

# Copper-Count<sup>®</sup>-N

## *Liquid Fungicide Spray*

### ACTIVE INGREDIENT:

Copper ammonium complex\* .....31.4%

INERT INGREDIENTS: .....68.6%

TOTAL .....100.0%

\*Metallic Copper Equivalent, 8.0%

Contains 0.784 lbs. Copper per gallon

### By Wt.

### FIRST AID

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

#### 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.

#### IF ON SKIN:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

#### IF SWALLOWED:

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.
- In case of emergency call toll free: 1-800-424-9300

## KEEP OUT OF REACH OF CHILDREN CAUTION

*See Inside Booklet for Additional Precautionary Statements and Complete Directions for Use.*

EPA Reg. No. 10465-3

Manufactured by/for:

**Mineral Research & Development**

Division of Chemical Specialties, Inc.

Charlotte, NC 28217

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes eye and skin irritation. Harmful if swallowed, absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with the skin, eyes, or clothing. Avoid breathing vapor or spray mist.

## PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G 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 vitron.
- Shoes plus socks.

Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## USER SAFETY RECOMMENDATIONS

Users should: • Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. • Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. 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 cleaning equipment or disposing of equipment washwaters.

\*\*\*Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## 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 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) 12 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 \* Chemical resistant gloves, such as barrier laminate or vitron.

## 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, 40 CFR part 170. The Worker Protection Standard applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Do not enter or allow others to enter the treated area until sprays have dried.

## INFORMATION

The control of diseases with fungicides is based on PREVENTION: plant surfaces must be completely covered with the fungicide to successfully prevent infection. Use the highest indicated rate per crop when disease incidence is high or expected to be, depending on rainfall and temperature. The low rate is suitable for general preventive sprays under normal conditions. Since weather conditions and disease incidence vary, consult your Agricultural Extension Service for timing and initial application.

## GENERAL INSTRUCTIONS

Partially fill the spray tank with water, add the desired amount of COPPER-COUNT-N and continue filling the tank. If applied with other products, add COPPER-COUNT-N last. Use agitation during mixing and application, until tank is empty. Good bypass agitation is adequate. Observe all cautions and limitations on labeling of all products used in mixtures. In common with all good agricultural practice, start with clean equipment; equipment should be flushed well with water after use.

**GROUND APPLICATION** - Dilute Spraying: Apply specified rate in 10 to 100 gallons water per acre. Orchard and Grove Spraying: Apply specified rate in 100 to 800 gallons of water per acre. Concentrate Spraying: On vegetable crops use 5 to 25 gallons of spray mixture per acre; on fruit and nut trees use 20 to 250 gallons per acre.

**AIR APPLICATION** - Apply specified rate in 3 to 20 gallons of water per acre.

## CHEMIGATION

Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

Apply this product only through center pivot, motorized lateral move or traveling gun sprinkler irrigation systems that do not contain aluminum components. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There should be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

When mixing, fill the nurse tank half full with water. Add COPPER-COUNT-N slowly to the tank while hydraulic or mechanical agitation is operating and continue filling the tank with water. Stickers, spreaders, nutrients, insecticides, etc. should be added last. If the compatibility is questionable, use the compatibility jar test before mixing a whole tank. Because of the wide variety of possible combinations that can occur, observe all cautions and limitations on the labels of all the products used in mixtures.

COPPER-COUNT-N should be continuously added through a traveling irrigation system. Agitation is recommended.

### **APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

Operate system and injection equipment at normal pressures recommended by the manufacturer of the injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for motorized lateral move or traveling gun equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of Copper-Count-N for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution or run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until Copper-Count-N has been cleared from the last sprinkler head.

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## **FRUIT AND NUT CROPS**

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**ALMONDS: Brown rot** – Apply 8-12 qts/A at delayed dormant bud swell stage. Dormant oil may be used. **Shot hole** – Apply 8-12 qts/A at leaf fall to protect buds and shoots from infection during rainy periods. Reapply every 3 to 4 weeks up to late bud swell. **DO NOT** apply after full bloom.

