FUNGICIDE COPPER GROUP M1

# **Champ<sup>®</sup> Formula 2 Flowable**

**Agricultural Fungicide / Bactericide** 

DOC ID 586584

| ACTIVE INGREDIENT:                          |               |
|---------------------------------------------|---------------|
| Copper Hydroxide* (CAS No. 20427-59-2)      |               |
| OTHER INGREDIENTS:                          |               |
| TOTAL:                                      |               |
| *Metallic Copper Equivalent 24.4%           | ACCEPTED      |
| Contains 4.5 lb copper hydroxide per gallon | FOR REGISTRAT |
|                                             |               |

# **KEEP OUT OF REACH OF CHILDREN** WARNING / AVISO

New York State Department of Environmental Conservation Division of Materials Management Pesticide Product Registration

April 7, 2023

Si usted no entiende la etiqueta, busque a alquien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID, PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE

For Medical Emergencies, Call (877) 325-1840 For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

EPA REG. NO. 55146-64

Manufactured for Nufarm Americas Inc. AGT Division 11901 S. Austin Avenue Alsip, IL 60803

(9.46 L)

EPA EST. NO. 62562-CHL-002

MADE IN CHILE





| FIRST AID                 |                                                                                                                                                                                                                                                                                                               |  |  |  |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| IF IN EYES                | <ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                                            |  |  |  |
| IF SWALLOWED              | <ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul> |  |  |  |
| IF INHALED                | <ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>                                           |  |  |  |
| IF ON SKIN OR<br>CLOTHING | <ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                                                                                                          |  |  |  |
| HOTLINE NUMBER            |                                                                                                                                                                                                                                                                                                               |  |  |  |

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING / AVISO

Causes substantial but temporary eye injury. Harmful if swallowed.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, and other handlers must wear the following:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear (goggles, faceshield, or safety glasses)

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls Statements**

Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

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 / 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**

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, 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 washwaters or rinsate.

# 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 (WPS), 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), restricted-entry interval, and notification to workers. 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 48 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, waterproof gloves, shoes plus socks and protective eyewear (goggles, faceshield, or safety glasses).

# 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 (WPS) for agricultural pesticides 40 CFR Part 170. The Worker Protection Standard (WPS) applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Do not enter or allow others to enter until sprays have dried.

# **PRODUCT INFORMATION AND USE INSTRUCTIONS**

This product can be used with all types of spraying equipment. The volume per acre will differ depending on the specific crop and the equipment used. Thorough coverage is essential for best results. Use this product according to instructions on this label.

### **MIXING INSTRUCTIONS:**

Proper mixing of this product with water requires use of a spray tank equipped with agitation.

Mixing Order

- 1. Water: Begin by agitating a thoroughly clean sprayer tank containing one-half the required amount of clean water.
- 2. Agitation: Maintain constant agitation throughout mixing and application.
- 3. Inductor: If an inductor is used, rinse it thoroughly after each application.
- 4. Slowly add the required amount of this product to the sprayer tank to prevent system and/or port blockage.
- 5. **Remaining Quantity of Water:** Continue agitation while slowly adding the remaining volume of clean water and allow time for good dispersion. Make sure that the product is thoroughly mixed and dispersed before adding additives.
- 6. Additives: Add any tank mix partners last. If you do not have previous experience with this product and additive mixtures, conduct a small-jar test to confirm compatibility of tank mixtures prior to full scale use. Follow the most restrictive of the tank mix partners label limitations and precautions.

Maintain constant agitation during application.

### APPLYING SPRAY MIXTURE

This product may be applied as an aerial or ground concentrate spray unless specifically directed otherwise by crop in the use instructions.

Under heavy disease pressure or when conditions favor such, use the higher rate and shorter spray intervals specified for each crop. In addition, use the higher rates for large mature tree crops.

The per acre use rate of this product is applicable for both dilute and concentrate spraying. Consult this label for specific rates and timing of application by crop.

Complete spray coverage is essential to assure optimum performance from this product. When treating on a concentrate basis or by aerial application, unless you have had specific previous experience, it is advisable to test for compatibility and crop tolerance prior to full-scale commercial utilization.

While volume is important in obtaining full spray coverage, other factors such as foliage density, environmental conditions and sprayer calibrations, can have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those specified by state and local regulatory authorities.

| MINIMUM SPRAY VOLUMES†                                                                                            |                                   |                                           |                          |  |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------|--------------------------|--|
| Crops                                                                                                             | Dilute (Ground)<br>Gallons / Acre | Concentrate<br>(Ground)<br>Gallons / Acre | Aerial<br>Gallons / Acre |  |
| Berries                                                                                                           | 150                               | 50                                        | 5                        |  |
| Citrus                                                                                                            | 800                               | 100**                                     | 10                       |  |
| Conifers                                                                                                          | 100                               | 30                                        | 10                       |  |
| Field Crops                                                                                                       | 20                                | 3                                         | 3                        |  |
| Tree Crops (except citrus)                                                                                        | 400                               | 50                                        | 10                       |  |
| <b>Tropical Crop (Low volume):</b><br>Guava, Litchi, Mamey Sapote, Papaya, Passion Fruit,<br>Sugar Apple (Annona) | 150                               | 50                                        | 10                       |  |
| <b>Tropical Crops (High volume):</b><br>Banana, Cacao, Coffee, Mango, Plantain                                    | 400                               | 50                                        | 10                       |  |
| Vegetables                                                                                                        | 20                                | 3                                         | 3                        |  |
| Vines                                                                                                             | 150                               | 50                                        | 5                        |  |
| Miscellaneous                                                                                                     | 150                               | 50                                        | 10                       |  |

† See crop specific use instructions for additional information regarding recommended spray volumes for certain crops.

\*\* Spray volumes as low as 20 gallons per acre may be used with pesticide application equipment such as "Curtec" or similar sprayers that are capable of obtaining thorough coverage at low volumes.

**SMALL VOLUME MIXTURES (< 100 gallons):** One level teaspoon (TSP) of this product per 1,000 square feet is equivalent to 0.45 pints per acre. One level teaspoon (TSP) of this product per gallon of water is equivalent to one (1) pint of this product per 100 gallons of water.

### **USE PRECAUTIONS**

- The pre-harvest interval (PHI) for this product is 0-days unless otherwise noted in the crop specific use instructions.
- Application of this product to wet crops or a rain event occurring before the spray is dry may result in reduced performance.
- This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on houses, cars, lawn furniture, or other metal surfaces where the quality of the finish is a concern..
- Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of this product resulting in possible phytotoxicity or loss of effectiveness.
- Unpredictable performance or crop injury may result from tank mixing this product with certain pesticides or additives, especially when tank mixing multiple products. Unless a tank mixture with other pesticides or additives has been determined to be compatible and non-injurious to the crop under your conditions of use, test for compatibility and potential crop injury prior to commercial use.
- Agricultural chemicals may react with soft metals (e.g., aluminum) and some synthetic materials (e.g., plastics, rubbers, etc.) used in the construction of application equipment. Thoroughly flush all application equipment with clean water after each day's use.

### RESTRICTIONS

- Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].
- Do not apply this product in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.
- Do not tank mix this product with Aliette® Fungicide unless appropriate precautions are taken to buffer the spray solution or severe phytotoxicity may result.
- In California, do not apply with equipment which contains aluminum parts or components

# **SPRAY DRIFT**

### Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy or water, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speed exceeds 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the application area.
- Do not apply during temperature inversions.

### **Ground Boom Applications**

- Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

# **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

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

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

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

### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

### SHIELDED SPRAYERS

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

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

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

### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Champ Formula 2 Flowable contains copper hydroxide, a Group M1 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to Champ Formula 2 Flowable and other Group M1 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

The following steps may delay the development of fungicide/bactericide resistance:

- Rotate the use of this product or other Group M1 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides/bactericides from a different group that are effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.

