

# MASTER LABEL

This master label bears directions for agricultural, commercial and homeowner use with various application rates specific to the associated container size.

The following Alternate Brand Names have been submitted to the Agency under this Master Label:  
Trilogy, Triact 70EC, Trilogy PHC, Ferti-lome Rose, Flower & Vegetable Spray, Ferti-lome Triple Action Plus, Garden Safe Fungicide 3 Concentrate, UltraStop Fruit Tree 3-in-3 Concentrate, Concern from the Earth For the Earth Garden Defense Multi-Purpose Spray Concentrate

# Neem Oil 70%

Fungicide/Miticide/Insecticide

FOR ORGANIC PRODUCTION

FOR ORGANIC GARDENING



For Indoor/Outdoor Use on Ornamental Flowering Plants, Trees, Shrubs, Turf, Foliage, Vegetables, Fruits, Nuts, Agronomic Crops and Melons, and Row Crops Grown on Commercial Farms and Nurseries, Greenhouses, Landscapes and Homes and Residential Landscapes  
Controls Fungal Diseases Including Black Spot, Mildews, Rusts, and Scab  
Kills Mites and Insects Including Whiteflies, Aphids, and Scales  
For Foliar Control of Fungal Diseases and Insect Pests  
Can be Used Up to Day of Harvest

**ACTIVE INGREDIENT:**

Clarified Hydrophobic Extract of Neem Oil.....70%

**OTHER INGREDIENTS**.....30%

TOTAL 100%

This product contains 5.46 lb of clarified hydrophobic extract of neem oil per US gallon.  
This container will treat up to 0.5 acres when used at the highest application rate (only for containers less than 5 gallons).

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

Net Contents: 1 Quart (0.946 liters) 2.5 gallons, 100 gallons

Lot No.:

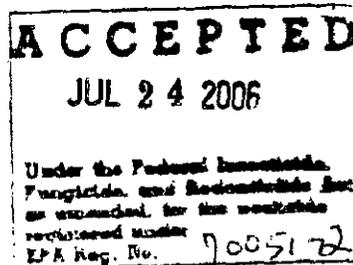
EPA Reg. No. 70051-2

EPA Est. No. 70051-CA-001

Composition covered by US Patents 5,298,251; 5,356,629; 5,372,817; 5,405,612; and 5,409,708.

Manufactured by  
Certis USA, L.L.C.  
9145 Guilford Road, Suite 175  
Columbia, MD 21046

# CERTIS



**PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CAUTION**

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**FIRST AID**

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number 1-800-255-3924.

**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 C on an 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 or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or Viton.
- Shoes plus socks.

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

**User Safety Recommendations:**

Users should:

- Remove clothing/PPE 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****Agricultural/Commercial Use**

This product is hazardous to fish and aquatic invertebrates.

**For Terrestrial Uses:** Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

**Homeowner Use**

Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

**BEE HAZARD**

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

**PHYSICAL AND CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

**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.

**General Information:**

- Kills eggs, larvae, and adult insects.
- Prevents and controls black spot on roses, anthracnose, rust and powdery mildew.
- Kills insects and their eggs.
- Formulated for interiorscape use.
- Shake well before using.
- *For best results, maintain constant agitation in spray equipment.*
- For optimal performance, do not mix with cold water (less than 45°F).
- Use spray solutions within several hours of preparation for maximum effectiveness. Do not store diluted solution for later use.
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted materials or crops prior to root establishment.
- Do not apply to known sensitive plant species, such as impatiens flowers, fuchsia flowers, hibiscus flowers, some rose flowers, ornamental olive trees, or some carnation varieties without prior testing.
- When used in conjunction with beneficial insects, conduct a small trial to assure compatibility before using on a large scale.
- As with other oil-based products, exercise care in timing applications to early morning/late evening to minimize the potential for leaf burn.
- Use with care on plants with tender tissue. Check for leaf burn in small scale trials prior to use.
- Thorough coverage is necessary to provide good disease and mite control. Neem Oil 70% prevents fungal attack of plant tissue and contact activity to mite pressure on the plant. Avoid excessive runoff of spray material for maximum control.

**Agricultural/Commercial Use**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

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

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

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

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or Viton.
- Shoes plus socks.

