

6/2/97 70051-2 PM 90

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7501W)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg.
Number:

70051-2

Date of Issuance:

JUN 2 - 1997

Term of Issuance: Unconditional

Name of Pesticide Product:

Neem Oil 70%
Fungicide/Insecticide/
Miticide

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Thermo Trilogy Corporation
7500 Grace Drive
Columbia MD 21044

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA sec. 3(c)(5) subject to the comments listed below:

1. Make the following label changes:

- a. Add the phrase "EPA Registration Number 70051-2" to your label before you release the product for shipment.
- b. Under the Storage and Disposal heading, add this general statement: "Do not contaminate water, food, or feed by storage and disposal." Also, change the subheading "Storage" to "Pesticide Storage."
- c. Some of the bullets under General Information are repetitive and redundant. Please delete repetitious statements.

(continued on page 2)

Signature of Approving Official:

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d. Delete any reference to "organic" from the label. This term is no longer allowed on pesticide labels. Specifically, delete the statement, "Organic Insecticide/Fungicide/Miticide" from General Information, and any other statements making similar claims.

e. Please note that the basic confidential statement of formula (CSF) dated 4/30/97 is the only valid formulation for this product at this time. We have not yet completed review of the alternate formulations 1,2,3, & 4, and we will inform you when the review is complete and any of these alternates become acceptable. In the meanwhile, submit another copy of the CSF for alternate formulation 4, and make sure that you put a date in column 21.

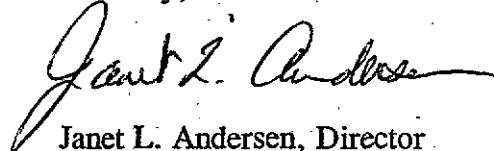
2. Submit five copies of the final printed labeling before you release this product for shipment.

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

Unconditional registration does not eliminate the need for continual reassessment of a pesticide. If EPA determines, at any time, that additional data are required to maintain in effect, an existing registration, the Agency will require submission of such data under Section 3(c)(2)(B) of FIFRA.

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

Sincerely,



Janet L. Andersen, Director
Biopesticides and Pollution
Prevention Division (7501W)

MASTER LABEL

Neem Oil 70%

Broad Spectrum Insecticide/Fungicide/Miticide
For Indoor/Outdoor Use On Ornamental Flowering Plants, Trees, Shrubs, Foliage, Vegetables, Fruits, Nuts, and Row Crops Grown on Farms and in Nurseries, Greenhouses, Homes, and Residential and Commercial Landscapes
Controls Fungal Diseases Including Black Spot, Mildews, Rusts, and Scab
Kills Insects Including Whiteflies, Aphids, Mites, and Scales

ACTIVE INGREDIENT:

Clarified Hydrophobic Extract of Neem Oil 70%
INERT INGREDIENTS..... 30%
TOTAL 100%
This product contains 5.46 lb of clarified hydrophobic extract of neem oil per US gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

EPA Reg. No. 70051- EPA Est. No. _____
Net Contents: _____
Composition covered by US Patents 5,298,251; 5,356,628; 5,372,817; 5,405,612; and 5,409,708.

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.

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.
IF IN EYES: Wash with plenty of water. Call physician if irritation persists.

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 polyvinylchloride (PVC) or Viton.
- Shoes plus socks.

Follow 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:

- 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 may be hazardous to fish and aquatic invertebrates. 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 by cleaning of equipment or disposal of equipment washwaters.

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.

STORAGE AND DISPOSAL

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 60°F (16°C).

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Disposal: Triple rinse. 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.

General Information:

- For effective control of black spot on roses.
- Broad spectrum disease control.
- Disease preventative.
- Effective botanical disease control.
- Kills eggs, larvae, and adult insects.
- Prevents fungal attack of plant tissues.
- Prevents and controls black spot on roses, anthracnose, rust, and powdery mildew.
- All-Purpose Insecticide/Fungicide/Miticide
- Multi-Purpose Insecticide/Fungicide/Miticide
- Kills insects and their eggs.
- Organic Insecticide/Fungicide/Miticide
- Formulated for interiorscape use.
- Not for use in food handling areas.
- Shake well before using.
- For best results, maintain constant agitation in spray equipment.