### **CHEMIGATION INSTRUCTIONS**

Apply this product only through center pivot, motorized lateral move, end tow, traveler, big gun, plastic solid set, or plastic hand move sprinkler irrigation systems. Do not apply this product through any other type of irrigation system unless specifically set forth above or as may be specified in the future as additional systems not containing aluminum components come into use. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. 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. 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. Public water system 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 shall 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. For nonpublic water sprinkler chemigation systems, 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, guick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also 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 shutdown. 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. For non-public water sprinkler chemigation systems, 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, such 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.

It is recommended that the pesticide supply tank be equipped with a means for continuous agitation either by recirculation or a mechanical agitator. Charge the supply tank with the appropriate amount of water and add the pesticide slowly followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all cautions and limitations on the label of all products used in the mixtures. For fixed position irrigation systems such as center pivot, big gun, etc., the pesticide should be applied towards the end of the irrigation period. Exact timing will depend on the desired pesticide application rate and calibration of the system. For moving systems, the pesticide should be applied continuously. In all cases, thorough coverage of the crop should be achieved.

**NOTE:** IRRIGATION SYSTEMS AND ASSOCIATED PIPING SHOULD BE THOROUGHLY FLUSHED WITH CLEAN WATER FOLLOWING APPLICATION OF COPPER BASED FUNGICIDES. FLUSHING MUST BE DONE IN A MANNER WHICH WILL NOT WASH THE PRODUCT FROM THE FOLIAGE AND REDUCE DISEASE CONTROL.

No additional surfactants are needed unless specified for an individual crop. Add this product to the spray tank followed by any sticker- spreaders, insecticides, nutrients, etc. Observe all cautions and limitations on the label of all products used in mixtures. The specific instructions given on this label are based on general applications and circumstances. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

NOTE: APPLICATION TO PLANT SURFACES WHICH HAVE LOW pH CHEMICAL RESIDUE MAY ALSO RESULT IN CROP INJURY.

### **FROST INJURY PROTECTION**

**Bacterial Ice Nucleation Inhibitor:** Application of this product made to all crops listed on this label at rates and stages of growth indicated on this label just prior to anticipated frost conditions will afford control of ice nucleating bacteria (*Pseudomonas Syringae, Erwina Herbicola* and *Pseudomonas Fluorescens*) and may therefore provide protection against light frost. Use higher rates when bacterial infection is severe. Not recommended in those geographical areas where weather conditions favor severe frost.

# **BERRIES, VINES AND HOPS**

| CROP                                                                                         | DISEASE                                                                                                               | RATE PER<br>ACRE<br>(Pints)                                                   | USE INSTRUCTIONS                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BRAMBLES<br>(Blackberry, Santiam,<br>Logans, Boysen,<br>Marion, Aurora,<br>Cascade, Chehalem | Leaf Spot, Cane<br>Spot, Purple Blotch,<br>Anthracnose, Yellow<br>Rust, and Pseudomonas<br>Blight.                    | 2.66                                                                          | Apply delayed dormant spray after training in spring. Make<br>fall spray application after harvest. Add 1 quart of crop oil<br>per acre.                                                                                                                                              |
| Evergreen)                                                                                   | Leaf Spot, Cane<br>Spot, Purple Blotch,<br>Anthracnose, and Yellow<br>Rust.                                           | 1.33                                                                          | Apply when leaf buds begin to open and repeat when flower<br>buds show white. Add 1 quart of crop oil per acre.                                                                                                                                                                       |
|                                                                                              | <b>NOTES:</b> Crop injury may<br>moist periods. Discontinue<br>For all uses, the minimum<br>gallons) product per acre | occur if applied<br>e applications if<br>interval betwee<br>(10 lbs. metallic | d to foliage under certain conditions such as hot or prolonged<br>f signs of crop injury appear.<br>en treatments is 7 days. Do not apply more than 27.5 pints (3.4<br>c copper / A) per year.                                                                                        |
| BLUEBERRY                                                                                    | Bacterial Canker                                                                                                      | 3.75 – 4.66                                                                   | Make first application before the fall rains, preferably the first week in October and a second application 4 weeks later. The minimum interval between treatments is 7 days. Do not apply more than 23.0 pints (2.9 gallons) product per acre (8.4 lbs. metallic copper/A) per year. |
| CRANBERRY                                                                                    | Fruit Rot                                                                                                             | 5.33                                                                          | Apply beginning in late bloom. One or two applications made<br>at 10 to 14 day intervals may be required, depending on<br>disease pressure.                                                                                                                                           |
|                                                                                              | Rose Bloom                                                                                                            |                                                                               | Make three applications at 10 to 14 day intervals as soon as symptoms are observed.                                                                                                                                                                                                   |
|                                                                                              | Bacterial Stem Canker                                                                                                 |                                                                               | Apply post-harvest and again in the spring before bud burst.<br>One or two additional applications at 10 to 14 day intervals<br>may be required depending on disease severity.                                                                                                        |
|                                                                                              | Tip Blight (Monilinia),<br>Stem Blight, Leaf Blight,<br>Red Leaf Spot                                                 |                                                                               | Apply as a delayed dormant spray in the spring. Repeat at 10 to 14 day intervals as needed through prebloom.                                                                                                                                                                          |
|                                                                                              | Upright Dieback                                                                                                       |                                                                               | Apply as a prebloom application. A second application can be made 10 to 14 days later if required.                                                                                                                                                                                    |
|                                                                                              | <b>NOTES:</b> For all uses, the pints (4.3 gallons) product                                                           | minimum interv<br>t per acre (12.6                                            | al between treatments is 7 days. Do not apply more than 34.7<br>Ibs. metallic copper/A) per year.                                                                                                                                                                                     |
| CURRANT &<br>GOOSEBERRY                                                                      | Anthracnose, Leaf Spot                                                                                                | 6.66                                                                          | Make 3 applications starting after harvest, before bloom and after petal fall. Continue on a 10 to 14 day schedule during wet conditions in the spring.                                                                                                                               |
|                                                                                              |                                                                                                                       |                                                                               | The minimum interval between treatments is 10 days. Do not apply more than 44 pints (5.5 gallons) product per acre (16 lbs. metallic copper/A) per year.                                                                                                                              |

