| UNTED STATES   | U.S. ENVIRONMENTAL PROTECTION<br>AGENCY<br>Office of Pesticide Programs  | EPA Reg.<br>Number:<br><b>4581-413</b>   | Date of<br>Issuance:<br>FEB   6 2005  |
|--|--|--|---|
| RENAL PROTECTO   | Registration Division (7505C)<br>1200 Pennsylvania Ave., N.W.<br>Washington, D.C. 20460  | Terms of Iss<br>Conditio   |   |
| NOTICE OF PESTICIDE:<br><u>XX</u> Registration<br>Reregistration<br>(under FIFRA, as amended)  |  | Name of Pesticide Product:<br>CUPROFIX® 40<br>DISPERSS DF  |   |
| Cerexagri, Inc.  | of Registrant (include ZIP Code):<br>siness Center, Suite 402<br>PA 19406  | <u> </u>   |   |
| connection wit<br>the Registrati   | in labeling differing in substance<br>h this registration must be submitt<br>on Division prior to use of the lab<br>on this product always refer to th   | ted to and action of the second se    | cepted by<br>ce. In any   |
| conditionally<br>Rodenticide Ac<br>an endorsement<br>to protect hea<br>may at any time<br>accordance with<br>the registration<br>giving the registration | f information furnished by the regi<br>registered under the Federal Insect<br>t as amended. Registration is in no<br>or recommendation of this product is<br>lth and the environment, the Adminin<br>e suspend or cancel the registration<br>h the Act. The acceptance of any na-<br>on of a product under this Act is no<br>istrant a right to exclusive use of<br>covered by others. | icide, Fungia<br>way to be co<br>by the Agency<br>strator, on H<br>n of a pestic<br>ame in connec<br>ot to be cons | cide and<br>onstrued as<br>7. In order<br>his motion,<br>cide in<br>ction with<br>strued as |
| provided that you hese conditions a  | nditionally registered in accordance with FII<br>comply with the conditions of registration s<br>re not complied with, the registration will be<br>IFRA sec. 6(e). Your release for shipment of<br>e conditions  | pecified on page<br>e subject to can   | es 2 and 3. If cellation in   |
|  | Confidential Statement of Formula dated Ja<br>el stamped "Accepted with comments" is ir<br>y's Product Chemistry Review dated Januar   | ncluded for your   | records. A  |
|  |  |  |   |
| opy of the Agenc<br>our records.   | proving Official:  | Date:  |   |

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#### **Conditions of Registration:**

### CUPROFIX® 40 DISPERSS DF EPA Reg. No. 4581-413

- Submit and/or cite all data required for registration of your product under FIFRA Section 3(c)(5) when the agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Section 4.
- 2. Make the following label changes before you release the product for shipment:
  - A. Revise the EPA Registration Number to read "EPA Reg. No. 4581-413"
  - B. In the List of Ingredients section add two asterisks after "OTHER INGREDIENTS" and add the following sentence below "\* Metallic Copper....":

"\*\* Total arsenic, all in water soluble form, expressed as elemental, 0.00135%"

- C. Delete "Si Usted no entiende la etiqueta, busque a alguien 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.)" This statement is not needed on this product.
- D. In the First Aid block, the routes of exposure must be listed in order of decreasing acute toxicity category. Therefore, the first item in the list must be "If swallowed"
- E. In the First Aid block, delete the sentence "Note to Physician ... gastric lavage"
- F. Revise the Precautionary Statements as follows:

"Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long sleeved shirt, long pants, socks and shoes. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals."

- G. Delete the statements directly under Personal Protective Equipment ("some materials ... selection charts.") Also, delete the second and last bullet under "Applicators and other handlers must wear"
- H. Delete the first two sentences that follow the "Applicators and other handlers must wear" list ("Discard clothing... Do not reuse them.)
- I. Under "User Safety Recommendations", delete "Wash the outside of gloves before removing."
- J. Under "Agricultural Use Requirements", revise the REI to read 12 hours and delete "protective eyewear".

#### Conditions of Registration: continued

## CUPROFIX® 40 DISPERSS DF EPA Reg. No. 4581-413

- K. Under "Warranty and Disclaimer," revise the statement "In no case shall Cerexagri or seller be liable...." to read "To the extent permitted by law, Cerexagri or seller shall not be liable...." As currently written the statement negates and/or detracts from labeling requirements as set forth by the Agency in 40CFR Part 156, and is, therefore, considered misbranding.
- 3. Submit one copy of the revised final printed label before releasing the product for shipment.

Please note that the product cited as similar (4581-396) is not considered substantially similar to 4581-413 from the product chemistry point of view. However, the Agency agrees that while different, they differ only in ways that would not significantly increase the risk of unreasonable adverse effects on the environment.