**APPLES: Anthracnose** – Apply 8-10 qts/A to foliage after harvest annually for red varieties and once every 2 to 3 years for yellow varieties. **Apple scab (black spot), Bacterial canker, Blossom and shoot blast** – Apply 1-12 qts/A post-harvest before fall rains. **Crown or collar rot** – Mix 4 qts/A in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest. Do not use if soil pH is below 5.5 since copper toxicity may result. **Fireblight** – Apply 1-2 qts/A at 10% bloom and repeat at 5-7 day intervals during bloom period. Do not use on copper sensitive varieties. Apply 8-12 qts/A as a full cover spray between silver-tip and green-tip. Discontinue when green-tip reaches ½ inch as injuries may occur.

**APRICOTS: Brown rot blossom blight** – Apply 8-12 qts/A at red bud to jacket fall stage. **Shot hole** – Apply 8-12 qts/A at leaf fall to protect buds and shoots from infection during rainy periods. Reapply up to late bud swell. **DO NOT** apply after full bloom.

**AVOCADOS: Anthracnose** - Apply 8 qts/A when the flower buds begin to swell and continue at monthly intervals until August.

**BANANAS: Sigatoka** – Apply 2-4 qts/A every 3-4 weeks. **Black pitting** – Mix 5-8 qts/A in 100 gallons of water. Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.

**BLUEBERRIES: Bacterial canker** – Apply 8-10 qts/A with a spreader/sticker before fall rains and again 4 weeks later. **Cane canker** – Apply 8-10 qts/A with a spreader/sticker before fall rains and again 4 weeks later. In the spring during wet weather, apply at 10-14 day intervals beginning at leaf emergence.

**CRANBERRIES: Anthracnose, Leaf and cane spot, Purple blotch. Yellow rust** – Apply 2-4 qts/A when leaf buds open. Repeat when flower buds show white and continue at 10-14 day intervals. **Anthracnose, Bacterial blight, Leaf and Cane spot, Purple blotch, Yellow rust** – Apply 8-12 qts/A in the fall after harvest.

**CHERRIES: Deadbud, coryneum blight** – Apply 6 qts/100 gals. in October (before heavy fall rains) and again in January. Where disease is severe, another application should be applied in August. **Brown rot blossom blight** – Apply 2-3 qts/100 gals. as a full cover spray at popcorn stage and at full bloom.

**CITRUS: Greasy spot, Melanose, Pink pitting, Scab** – Apply  $\frac{3}{4}$  - 2 qts/100 gals. as pre-bloom and post-bloom sprays. May be used in concentrate sprays at equivalent rates. For aerial application use 6-8 qts/10 gals. per acre. **Brown rot** – Apply 2-6 qts/A in the fall before or just after heavy rains. In areas of skirt sprays, apply to a height of at least 4 feet.

**COCOA: Black pod rot** – Apply 2-4 qts/A on a 14-21 day schedule in high rainfall areas.

**COFFEE: Iron spot, Pink disease** – Apply 3 applications of 2-8 qts/A at monthly intervals at the beginning of the wet season. **Bacterial blight, Berry spot, Leaf spot, Leaf rust** – Apply 3-8 qts/A as locally recommended, usually at 3-4 week intervals depending upon disease severity and rainfall conditions.

**CRANBERRIES: Fruit Rot** – Apply 8 qts/A beginning in late bloom. One or two additional applications made at 10-14 day intervals may be required depending upon disease pressure. Follow the advice of the State Agricultural Extension Service.

**CURRENTS, GOOSEBERRIES: Anthracnose, Leaf Spot (cane blight)** – Make 3 applications of 5-10 qts/A starting after harvest, before bloom and after petal fall.

**FILBERTS: Bacterial blight** – Apply 10-12 qts/A after harvest. Under severe conditions, apply again when  $\frac{3}{4}$  of the leaves have dropped. **Eastern filbert blight** – Make initial application of 10-12 qts/A after harvest in October before heavy rains begin. The next application should be made in late February to early March followed by another application 1 month later. If desired, add 1 pint of a sticking agent or superior type oil per 100 gallons of water. Use higher rates when rainfall is heavy and disease pressure is high.

**GRAPES: Anthracnose, Black rot, Downy mildew, Powdery mildew** – Apply 2 qts/A just before bud break, when the shoots are 6-8 inches long, just after bloom, and every 4-10 days throughout season as needed. Foliar injury may occur on copper-sensitive varieties.