# BERRIES, VINES AND HOPS (continued)

| CROP       | DISEASE                                                                                                                                                                                   | RATE PER<br>ACRE<br>(Pints)                                                                    | USE INSTRUCTIONS                                                                                                                                                                                                                                                                          |  |  |  |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| GRAPE      | Black Rot, Phomopsis,<br>Powdery Mildew, Downy                                                                                                                                            | 1.33 – 2.66                                                                                    | Begin application at bud break with additional applications made throughout the season depending on disease severity.                                                                                                                                                                     |  |  |  |
|            | Mildew                                                                                                                                                                                    |                                                                                                | The minimum interval between treatments is 3 days. Do not apply more than 55 pints (6.9 gallons) product per acre (20 lbs. metallic copper/A) per year.                                                                                                                                   |  |  |  |
|            | <ul> <li>NOTES:</li> <li>Slight to severe foliag<br/>Niagara and Rosette.<br/>varieties or others kno</li> <li>Hydrated lime may be<br/>the severity of phytote<br/>may occur.</li> </ul> | le injury may ou<br>Use lower rate<br>wyn to be sensif<br>added at a rate<br>oxicity. Mix this | ccur in copper-sensitive varieties such as Concord, Delaware,<br>e of this product and test for sensitivity when treating these<br>tive to copper.<br>of up to 0.5 pound per 100 gallons of spray solution to decrease<br>s product and water first before adding lime or incompatibility |  |  |  |
| HOPS       | Downy Mildew                                                                                                                                                                              | 1.33                                                                                           | Apply as a fungicide crown treatment after pruning, but before training. After training, additional fungicide treatments are needed at about 10 day intervals.                                                                                                                            |  |  |  |
|            |                                                                                                                                                                                           |                                                                                                | The minimum interval between treatments is 10 days. Do not apply more than 7.3 pints (0.9 gallons) product per acre (2.7 lbs. metallic copper/A) per year.                                                                                                                                |  |  |  |
|            | NOTE: Discontinue use 2                                                                                                                                                                   | weeks before h                                                                                 | harvest.                                                                                                                                                                                                                                                                                  |  |  |  |
| RASPBERRY  | Leaf and Cane<br>Spot, Purple Blotch,<br>Anthracnose, Yellow<br>Rust, Pseudomonas<br>Blight                                                                                               | 2.66                                                                                           | Apply as a delayed dormant spray after training in the spring.<br>Make a fall application after harvest. Add one quart of crop<br>oil per acre.                                                                                                                                           |  |  |  |
|            | Leaf and Cane Spot,<br>Purple Blotch,<br>Anthracnose, Yellow Rust                                                                                                                         | 1.33                                                                                           | Apply when leaf buds begin to open and repeat when flower<br>buds show white. Add one quart of crop oil per acre.                                                                                                                                                                         |  |  |  |
|            | <b>NOTES:</b> Crop injury may occur if applied to foliage under certain conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.       |                                                                                                |                                                                                                                                                                                                                                                                                           |  |  |  |
|            | For all uses, the minimum gallons) product per acre                                                                                                                                       | interval betwee<br>(10 lbs. metallic                                                           | en treatments is 7 days. Do not apply more than 27.5 pints (3.4<br>c copper/A) per year.                                                                                                                                                                                                  |  |  |  |
| STRAWBERRY | Leaf Spot & Leaf Blight                                                                                                                                                                   | 1.33 – 2.00                                                                                    | Begin application when plants are established and continue on a weekly schedule throughout season.                                                                                                                                                                                        |  |  |  |
|            |                                                                                                                                                                                           |                                                                                                | The minimum interval between treatments is 7 days. Do not apply more than 16.9 pints (2.1 gallons) product per acre (6 lb metallic copper/A) per year.                                                                                                                                    |  |  |  |
|            | NOTE: Discontinue applications if signs of phytotoxicity appear.                                                                                                                          |                                                                                                |                                                                                                                                                                                                                                                                                           |  |  |  |

# FIELD CROPS

| CROP                   | DISEASE                                                       | RATE PER<br>ACRE<br>(Pints)           | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                      |
|------------------------|---------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALFALFA                | Cercospora &<br>Leptosphaerulina                              | 1.33                                  | Apply 10 to 14 days before each harvest or earlier if disease threatens.                                                                                                                                                                                                                                                              |
|                        | Leaf Spots                                                    |                                       | The minimum interval between treatments is 30 days. Do not apply more than 3.0 pints (0.4 gallons) product per acre (1.1 lbs. metallic copper/A) per year.                                                                                                                                                                            |
|                        | NOTE: Spray injury may oc                                     | cur with sensitiv                     | ve varieties such as Lahontan.                                                                                                                                                                                                                                                                                                        |
| PEANUT                 | Cercospora Leaf Spot                                          | 1.00 – 2.00                           | Begin spraying 35 to 40 days after planting or when<br>disease symptoms first appear. Continue applications at<br>10 to 14 day intervals. One to two quarts of six pounds<br>per gallon flowable sulfur may be added. Reduce spray<br>interval to seven days during humid weather. Use higher<br>rates when conditions favor disease. |
|                        |                                                               |                                       | The minimum interval between treatments is 7 days. Do not apply more than 13.0 pints (1.6 gallons) product per acre (4.75 lbs. metallic copper/A) per year.                                                                                                                                                                           |
| ΡΟΤΑΤΟ                 | Early Blight & Late Blight                                    | 0.66 – 2.66                           | Apply at 5 to 10 day intervals starting when plants are 6 inches high. Apply the lower rate in those locations where disease is light and the higher rate where disease is severe.                                                                                                                                                    |
|                        | Colorado Potato Beetle<br>(Suppression Only)                  |                                       | Application of this product at rates and timing recommended for control of <i>early blight</i> and <i>late blight</i> may provide suppression of the Colorado Potato Beetle.                                                                                                                                                          |
|                        | <b>NOTES:</b> For all uses, the m pints (8.6 gallons) product | ninimum interval<br>per acre (25 lbs. | between treatments is 5 days. Do not apply more than 69<br>. metallic copper/A) per year.                                                                                                                                                                                                                                             |
| SUGARBEET              | Cercospora Leaf Spot                                          | 1.33 – 3.33                           | Start spray when disease threatens and continue for 4 to 5 applications. Spray every 10 to 14 days depending on weather conditions and depending on disease severity.                                                                                                                                                                 |
|                        |                                                               |                                       | The minimum interval between treatments is 10 days. Do not apply more than 21.7 pints (2.7 gallons) product per acre (7.8 lbs. metallic copper/A) per year.                                                                                                                                                                           |
| WHEAT, BARLEY,<br>OATS | Septoria Leaf Blotch<br>& Helminthosporum<br>Spot Blotch      | 1.00 – 1.33                           | Make first application by early heading and follow with second application 10 days later or as necessary. Use higher rates when conditions favor disease.                                                                                                                                                                             |
|                        |                                                               |                                       | The minimum interval between treatments is 10 days. Do not apply more than 2.9 pints (0.37 gallons) product per acre (1 lb. metallic copper/A) per year.                                                                                                                                                                              |

# **TREE CROPS**

| CROP                        | DISEASE                                                                                                                                                                                               | RATE PER<br>ACRE<br>(Pints)                                                                                              | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALMOND,                     | Coryneum Blight                                                                                                                                                                                       | 5.33 - 8.00                                                                                                              | Use as a dormant application before foliage buds swell.                                                                                                                                                                                                                                                                                                                                                                            |
| APRICOT,<br>CHERRY,<br>PLUM | (Shot Hole) ( <i>Stigmina</i><br><i>carpophila</i> ), Bacterial<br>Canker, Blossom                                                                                                                    |                                                                                                                          | For <b>CHERRIES</b> , where disease is severe, an additional application at leaf fall may be required.                                                                                                                                                                                                                                                                                                                             |
| PRUNE                       | Brown Rot, Dead<br>Bud ( <i>Pseudomonas</i><br><i>syringae</i> ), Bacterial<br>Blast ( <i>Pseudomonas</i> )                                                                                           |                                                                                                                          | <b>ALMOND ONLY:</b> for Bacterial Blast control in sprinkler irrigated orchards or where disease is severe, apply 0.75 pint per acre postbloom, at two week intervals or just prior to sprinkling.                                                                                                                                                                                                                                 |
|                             | Coryneum Blight<br>(Shot Hole) ( <i>Stigmina</i><br><i>carpophila</i> ), Blossom<br>Brown Rot                                                                                                         | 4.20                                                                                                                     | Early bloom (popcorn) application prior to full bloom.                                                                                                                                                                                                                                                                                                                                                                             |
|                             | NOTES:<br>To avoid plant injury, Do                                                                                                                                                                   | not use above                                                                                                            | rate after full bloom.                                                                                                                                                                                                                                                                                                                                                                                                             |
|                             | For blast control in sprin<br>required, at 1.0 – 2.0 pint                                                                                                                                             | kler irrigated o<br>ts per acre at ty                                                                                    | rchards or where disease is severe, apply 2 to 4 sprays or as many as wo week post-bloom intervals or just before sprinkling.                                                                                                                                                                                                                                                                                                      |
|                             | In sensitive varieties of a post-bloom spray.                                                                                                                                                         | <b>ALMONDS</b> , su                                                                                                      | ich as Peerless, Mission, and Neplus slight leaf injury may occur from                                                                                                                                                                                                                                                                                                                                                             |
|                             | For all uses: The minimul<br>for apricots, cherries, plu<br>dormant use on almonds<br>days for almonds, aprico<br>lbs. metallic copper/A) in<br>of 49.6 pints (6.2 gallons                            | im interval betw<br>ims and prunes<br>s. The minimur<br>ts, cherries, plu<br>a single applic<br>) product per a          | veen treatments is 7 days for dormant, late dormant, <b>up to pink bud</b> use<br>s. The minimum interval between treatments is 7 days for dormant, late<br>m interval between treatments during the blooming/growing season is 5<br>ums and prunes. Do not apply more than 4.2 pints product per acre (1.5<br>cation during bloom and growing season. Do not apply more than a total<br>cre (18 lbs. metallic copper/A) per vear. |
| APPLE                       | Anthracnose, European<br>Canker, Blossom<br>Blast, Shoot Blast<br>( <i>Pseudomonas</i> )                                                                                                              | 8.00 – 12.00                                                                                                             | Apply before fall rains.                                                                                                                                                                                                                                                                                                                                                                                                           |
|                             | Fireblight, Scab*                                                                                                                                                                                     | 5.33 – 10.50                                                                                                             | Make application as a full cover spray between silver-tip and green-tip.                                                                                                                                                                                                                                                                                                                                                           |
|                             |                                                                                                                                                                                                       |                                                                                                                          | <b>NOTE:</b> Phytotoxicity may occur from late application. After green-tip apply at 0.75 pint per acre.                                                                                                                                                                                                                                                                                                                           |
|                             | Crown or Collar Rot                                                                                                                                                                                   | 2.75                                                                                                                     | Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench<br>on the lower trunk area of each tree. Apply either in early spring or in fall<br>after harvest each year.                                                                                                                                                                                                                                                |
|                             |                                                                                                                                                                                                       |                                                                                                                          | <b>NOTE:</b> Do not use if soil pH is below 5.5 or copper toxicity may result.                                                                                                                                                                                                                                                                                                                                                     |
|                             | NOTES: Use on yellow v                                                                                                                                                                                | arieties may ca                                                                                                          | ause discoloration. To avoid, pick before spraying.                                                                                                                                                                                                                                                                                                                                                                                |
|                             | The minimum interval be<br>application per season w<br>acre (6 lb metallic copper<br>application rate of 16.9 p<br>pints product per acre (1<br>not apply more than 44 p<br>* Not for use in Californ | etween treatme<br>/hen applied in<br>r/A). Make only<br>pints (2.1 gallon<br>.5 lb. metallic<br>pints (5.5 gallor<br>nia | ents is 5 days applied during bloom and growing season. Make only 1 fall/late dormant season at a rate of 16.9 pints (2.1 gallons) product per 1 application per season between silver-tip to green-tip with a maximum is) product per acre (6 lb metallic copper/A). Do not apply more than 4.1 copper/A) in a single application during bloom and growing season. Do is) product per acre (16 lb metallic copper/A) per year.    |