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# Cuprofix<sup>®</sup> 40 Disperss<sup>®</sup> DF Dry Flowable Fungicide/Bactericide

| ACTIVE INGREDIENT:     |  |
|------------------------|--|
| Basic Copper Sulfate * |  |
| OTHER INGREDIENTS:     |  |
| TOTAL                  |  |

\* Metallic copper equivalent, 40%

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## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien 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.)

|                                 | FIRST AID  |  |  |
|---------------------------------|--|--|--|
| If in eyes                      | Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>Call a poison control center or doctor for treatment advice.  |  |  |
| If<br>swallowed                 | Call a poison control center or doctor immediately for treatment advice.<br>Have person sip a glass of water if able to swallow.<br>Do not induce vomiting unless told to by a poison control center or doctor.<br>Do not give anything by mouth to an unconscious person. |  |  |
| If on skin or<br>clothing       | Take off contaminated clothing.<br>Rinse skin immediately with plenty of water for 15-20 minutes.<br>Call a poison control center or doctor for treatment advice.  |  |  |
| If inhaled                      | Move person to fresh air.<br>If person is not breathing, call 911 or an ambulance, then give artificial respiration,<br>preferably mouth-to-mouth if possible.<br>Call a poison control center or doctor for further treatment advice.                                     |  |  |
| Have the prod<br>for treatment. | act container or label with you when calling a poison control center or doctor or going  |  |  |
|                                 | Note to Physician<br>sal damage may contraindicate the use of gastric lavage.<br>ation No. 4581- URG EPA Establishment No. 4581-FRA-002  |  |  |
| xagri, Inc.                     | Net Contents With COMMENTS<br>In EPA Letter Dated:<br>FEB   6 2005   |  |  |
|                                 | ss Center, Suite 402 Under the Federal Insecticide,  |  |  |

### PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wear protective eyewear, clothing and chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

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• Protective eyewear

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

### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/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 organisms. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by disposal of equipment washwaters.

#### **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.

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## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for 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. This standard also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals (REI). 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 24 hours without required PPE.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

## STORAGE AND DISPOSAL

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

**STORAGE:** Store in the original container in a cool, dry place out of reach of children and animals. Store pesticides separately to prevent cross contamination of other pesticides, fertilizer, food and feed.

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

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## GENERAL INSTRUCTIONS AND INFORMATION

Cuprofix 40 Disperss DF may be applied as an aerial, ground dilute, or ground concentrate spray unless specifically directed otherwise in the specific crop use directions.

The per acre use rate of Cuprofix 40 Disperss DF is applicable for both dilute and concentrate spraying. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to Recommended Minimum Spray Volume Table. Complete spray coverage is essential to assure optimum performance from Cuprofix 40 Disperss DF. When treating by aerial application, or with low volume application equipment, unless you have had

specific previous experience, it is advisable to test for compatibility and tolerance to crop injury prior to full-scale commercial utilization.

While volume is important in obtaining full spray coverage, often factors such as foliage density, environmental conditions and sprayer calibrations, have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those recommended by state and local regulatory authorities. Consult this Cuprofix 40 Disperss DF label for specific rates and timing of application by crop. When selecting a Cuprofix 40 Disperss DF use rate do not apply less than the label recommended minimum amount. Where application rates are provided in a range (3 to 6 pounds), the higher rates are recommended when rainfall is heavy and/or disease pressure high. 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.

When mixing, fill spray tank half full with water. Add Cuprofix 40 Disperss DF to tank while hydraulic or mechanical agitation is operating and continue filling with water. Spreaders, stickers (cleared for application to growing crops,) nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank.

**NOTE:** Cuprofix 40 Disperss DF should not be applied in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.

**NOTE:** If tank-mixing Cuprofix 40 Disperss DF with a benzimidazole type fungicide, do a jar test to check for full compatibility. Do not allow the spray mixture to remain in the tank for an extended period of time.

**NOTE:** Do not tank mix Cuprofix 40 Disperss DF with Aliette<sup>®</sup> fungicide unless appropriate precautions have been taken to buffer the spray solution or severe phytotoxicity may result. **NOTE:** This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.

**NOTE:** Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Reduced effect on pests or crop injury may occur. Unless recommended on this label or by a state/local expert or the user has direct experience, tank mixing should not be undertaken.

**NOTE:** It must be determined in the selection process if proper application equipment is available and if the waste associated with its use can be properly handled. Materials used in the construction of application equipment is also an important factor as agricultural chemicals are often reactive with soft metals such as aluminum and even some synthetic materials, such as plastics, rubbers, etc. Therefore it is necessary when working with equipment containing these materials that they are thoroughly flushed with clean water after each day's use.

Do not apply this product through any type of irrigation (chemigation) system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product.