**HOPS: Downy mildew** – Apply 2 qts/A as needed at 10 day intervals. Begin with crown treatment (after pruning but before training) and continue until 2 weeks before harvest.

**KIWI: Pseudomonas syringae, Erwinia herbicola, Pseudomonas fluorescens** – Apply 8 qts in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of 3 applications may be made.

**LIMES: Greasy spot** – Apply 8 qts/A in June and continue at monthly intervals through August.

**MANGOS: Anthracnose** – Apply 8 qts/A weekly from the time the panicles are 2 inches in length until all fruits are set and monthly thereafter until August.

**OLIVES: Peacock spot** – Make first application at 8-12 qts/A or at 2-3 qts/100 gals. before winter rains fall. A second application should be made in early spring if disease is severe.

**PEACHES, NECTARINES: Bacterial spot** – Apply 2 qts/100 gals as a dormant spray. Make postbloom application apply at  $\frac{1}{2}$  pint per 100 gals at first and second cover sprays. DO NOT spray later than 3 weeks prior to harvest. DO NOT use at rates above those recommended. NOTE: Slight defoliation and spotting of leaves may occur from use in cover sprays. **Blossom brown rot** – Apply 8-12 qts/A as dormant or delayed dormant spray. Can use with dormant spray oil. DO NOT apply at or after full bloom. **Leaf curl, Shot hole** – Apply 8-12 qts/A at leaf fall to protect buds and shoots from infection during rainy periods. Reapply up until late bud swell. DO NOT apply after full bloom.

**PECANS: Shuck and kernel rot, Zonate leaf spot** – for suppression, apply 4-10 qts/A in sufficient water to ensure complete spray coverage at 2-4 week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter interval if frequent rainfall occurs.

**PEARS, QUINCE: Fire blight** – Apply 1-2 qts/A at 10% bloom and repeat at 5-7 day intervals throughout the bloom period. Do not use on copper-sensitive varieties. **Blossom blast** – Apply 8-12 qts/A as a dormant spray. Apply only at bud break to control primary infection.

**PISTACHIOS: Alternaria late blight** – Apply 8-12 qts/A at 50% and full bloom followed by up to 3 applications at 30 day intervals. **Botrytis blight, Botryosphaeria panicle, Shoot blight, Septoria leaf blight** – Make initial application of 8-12 qts/A at bud swell and repeat on a 14-28 day schedule as dictated by disease conditions. If disease conditions are severe, use the higher rate and shorter interval.

**PLUMS, PRUNES: Brown rot blossom blight, Coryneum blight (shot hole)** – Apply 8-12 qts/A as a dormant spray before heavy rains begin. For brown rot, apply at early green bud to full popcorn stages. **Bacterial blast, Bacterial canker** - Apply 8-12 qts/A at dormant to early pink stage. Where disease is severe, apply 1 qt. at 2 week intervals post-bloom. Slight leaf injury may occur.

**WALNUTS: Walnut blight** - Make first application at early pre-bloom. Make second application at late pre-bloom. Make additional applications if disease conditions persist.

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## FIELD AND VEGETABLE CROPS

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**ALFALFA: Leaf spot** – Apply 1-2 qts/A by ground or air 10-14 days prior to harvest. Slight injury may occur to sensitive varieties.

**BEANS, PEAS, LENTILS (Succulent and dry): Bacterial blight (halo & common)** – Apply 1-3 qts/A when plants are 3-5 inches high and before diseases appear. Repeat at 7-10 day intervals or at 5-7 day intervals under severe disease pressure.

**BEETS, SUGARBEETS: Cercospora leaf spot** – Apply 1-1/2 – 3 qts/A when disease appears making 3-6 sprays at 10-14 day intervals. Apply more frequently under severe disease pressure.

**CARROTS: Early and late blight** - Apply 2-3 qts/A when plants are 6" high. Make 3 to 5 applications at 7-10 day intervals.

**CELERY: Bacterial blight, Early and late blight** - Apply 2-3 qts/A as soon as plants are established in the field and repeat at 5-7 day intervals.

**CORN (pop, field, sweet): Stalk rot, Leaf blight, Bacterial rot, Bacterial stripe, Bacterial wilt**- Apply 2 qts/A when disease appears and repeat as necessary.