# TREE CROPS (continued)

| CROP    | DISEASE                                                                                                                      | RATE PER<br>ACRE<br>(Pints)                                          | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVOCADO | Anthracnose, Blotch,<br>Scab                                                                                                 | 5.33 – 8.00                                                          | Apply when bloom buds begin to swell. Continue application at monthly intervals for 5 to 6 applications. Use higher rate when conditions favor disease.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|         |                                                                                                                              |                                                                      | The minimum interval between treatments is 14 days. Do not apply more than 52 pints (6.5 gallon) product per acre (18.9 lbs. metallic copper/A) per year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CITRUS  | Melanose, Scab, Algal<br>Spot                                                                                                | 2.66 – 8.00                                                          | Apply, depending on disease severity, as a pre-bloom and post-bloom spray.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         | Greasy Spot, Pink<br>Pitting                                                                                                 | 1.33 – 4.00                                                          | Apply using higher rates when conditions favor disease.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|         | Brown Rot                                                                                                                    | 2.66 – 5.33                                                          | Apply beginning in fall and continuing as needed. Apply to skirts of trees to a height of at least 4 feet. Use higher rates when conditions favor disease.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|         | Citrus Canker<br>(Suppression Only)<br>Alternaria Brown Spot                                                                 | 1.25 - 8.00<br>5.33 - 6.66                                           | <b>General Recommendations:</b><br>Apply 8 pints per acre, spraying flushes 7 to 14 days after shoots begin<br>to grow. Young fruit may require an additional application. Number and<br>timing of applications will be dependent on disease pressure. Under<br>heavy disease pressure, each flush of new growth should be sprayed.<br><b>Florida Specific Recommendations:</b><br>Begin applications to protect new leaf flushes. Repeat at 14 to 21 day<br>intervals, or more often if needed, depending on disease pressure and<br>environmental conditions. It is important to protect all subsequent leaf<br>flushes throughout the year. Young fruit may require an additional<br>application.<br>Under dry weather conditions and low disease pressure, use $1.25 - 2.5$<br>pints per acre.<br>Under conditions of wet weather and high disease pressure, higher<br>rates may be required $(4.0 - 8.0$ pints per acre).<br>Apply to susceptible varieties on the first flush in the spring and every<br>additional flush. Application to fruit should start after two-thirds of the |
|         | Phytophthora Foot Rot                                                                                                        | 0.66                                                                 | petals have fallen and be repeated at 21 day intervals.<br>Mix this product with 1 gallon of water and paint trunks of trees from the<br>soil surface to the lowest scaffold limbs. Apply in May prior to summer<br>rains and/or in the fall prior to wrapping trees for freeze protection.<br>Treatment serves as protection for up to one year, but does not cure<br>existing infections.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|         | Phytophthora Brown<br>Rot, Septoria Spot                                                                                     | 2.66 – 5.33                                                          | Apply to the entire tree in the fall before or just after the first rain and continue as needed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|         | <b>NOTES:</b> Do not use this<br><b>In California:</b> in areas s<br>product. For all uses, the<br>gallons) product per acre | product on citr<br>ubject to copp<br>minimum inter<br>(12.6 lbs. met | Tus seedlings grown in greenhouses or shadehouses.<br>Der injury, add 0.33 to 1.0 pound of high quality lime per pound of this<br>rval between treatments is 7 days. Do not apply more than 34.7 pints (4.3<br>allic copper/A) per year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

#### **RATE PER** CROP DISEASE ACRE **USE INSTRUCTIONS** (Pints) CITRUS Melanose, Scab, 2.66 - 5.33Apply in 100 gallons of water at 28 day intervals. Greasy Spot, Pink (Field Nurserv The minimum interval between treatments is 7 days. Do not apply Grown) Pitting, Brown Rot more than 34.7 pints (4.3 gallons) product per acre (12.6 lbs. metallic and Citrus Canker copper/A) per year. (Suppression Only) FILBERT Apply as a postharvest spray. In seasons of heavy rainfall, apply Bacterial Blight 12.00 - 16.00 another spray when three-fourths of the leaves have dropped. Add 1.0 (Washington & Oregon) pint of superior type oil per 100 gallons of water. Eastern Filbert Blight Apply in sufficient water to obtain thorough coverage. Make initial application at budswell to budbreak. Additional sprays should be made at 14 day intervals if needed depending on disease severity or when conditions are conducive to disease development. Add 1.0 pint of superior type oil per 100 gallons of water. NOTES: For all uses, the minimum interval between treatments is 14 days. Do not apply more than 50.6 pints (6.3 gallons) product per acre (18 lb metallic copper/A) per year. Make two to three applications during dormant season. Do not apply at KIWIFRUIT Blossom Blight 1.33 – 2.00 (Bud Rot), Leaf time of or after leaf emergence. Spot (Phomopsis), The minimum interval between treatments is 30 days. Do not apply Erwinia herbicola, more than 17.4 pints (2.2 gallons) product per acre (6.3 lbs. metallic Pseudomonas syringae, copper/A) per year. Pseudomonas fluorescens Apply, depending on disease pressure, in 50 to 300 gallons of water MACADAMIA Blossom Blight & 3.00 - 6.00Raceme Blight, during peak raceme development and bloom periods. For aerial Anthracnose application apply 3 - 6 pints per acre in 10 to 30 gallons of water. The minimum interval between treatments is 7 days. Do not apply more than 26.0 pints (3.25 gallons) product per acre (9.4 lbs. metallic copper/A) per year. OLIVE Peacock Spot, Olive 5.33 - 8.00 Make first application before winter rains fall. A second application in Knot early spring should be made if disease is severe. The minimum interval between treatments is 30 days. Do not apply more than 49.6 pints (6.2 gallons) product per acre (18 lbs. metallic copper/A) per year.