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, traveler, big gun, plastic pipe solid set system(s) which contain no aluminum parts or components. Do not apply this product through any other type or irrigation system.

## **RECOMMENDED USES**

**CITRUS:** Grapefruit, Kumquats, Lemons, Limes, Oranges, Tangelos and Tangerines **FIELD CROPS:** Alfalfa, Barley, Oats, Peanuts, Potatoes, Sugarbeets and Wheat **SMALL FRUITS:** Blackberries, Blueberries, Cranberries, Currants, Gooseberries, Raspberries

#### and Strawberries

**TREE CROPS:** Almonds, Apples, Apricots, Avocados, Bananas, Cacao, Cherries, Coffee, Filberts, Mangos, Nectarines, Olives, Peaches, Pecans, Pistachios, Plums, Prunes, Quinces and Walnuts

**VEGETABLES:** Beans, Beet Greens, Broccoli, Brussels Sprouts, Cabbage, Cantaloupes, Carrots, Cauliflower, Celeriac, Celery, Cucumbers, Eggplant, Greens (Collard, Mustard, and Turnip), Honeydew, Muskmelon, Onions, Peas, Peppers, Pumpkins, Spinach, Squash, Table Beets, Tomatoes, Watercress, and Watermelons

VINES: Grapes, Hops, and Kiwi

**GREENHOUSE AND SHADEHOUSE CROPS:** While specific directions are presented for Citrus, Cucumbers, Eggplant, Peppers and Tomatoes, general use may occur for any crop on this label where physiology allows greenhouse or shadehouse culture.

## TURFGRASS

**MISCELLANEOUS:** Atemoya, Carambola, Chives, Dill, Douglas Fir, Ginseng, Guava, Litchi, Live Oak, Macadamia, Mamey Sapote, Papayas, Parsley, Passion Fruit, Pecan, Sugar Apple, and Sycamore

**ORNAMENTALS:** Species as listed

| Use                                    | Aerial     | Ground (gal/Acre) |             |
|--|------------|-------------------|-------------|
|  | (gal/Acre) | Dilute            | Concentrate |
| Vegetables                             | 3          | 20                | 20          |
| Field Crops                            | 3          | 20                | 20          |
| Small Fruits                           | 5          | 150               | 50          |
| Vines                                  | 5          | 150               | 50          |
| Tree Crops                             | 10         | 400               | 50          |
| Citrus                                 | 10         | 800               | 100         |
|  |            |                   | (Florida*)  |
| Turf and Ornamentals                   | 10         | 150               | 50          |
| ······································ |            |                   |             |

## Minimum Recommended Spray Volume (Gallons) Per Acre When Applying Cuprofix 40 Disperss DF

\*When using pesticide application equipment such as Curtec<sup>®</sup> or other similar sprayers, which are capable of obtaining thorough coverage at low volumes, applications as low as 20 gpa of spray volume may be used.

## **APPLICATION INSTRUCTIONS**

The following specific instructions are based on general application procedures. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

## CITRUS

Cuprofix 40 Disperss DF may be mixed with foliar micronutrients to create "Shot Bag" mixes to

meet the various nutritional requirements of citrus and provide disease protection as described on this label. Cuprofix 40 Disperss DF per acre rates in these mixes must not exceed the maximum recommended labeled rates for disease control.

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**NOTE:** Adding foliar micronutrients or other products to spray mixture containing Cuprofix 40 Disperss DF and applying to citrus during the post-bloom period when young fruit is present may result in phytotoxicity.

| DISEASE                                  | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS   |  |
|--|---|--|--|
| Melanose,<br>Scab,<br>Algal Spot         | 2.5 - 8                                     | Apply as pre-bloom and post-bloom sprays. Use<br>higher rates when conditions favor disease<br>development.  |  |
| Greasy Spot,<br>Pink Pitting             | 1.25 - 5                                    | Apply in summer on expanded new flush. Repeat<br>on subsequent flushes where disease pressure is<br>severe. Use higher rates when conditions favor<br>disease development.   |  |
| Alternaria Brown Spot<br>(Suppression)   | 2 – 6.5                                     | On susceptible varieties, apply when the first spring<br>flush appears and each flush thereafter. Application<br>to the fruit should start after two thirds of the petals<br>have fallen and be repeated on a 21-day schedule.   |  |
| 4  |   | <b>NOTE:</b> When using the lower rates, use shorter spray intervals (7 to 14 days).   |  |
| Phytophthora Brown<br>Rot, Septoria Spot | 2.5 - 6                                     | Begin application in fall before or just after the first<br>rain and continue as needed. Apply to entire tree for<br>Septoria, or just the lower 4 to 5 feet of the tree for<br>Brown Rot. Apply also to bare ground 1 foot<br>beyond skirt. Use higher rates when conditions<br>favor disease development.          |  |
| Phytophthora Foot Rot                    | 1   | Mix with 1 gallon of water and paint trunks of trees<br>from the soil surface to the lowest scaffold limbs.<br>Apply in May prior to summer rains and/or in the<br>fall prior to wrapping trees for freeze protection.<br>Treatment serves as protection for up to 1 year, but<br>does not cure existing infections. |  |
|  |   | <b>NOTE:</b> Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.   |  |
| Citrus Canker<br>(Suppression Only)      | 8   | Spray flushes 7 to 14 days after shoots begin to<br>grow. Young fruit may require an additional<br>application. Number and timing of applications will<br>be dependent upon disease pressure. Under heavy<br>pressure, each flush of new growth should be<br>sprayed.  |  |