**CRUCIFERS (Broccoli, Brussels sprouts, Cabbage, Cauliflower, Greens (Collard, Mustard and Turnip)): Black leaf spot** – Apply 1-3 qts/A by ground or air when disease appears and repeat at 7-10 day intervals. **Downy mildew** - Apply ½ to 1qt/A by ground or air when disease appears and repeat at 7-10 day intervals.

**CUCURBITS (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Watermelon): Alternaria leaf spot, Angular leaf spot, Anthracnose, Downy mildew, Powdery mildew, Gummy stem blight, Watermelon bacterial fruit blotch** - Apply 1-1/2 – 2qts/A by ground or air when disease appears and repeat at 7-10 day intervals.

**EGGPLANT: Alternaria blight, Anthracnose, Phomopsis** – Apply 2 qts/A before disease appears and repeat at 7-10 day intervals.

**ONIONS: Downy mildew, Purple blotch** – Apply 2 qts/A when plants are 4-6 inches high and repeat at 7-10 day intervals.

**PEANUTS: Cercospora leaf spot** - Apply 1-1/2 – 3 qts/A on first appearance of disease and repeat at 10-14 day intervals. **Pod rot complex (Pythium myriotylum, Rhizoctonia solani, and Scierotium rolfsii)** – Apply 12 qts/A at pegging in a 12-15 inch band over the row.

**PEPPERS: Bacterial spot, Cercospora leaf spot** - Make first application of 1-1/2 – 3 qts/A upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day intervals. When disease is severe, apply at 4-5 day intervals. NOTE: Disease control is critical during fruiting.

**POTATOES: Early and late blight** – Apply 1-1/2 – 3 qts/A on first appearance of disease and repeat at 7-10 day intervals.

**SPINACH: Anthracnose, Cercospora leaf spot, Downy mildew** – Apply 1-1/2 qts/A on first appearance of disease and repeat at 7-10 day intervals.

**STRAWBERRIES: Leaf spot, Scorch** – Apply 1-1/2 – 2 qts/A at 7-10 day intervals from the time new growth starts until harvest.

**TOBACCO: Angular leaf spot** – Apply 4-5 qts/A on 7-10 day basis when disease appears. Destroy all infected plants. **Blue mold** – Apply 2 qts/A every 7-10 days when disease appears. **Brown spot** – Apply 4-5 qts/A every 7-10 days when disease appears. **Damping off disease** – Apply 5-6 qts/A to the seed bed after planting. Avoid over-watering. **Frog eye disease** – Apply 4-5 qts/A just before transplanting and when topped. **Wild fire** – Apply 2 qts/A every 7 days from seeding to transplanting.

**TOMATOES: Bacterial speck, Bacterial spot, Early and late blight** - Make first application of 1- 1/2 – 3 qts/A upon emergence of seedlings or immediately after transplanting and repeat at 7-10 day intervals. When disease is severe, apply at 4-5 day intervals. Complete coverage is essential for disease control. NOTE: While the labeled rate is particularly effective against Bacterial spot, a tank mix with Maneb or Mancozeb used at the labeled rates controls a broad range of diseases.

**WHEAT, OATS, BARLEY: Helminthosporium spot blotch, Septoria leaf blotch** - Make first application of 1-1/2 – 2 qts/A at early heading and follow with a second spray 10 days later. Use the higher rate when conditions favor disease. **Head scab, Bacterial wilt** – Apply 2 qts/A when disease appears and repeat as necessary.

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## MISCELLANEOUS

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**ATEMOYA: Anthracnose** - Make initial application of 3 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**CARAMBOLA: Anthracnose** - Make initial application of 3 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**CHIVES: Downy mildew** - Begin applications of 2 qts/A when plants are first established in the field. Repeat applications every 7-10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.

**DILL: Phoma leaf spot, Rhizoctonia foliage blight** - Begin applications of 3 qts/A when plants are first established in the field and repeat at 7-10 day intervals depending upon disease severity and environmental conditions. If disease pressure is high, use the shorter spray interval.

**DOUGLAS FIR: Rhabdocline needlecast** - Begin applications of 2 qts/A at bud break and repeat at 3-4 week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.