ACCEPTED
with COMMENTS
In EPA Letter Dated

JUN 2 1997

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

70051-2

MANUFACTURED BY:
THERMO TRILOGY
CORPORATION

7500 Grace Drive, Columbia, MD 21044

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- Sonification equipment is not recommended because it may cause the emulsion to separate.
- For optimal performance, do not mix with cold water (less than 55°F).
- Prevents and controls black spot on roses, anthracnose, rust, and powdery mildew.
- Neem Oil 70% is most effective when applied in early to mid-morning or late afternoon when adult pests, such as whiteflies, are normally sedentary on the undersides of the foliage.
- Spray solutions should be used 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 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, it is recommended that a small trial be conducted to assure compatibility before using on a large scale.
- As with other oil-based products, care should be exercised 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.
- 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 polyvinylchloride (PVC) or Viton.
- Shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce

agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

TANK MIXING

Neem Oil 70% has been found to be compatible with most commonly used fungicides, insecticides, and fertilizers. Physical compatibility should first be checked by using the correct proportion of products in a small jar test. Growers should then test tank-mix combinations for phytotoxicity on a sample of plants prior to use. This is also recommended with combinations used before as environmental conditions can alter the interaction between compounds. *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.*

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, and flower, twig, and tip blight.

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 as a foliar spray. Neem Oil 70% should be used at the rate of 1 gallon per 100-200 gallons of water, depending on the level of disease pressure. The lower rate (1:200) can be used 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, the higher rate (1:100) is recommended. Applications for disease prevention should be made on a 7-14 day schedule depending on the anticipated severity of the disease pressure. To control existing disease, Neem Oil 70% should be applied on a 7-day schedule until the disease pressure is eliminated. A 14-day schedule should then be used to prevent disease pressure from returning. NOTE: Greenhouse roses should only be sprayed in a rotations program which includes Neem Oil 70% once every 4 weeks.

Landscape Ornamentals:

In outdoor landscape applications, it is best to apply Neem Oil 70% at the 1:100 rate. This will provide the necessary control under the extreme outdoor conditions. When using Neem Oil 70% as a preventative, applications should be made on a 14-day schedule. If disease is present, a 7-day application schedule should be used 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 55°F or greater before filling to desired level. If water temperature is below 55°F, premix Neem Oil 70% at a 1:1 ratio with tepid water to ensure good

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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 emulsify.

APPLICATION INSTRUCTIONS:

Apply to runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Excessive application is unnecessary and should be avoided.

MANAGEMENT OF LANDSCAPE AND ORNAMENTAL DISEASES			
SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Potted Plants (Greenhouses)	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	1:100 - 1:200 (1.0% - 0.5%)	7-14 Days	Do not spray impatiens flowers
Outdoor Woody Plants	1:50 - 1:100 (2.0% - 1.0%)	14 Days	

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%)	14 Days	At first sign of disease
Brown Patch	1:100 - 1:200 (1.0% - 0.5%)	14 Days	At first sign of disease

INSECTICIDE 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 and residential structures.

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

Sprays should be made on a 7-14 day interval depending on the severity of the pest problem. The 7-day schedule should be used until the pest population is reduced. A 14-day interval should then be used for control. Sprays should be made in early to mid-morning or late afternoon. This is important to ensure that the spray thoroughly wets the pests to be controlled, which are often sedentary on the foliage at these times, and also minimizes plant stress.

MIXING INSTRUCTIONS:

Add Neem Oil 70% to one-half (1/2) full tank under agitation containing water of 55°F or greater before filling to desired level. If water temperature is below 55°F, premix Neem Oil 70% at 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 emulsify.

APPLICATION INSTRUCTIONS:

Apply to runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Thorough coverage of plant pests is necessary to ensure efficacy. However, excessive application is unnecessary and should be avoided.

AGRICULTURAL USE DIRECTIONS

- Do not apply this product through any type of irrigation system.
- Use care when applying near streams, ponds, lakes, or other bodies of water. Neem Oil 70% should not be applied when weather conditions favor drift or when the likelihood of runoff is high.
- Thorough plant coverage is essential to obtain optimal levels of control.
- Consult local agricultural extension service or experiment station for detailed information on timing of applications for the most effective control in your area.

MIXING INSTRUCTIONS:

Add Neem Oil 70% to one-half (1/2) full tank under agitation containing water of 55°F or greater before filling to desired level. If water temperature is below 55°F, premix Neem Oil 70% at 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 emulsify.