# TREE CROPS (continued)

# TREE CROPS (continued)

|           |                            | RATE PER         |                                                                             |
|-----------|----------------------------|------------------|-----------------------------------------------------------------------------|
| CROP      | DISEASE                    | ACRE             | USE INSTRUCTIONS                                                            |
|           |                            | (Pints)          |                                                                             |
| PEACH &   | Leaf Curl, Coryneum        | 5.33 – 10.66     | Apply after leaf fall as a dormant application. Use the higher rate when    |
| NECTARINE | Blight (Shot Hole),        |                  | rainfall is very heavy and disease pressure is high. May be used with an    |
|           | Bacterial Canker,          |                  | agricultural spray oil.                                                     |
|           | Bacterial Blast            |                  |                                                                             |
|           | (Pseudomonas),             |                  |                                                                             |
|           | Bacterial Blight           |                  |                                                                             |
|           | (Xanthomonas)              |                  |                                                                             |
|           | Blossom Brown Rot,         | 5.33 – 8.00      | Apply as a full cover spray at pink bud. Application at this time affords   |
|           | Leaf Curl, Coryneum        |                  | some control of Leaf Curl and Coryneum Blight.                              |
|           | Blight (Shot Hole)         |                  |                                                                             |
|           | Bacterial Spot             | 5.33             | Apply as a dormant spray.                                                   |
|           | NOTES: Do not apply wit    | hin 3 weeks pri  | or to harvest. Use only specified rates. Spotting of leaves and defoliation |
|           | may occur from use in co   | over sprays.     |                                                                             |
|           | For all uses: The minimu   | ım interval betv | veen treatments is 7 days for dormant, late dormant, up to pink bud use     |
|           | for peaches and nectarine  | es. The minimu   | um interval between treatments during the blooming/growing season is 5      |
|           | days for peaches and nee   | ctarines. Do no  | t apply more than 4 pints product per acre (1.5 lbs. metallic copper/A) in  |
|           | a single application durin | g bloom and g    | rowing season. Do not apply more than a total of 49.6 pints (6.2 gallons)   |
|           | product per acre (18 lbs.  | metallic coppe   | er/A) per year.                                                             |
| PEAR      | Fireblight                 | 0.66             | Apply at 5 day intervals throughout bloom period.                           |
|           | Pseudomonas Blight         | 8.00 - 10.66     | Apply before fall rains and again at dormant before spring growth           |
|           |                            |                  | starts.                                                                     |
|           | NOTE: Excessive dosage     | es may cause f   | ruit russet.                                                                |
|           | For all uses: The minim    | um interval bet  | tween treatments is 5 days applied during bloom and growing season.         |
|           | Make only 1 application    | per season whe   | en applied in fall/late dormant season at a rate of 16.9 pints product per  |
|           | acre (6 lb metallic coppe  | er/A). Do not a  | oply more than 4.2 pints product per acre (1.5 lb. metallic copper/A) in    |
|           | a single application durin | ig bloom and g   | prowing season. Do not apply a total of more than 44 pints (5.5 gallons)    |
|           | product per acre (16 lb m  | netallic copper/ | A) per year.                                                                |
| PECAN     | Shuck Rot, Kernel          | 1.33 – 2.66      | Apply at 2 to 4 week intervals when kernel growth begins through shuck      |
|           | Rot (Phytophthora          |                  | opening.                                                                    |
|           | cactorum), Zonate          |                  | Apply in sufficient water to ensure thorough coverage.                      |
|           | Leaf Spot (Cristulariella  |                  | The minimum interval between treatments is 14 days. Do not apply            |
|           | pyramidalis)               |                  | mere then 17.7 pinte (2.2 gellene) product per agra (6.2 lb metallie        |
|           | (Suppression Only)         |                  |                                                                             |
| PISTACHIO | Botrytis Blight            | 2 66 - 5 33      | Apply beginning at budswell. Repeat at 14 to 28 day intervals depending     |
|           | Botryosphaeria Panicla     | 2.00 - 0.00      | on disease conditions. If disease conditions are severe use the high        |
|           | and Shoot Blight           |                  | rate and the short snrav interval                                           |
|           | Sentoria Leaf Rlight       |                  |                                                                             |
|           | Late Blight (Alternaria    |                  | The minimum interval between treatments is 14 days. Do not apply            |
|           | alternata)                 |                  | more than 23.2 pints (2.9 gallons) product per acre (8.4 lbs. metallic      |
|           | anomataj                   |                  | copper/A) per year.                                                         |

# TREE CROPS (continued)

| CROP   | DISEASE                                               | RATE PER<br>ACRE<br>(Pints)        | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                  |
|--------|-------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| QUINCE | Fire Blight                                           | 0.66                               | Apply at 5 day intervals throughout the bloom period.                                                                                                                                                                                                                                                                                             |
|        |                                                       |                                    | Apply in sufficient water to provide thorough coverage.                                                                                                                                                                                                                                                                                           |
|        |                                                       |                                    | The minimum interval between treatments is 5 days applied during bloom and growing season. Do not apply more than 4.2 pints product per acre (1.5 lb. metallic copper/A) in a single application during bloom and growing season. Do not apply a total of more than 44 pints (5.5 gallons) product per acre (16 lbs. metallic copper/A) per year. |
| WALNUT | Walnut Blight                                         | 5.33 – 8.00                        | Apply first spray at early pre-bloom prior to or when catkins are partially<br>expanded. Make additional applications during bloom and early nutlet<br>stage as needed. Additional applications may be necessary when<br>frequent rainfall occurs.                                                                                                |
|        | <b>NOTES:</b> When applied as Adequate control may no | s a dilute spray<br>ot be obtained | , 1.0 pint of summer oil emulsion may be added per 100 gallons of spray. when copper tolerant species of <i>Xanthamonas</i> bacteria are present.                                                                                                                                                                                                 |
|        | The minimum interval be acre (32 lbs. metallic cop    | tween treatmer<br>per/A) per yea   | nts is 7 days. Do not apply more than 88 pints (11.0 gallons) product per r.                                                                                                                                                                                                                                                                      |

# **TROPICAL CROPS**

| CROP   | DISEASE                                                    | RATE PER<br>ACRE<br>(Pints)            | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------|------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BANANA | Sigatoka                                                   | 1.33                                   | Apply by air. Mix this product in 3 gallons of water containing 0.5 gallon agricultural oil. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.                                                                                                                                                                                                                                                                     |
|        | Black Pitting                                              | 2.66                                   | Mix 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.                                                                                                                                                                                                                                                                                        |
|        | <b>NOTES:</b> The minimum interproduct per acre (19 lbs. n | erval between tre<br>netallic copper/A | eatments is 7 days. <b>Do not</b> apply more than 52.0 pints (6.5 gallons) ) per year.                                                                                                                                                                                                                                                                                                                                                                               |
| CACAO  | Black Pod                                                  | 1.33 – 5.66                            | Begin applications at the start of the rainy season and continue while infection conditions persist. Apply as often as every 14 to 21 days in high rainfall areas at rates varying from $1.5 - 5.5$ pints per acre depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use $4.0 - 5.75$ pints per acre, according to disease pressure incidence and planting density. |
|        |                                                            |                                        | The minimum interval between treatments is 14 days. Do not apply more than 43.3 pints (5.4 gallons) product per acre (15.8 lb metallic copper/A) per year.                                                                                                                                                                                                                                                                                                           |