**GINSENG: Alternaria leaf and stem blight** – Use 3-1/2 qts/A as a tank mix with 2 pounds Rovral 50W in 100 gallons of water. Begin Copper-Count-N / Rovral applications as soon as plants have emerged in spring. Applications should be repeated every 7 days until plants become dormant in fall. If scheduled application is to be before a rain shower, apply fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker is advised. NOTE: Alternaria leaf and stem blight is most severe in humid conditions such as those found in the dense canopies of 2-, 3-, and 4-year old ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.

**GUAVA: Anthracnose, Red algae** - Make initial application of 3 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**LITCHI: Anthracnose** - Make initial application of 3 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**LIVE OAK: Ball moss** - Apply 6 qts/A in the spring when ball moss is actively growing, using 1.5 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12 months. NOTE: Copper-Count-N may be injurious to ornamentals grown under Live Oaks. This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with dry surfaces. Do not spray on cars, houses, lawn furniture, etc.

**MACADAMIA: Anthracnose** - Initiate sprays of 6 qts/A at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. **Phytophthora blight, Raceme blight** - Apply 4-6 qts/A during raceme development and bloom periods. Apply in sufficient water for thorough coverage.

**MAMEY SAPOTE: Anthracnose, Algal leaf spot** - Apply 6-8 qts/A when conditions favor disease. Repeat on 14-30 day schedule as disease severity and environmental conditions dictate.

**PAPAYA: Anthracnose** - Begin applications of 4-10 qts/A before disease appears and repeat at 10-14 day intervals. Apply at 5-7 day intervals during periods of heavy rainfall. Use higher rates when conditions favor disease.

**PARSLEY: Bacterial blight** - Begin applications of 3 qts/A when plants are first established in the field and repeat at 5-7 day intervals depending upon disease severity and environmental conditions.

**PASSION FRUIT: Anthracnose** - Make initial application of 6 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**SUGAR APPLE (Annona): Anthracnose** - Make initial application of 8-12 qts/A just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.

**SYCAMORE: Anthracnose** – Apply 2-3 qts/A as a full coverage spray. Apply in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7-10 days later at 10% leaf expansion.

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### CITRUS – Field Nursery Grown

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To control melanose, scab, pink pitting, greasy spot, brown rot and for citrus canker (suppression), apply 2 quarts of Copper-Count-N per 100 gallons of water (4-8 qts/A). Apply Copper-Count-N at 28 day intervals or as needed depending on disease severity.

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### TURF GRASS

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To control algae in turfgrass, apply 1 pint Copper-Count-N per 1,000 square feet in 5 gallons of water. Copper-Count-N may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes. NOTE: Phytotoxicity may occur depending upon varietal differences. Apply the recommended rate to a small area and observe for 7-10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in a spray solution with a pH of less than 6.5.

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### GREENHOUSE AND SHADE HOUSE CROPS

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Notice to User: Copper-Count-N may be used in greenhouses and shade houses to control diseases on some crops which appear on this label. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shade houses differ greatly from crops grown under field conditions. Neither the manufacturer nor the seller has determined whether or not Copper-Count-N can be used safely on all greenhouse- and shade house-grown crops. The user should determine if Copper-Count-N can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e. foliage, fruit, etc., and observe for 7-10 days for symptoms of phytotoxicity prior to commercial use.

**EGGPLANT: Alternaria blight, Anthracnose, Phomopsis** - Begin applications of 4 Tbsp/1,000 sq.ft. prior to development of disease symptoms. Repeat sprays at 7-10 day intervals or as disease pressure dictates.

**PEPPER: Bacterial spot** - Begin applications of 4-6 Tbsp/1,000 sq.ft. when conditions first favor disease development and repeat at 5-10 day intervals as needed depending on disease severity. Use higher rate for severe disease.

**TOMATO: Early and late blight** - Begin applications of 4-6 Tbsp/1,000 sq.ft. when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe disease. **Bacterial speck** - Begin applications of 4 Tbsp/1,000 sq.ft. when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. **Anthracnose, Bacterial spot, Gray leaf mold, Septoria leaf spot** - Begin applications of 4-8 Tbsp/1,000 sq.ft. when disease first threatens and repeat at 7-10 day intervals or as needed depending on disease severity. Use higher rate for severe disease.