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DILUTION TABLE

Gallons of 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
30	0.15 (19 oz)	0.3 (38 oz)	0.45 (58 oz)	0.6 (77 oz)
50	0.25 (32 oz)	0.5 (64 oz)	0.75 (96 oz)	1.0
75	0.375 (48 oz)	0.75 (96 oz)	1.125	1.5
100	0.5	1.0	1.5	2.0
125	0.625 (80 oz)	1.25	1.875	2.5
150	0.75	1.5	2.25	3.0
175	0.875 (112 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 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 0.5-1.0% solution in sufficient amounts of water to achieve complete coverage of foliage. (See following table for specific directions for different crop groupings.) When used as a foliar fungicide, begin applications when conditions are favorable for disease but before infection. Neem Oil 70% may be applied every 7-14 days until threat of disease is over. Neem Oil 70% may be used in rotation with other fungicides to increase the spectrum of control. If Neem Oil 70% is being used to control insects and/or mites along with diseases, rates of up to 2% Neem Oil 70% may be used. In this case, follow application directions for insect and mite control.

CITRUS, POME, STONE, AND TROPICAL FRUITS

INSECTICIDE/MITICIDE USE:

Application: Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days. Specific directions are provided below.

Citrus—Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-250 gallons of water per acre on photosynthesizing plants. Do not apply more than 5 gallons of Neem Oil 70% per acre. Avoid tank mixes with MORESTAN, VENDEX, or chemically-similar products as unpredictable results or leaf burn may occur. To avoid possible blemishes on fruit, do not use on lemons within 60 days of harvest.

Pome, Stone & Tropical Fruits—Apply a 0.5-2.0% solution of Neem Oil 70% in no less than 30 gallons of water per acre on photosynthesizing plants. As a dormant oil, use Neem Oil 70% as a 2% solution in 30-250 gallons of water. Do not apply more than 5 gallons of Neem Oil 70% per acre.

FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-250 gallons of water per acre on photosynthesizing plants. Do not apply more than 2.5 gallons of Neem Oil 70% per acre. For all other trees, apply a 0.5-1.0% solution of Neem Oil 70% in no less than 30 gallons of water per acre.

Citrus—Avoid tank mixes with MORESTAN, VENDEX, or chemically similar products as unpredictable results or leaf burn may occur. To avoid possible blemishes on fruit, do not use on lemons within 60 days of harvest.

CROPS Including but not limited to:			PESTS		DISEASES
Apples	Kumquats	Damson plums	Aphids	Mites	Anthracnose
Apricots	Lemons	Japanese plums	Apple grain	Rust mites	Alternaria
Avocados	Limes	Pomegranates	aphids	Spider mites	Post-bloom fruit drop
Bananas	Loquats	Prunes	Black cherry	Psyllids	Mildews
Calamondin	Lychee	Pummelos	aphids	Scales	Downy mildew
Cherries	Mangoes	Quinces	Green apple	Calico scales	Powdery mildew
Barbados cherries	Mandarins	Tangelos	aphids	Frosted	Scabs
Sour cherries	Satsuma	Tangerines	Leafcurl	scales	Greasy spot
Sweet cherries	mandarins		aphids	Lecanium	
Cherimoya	Nectarines		Mealy plum	scales	
Citrus citron	Olives		aphids	San Jose	
Citrus hybrids	Oranges		Rosy apple	scales	
Coconuts	Papayas		aphids	Whiteflies	
Crabapples	Passion fruit		Woolly	Citrus	
Dates	Peaches		aphids	whiteflies	
Feijoa	Pears		Citrus	Silverleaf	
Figs	Oriental pears		blackflies	whiteflies	
Grapefruits	Pineapples		Fruit flies	Sweetpotato	
Guavas	Plantains		Leafminers	whiteflies	
Jujubes	Plums		Citrus		
Kiwifruit	Chickasaw plums		leafminers		
			Mealybugs		

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CUCURBITS

Insecticide/Miticide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-100 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-100 gallons of water per acre. Apply no more than 1 gallon of Neem Oil 70% per acre in solution.