**TANK MIXING:** Neem Oil 70% has been found to be compatible with most commonly used fungicides, insecticides and fertilizers. Check physical compatibility first with other products before mixing by using a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. After thoroughly mixing, let mixture stand for at least 5 minutes. Growers must tank mix combinations for phytotoxicity on a sample of plants prior to use. *Due to the wide variation in climatic conditions, cultural practices, and other factors, the User assumes full responsibility for any crop damage or other liability resulting from the use of Neem Oil 70% in a tank mix combination.* Avoid tank mixes with Morestan, Captan, Sulfur, Bravo/Echo, chlorothalonil or other chemically similar products as unpredictable results or leaf burn may occur.

**COMMERCIAL USE**

• Do not use Triact 70EC on food crops. (NOTE TO REVIEWER: Triact 70EC is not labeled for use on food crops)

**GREENHOUSE, LANDSCAPE, AND NURSERY USE INSTRUCTIONS****FUNGICIDE USE****ORNAMENTAL DISEASE CONTROL**

Neem Oil 70% is an effective fungicide for the prevention and control of various fungal diseases including black spot on roses, powdery mildew, downy mildew, anthracnose, rust, leaf spot, botrytis, needle rust, scab, flower, twig, and tip blight, and alternaria.

**Landscape, Greenhouse and Nursery Ornamentals**

Neem Oil 70% will provide broad spectrum control of many fungal diseases affecting ornamental flowering plants, trees, shrubs, and foliage when used at the rate of 1 gallon per 100-200 gallons of water, depending on the level of disease pressure. Use the lower rate (1:200) when spraying as a preventative in a greenhouse while the higher rate (1:100) is needed for outdoor applications. Determine the best rate for your particular situation.

**Greenhouse**

When Neem Oil 70% is used as a preventative, the lower rate (1:200) will provide adequate control for most greenhouse situations. If disease pressure is evident, use the higher rate (1:100). Make applications for disease prevention on a 7-14 day schedule depending on the anticipated severity of the disease pressure. To control existing disease, apply Neem Oil 70% on a 7-Day schedule until the disease pressure is eliminated. Use a 14-Day schedule to prevent disease pressure from returning. NOTE: Spray greenhouse roses only in a rotation program, which includes Neem Oil 70% once every 4 weeks.

**Landscape Ornamentals**

In outdoor landscape applications, apply Neem Oil 70% at rates of 1:50 - 1:100 rate (see table for detailed use rates). This will provide the necessary control under the extreme outdoor conditions. When using Neem Oil 70% as a preventative, make application on a 14-day schedule. If disease is present, use a 7-day application schedule to control the disease and prevent further damage from occurring.

**MIXING INSTRUCTIONS**

Add Neem Oil 70% to one-half (1/2) full tank under agitation containing water of 45°F or greater before filling to desired level. If water temperature is below 45°F, premix Neem Oil 70% at a 1:1 ratio with tepid water to ensure good emulsification. Then dilute to final volume. When combining with other products, such as wettable powder insecticides or fungicides, add these items first when the tank is approximately 1/3 full. Ensure that there is good agitation while mixing for complete emulsification. Maintain agitation during spray application. Do not use if this oil does not form a uniform, cloudy emulsion.

**APPLICATION INSTRUCTIONS**

Apply until plant surface is uniformly wet with minimal runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Avoid excessive application.

**MANAGEMENT OF TURF DISEASES**

SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Snow Mold	1:100 - 1:50 (1.0% - 2.0%)	14 days	In fall before first snow
Dollar Spot	1:100 - 1:200 (1.0% - 0.5%)	7 - 14 days	At first sign of disease
Brown Patch	1:100 - 1:200 (1.0% - 0.5%)	7 - 14 days	At first sign of disease

**MANAGEMENT OF LANDSCAPE AND ORNAMENTAL DISEASES**

SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Potted Plants (Greenhouse)	1:100 - 1:200 (1.0% - 0.5%)	14 days	Trial first on open blooms
Flowering Bench Crops (Greenhouse)	1:100 - 1:200 (1.0% - 0.5%)	7 - 14 days	Trial first on open blooms - not suggested for cut roses
Outdoor Flowering Plants	1:50 - 1:100 (2.0% - 1.0%)	7 - 14 days	Do not spray impatiens flowers
Outdoor Woody Plants	1:50 - 1:100 (2.0% - 1.0%)	14 days	

**INSECTICIDE/MITICIDE USE**

For use to control whiteflies, mealybugs, aphids, leafhoppers, mites and scales on ornamentals, trees, and shrubs in and around greenhouses, commercial nurseries and other commercial structures.