**CITRUS (non-bearing nursery): Brown rot, Citrus canker, Greasy spot, Melanose, Pink pitting Scab** - Begin applications of 6 Tbsp/1,000 sq.ft. when disease threatens. Repeat at 30 day intervals or as needed depending on disease severity.

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## ORNAMENTALS

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Notice to User: Plant sensitivities to Copper-Count-N have been found to be acceptable in specific genera and species listed on this label, however, it is impossible to know sensitivities under all conditions and phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to Copper-Count-N. Neither the manufacturer nor seller recommends use upon species not listed on the label nor has it been determined that Copper-Count-N can be safely used on ornamental or nursery plants not listed on this label. The user should determine if Copper-Count-N can be used safely prior to commercial use.

Use Copper-Count-N on container, bench, or bed-grown ornamentals in greenhouses, shade houses or outdoor nurseries, for professional use on ornamentals grown in indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers, and stems.

Apply as a thorough coverage spray using 1 quart Copper-Count-N per 100 gallons of water. Begin application at first sign of disease and repeat at 7-14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

Copper-Count-N may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

NOTE: Do not tank mix Copper-Count-N with Aliette fungicide unless appropriate precautions have been taken to buffer the spray solution. Severe phytotoxicity may result if adequate precautions are not taken.

**Crop, Latin name, Disease**

**Althea (Rose of Sharon)**, *Hibiscus syriacus*, Bacterial leaf spot. **Aralia** *Dizygotheca elegantissima* Xanthomonas leaf spot, Cercospora leaf spot, Alternaria **Arborvitae** *Thuja spp.* Alternaria twig blight, Cercospora leaf blight **Azalea** <sup>(1)</sup> *Rhododendron spp.* Cercospora leaf spot, Botrytis blight, Phytophthora dieback, Powdery mildew **Begonia** *Begonia semperflorens* Bacterial leaf spot (Xanthomonas sp., Erwinia sp., Pseudomonas sp.) **Bougainvillea** *Bougainvillea spectabilis* Anthracnose, Bacterial leaf spot **Bulbs (Tulip, Gladiolus)** *Miscellaneous* Anthracnose, Botrytis blight **Camellia** *Camellia japonica, C. sasanqua* Anthracnose, Bacterial leaf spot **Camphor tree** *Cinnamomum camphora* Pseudomonas leaf spot **Canna** *Canna spp.* Pseudomonas leaf spot. **Carnation** <sup>(1)</sup> *Dianthus spp.* Alternaria blight, Pseudomonas leaf spot, Botrytis blight **Chinese tallow tree** *Sapium sebiferum* Bacterial leaf spot (Xanthomonas sp., Pseudomonas sp.) **Chrysanthemum** <sup>(1)</sup> *Chrysanthemum morifolium* Septoria leaf spot, Botrytis blight **Cotoneaster** *Cotoneaster spp.* Botrytis blight **Dahlia** *Dahlia pinnata* Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot **Date Palm** *Phoenix canariensis* Pestalotia leaf spot **Dianthus** *Dianthus spp.* Bacterial spot, Bacterial soft rot **Dogwood** *Cornus florida* Anthracnose **Dusty Miller** *Senecio cineraria* Bacterial leaf spot (Pseudomonas cichorii) **Easter lily** <sup>(2)</sup> *Lilium longiflorum* Botrytis blight **Echinacea** *Echinacea spp.* Bacterial leaf spot (Pseudomonas cichorii) **Elm "Drake"** *Ulmus parvifolia* Xanthomonas leaf spot **Euonymus** *Euonymus spp.* Botrytis blight, Anthracnose **European fan palm** *Chamaerops humilis* Pestalotia leaf spot **Gardenia** *Gardenia jasminoides* Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot **Geranium** *Pelargonium spp.* Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot **Gladiolus** *Gladiolus spp.* Alternaria leaf spot, Botrytis gray mold, Bacterial leaf blight **Goldenrain tree** *Koeleruteria paniculata* Bacterial leaf spot **Hibiscus** *Hibiscus rosa-sinensis* Bacterial leaf spot **Holly fern** *Cyrtomium falcatum* Pseudomonas leaf spot **Impatiens** *Impatiens hallerana* Bacterial leaf spot **India hawthorn** <sup>(3)</sup> *Rhaphiolepis indica* Anthracnose, Entomosporium leaf spot **Ivy (English, Algerian)** <sup>(1)</sup> *Hedera helix, H. canariensis* Xanthomonas leaf spot **Ixora** *Ixora coccinea* Xanthomonas leaf spot **Juniper (Eastern red cedar)** *Juniperus virginiana* Anthracnose **Lantana** *Lantana camara* Bacterial leaf spot **Lilac** *Syringa spp.* Cercospora leaf spot **Loblolly**

