals. in 100 gals. of water per acre.	<b>Foliar Spray</b>

**GRAPES:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Mealybug Mites Leafhopper* Whiteflies* Powdery Mildew	<b>DORMANT:</b> Use 1 to 3 gals. plus the appropriate label rate of insecticide registered for use on grapes in 200 to 300 gals. of water per acre.	<b>Do not apply over 300 gals. of water per acre.</b> Using ground equipment, spray for optimum coverage of leaf surfaces. Repeat sprays every 10-14 days. <b>For powdery mildew</b> - 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. Table grapes should not be sprayed within 60 days of harvest. On grapes, <b>do not tank-mix</b> oil and copper more than once/season. Do not use copper and oil together with fruit present.

**OLIVES:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Olive (Parlatoria) Scale Oleander Scale Black Scale	<b>POSTBLOOM THROUGH AUGUST AND POST-HARVEST:</b> Use 1 to 1½ gals. of oil per 100 gals. of water at 400 to 1500 gals. per acre.	
Mites		Prebloom to Postbloom Buckshot

**PECANS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Scales Aphids (eggs) Mites (eggs)	Use 2 to 3 gals. of oil per 100 gals. 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 gals. per acre in a minimum of 20 to 125 gals. of water.)	<b>Apply from late February until buds first break.</b>

**STRAWBERRIES:**

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

**TROPICAL FRUIT: Kiwi, Mango, Papaya and Pineapple.**

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

**WALNUTS:**

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

**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	COMMENTS
Aphids Mites Beetle Larvae Leafminers Thrips Leafhopper Whitefly	Use 0.75 to 1 gals. of oil per 100 gals. of water.	For virus control on cucurbits use 0.75 gals. in 100 gals. of water per acre. Spray once or twice weekly depending on the rapid growth of the crop and / or vector pressure. When using to control insect-transmitted plant diseases, use ceramic hollow cone nozzles and 400 psi pressure.

**ORNAMENTALS**

**FOLIAGE ORNAMENTALS & BEDDING PLANTS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Aphids Adelgids	Use 1 - 2.5 oz. of oil per gallon of water.	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	COMMENTS
Aphids Adelgids Eriophyid Mites Gall Mites Honey Locust Plant Bug Lace Bug Leaf Beetle Larvae Leafminer Leafrollers Mealybugs Psyllids (immature) Red Mites Sawfly (larvae) Scales (immature) Spider Mites Webworms Whiteflies	<b>Winter Dormant Period:</b> Use 2.5 - 4 oz. of oil per gallon of water. <b>Summer (Foliar or Cover):</b> Use 1 - 2.5 oz. of oil per gallon of water.	<b>RESTRICTIONS:</b> Spray no more than 4 times during the growing season. Use a 2-week minimum application interval. Do not spray when there is obvious moisture deficit in leaves, or the plant is under stress. For fall dormant applications, reduce rate to 2 gals. oil per 100 gals. water and limit use only to: American Red Oak, Japanese Black Pine, Dogwood, Weeping Cherry, Cornelian Cherry, Crabapple, Norway Maple, Purple Plum. <b>NOTE:</b> 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 they are wet, but without significant runoff. Do not spray during flowering.

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

PESTS	APPLICATION RATE & TIMING	COMMENTS
Same as above	<b>Winter Dormant Period:</b> 2.5 - 4 oz. of oil per gallon of water.	Do not spray during flowering.

**CHRISTMAS TREES \*\*::**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Scale (soft & hard) (immature)	Use 2 - 3 oz. of oil per gallon of water.	Winter
Spider Mites	Use 0.75 - 2 oz. of oil per gallon of water.	Summer

Use a lower concentration for more sensitive plants.

\*\* 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, Chamaecyparis, Juniper, Japanese Holly and Spruce. Tendency toward sensitivity: Red Cedar and Douglas Fir.

**GREENHOUSES AND CONTAINERS AND INTERIORSCAPES**

**Frequency of Application:** For each greenhouse pest 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.

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

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

**LEAF POLISH FOR HARDY PLANTS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
	Use 1 oz. 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, PHILODENDRON, PORTULACA, REIGER BEGONIAS, SNAPDRAGON, ZINNIAS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Aphids Fungus Gnats Leafminers Mealybugs Scales (soft & hard) Spider Mites Thrips Whitefly	Use 1 – 2 gals. of oil per 100 gals. of water.	Due to varietal differences in response to a treatment of this product at the prescribed rates, we recommended 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.

**CORN (Sweet & Field), SUGAR BEETS:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Aphids Mites Leafminers Corn Earworm Rootworm Armyworm Whitefly	<b>Corn:</b> Apply 1 – 2 gals. of oil in 100 gals. of water per acre. <b>Sugar Beets:</b> Apply 2 gals. of oil in 100 gals. of water per acre.	

**HOPS\*:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Mites Powdery Mildew	Apply 1 – 2 gals. of oil in 100 gals. of water per acre.	<b>For Powdery Mildew:</b> Initiate sprays at early leaf stage. Continue sprays every 10-14 days. <b>Mite control</b> will be effective under the same spray interval as powdery mildew sprays. Discontinue sprays at burr development.

**TOBACCO:**

PESTS	APPLICATION RATE & TIMING	COMMENTS
Aphids Mites Beetle Larvae Leafminers Thrips Leafhopper Whitefly	Apply 0.75 – 1 gal. of oil in 100 gals. of water per acre.	

\*Asterisk denotes crop, pest Not approved in California.

**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 INTELLIGRO, THE MANUFACTURER OR SELLER. TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, IN NO CASE SHALL INTELLIGRO, THE MANUFACTURER OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER EXCEPT AS EXPRESSLY PROVIDED HEREIN, AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, INTELLIGRO, 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. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND INTELLIGRO'S, THE MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.