Use Neem Oil 70% at the rate of 1-2 gallons per 100 gallons of water. The low rate (1.0%) can be used when pest pressure is low. Use the high rate (2.0%) for high pest infestations or to control more troublesome pests, such as mites and scales. Determine the best rate for your particular situation.

Make sprays on a 7-14 day interval depending on the severity of the pest problem. Use the 7-day schedule until the pest population is reduced. Then use a 14-day interval for control.

**AGRICULTURAL USE DIRECTIONS**

- Neem Oil 70% is a broad spectrum fungicide of certain diseases and controls mites in citrus, deciduous fruits and nuts, vegetable crops, cereal grains, and other miscellaneous crops.
- Do not use Neem Oil 70% after bloom on table grapes or following bunch closure on wine grapes. Do not use Neem Oil 70% after pit hardening on stone fruit.
- Use care when applying near streams, ponds, lakes, or other bodies of water. Do not apply Neem Oil 70% when weather conditions favor drift or when the likelihood of runoff is high.
- Thorough plant coverage is essential to obtain optimal levels of control.
- For insects and mites: For best results, apply Neem Oil 70% thoroughly before adult insects, mites, or eggs are present in large numbers.
- For Diseases: Apply Neem Oil 70% as a 1.0% solution in sufficient amounts of water to achieve complete coverage of foliage. (See the following detailed directions per crop groupings). When used as a foliar fungicide, begin applications when conditions are favorable for disease but before infection. Apply Neem Oil 70% every 7-14 days until threat of disease is over. Use Neem Oil 70% in rotation with other fungicides to increase the spectrum of control.

- For Mites: For best results, apply Neem Oil 70% in sufficient amounts of water to achieve complete coverage. Neem Oil 70% is most effective when applied before mites or eggs are present in large numbers. (See the following detailed directions per crop groupings). Apply at a rate of 1.0-2.0% Neem Oil 70%. Reapply Neem Oil 70% every 7-21 days until pressure is over.
- For Insects: For best results, apply Neem Oil 70% at 1.0-2.0% in sufficient amounts of water to achieve complete coverage. Neem Oil 70% is most effective when applied before insects or eggs are present in large numbers. Repeat application based on pest pressure and field scouting for best results. Use the dilution tables to calculate dilution rates.
- Consult local agricultural extension service or experiment station for detailed information on timing of applications for the most effective control for your area.
- Apply Neem Oil 70% by conventional, low volume, and aerial application equipment.

#### APPLICATION INSTRUCTIONS

**Ground Application:** Apply Neem Oil 70% by ground application in a minimum of 25 gallons of water / acre.

**Chemigation:** Do not apply this product through any type of irrigation system.

**Aerial Application:** For those crops where aerial applications are indicated, apply a minimum of 5 gallons of water / acre unless otherwise specified. Avoid application under conditions when uniform coverage cannot be obtained or when excessive drift may occur. Do not apply directly to humans, animals or aquatic animals.

#### MIXING INSTRUCTIONS

Add Neem Oil 70% to one-half (1/2) full tank under agitation containing water of 45°F or greater before filling to desired level. If water temperature is below 45°F, premix Neem Oil 70% at a 1:1 ratio with tepid water to ensure good emulsification. Then dilute to final volume. When combining with other products, such as wettable powder insecticides or fungicides, add these items first when the tank is approximately 1/3 full. Ensure that there is good agitation while mixing for complete emulsification. Maintain agitation during spray application. Do not use if this oil does not form a uniform, cloudy emulsion.

#### DILUTION TABLE FOR LOW VOLUME (INCLUDING AERIAL) APPLICATIONS (5-30 gallons per acre)

Gallons of Water	NEEM OIL 70%	DILUTION
5	1 Quart*	5%
10	1 Quart*	2.5%
15	1 Quart*	1.67%
20	1 Quart*	1.25%
25	1 Quart*	1.0%
30	1 Quart*	0.83%

\*For citrus, stone fruit, tropical fruit, pome fruit, and nuts, refer to specific application instructions.