**NOTE:** Do not use Cuprofix 40 Disperss DF on citrus seedlings grown in greenhouses or shadehouses.

## CITRUS Field Nursery Grown

To control melanose, scab, pink pitting, greasy spot, brown rot, and for citrus canker (suppression), apply 3-6 pounds per acre at a rate of 200 gallons of spray mixture per. Apply Cuprofix 40 Disperss DF at 28-day intervals or as needed depending on disease severity.

| CROP                   | DISEASE  | RATE IN LBS<br>Cuprofix 40<br>Disperss DF/A | USE INSTRUCTIONS  |
|------------------------|--|---|---|
| Alfalfa                | Cercospora Leaf<br>Spot,<br>Leptosphaerulina<br>Leaf Spot                        | 1.25  | Apply 10 to 14 days before each harvest or<br>earlier if disease threatens.<br><b>NOTE:</b> Spray injury may occur with<br>sensitive varieties such as Lahontan.  |
| Peanuts                | Cercospora Leaf Spot   | 1-2   | Begin spraying at 35 to 40 days after<br>planting or when disease symptoms first<br>appear and repeat at 10 to 14 day intervals<br>as needed. Use higher rates and reduce<br>spray intervals to 7 days when conditions<br>favor disease development. Two to four<br>pounds of Microthiol <sup>®</sup> Disperss <sup>®</sup> sulfur per<br>acre may be added.  |
| Potatoes               | Early Blight<br>Late Blight  | 0.75-3                                      | Apply lower rates at 7 to 10 day intervals<br>starting when plants are 6 inches high<br>when disease pressure is light and up to 3<br>pounds per acre where disease pressure is<br>more severe. Under conditions of severe<br>disease, control with Cuprofix 40 Disperss<br>DF will be improved by tank mixing with<br>other compatible fungicides registered for<br>use on potatoes such as Penncozeb <sup>®</sup> 75DF<br>(mancozeb). Read and follow all label<br>instructions of tank mix partners. |
| Sugarbeets             | Cercospora Leaf Spot   | 1.25-3                                      | Begin applications when conditions first<br>favor disease development and repeat at 10<br>to 14 day intervals or as needed. Use the<br>higher rate when disease is severe.  |
| Wheat, Oats,<br>Barley | Septoria Leaf Blotch,<br>Helminthosporium<br>Spot,<br>Helminthosporium<br>Blotch | 1-1.25                                      | Make first application at early heading and<br>follow with second spray 10 days later.<br>Use the higher rates when conditions favor<br>disease development.  |

## **SMALL FRUIT**

| СКОР  | DISEASE  | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS   |
|---|--|---|--|
| Blackberries<br>(Santiam, Logan,<br>Boysen, Marion, Aurora,<br>Cascade, Chehalem,<br>Thornless Evergreen) | Leaf Spot,<br>Cane Spot,<br>Purple Blotch,<br>Anthracnose,<br>Yellow Rust,<br>Pseudomonas Blight | 2.5 - 3                                     | Make fall application after<br>harvest. Apply delayed<br>dormant spray after<br>pruning/training in the spring.<br>Add 1 quart of crop oil per<br>acre.  |
|   | Leaf Spot,<br>Cane Spot,<br>Purple Blotch,<br>Anthracnose,<br>Yellow Rust                        | 1.25  | Apply when leaf buds begin to<br>open and repeat when flower<br>buds show white.<br><b>NOTE:</b> Crop injury may occur<br>if applied to foliage under<br>certain environmental<br>conditions such as hot or<br>prolonged moist periods.<br>Discontinue applications if<br>signs of crop injury appear. |
| Blueberries   | Bacterial Canker   | 3 - 4                                       | Make first application before<br>fall rains and a second<br>application 4 weeks later.   |
|   | Fruit Rot<br>Phompsis Twig<br>Blight   | 2 – 4                                       | Dormant application: Begin<br>applications when bloom buds<br>begin to swell. Make<br>additional applications at 10 to<br>14 day intervals or as needed<br>before blooms open.   |
| Cranberries   | Fruit Rots   | 5   | Make first application at mid<br>bloom. One or two additional<br>applications at 7 to 10 day<br>intervals may be required.   |
|   | Rose Bloom   | 5   | Apply three sprays on 10 to 14<br>day schedule as soon as<br>symptoms are observed.  |
|   | Tip Blight<br>(Monilinia),<br>, Leaf Spots<br>Red Leaf Spot,                                     | 5   | Apply delayed dormant spray<br>in the spring. Repeat at 10 to<br>14 day intervals or as needed<br>through pre-bloom.   |