**bay** *Gordonia lasianthus* Anthracnose **Loquat** *Eriobotrya japonica* Entomosporium maculata, Colletotrichum sp. **Magnolia (Saucer)** *Magnolia soulangiana* Bacterial leaf spot **Magnolia (Southern)** *Magnolia grandiflora* Algal leaf spot, Anthracnose, Bacterial leaf spot **Magnolia (Sweet bay)** *Magnolia virginiana* Anthracnose **Mandevillas** *Mandevilla* spp. Anthracnose **Marigold** *Tagetes* spp. Alternaria leaf spot, Botrytis leaf and flower rot, Cercospora leaf spot **Mulberry, weeping** *Morus alba* Bacterial leaf spot **Oak, laurel** *Quercus laurifolia* Algal leaf spot (Cephaluros virescens) **Oleander** *Nerium oleander* Bacterial leaf spot, Fungal leaf spot **Pachysandra** *Pachysandra procumbens* Volutella leaf blight **Pansy** *Viola* spp. Downy mildew **Pear (Flowering)** *Pyrus calleryana* Fireblight, Leaf spot **Pentas (Egyptian star)** *Pentas* spp. Bacterial leaf spot (Xanthomonas sp.) **Peony** *Paeonia* spp. Botrytis blight **Periwinkle** *Catharanthus roseus*, *Vinca* spp. Phomopsis stem blight **Philodendron** *Philodendron selloum* Bacterial leaf spot **Phlox** *Phlox* spp. Alternaria leaf spot **Photinia** *Photinia traseri*, *P. glabra* Anthracnose, Entomosporium **Pistachio** *Pistacia chinensis* Anthracnose **Plantain lily** *Hosta* spp. Bacterial leaf spot **Powder puff plant** *Calliandra* spp. Bacterial leaf spot **Pyracantha** *Pyracantha* spp. Fireblight, Scab **Queen palm** *Syagrus romanzoffianum* Exosporium leaf spot, Phytophthora bud rot **Rhododendron** *Rhododendron* spp. Alternaria flower spot **Rose (1)** *Rosa* spp. Powdery mildew, Black spot **Verbena** *Verbena* spp. Xanthomonas leaf spot **Viburnum** *Viburnum odoratissimum*, *V. suspensum* Anthracnose **Washingtonia palm** *Washingtonia robusta* Pestalotia leaf spot **Weeping willow** *Salix babylonica* Anthracnose **Yucca (Adam's needle)** *Yucca* spp. Cercospora leaf spot, Septoria leaf spot.

- (1) Discoloration of foliage and/or blooms has been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.
- (2) Apply Copper-Count-N at 3-5 quarts per acre in 20-100 gallons water per acre.
- (3) For India Hawthorn use 2-4 quarts per 100 gallons or 2-4 level tablespoons per gallon.

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## FROST INJURY PROTECTION

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**Bacterial Ice Nucleation Inhibitor** - Application of Copper-Count-N made to all crops listed on this label at rates indicated on this label, just prior to anticipated frost conditions, will sustain control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwina herbicola* and *Pseudomonas fluorescens*) and may therefore provide protection against light frost.

**Not recommended for those geographic areas where weather conditions favor severe frost.**

## STORAGE AND DISPOSAL

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

**DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**PLASTIC CONTAINERS:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## CONDITIONS OF SALE

Seller's guarantee shall be limited to contents and merchantability of the product and the terms of the label, and subject thereto the buyer assumes any risks to persons or property arising out of use or handling and accepts the product on these conditions. Because of time, place, rate of application and other conditions of use are beyond Seller's control, Seller's liability from storage, handling and use of this product is limited to replacement of product or refund of purchase price.