**DILUTION TABLE FOR HIGH VOLUME APPLICATION**  
(25-250 gallons per acre)

Gallons Water	Gallons of Neem Oil 70% for 0.5% Solution	Gallons of Neem Oil 70% for 1.0% Solution	Gallons of Neem Oil 70% for 1.5% Solution	Gallons of Neem Oil 70% for 2.0% Solution
25	Use 1.0% solution *	0.25 (32 fluid oz.)	0.375 (48 fluid oz.)	0.5 (64 fluid oz.)
50	0.25 (32 fluid oz.)	0.5 (64 fluid oz.)	0.75 (96 fluid oz.)	1.0
75	0.375 (48 fluid oz.)	0.75 (96 fluid oz.)	1.125	1.5
100	0.5	1.0	1.5	2.0
125	0.625 (80 fluid oz.)	1.25	1.875	2.5
150	0.75	1.5	2.25	3.0
175	0.875 (112 fluid oz.)	1.75	2.625	3.5
200	1.0	2.0	3.0	4.0
225	1.125	2.25	3.375	4.5
250	1.25	2.5	3.75	5.0

\* For Vegetable, Cereal Grains, and Other Miscellaneous Crops. refer to specific use directions

**CITRUS, POME (DECIDUOUS), STONE, TROPICAL FRUITS AND NUTS**

**Citrus**

Use Neem Oil 70% on citrus to control diseases to include Anthracnose, Post-Bloom Fruit Drop, and Scab. Apply as a foliar application at the rate of 1.0% in 25-200 gallons of water for high volume applications or a minimum of 0.5 gallons Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume applications. Do not apply more than 2.5 gallons of Neem Oil 70% per acre, per application. Reapply Neem Oil 70% every 7-14 days until threat of disease is over.

For control of Alternaria and Greasy Spot, apply Neem Oil 70% at a 1.0% solution in 25-125 gallons of water per acre in combination with Copper @ 2.0 lbs a.i. per acre (as found in EPA registered products such as Kocide® and Champ®) as a preventative disease spray tank mixture.

Use Neem Oil 70% on citrus to control mites at a rate of 1.0-2.0% in 25-200 gallons of water for high volume application or 0.5 gallon Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. As a dormant oil spray, use Neem Oil 70% as a 2% solution or 1 quart Neem Oil 70% minimum per acre. Do not apply more than 5 gallons of Neem Oil 70% per acre, per application.

**Stone and Tropical**

**FUNGICIDE USE:** Apply Neem Oil 70% at a rate of 1.0% in 25-200 gallons of water for high volume applications or 0.5 gallons Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Reapply Neem Oil 70% every 7-14 days until threat of disease is over.

**MITICIDE USE:** Use Neem Oil 70% at first sign of pests or pest damage at the appropriate rate listed below as a foliar spray in sufficient water for thorough coverage. Repeat applications as needed for adequate control every 7-21 days. Apply a 1.0-2.0% solution of Neem Oil 70% for high volume application or a minimum of 1 quart Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Do not apply more than 5 gallons of Neem Oil 70% per acre, per application.

Do not use Neem Oil 70% after pit hardening on stone fruit.

**Pome (Deciduous Fruits) and Nuts**

**FUNGICIDE USE:** Apply Neem Oil 70% at a rate of 1.0% in 25-100 gallons of water per acre or 0.5 quarts Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2.5 gallons Neem Oil 70% per acre in solution per application. Repeat applications every 7-14 days.

**MITICIDE USE:** Use Neem Oil 70% at a rate of 1.0-2.0% in 25-100 gallons of water per acre or 0.5 quarts Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons of Neem Oil 70% per acre per solution. Apply at first sign of pests or pest damage. Repeat application as needed for adequate control every 7-21 days. Do not apply more than 5 gallons Neem Oil 70% per acre, per application.