# TROPICAL CROPS (continued)

| CROP            | DISEASE                                                                                                              | RATE PER<br>ACRE<br>(Pints)            | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                                |
|-----------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COFFEE          | Coffee Berry Disease<br>(Collectotrichum<br>coffeanum)                                                               | 4.00 – 5.33                            | Apply first spray after flowering and before onset of long rains and<br>then at 21 to 28 day interval until picking. Use higher rates when<br>rainfall is heavy and disease pressure is high.                                                                                                                                                                   |
|                 | Bacterial Blight<br>(Pseudomonas syringae)                                                                           |                                        | Begin spray program before onset of the long rains and continue<br>throughout the rainy season at 14 to 21 day intervals. The critical<br>time of spraying to control this disease is just before, during, and<br>after flowering(s), especially when coinciding with wet weather. Use<br>the higher rates when rainfall is heavy and disease pressure is high. |
|                 | Leaf Rust ( <i>Hemileia</i><br><i>vastatrix</i> )                                                                    | 1.33 – 2.66                            | Apply before the onset of rain and then at 21 day intervals while the rains continue. Use higher rates when rainfall is heavy and disease pressure is high.                                                                                                                                                                                                     |
|                 | Iron Spot ( <i>Cercospora</i><br><i>coffeicola</i> ) and Pink<br>Disease ( <i>Corticium</i><br><i>salmonicolor</i> ) | 1.33                                   | Apply as a concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.                                                                                                                                                                                                                    |
|                 | For all uses: The minimu gallons) product per acre (                                                                 | m interval betwe<br>12.6 lbs. metallic | een treatments is 14 days. Do not apply more than 34.4 pints (4.3 copper/A) per year.                                                                                                                                                                                                                                                                           |
| GUAVA           | Anthracnose, Red Algae                                                                                               | 2.00                                   | Apply beginning just prior to flowering and repeat weekly until just prior to harvest.                                                                                                                                                                                                                                                                          |
|                 |                                                                                                                      |                                        | The minimum interval between treatments is 7 days. Do not apply more than 13.6 pints (1.7 gallons) product per acre (4.9 lbs. metallic copper/A) per year.                                                                                                                                                                                                      |
| LITCHI          | Anthracnose                                                                                                          | 2.00                                   | Apply beginning just prior to flowering and repeat weekly until just prior to harvest.                                                                                                                                                                                                                                                                          |
|                 |                                                                                                                      |                                        | The minimum interval between treatments is 7 days. Do not apply more than 13.6 pints (1.7 gallons) product per acre (4.9 lbs. metallic copper/A) per year.                                                                                                                                                                                                      |
| MAMEY<br>SAPOTE | Anthracnose, Algal<br>Leaf Spot                                                                                      | 4.00 - 5.00                            | Apply when conditions favor disease development. Repeat at 14 to 30 day intervals as needed.                                                                                                                                                                                                                                                                    |
|                 |                                                                                                                      |                                        | The minimum interval between treatments is 14 days. Do not apply more than 23.2 pints (2.9 gallons) product per acre (8.4 lbs. metallic copper/A) per year.                                                                                                                                                                                                     |
| MANGO           | Anthracnose                                                                                                          | 5.33 - 6.66                            | Apply monthly after fruit set until harvest.                                                                                                                                                                                                                                                                                                                    |
| Puerto Rico)    |                                                                                                                      |                                        | The minimum interval between treatments is 30 days. Do not apply more than 132 pints (16.5 gallons) product per acre (48 lbs. metallic copper/A) per year.                                                                                                                                                                                                      |

# TROPICAL CROPS (continued)

| CROP                       | DISEASE     | RATE PER<br>ACRE<br>(Pints) | USE INSTRUCTIONS                                                                                                                                                                                                                                      |
|----------------------------|-------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PAPAYA                     | Anthracnose | 2.00 - 6.66                 | Apply before disease is expected to appear. Repeat at 14 day<br>intervals if needed. Use the higher rates when conditions favor<br>disease. The addition of a suitable spreader-sticker may be<br>desirable especially during periods of heavy rains. |
|                            |             |                             | The minimum interval between treatments is 14 days. Do not apply more than 58.4 pints (7.3 gallons) product per acre (21.2 lbs. metallic copper/A) per year.                                                                                          |
| PASSION<br>FRUIT           | Anthracnose | 4.00                        | Apply beginning just prior to flowering and repeat weekly.<br>The minimum interval between treatments is 7 days. Do not apply<br>more than 26.0 pints (3.25 gallons) product per acre (9.4 lbs.<br>metallic copper/A) per year.                       |
| SUGAR<br>APPLE<br>(Annona) | Anthracnose | 8.00                        | Apply beginning just prior to flowering and repeat weekly.<br>The minimum interval between treatments is 7 days. Do not apply<br>more than 34.7 pints (4.3 gallons) product per acre (12.6 lbs.<br>metallic copper/A) per year.                       |

# **VEGETABLE CROPS**

| CROP                                                                               | DISEASE                                                   | RATE PER<br>ACRE<br>(Pints)                                                                                                        | USE INSTRUCTIONS                                                                                                                                                                       |  |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| BEAN Brown<br>(Dry, Green) Blight<br>Comn<br>Mildev                                | Brown Spot, Bacterial<br>Blight (Halo &<br>Common), Downy | 0.66 – 2.00                                                                                                                        | For protective sprays, apply first application when plants are 6" high.<br>Apply on 7 to 14 day schedule depending on local conditions. Adjust<br>rates depending on disease severity. |  |
|                                                                                    | Mildew*                                                   |                                                                                                                                    | The minimum interval between treatments is 7 days. Do not apply more than 13.0 pints (1.6 gallons) product per acre (4.75 lbs. metallic copper/A) per year.                            |  |
|                                                                                    | * Except California                                       |                                                                                                                                    |                                                                                                                                                                                        |  |
| CARROT                                                                             | Alternaria Leaf<br>Spot, Carrot Blight<br>(Cercospora)    | 1.33                                                                                                                               | When disease threatens apply at 7 to 14 day intervals depending on disease severity.                                                                                                   |  |
|                                                                                    |                                                           |                                                                                                                                    | The minimum interval between treatments is 7 days. Do not apply more than 13.7 pints (1.7 gallons) product per acre (5 lbs. metallic copper/A) per year.                               |  |
| CELERY & Cercospora Early,<br>CELERIAC Septoria Late Blight &<br>Bacterial Blights | 1.33                                                      | Apply as soon as plants are first established in the field, then every 7 days if needed depending on disease severity and weather. |                                                                                                                                                                                        |  |
|                                                                                    | Bacterial Blights                                         |                                                                                                                                    | The minimum interval between treatments is 7 days. Do not apply more than 14.6 pints (1.8 gallons) product per acre (5.3 lbs. metallic copper/A) per year.                             |  |