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|                        | Lophodermium Twig<br>Blight  |          |   |
|------------------------|--|----------|---|
| Currants, Gooseberries | Anthracnose,<br>Leaf Spot  | 6.5      | Make initial application after<br>first leaves have expanded.<br>Continue on a 10 to 14 day<br>schedule during wet conditions<br>in the spring. Make an<br>additional application after<br>harvest.   |
| Raspberries            | Leaf Spot,<br>Cane Spot,<br>Purple Blotch,<br>Anthracnose,<br>Yellow Rust,<br>Pseudomonas Blight | 2.5-3    | Make fall application after<br>harvest. Apply delayed<br>dormant spray after training in<br>the spring. Add quart of crop<br>oil per acre.  |
|                        | Leaf Spot,<br>Cane Spot,<br>Purple Blotch,<br>Anthracnose,<br>Yellow Rust                        | 1.25     | Apply when leaf buds begin to<br>open and repeat when flower<br>buds show white.<br>NOTE: Crop injury may occur<br>if applied to foliage under<br>certain environmental<br>conditions such as hot or<br>prolonged moist<br>environmental conditions.<br>Discontinue applications if<br>signs of crop injury appear. |
| Strawberries           | Leaf Spot,<br>Leaf Blight<br>Angular Leaf Spot<br>(Xanthonomas)<br>Leaf Scorch                   | 1.25-2.5 | Begin application when plants<br>are established and continue<br>on a weekly schedule<br>throughout the season. Apply<br>in at least 20 gallons of water.<br>Use the higher rates when<br>conditions favor disease.<br><b>NOTE:</b> Discontinue<br>applications if signs of crop<br>injury appear.                  |

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## TREE CROPS

| CROP   | DISEASE   | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS   |
|--|---|---|--|
| Almonds,<br>Apricots,<br>Cherries,<br>Plums,<br>Prunes | Shot-Hole,<br>Bacterial Canker,<br>Bacterial Blast<br>(Pseudomonas) | 5 - 8                                       | Make first application before fall rains<br>and a second at late dormant. Use<br>higher rates when rainfall is heavy and<br>disease pressure is high. One pint of<br>superior-type oil per 100 gallons of<br>water may be added.<br>For cherries, where disease is severe,<br>an additional application at leaf fall<br>may be required.   |
|  | Shot-Hole,<br>Blossom Brown Rot                                     | 4-5<br>(Almond)<br>5-6.5<br>(All Others)    | Early bloom (popcorn) application:<br>Apply before full bloom. Use higher<br>rates when rainfall is heavy and<br>disease pressure is high.<br><b>NOTE:</b> To avoid plant injury, do not<br>use higher rates after full bloom.   |
| . 1  | Black Knot<br>(Plum)*   | 3 - 5                                       | Make an application at bud swell<br>up to early bloom for early<br>season disease suppression.<br>Apply before full bloom. Use<br>the higher rates when rainfall is<br>heavy and disease pressure is<br>high.<br>NOTE: To avoid plant injury, do<br>not use after full bloom.  |
| 0  | Cherry Leaf<br>Spot*<br>(Sour cherries<br>only)                     | 4 - 5                                       | Apply at petal fall as well as one<br>or two times after petal fall. Use<br>the lower rates when disease<br>infection is light and use the<br>higher rates for a dormant<br>application or where disease<br>infection is moderate to heavy.<br>Do not apply to sweet cherry or<br>the English Morello variety as<br>severe injury will result.<br>NOTE: Moderate to severe<br>injury such as leaf spotting and |