**Walnuts:** Avoid spraying after husk split.

**CITRUS, POME, STONE, AND TROPICAL FRUITS**

**Crops (including but not limited to)**

Apples	Guavas	Oriental pears
Apricots	Jujubes	Pineapples
Avocados	Kiwifruit	Plantains
Bananas	Kumquats	Plums
Calamondin	Lemons	Chickasaw Plums
Cherries	Limes	Damson Plums
Barbados cherries	Loquats	Japanese Plums
Sour cherries	Lychee	Pomegranates
Sweet cherries	Mangoes	Prunes
Cherimoya	Mandarins	Pummelos
Citrus citron	Satsuma mandarins	Quinces
Citrus hybrids	Nectarines	Tangelos
Coconuts	Olives	Tangerines
Crabapples	Oranges	
Dates	Papayas	
Feijoa	Passion fruit	
Figs	Peaches	
Grapefruits	Pears	

**PESTS**

Aphids	Fruit flies	Calico scales
Apple grain aphids	Leafminers	Frosted scales
Black cherry aphids	Citrus leafminers	Lecanium scales
Green apple aphids	Mealybugs	San Jose scales
Leafcurl aphids	Mites	Whiteflies
Mealy plum aphids	Rust mites	Citrus whiteflies
Rosy apple aphids	Spider mites	Silverleaf whiteflies
Woolly aphids	Psyllids	Sweetpotato whiteflies
Citrus blackflies	Scales	

**DISEASES**

Anthrachnose	Downy mildew	Shothole
Alternaria	Powdery mildew	
Post-bloom fruit drop	Scabs	
Mildews	Greasy spot	

**NUTS**

Crops (including but not limited to)

Almonds	Chestnuts	Macadamia nuts
Beech nuts	Chinquapins	Pecans
Brazil nuts	Filberts	Pistachios
Butternuts	Hickory nuts	Walnuts
Cashews	Japanese horse chestnuts	

**PESTS**

Aphids	Rust mites	Lecanium scales
Woolly aphids	Spider mites	San Jose scales
Leafrollers	Scales	Weevils
Fruit tree leafrollers	Calico scales	Chestnut weevils
Mites	Frosted scales	

**DISEASES**

Leaf spot  
Shothole

**CUCURBITS**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions**.

Crops (including but not limited to)

Balsam pears (bitter melons)	Gherkins	Pumpkins
Cantaloupes	Gourds	Squashes
Casaba	Honey balls	Watermelons (incl. hybrids)
Chinese waxgourds	Melons (incl. hybrids)	Zucchini
Citron melons	Honeydew melons	
Crenshaw	Muskmelons	
Cucumbers	Persian melons	

**PESTS**

Leaf curl aphids	Aphids	Greenhouse whiteflies
Woolly aphids	Frosted scales	Silverleaf whiteflies
Leafminers	Lecanium scales	Sweetpotato whiteflies
Mites	San Jose scales	
Spider Mites	Scales	
Calico scales	Squash bugs	
	Whiteflies	

**DISEASES**

Mildews  
Downy mildew  
Powdery mildew

**BULB, COLE AND LEAFY VEGETABLES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions**.

Crops (including but not limited to)

Arugula	Chinese cabbage (Bok choy, Napa)	Chicory
Broccoli	Chinese mustard cabbage (Gai choy)	Red chicory
Broccoli raab	Cauliflower	Cilantro
Chinese broccoli (Gai lon)	Celery	Collards
Brussels sprouts	Celtuce	Corn salad
Cabbage (head & leaf)	Chervil	Cress

Watercress  
 Daikon  
 Endive  
 Fennel  
 Garlic  
 Greens  
 Collard greens  
 Mustard greens  
 Rape greens  
 Kale

Kohlrabi  
 Leek  
 Lettuce (head & leaf)  
 Low-bok  
 Onions  
 Orach  
 Parsley  
 Purslane  
 Raddichio  
 Rappini

Rhubarb  
 Shallots  
 Spinach  
 Chinese Spinach  
 (Amaranth, Tampala)  
 Swiss chard  
 Turnip tops

**PESTS**

Aphids  
 Woolly aphids  
 Leafminers  
 Mites

Rust Mites  
 Spider Mites  
 Whiteflies  
 Greenhouse whiteflies

Silverleaf whiteflies  
 Sweetpotato whiteflies

**DISEASES**

Alternaria  
 Botrytis  
 Mildews

Downy mildew  
 Powdery mildew  
 Rusts

White rust

**LEGUME AND FRUITING VEGETABLES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions**.

**Crops** (including but not limited to)

Beans  
 Broad beans  
 Calabaza  
 Chickpeas  
 Eggplants  
 Ground cherries

Guar  
 Lentils  
 Peas  
 Peanuts  
 Pepinos  
 Peppers

Pigeon peas  
 Snow peas  
 Soybeans  
 Tomatillos  
 Tomatoes

**PESTS**

Aphids  
 Woolly aphids  
 Beetles  
 Bean leaf beetles  
 Colorado Potato Beetles  
 Mexican bean beetles  
 Leafminers