CROPS Including but not limited to:		PESTS	DISEASES
Balsam pears (bitter melons)	Melons (incl. hybrids)	Aphids	Mildews
Cantaloupes	Honeydew melons	Leafcurl	Downy mildew
Casaba	Muskmelons	aphids	Powdery mildew
Chinese	Persian melons	Woolly	
waxgourds	Pumpkins	aphids	
Citron melons	Squashes	Leafminers	
Crenshaw	Watermelons (incl. hybrids)	Mites	
Cucumbers	Zucchini	Spider mites	
Gherkins		Scales	
Gourds		Calico scales	
Honey balls		Frosted scales	
		Lecanium scales	
		San Jose scales	
		Squash bugs	
		Whiteflies	
		Greenhouse whiteflies	
		Silverleaf whiteflies	
		Sweetpotato whiteflies	

BULB AND COLE VEGETABLES

Insecticide/Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-100 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-100 gallons of water per acre. Apply no more than 1 gallon of Neem Oil 70% per acre in solution.

CROPS Including but not limited to:			PESTS	DISEASES
Arrugula	Chicory	Leek	Aphids	Alternaria
Broccoli	Red chicory	Lettuce (head & leaf)	Woolly	Botrytis
Broccoli raab	Cilantro	Low-bok	aphids	Mildews
Chinese broccoli	Collards	Onions	Leafminers	Downy mildew
(Gai lan)	Corn salad	Orach	Mites	Powdery mildew
Brussels sprouts	Cress	Parsley ✓	Rust mites	Rusts
Cabbage (head & leaf)	Watercress	Purslane	Spider mites	White rust
Chinese cabbage	Daikon	Raddichio	Whiteflies	
(Bok choy, Napa)	Endive	Rappini		
Chinese mustard	Fennel	Rhubarb		
cabbage (Gai choy)	Garlic	Shallots		
Cauliflower	Greens	Spinach ✓		
Celery	Collard greens	Chinese spinach		
Celtuce	Mustard greens	(Amaranth, Tampala)		
Chervil	Rape greens	Swiss chard ✓		
	Kale	Turnip tops ✓		
	Kohlrabi			

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LEGUME AND FRUITING VEGETABLES

INSECTICIDE/FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-100 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-100 gallons of water per acre. Apply no more than 1 gallon of Neem Oil 70% per acre in solution.

CROPS Including but not limited to:			PESTS		DISEASES
Beans	Guar	Pigeon peas	Aphids	Scales	Blights
Broad beans	Lentils	Snow peas	Woolly aphids	Calico scales	Leaf blight
Calabaza	Peas	Soybeans	Beetles	Frosted scales	Mildews
Chickpeas	Peanuts	Tomatillos	Bean leaf beetles	Lecanium scales	Powdery mildew
Eggplants	Pepinos	Tomatoes	Colorado potato beetles	San Jose scales	Molds
Ground cherries	Peppers		Mexican bean beetles	Whiteflies	Gray mold
			Leafminers	Greenhouse whiteflies	Leaf spots
			Mites	Silverleaf whiteflies	Rusts
			Rust mites	Sweetpotato whiteflies	
			Spider mites	whiteflies	
			Psyllids		

ROOT AND TUBER VEGETABLES

INSECTICIDE/MITICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-100 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Potatoes—Neem Oil 70% may be applied every 7 days to seed potatoes and as needed for table and other potatoes. Use caution when mixing Neem Oil 70% with organophosphate insecticides. Test such tank mixes for phytotoxicity on a small number of plants first.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-100 gallons of water per acre. Apply no more than 1 gallon of Neem Oil 70% per acre in solution.

Potatoes—Neem Oil 70% may be applied every 7 days to seed potatoes and as needed for table and other potatoes. Use caution when mixing Neem Oil 70% with organophosphate insecticides. Test such tank mixes for phytotoxicity on a small number of plants first.

CROPS Including but not limited to:			PESTS		DISEASES
Artichokes	Horseradish	Taro (Dasheen)	Aphids	Lecanium	Blights
Beets	Parsnips	Turmeric	Beetles	scales	Mildews
Cardone	Potatoes	Turnips	Colorado potato beetles	San Jose scales	Powdery mildew
Carrots	Sweet potatoes	Yams	Mites	Whiteflies	Rusts
Cassava	Radishes	Yam beans	Rust mites	Greenhouse whiteflies	
Ginger	Rutabaga		Spider mites	Silverleaf whiteflies	
			Psyllids	whiteflies	
			Scales	Sweetpotato whiteflies	
			Calico scales	whiteflies	
			Frosted scales		

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SMALL FRUITS AND BERRIES

INSECTICIDE/FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-250 gallons of water per acre. Apply no more than 5 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-250 gallons of water per acre. Apply no more than 2.5 gallons of Neem Oil 70% per acre in solution.