| ,       |   |           | 15/33   |
|---------|---|-----------|---|
|         |   |           | defoliation may occur from post-<br>bloom applications.   |
| Almonds | Bacterial Blast                                       | 0.75-1.5  | For bacterial blast control in sprinkler<br>irrigated orchards or where disease is<br>severe, apply 0.75 to 1.5 pounds per<br>acre post-bloom, at 2-week intervals<br>or just before irrigation.<br><b>NOTE:</b> Injury may occur from post-  |
|         |   |           | bloom sprays on almonds, especially<br>on Neplus varieties.   |
| Apples  | Fire Blight   | 5-7.5     | Make applications up to green tip.<br>Apply as a full-cover spray.  |
|         |   |           | <b>NOTE:</b> Crop injury may occur from late application; discontinue use at $\frac{1}{2}$ inch green.  |
|         | Fire Blight   | 1.5-2     | Recommended for processing apples<br>only as fruit russeting and leaf<br>spotting are likely to occur. Make one<br>application during bloom.  |
|         | Black Rot,<br>Black Pox,<br>Brooks Spot,<br>Flyspeck, | 1.0 - 2.5 | Recommended for processing apples<br>only as fruit russeting and leaf<br>spotting are likely to occur.  |
|         | Sooty Blotch,<br>Summer Scab,<br>White Rot            |           | <b>NOTE:</b> Injury is more likely to occur<br>on strains of Golden Delicious &<br>Stayman. Do not use more than 1.5 lb<br>per acre per application on these<br>varieties. Use of copper on weak or<br>stressed trees can increase potential<br>for leaf spotting/drop. Do not apply<br>prior to 3 <sup>rd</sup> cover and make 3<br>applications in rotation with other<br>registered fungicides. Do not make<br>more than 2 consecutive applications<br>of Cuprofix 40 Disperss DF. |
|         | Crown Rot,<br>Collar Rot                              | 2.5       | Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in late fall after harvest.  |
|         |   |           | <b>NOTE:</b> Do not use if soil pH is below 5.5 since copper toxicity may result.   |
|         | Anthracnose,  | 8-10      | Apply after harvest before fall rains.  |

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|          | European Canker,<br>Blossom Blast,<br>Shoot Blast/Blister<br>Spot<br>(Pseudomonas),<br>Fire Blight |            | Use higher rates under severe disease conditions.  |
| Avocados | Anthracnose,<br>Blotch,<br>Scab  | 5-8        | Apply when bloom buds begin to<br>swell and continue application at<br>monthly intervals for five to six<br>applications. Use higher rates when<br>conditions favor disease development.   |
| Bananas  | Sigatoka   | 1.25       | Apply by air in 10 gallons of water<br>combining 0.5 gallon of agricultural<br>oil. Apply on a 14 day schedule<br>throughout the wet season. Apply at<br>21 day intervals during dry periods.  |
|          | Black Pitting  | 2.5 - 3    | Mix in 100 gallons of water directly to<br>the fruit stem and include the basal<br>portion of the leaf crown. Apply<br>during the first and second weeks after<br>fruit emergence.   |
| Cacao    | Black Pod  | 1.25 – 5.5 | Begin applications at the start of the<br>rainy season and continue while<br>infection periods persist. Apply 1.25<br>to 2.5 pounds at 14 to 21 day intervals<br>in high rainfall areas. For drier areas,<br>where two to four applications are<br>recommended during critical infection<br>periods and at long intervals, use 5.5<br>pounds per acre, according to disease<br>incidence and planting density. |

\*Not for this use in California

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| Coffee   | Coffee Berry<br>Disease                                   | 4 - 6    | Apply first spray after flowering and<br>before onset of rains and then at 21 to<br>28 day intervals until picking. Use<br>higher rates when rainfall is heavy and<br>disease pressure is high.   |
|----------|---|----------|---|
|          | Bacterial Blight  | 4-6      | Begin spray program applications<br>before the onset of the rains and<br>continue throughout the rainy season<br>at 14 to 21 day intervals. The critical<br>time of spraying to control this disease<br>is just before, during, and after<br>flowering(s) especially when<br>coinciding with wet weather. Use<br>higher rates when rainfall is heavy and<br>disease pressure is high.   |
|          | Leaf Rust (Hemileia<br>vastatrix)                         | 1.25 - 3 | Apply before the onset of rain and<br>then at 21 day intervals while the rains<br>continue. Use higher rates when<br>rainfall is heavy and disease pressure<br>is high.   |
|          | Iron Spot<br>(Cercospora),<br>Pink Disease<br>(Corticium) | 1.25     | Use concentrate or dilute spray. Begin<br>treatments at the start of the wet<br>season and continue at monthly<br>intervals for three applications.   |
| Filberts | Bacterial Blight  | 10 - 15  | Apply as a postharvest spray. In<br>seasons of heavy rainfall, apply a<br>second spray when three fourths of the<br>leaves have dropped. Add 1 pint of<br>superior-type oil per 100 gallons of<br>water. Use higher rates when rainfall<br>is heavy and disease pressure is high.   |
|          | Eastern Filbert<br>Blight                                 | 10 - 15  | Apply as a dilute spray in adequate<br>water for thorough coverage. Make<br>an application after harvest in October<br>before winter rains begin. Additional<br>applications should be made at bud<br>swell to bud break and continued on a<br>two week interval or as needed until<br>early May. If desired, add 1 pint of a<br>sticking agent or superior-type oil per<br>100 gallons of water. Use higher rates<br>when rainfall is heavy and disease<br>pressure is high. |
| Mangos   | Anthracnose   | 5 - 6    | Apply monthly after fruit set until harvest.  |