Mites  
 Rust Mites  
 Spider Mites  
 Psyllids  
 Whiteflies  
 Greenhouse whiteflies  
 Silverleaf whiteflies

Sweetpotato whiteflies  
 Scales  
 Calico scales  
 Frosted scales  
 Lecanium scales  
 San Jose scales

**DISEASES**

Blight  
 Leaf blight  
 Mildews

Powdery mildew  
 Molds  
 Gray mold

Leaf spots  
 Rusts

**ROOT AND TUBER VEGETABLES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions**.

**Crops** (including but not limited to)

Artichokes  
 Beets  
 Cardone  
 Carrots  
 Cassava  
 Ginger  
 Ginseng  
 Horseradish

Parsnips  
 Potatoes  
 Sweet potatoes  
 Radishes  
 Rutabaga  
 Taro (Dasheen)  
 Turmeric  
 Turnips

Yams  
 Yam beans

**PESTS**

Aphids  
 Beetles  
 Colorado Potato Beetles  
 Mites  
 Rust Mites  
 Spider Mites

Psyllids  
 Scales  
 Calico scales  
 Frosted scales  
 Lecanium scales  
 San Jose scales

Whiteflies  
 Greenhouse whiteflies  
 Silverleaf whiteflies  
 Sweetpotato whiteflies

**DISEASES**

Blights  
 Mildews

Powdery mildew  
 Rusts

**SMALL FRUITS AND BERRIES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

**Crops** (including but not limited to)

Blueberries  
 Boysenberries  
 Cranberries  
 Currants  
 Dewberries

Blackberries  
 Elderberries  
 Gooseberries  
 Grapes  
 Huckleberries  
 Loganberries

Olallie berries  
 Raspberries (black & red)  
 Strawberries  
 Youngberries

**PESTS**

Aphids  
 Woolly aphids  
 Leafrollers  
 Mites

Rust Mites  
 Spider Mites  
 Scales  
 Calico scales

Frosted scales  
 Lecanium scales  
 San Jose scales

**DISEASES**

Mildews  
 Downy mildew

Powdery mildew  
 Rots

Black rot

**HERBS AND SPICES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

**Crops** (including but not limited to)

Anise  
 Balm  
 Basil  
 Borage  
 Camomile  
 Caraway  
 Catnip  
 Celery  
 Chives  
 Coriander

Cumin  
 Curry leaf  
 Dandelion  
 Dill  
 Fennel  
 Marigold  
 Marjoram  
 Mint  
 Nasturtium  
 Pennyroyal  
 Peppermint

Rosemary  
 Rue  
 Sage  
 Savory  
 Spearmint  
 Sweet bay  
 Tarragon  
 Thyme  
 Wintergreen

**PESTS**

Aphids  
 Woolly aphids  
 Mites  
 Rust Mites

Spider Mites  
 Scales  
 Calico scales  
 Frosted scales

Lecanium scales  
 San Jose scales

**DISEASES**

Mildews

Powdery mildew

Leaf spot

**VEGETABLE, CEREAL GRAINS AND OTHER MISCELLANEOUS CROPS**

**FUNGICIDE USE**

Apply Neem Oil 70% at a rate of 0.5%-1.0% in 25-100 gallons of water per acre or 2 pints Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume applications. For mushrooms apply Neem Oil 70% at a rate of 0.5%-2.0% in 25-100 gallons of water to an acre equivalent of casing soil applied at a depth of 1 1/2"-2" in an 8,000ft<sup>2</sup> growing room. Repeat applications every 7-14 days. Apply no more than 2 gallons Neem Oil 70% per acre, per application. Larger plants will require higher amounts of water to obtain good coverage.

**MITICIDE USE**

Apply Neem Oil 70% at a rate of 0.5%-2.0% in 25-100 gallons of water per acre or 2 pints Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons Neem Oil 70% per acre in solution per application. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Reapply Neem Oil 70% every 7-21 days as needed for adequate control. Larger plants will require higher amounts of water to obtain good coverage.