CROPS			PESTS		DISEASES
Including but not limited to:					
Blackberries	Gooseberries ✓	Strawberries ✓	Aphids	Calico scales	Mildews
Blueberries	Grapes ✓	Youngberries	Woolly aphids	Frosted scales	Downy mildew
Boysenberries	Huckleberries ✓		Leafrollers	Lecanium scales	Powdery mildew
Cranberries	Loganberries		Mites	San Jose scales	Rots
Currents	Olallie berries		Rust mites	Spider mites	Black rot
Dewberries	Raspberries (black & red)		Scales		
Elderberries					

HERBS AND SPICES

INSECTICIDE/FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-100 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-100 gallons of water per acre. Apply no more than 1 gallon of Neem Oil 70% per acre in solution.

CROPS			PESTS		DISEASES
Including but not limited to:					
Anise	Cumin	Peppermint ✓	Aphids	Frosted scales	Mildews
Balm ✓	Curry leaf	Rosemary	Woolly aphids	Lecanium scales	Powdery mildew
Basil	Dandelion	Rue	Mites	San Jose scales	Leaf spot
Borage ✓	Dill ✓	Sage ✓	Rust mites	Spider mites	
Chamomile	Fennel	Savory	Scales		
Caraway	Marigold ✓	Spearmint	Calico scales		
Catnip ✓	Marjoram	Sweet bay			
Celery ✓	Mint ✓	Tarragon			
Chives	Nasturtium ✓	Thyme			
Coriander	Pennyroyal	Wintergreen ✓			

NUTS

INSECTICIDE/FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-250 gallons of water per acre. Apply no more than 2 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Repeat applications as needed for adequate control every 7-10 days. As a dormant oil, use Neem Oil 70% as a 2% solution in 30-250 gallons of water. Do not apply more than 5 gallons of Neem Oil 70% per acre.

Walnuts—Avoid spraying after husk split.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-250 gallons of water per acre. Apply no more than 2.5 gallons of Neem Oil 70% per acre in solution.

Walnuts—Avoid spraying after husk split.

CROPS			PESTS		DISEASES
Including but not limited to:					
Almonds	Chinquapins	Pecans ✓	Aphids	Frosted scales	Leaf spot
Beach nuts	Filberts ✓	Pistachios ✓	Woolly aphids	Lecanium scales	
Brazil nuts	Hickory nuts ✓	Walnuts ✓	Leafrollers	San Jose scales	
Butternuts	Japanese		Fruit tree	weevils	
Cashews	horsechestnuts ✓		leafrollers	Chestnut	
Chestnuts	Macadamia nuts		Mites	weevils	
			Rust mites		
			Spider mites		
			Scales		
			Calico scales		

10/10

CEREAL GRAINS AND OTHER MISCELLANEOUS CROPS

INSECTICIDE/FUNGICIDE USE:

Application: Apply Neem Oil 70% at a rate of 0.5-2.0% in 30-150 gallons of water per acre. Apply no more than 3 gallons of Neem Oil 70% per acre in solution. Apply at first sign of pests or pest damage. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Larger plants will require higher amounts of water to obtain good coverage. Repeat applications as needed for adequate control every 7-10 days.

Fungicide Use:

Application: Apply Neem Oil 70% at a rate of 0.5-1.0% in 30-150 gallons of water per acre. Apply no more than 1.5 gallons of Neem Oil 70% per acre in solution. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Larger plants will require higher amounts of water to obtain good coverage.

CROPS Including but not limited to:			PESTS		DISEASES
Acerola	Sweet corn ✕	Safflower /	Beetles	Greenhouse	Rusts
Alfalfa	Cotton	Seagrapes	Asparagus	whiteflies	
Arracaga (Apio)	Hops /	Sesame	beetles	Silverleaf	
Asparagus /	Jicama	Sorghum	Lygus bugs	whiteflies	
Barley	Jojoba	Soursup	Thrips	Sweetpotato	
Breadfruit	Kinop	(Quanabanas)	Whiteflies	whiteflies	
Buckwheat	Mushrooms	Sugarcane			
Canola	Oats	Star apples			
Coffee	Okra	Sunflowers /			
Coriander	Quenepa	Tobacco			
Com	Nispero	Wheat			
Popcom	Rice				

Warranty

Thermo Trilogy Corporation 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.