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| Olives                         | Peacock Spot,<br>Olive Knot   | 5 - 8   | Apply post harvest before winter rains<br>fall. A second application in early<br>spring should be made if disease is<br>severe. Apply the high rate for heavy<br>disease pressure or when conditions<br>favor disease development.   |
|--------------------------------|---|---------|--|
| Peaches,<br>Nectarines<br>WEST | Leaf Curl,<br>Shot-Hole,<br>Bacterial Canker/<br>Bacterial Blast<br>(Pseudomonas),<br>Bacterial Spot<br>(Xanthomonas) | 5 - 10  | Make dormant application after leaf<br>drop and/or prior to bud swell. Can<br>be used with superior type oils.   |
|                                | Blossom Brown<br>Rot,<br>Shot-Hole  | 5 - 8   | Full cover spray at pink bud.  |
|                                | Bacterial Spot  | 0.75    | <ul> <li>Post-bloom application applied at first and second cover sprays.</li> <li>Note: Do not spray 3 weeks prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in cover sprays.</li> </ul>  |
| Peaches,<br>Nectarines<br>EAST | Leaf Curl,<br>Bacterial Canker/<br>Bacterial Blast<br>(Pseudomonas),<br>Bacterial Spot<br>(Xanthomonas)               | 5 – 7.5 | Make dormant application after leaf<br>drop and/or prior to bud swell. Can<br>be used with superior type oils.   |
|                                | Bacterial Spot  | 1 – 2.5 | After initial dormant application, use<br>2.5 lbs per acre at early bud swell. At<br>pink bud, make another application at<br>1.5 lbs per acre. At petal fall, apply 1<br>lb per acre. Do not apply after shuck<br>split. Three lbs per acre of Ziram<br>76DF can be mixed in all post-<br>dormant applications. Some leaf<br>spotting may occur on newly emerged<br>leaves. |

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| Pears      | Fire Blight  | 0.75       | Apply at 5 day intervals throughout the bloom period.  |
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|            |  |            | <b>NOTE:</b> Do not apply to D'Anjou<br>pears. Excessive dosages may cause<br>fruit russet.  |
|            | Blossom Blast<br>(Pseudomonas)   | 7.5 - 10   | Apply before fall rains and again<br>during dormancy before spring growth<br>starts. Use the higher rate when<br>disease pressure is high or when<br>conditions favor disease development.   |
| Pecans     | Shuck Rot,<br>Kernel Rot<br>(Phytophthora<br>cactorum),<br>Zonate Leaf Spot<br>(Cristulariella<br>pyramidalis)                                 | 1.25 – 2.5 | For suppression, apply in sufficient<br>water volume to ensure complete<br>coverage at 2 to 4 week intervals<br>starting at kernel growth and<br>continuing until shucks open. Use the<br>higher rate and shorter interval if<br>frequent rainfall occurs.   |
| Pistachios | Botrytis Blight,<br>Botryosphaeria<br>Panicle Blight,<br>Shoot Blight,<br>Septoria Leaf<br>Blight,<br>Late Blight<br>(Alternaria<br>alternata) | 3 - 6      | Make initial application at bud swell<br>and repeat on a 10 - 14 day schedule<br>as dictated by disease conditions. If<br>disease conditions are severe, use the<br>higher rates and shorter spray interval.   |
| Quince     | Fire Blight  | 0.75       | Apply at 5 day intervals throughout<br>the bloom period. Apply in adequate<br>water volume for thorough coverage.  |
| Walnuts    | Walnut Blight  | 5-10       | Apply first spray at early pre-bloom<br>prior to or when catkins are partially<br>expanded. Make additional<br>applications during bloom and early<br>nutlet stage or as needed if frequent<br>rainfall occurs. Thorough coverage of<br>catkins, leaves, and nutlets is essential<br>for effective control. When applied as<br>a dilute spray, 1 pint of summer oil<br>emulsion may be added per 100<br>gallons. |
|            |  |            | <b>NOTE:</b> Adequate control may not be obtained when copper tolerant strains of Xanthomonas bacteria are present.  |