# VEGETABLE CROPS (continued)

| CROP                                                          | DISEASE                                                                                                         | RATE PER<br>ACRE<br>(Pints)                                                                                                          | USE INSTRUCTIONS                                                                                                                                           |  |  |  |  |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| CRUCIFERS<br>Broccoli, Brussels                               | Black Rot<br>(Xanthomonas), Black                                                                               | 0.33 – 0.66                                                                                                                          | Apply at 7 day intervals after transplants are set in the field. Use higher rate when conditions favor disease.                                            |  |  |  |  |
| Sprout, Cabbage,<br>Cauliflower, Kale,<br>Collard Greens,     | Leaf Spot ( <i>Alternaria</i> ),<br>Downy Mildew                                                                |                                                                                                                                      | The minimum interval between treatments is 7 days. Do not apply more than 7.3 pints (0.9 gallons) product per acre (2.7 lbs. metallic copper/A) per year.  |  |  |  |  |
| and Turnip Greens                                             | NOTE: Reddening of c<br>may occur on Cabbage                                                                    | <b>NOTE:</b> Reddening of older leaves may occur on Broccoli at the higher rate and flecking of wrapper leaves may occur on Cabbage. |                                                                                                                                                            |  |  |  |  |
| <b>CUCURBITS</b><br>Cantaloupe,<br>Cucumber,                  | Alternaria Leaf<br>Spot, Angular Leaf<br>Spot, Anthracnose,                                                     | 1.33                                                                                                                                 | Apply beginning when conditions are favorable for disease development and repeat at 5 to 7 day intervals, as needed depending on disease severity.         |  |  |  |  |
| Honeydew,<br>Muskmelon,<br>Pumpkin, Squash,<br>and Watermelon | Downy Mildew,<br>Powdery Mildew,<br>Gummy Stem Blight,<br>Watermelon<br>Bacterial Fruit Blotch<br>(Suppression) |                                                                                                                                      | The minimum interval between treatments is 5 days. Do not apply more than 14.4 pints (1.8 gallons) product per acre (5.3 lbs. metallic copper/A) per year. |  |  |  |  |
|                                                               | NOTES: Crop injury m                                                                                            | ay occur from                                                                                                                        | application at shorter intervals. Discontinue use if injury occurs.                                                                                        |  |  |  |  |
| EGGPLANT                                                      | Alternaria Blight,                                                                                              | 1.33                                                                                                                                 | Use before disease appears. Repeat at 7 to 10 day intervals.                                                                                               |  |  |  |  |
|                                                               | Phomopsis                                                                                                       |                                                                                                                                      | The minimum interval between treatments is 7 days. Do not apply more than 21.7 pints (2.7 gallons) product per acre (7.9 lbs. metallic copper/A) per year. |  |  |  |  |
| ENDIVE,<br>ESCAROLE                                           | Downy Mildew                                                                                                    | 0.66 – 1.33                                                                                                                          | Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.                                                    |  |  |  |  |
|                                                               |                                                                                                                 |                                                                                                                                      | The minimum interval between treatments is 5 days. Do not apply more than 22.0 pints (2.8 gallons) product per acre (8 lbs. metallic copper/A) per year.   |  |  |  |  |
| GARLIC, LEEK,<br>ONION                                        | Purple Blotch &<br>Downy Mildew                                                                                 | 1.33                                                                                                                                 | Apply when plants are four to six inches high and repeat at 7 to 10 day intervals.                                                                         |  |  |  |  |
|                                                               | Bacterial Blight                                                                                                | 0.66 – 1.00                                                                                                                          | The minimum interval between treatments is 7 days. Do not apply more than 16.5 pints (2.1 gallons) product per acre (6 lbs. metallic copper/A) per year.   |  |  |  |  |
| LETTUCE                                                       | Downy Mildew                                                                                                    | 0.66 – 1.33                                                                                                                          | Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.                                                    |  |  |  |  |
|                                                               |                                                                                                                 |                                                                                                                                      | The minimum interval between treatments is 5 days. Do not apply more than 22.0 pints (2.8 gallons) product per acre (8.0 lbs. metallic copper/A) per year. |  |  |  |  |
| PEA                                                           | Powdery Mildew                                                                                                  | 1.00 – 2.00                                                                                                                          | Begin spray treatment when disease symptoms first appear. Adjust<br>rates according to disease severity. Repeat applications at weekly<br>intervals.       |  |  |  |  |
|                                                               |                                                                                                                 |                                                                                                                                      | The minimum interval between treatments is 7 days. Do not apply more than 10.8 pints (1.4 gallons) product per acre (4 lbs. metallic copper/A) per year.   |  |  |  |  |

# VEGETABLE CROPS (continued)

| CROP                       | DISEASE                                                                                                                                                                                                                                                                                                                          | RATE PER<br>ACRE<br>(Pints)    | USE INSTRUCTIONS                                                                                                                                            |  |  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| PEPPER                     | Bacterial Spot                                                                                                                                                                                                                                                                                                                   | 1.33 – 2.00                    | When disease threatens, apply in sufficient water for thorough coverage at 5 to 10 day intervals depending on disease severity.                             |  |  |
|                            |                                                                                                                                                                                                                                                                                                                                  |                                | The minimum interval between treatments is 3 days. Do not apply more than 32.6 pints (4.1 gallons) product per acre (11.9 lb metallic copper/A) per year.   |  |  |
| SPINACH                    | Anthracnose,<br>Cercospora Leaf                                                                                                                                                                                                                                                                                                  | 1.33 – 2.66                    | Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.                                                     |  |  |
|                            | Spot, Downy Mildew,<br>White Rust, Blue<br>Mold                                                                                                                                                                                                                                                                                  |                                | The minimum interval between treatments is 7 days. Do not apply more than 10.9 pints (1.4 gallons) product per acre (4 lbs. metallic copper/A) per year.    |  |  |
|                            | NOTE: Flecking may o                                                                                                                                                                                                                                                                                                             | ccur on spinad                 | ch leaves.                                                                                                                                                  |  |  |
| TABLE BEET,<br>BEET GREENS | Cercospora Leaf Spot                                                                                                                                                                                                                                                                                                             | 1.33 – 2.66                    | Apply when conditions favor disease. Repeat treatment at 10 to 14 day intervals as needed. The addition of agricultural spray oil is recommended.           |  |  |
|                            |                                                                                                                                                                                                                                                                                                                                  |                                | The minimum interval between treatments is 10 days. Do not apply more than 21.6 pints (2.7 gallons) product per acre (7.9 lbs. metallic copper/A) per year. |  |  |
| ΤΟΜΑΤΟ                     | Early Blight, Late<br>Blight, Bacterial                                                                                                                                                                                                                                                                                          | 1.33                           | When disease threatens, apply at 7 to 10 day intervals, or as necessary.                                                                                    |  |  |
|                            | Speck, Bacterial<br>Spot, Anthracnose,                                                                                                                                                                                                                                                                                           |                                | Apply at 10 to 30 day intervals beginning when the disease threatens.<br>Use more frequent applications when disease pressure is high.                      |  |  |
|                            | Septoria Leaf Spot                                                                                                                                                                                                                                                                                                               |                                | When disease threatens, apply at 7 to 10 day intervals, more frequently when disease is severe.                                                             |  |  |
|                            | <b>NOTES:</b> For all uses, the minimum interval between treatments is 3 days. Do not apply more than 48.0 pints (6.0 gallons) product per acre (17.4 lbs. metallic copper/A) per year. Do not apply more than 22.0 pints (2.75 gallons) product per acre (8 lbs metallic copper/A) per year to tomatoes grown for fresh market. |                                |                                                                                                                                                             |  |  |
| WATERCRESS                 | Cercospora Leaf Spot                                                                                                                                                                                                                                                                                                             | 1.33                           | Apply when plants are established in the field. Repeat at 7 to 14 day intervals up to four applications per crop in at least 50 gallons of water per acre.  |  |  |
|                            |                                                                                                                                                                                                                                                                                                                                  |                                | The minimum interval between treatments is 7 days. Do not apply more than 5.8 pints (0.7 gallons) product per acre (2.1 lbs. metallic copper/A) per year.   |  |  |
|                            | For applications made each application and v application.                                                                                                                                                                                                                                                                        | to watercress<br>vater must no | , production fields must be drained of water at least 24 hours prior to<br>t be reapplied to the field for a minimum of 24 hours following each             |  |  |
|                            | Copper must not to be applied to watercress during the aquatic production phase.                                                                                                                                                                                                                                                 |                                |                                                                                                                                                             |  |  |

### SEED DRESSING

| CROP           | DISEASE                                                                                                                                                                              | RATE<br>(Fluid Ounces) | USE INSTRUCTIONS                                                                                                                                                                                                                                                                                                                                       |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RICE           | Water Mold & Seed Rot<br>(Achlya spp., Pythium spp.)                                                                                                                                 | 2.00 - 4.00            | Use at the recommended rate for each 100 pounds of rice<br>seed. For ease of handling and when using a seed treating<br>machine, dilute with an equal amount of water. Maintain<br>continuous agitation of the mixture throughout the operation.<br>Consult State Agricultural Experiment Station regarding<br>specific recommendations for your area. |
| WHEAT & BARLEY | Bacterial Leaf Blight<br>( <i>Pseudomonas</i><br><i>syringae</i> ), Bacterial Leaf<br>Streak ( <i>Xanthomonas</i><br><i>translucens</i> ), Common<br>Bunt ( <i>Tilletia caries</i> ) | 2.00                   | Apply at the rate of formulated product per 100 pounds of seed. It should be diluted with equal parts of water before applying.                                                                                                                                                                                                                        |

Do not use treated seed for food, feed or oil purposes. Care must be exercised in the handling of treated seed. Do not use augers used for handling treated seed to move seed for feed, food or oil processing. Do not re-use bags from treated seed to handle food or feed products.