Crops (including but not limited to)		
Acerola	Sweet corn	Safflower
Alfalfa	Cotton	Seagrapes
Araacaga (Apio)	Hops	Sesame
Asparagus	Jicama	Sorghum
Barley	Jojoba	Soursup (Quanabanos)
Breadfruit	Kinop	Star apples
Buckwheat	Mushrooms	Sugarcane
Canola	Nispero	Sunflowers
Coffee	Oats	Tobacco
Coriander	Okra	Wheat
Corn	Quenepa	
Popcorn	Rice	

PESTS		
Beetles	Thrips	Silverleaf whiteflies
Asparagus Beetles	Whiteflies	on lawns Sweetpotato whiteflies
Lygus bugs	Greenhouse whiteflies	

**DISEASES**  
Rusts

**STORAGE AND DISPOSAL**  
Do not contaminate water, food, or feed by storage and disposal.  
**Pesticide Storage:** Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).  
**Agricultural/Commercial Use**  
**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.  
**Agricultural/Commercial Use**  
**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Homeowner**  
**Pesticide and Container Disposal:**  
**If empty:** Do not reuse this container. Place in trash or offer for recycling if available.  
**If partly filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

**WARRANTY**  
Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather,

watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**

Kocide® is a registered trademarks of Griffin L.L.C.  
 Champ® is a registered trademark of Agtrol Chemical Products.

**HOMEOWNER USE DIRECTIONS**

**GENERAL INFORMATION**

- Do not add adjuvants (spreaders, stickers, extenders, etc.) to Neem Oil 70%.
- Stops powdery mildew in 24 hours

**FUNGICIDE USE:** For use on FRUITS, NUTS, VEGETABLES, HERBS, SPICES, ROSES, HOUSEPLANTS, FLOWERS, TREES, and SHRUBS, HOME LAWNS

**MANAGEMENT OF TURF DISEASES:** Neem Oil 70% may be used on all turf such as Kentucky bluegrass, perennial ryegrass, turf type tall fescue, Bermudagrass, zoysiagrass, and St. Augustinegrass around the home. Refer to table for detailed application rates.

**MANAGEMENT OF TURF DISEASES**

SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Snow Mold	1:100 - 1:50 (1.0% - 2.0%)	14 days	In fall before first snow
Dollar Spot	1:100 - 1:200 (1.0% - 0.5%)	7 - 14 days	At first sign of disease
Brown Patch	1:100 - 1:200 (1.0% - 0.5%)	7 - 14 days	At first sign of disease

**APPLICATION INSTRUCTIONS:**

Neem Oil 70% is an effective fungicide for the prevention and control of various fungal diseases including powdery mildew, black spot, downy mildew, anthracnose, rust, leaf spot, botrytis, needle rust, scab and flower, twig and tip blight, and alternaria. As a preventative, apply Neem Oil 70% on a 7 to 14 day schedule until the potential for disease development is no longer present. To control disease already present, apply Neem Oil 70% on a 7 day schedule until disease pressure is eliminated. Then continue spraying on a 14 day schedule to prevent the disease from reoccurring. To prevent rust leaf spot diseases, anthracnose and scab, begin applications at the first sign of spring budding. To prevent powdery mildew, apply in mid-summer or when disease is first detected. Continue applications until disease pressure no longer exists.

**MIXING INSTRUCTIONS:**

Mix Neem Oil 70% at the rate of 2 tablespoons (1 fluid ounce) per gallon of water. Thoroughly mix solution and spray all plant surfaces (including undersides of leaves) until completely wet. Frequently mix solution as you spray. For turf, home lawns, use Neem Oil 70% at the rate of 2 - 4 tablespoons (1 - 2 fl oz) per gallon of water.

**INSECTICIDE/MITICIDE USE:** For use on FRUITS, NUTS, VEGETABLES, HERBS, SPICES, ROSES, HOUSEPLANTS, FLOWERS, TREES, and SHRUBS

**APPLICATION INSTRUCTIONS:**

Apply Neem Oil 70% at first sign of insects/mites. For control of aphids, spider mites, scale, whiteflies, beetles, leafrollers, and other insect pests. Neem Oil 70% is most effective when applied every 7 to 14 days. For heavy insect populations, spray on a 7 day schedule.

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