Seeds treated with this product that are then packaged or bagged for future use must be suitably colored with an EPA approved dye, such as one of the dyes listed in 40 CFR Section 180.910 or Section 180.920 to prevent their subsequent inadvertent use as a food for man or feed for animals. Treated seed must contain the following labeling on the outside of the seed package or bag: *"This package or bag contains seed that has been treated with copper hydroxide. Do not use for food, feed or oil purposes. Store away from feeds and foodstuffs. Persons opening this bag or package or loading/pouring the treated seed must wear a long-sleeved shirt, long pants, shoes and socks, chemical resistant gloves made of any waterproof material, and eye protection such as goggles or face shield."* 

| CROP      | DISEASE      | RATE PER<br>ACRE<br>(Pints) | USE INSTRUCTIONS                                                                                                                                            |
|-----------|--------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ΑΤΕΜΟΥΑ   | Anthracnose  | 2.00                        | Apply just prior to flowering and repeat weekly until just prior to harvest.                                                                                |
|           |              |                             | The minimum interval between treatments is 7 days. Do not apply more than 34.7 pints (4.3 gallons) product per acre (12.6 lbs. metallic copper/A) per year. |
| CARAMBOLA | Anthracnose  | 4.00                        | Apply just prior to flowering and repeat weekly until just prior to harvest.                                                                                |
|           |              |                             | The minimum interval between treatments is 7 days. Do not apply more than 29.0 pints (3.6 gallons) product per acre (10.5 lbs. metallic copper/A) per year. |
| CHIVES    | Downy Mildew | 1.33                        | Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.                                                                  |
|           |              |                             | The minimum interval between treatments is 7 days. Do not apply more than 7.3 pints (0.9 gallons) product per acre (2.7 lbs. metallic copper/A) per year.   |

# MISCELLANEOUS (continued)

| CROP      | DISEASE                                 | RATE PER<br>ACRE | USE INSTRUCTIONS                                                                                                                                                                                                                     |
|-----------|-----------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                         | (Pints)          |                                                                                                                                                                                                                                      |
| DILL      | Phoma Leaf Spot,<br>Rhizoctonia Foliage | 1.75             | Apply when plants are established in the field. Repeat at 7 to 10 day intervals as needed.                                                                                                                                           |
|           | Blight                                  |                  | The minimum interval between treatments is 7 days. Do not<br>apply more than 10.8 pints (1.4 gallons) product per acre (4<br>lbs. metallic copper/A) per year.                                                                       |
| GINSENG   | Alternaria Leaf &<br>Stem Blight        | 1.75             | This product may be applied as a tank mix with two pounds<br>Iprodione 50WP in 100 gallons of water per acre. Begin<br>Iprodione 50WP/Champ Formula 2 Flowable applications as<br>soon as plants have emerged in spring.             |
|           |                                         |                  | Applications should be repeated every 7 days until plants<br>become dormant in fall. Apply fungicides at least eight hours<br>before rain, giving the fungicides time to dry on the plants. Use<br>of a spreader-sticker is advised. |
|           |                                         |                  | The minimum interval between treatments is 7 days. Do not apply more than 14.5 pints (1.8 gallons) product per acre (5.3 lbs. metallic copper/A) per year.                                                                           |
|           |                                         |                  | <b>NOTE:</b> Alternaria Leaf & Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2, 3, & 4 year old ginseng. Complete and thorough spray coverage is required for control.                 |
| PARSLEY   | Bacterial Blight<br>(Pseudomonas spp.)  | 2.00             | Apply when plants are first established in the field and repeat at 10 day intervals if needed.                                                                                                                                       |
|           |                                         |                  | The minimum interval between treatments is 10 days. Do not apply more than 5.5 pints (0.7 gallons) product per acre (2 lbs. metallic copper/A) per year.                                                                             |
| PERSIMMON | Cercospora Leaf Spot                    | 1.33             | Apply beginning in May/June, during leaf flush, and repeat<br>at 14 day intervals throughout the season depending on<br>disease severity.                                                                                            |
|           |                                         |                  | The minimum interval between treatments is 14 days. Do not apply more than 16.5 pints (2.1 gallons) product per acre (6 lbs. metallic copper/A) per year.                                                                            |

# CONIFERS

For use on conifers, including Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce, in Christmas tree plantings, forest stands and silviculture nurseries.

| CROP                                           | DISEASE                                   | RATE PER<br>ACRE<br>(Pints) | USE INSTRUCTIONS                                                                                                             |
|------------------------------------------------|-------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| DOUGLAS FIR                                    | Rhabdocline Needle                        | 1.50 – 3.00                 | For control of foliar diseases apply as a thorough cover                                                                     |
| FIR<br>(Abies spp.)                            | Needle Cast                               |                             | of new growth and repeat at 2 to 4 week intervals or as<br>needed. Use the higher rates when disease pressure is             |
| JUNIPER<br>(Juniperus spp.)                    | Anthracnose,<br>Phomopsis Twig<br>Dieback |                             | severe or when environmental conditions favor diseas<br>development.<br>The minimum interval between treatments is 7 days. D |
| LYELAND CYPRESS<br>(Cupressocyparis leylandii) | Cercospora Needle<br>Blight               |                             | not apply more than 55 pints (6.9 gallons) product per acre (20 lbs. metallic copper/A) per year.                            |
| PINE<br>(Pinus spp.)                           | Needle Cast                               |                             |                                                                                                                              |
| SPRUCE<br>(Picea spp.)                         | Needle Cast                               |                             |                                                                                                                              |

**Lichens:** To control lichens on any of the conifers above, apply 5.5 pints per acre as a dormant application before new growth emerges in the spring. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.

Note: Do not buffer or combine with emulsifiable concentrate insecticides.

# **STORAGE AND DISPOSAL**

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

**STORAGE:** Store in a cool, dry place.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest Environmental Protection Agency Regional Office for guidance.

### **CONTAINER HANDLING:**

### Nonrefillable Containers 5 Gallons or Less

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

### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations of liability, do not use the product, and return it unopened to the Seller and the purchase price will be refunded.

RV072722

# **Champ**<sup>®</sup> Formula 2 Flowable

Agriculutural Fungicide / Bactericide

### **ACTIVE INGREDIENT:**

Copper Hydroxide\* (CAS No. 20427-59-2) .....

OTHER INGREDIENTS:

**TOTAL:** \*Metallic Copper Equivalent 24.4% Contains 4.5 lb copper hydroxide per gallon

# **KEEP OUT OF REACH OF CHILDREN** ARNING / AV

Si usted no entiende la etiqueta, busque a alquien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.) See Inside Booklet for Additional Precautionary Statements and Directions for Use

### For Medical Emergencies, Call (877) 325-1840 For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

|                              | FIRST AID                                                                                                                                                                                                                                                                                                     |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IF IN EYES                   | <ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                                            |
| IF<br>SWALLOWED              | <ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul> |
| IF INHALED                   | <ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>                                           |
| IF ON SKIN<br>Or<br>Clothing | <ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>                                                                                                          |

\_\_\_\_

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

### **PRECAUTIONARY STATEMENTS** HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING / AVISO

Causes substantial but temporary eye injury. Harmful if swallowed.

### EPA REG. NO. 55146-64 EPA EST. NO. 62562-CHL-002

Net Contents: 2.5 Gal. (9.46 L)

Manufactured for Nufarm Americas Inc. AGT Division 11901 S. Austin Avenue I Alsip, IL 60803

### MADE IN CHILE

### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, 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 washwaters or rinsate.

### 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.

# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, sprav mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest Environmental Protection Agency Regional Office for guidance.

### **CONTAINER HANDLING:**

### Nonrefillable Containers 5 Gallons or Less

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

37.5%

COPPER GROUP M1 FUNGICIDE

62.5% 100.0%