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## VEGETABLES

| CROP   | DISEASE  | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS   |
|--|--|---|--|
| Beans<br>(Dry, Green)  | Brown Spot,<br>Halo Blight,<br>Common Blight,<br>Downy Mildew  | 0.75 – 2                                    | Use the higher rates when conditions<br>favor disease development. For<br>protective sprays, make first<br>application when plants are 6 inches<br>high; repeat on a 7 to 14 day schedule<br>depending upon environmental<br>conditions.   |
| Carrots  | Alternaria Leaf Spot,<br>Cercospora Leaf Spot  | 1.25  | Begin applications when disease first<br>threatens and repeat at 7 to 14 day<br>intervals or as needed depending on<br>disease severity.   |
| Celery,<br>Celeriac  | Cercospora Early<br>Blight,<br>Septoria Late Blight,<br>Bacterial Blight   | 1.25  | Begin applications when plants are<br>first established in the field, repeating<br>at 5 to 7 day intervals depending on<br>disease severity and environmental<br>conditions.   |
| Crucifers<br>(Broccoli,<br>Brussels Sprouts,<br>Cabbage,<br>Cauliflower,<br>Collard Greens,<br>Mustard Greens,<br>Turnip Greens) | Black Rot<br>(Xanthomonas),<br>Black Leaf Spot<br>(Alternaria),<br>Downy Mildew  | 0.75 – 1.25                                 | Apply at 7 to 10 day intervals. Begin<br>applications after transplants are set in<br>the field or shortly after emergence of<br>field seeded crops or when conditions<br>favor disease development. Use<br>higher rates when conditions favor<br>disease.<br><b>NOTE:</b> Reddening of older leaves<br>may occur on broccoli and a flecking<br>of wrapper leaves may occur on |
| Cucurbits<br>(Cantaloupes,<br>Cucumbers,<br>Honeydew,<br>Muskmelon,<br>Pumpkins,<br>Squash,<br>Watermelons)                      | Alternaria Leaf Spot,<br>Angular Leaf Spot,<br>Anthracnose,<br>Downy Mildew,<br>Powdery Mildew,<br>Gummy Stem Blight,<br>Watermelon Bacterial<br>Fruit Blotch<br>(Suppression) | 1.25 - 2                                    | cabbage.<br>Begin application when conditions are<br>favorable for disease development.<br>Repeat at 5 to 7 day intervals. Use<br>shorter intervals when conditions are<br>favorable for disease development.<br><b>NOTE:</b> Crop injury may occur from<br>application at shorter intervals.<br>Discontinue use if injury occurs.   |
| Eggplant   | Alternaria Blight,<br>Anthracnose,   | 1.25  | Begin applications prior to development of disease symptoms.   |

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|                  | Phomopsis   |          | Repeat sprays at 7 to 10 day intervals<br>or as needed depending on disease<br>severity.   |
|------------------|---|----------|--|
| Onions<br>Garlic | Purple Blotch,<br>Downy Mildew<br>Bacterial Blight  | 1.25 - 3 | Begin when plants are 4 to 6 inches<br>high and repeat at 7 to 10 day intervals<br>or as needed depending upon disease<br>pressure. Can cause phytotoxicity to<br>leaves.  |
| Peas             | Powdery Mildew  | 1-2      | Begin applications when disease<br>symptoms first appear and repeat at<br>weekly intervals as needed. Use<br>higher rates when conditions favor<br>disease development.  |
| Peppers          | Bacterial Spot<br>Anthracnose<br>Cercospora Leaf Spot   | 1.25 - 3 | Begin applications when conditions<br>first favor disease development and<br>repeat at 5 to 10 day intervals as<br>needed depending on disease severity.<br>Use higher rates when conditions are<br>favorable for disease development.<br>Maneb 75DF can be tank mixed with<br>Cuprofix 40 Disperss DF for added<br>disease control. |
| Spinach          | Anthracnose,<br>White Rust,<br>Blue Mold,<br>Cercospora Leaf Spot   | 1.25 - 2 | Begin applications when disease first<br>appears or when conditions favor<br>disease development. Repeat at 7 to<br>10 day intervals as needed. Use<br>higher rates when conditions favor<br>disease development.<br><b>NOTE:</b> Flecking may occur on<br>spinach leaves.   |
| Table Beets      | Cercospora Leaf Spot  | 1.25 - 3 | Begin applications when conditions<br>first favor disease development and<br>repeat at 10 to 14 day intervals or as<br>needed. Use the higher rate when<br>disease is severe.  |
| Tomatoes         | Anthracnose,<br>Bacterial Speck,<br>Bacterial Spot,<br>Early Blight,<br>Gray Leaf Mold,<br>Late Blight,<br>Septoria Leaf Spot | 1.25 - 3 | Begin applications when disease first<br>threatens and repeat at 5 to 10 day<br>intervals or as needed depending on<br>disease severity. Use higher rates<br>when conditions favor disease<br>development.   |

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| Watercress Cercospora Leaf Spot | 1.25 | Begin applications when plants are<br>first established in the field, repeating<br>at 7 to 14 day intervals depending on<br>disease severity and environmental<br>conditions. Do not exceed four<br>applications per crop. Apply using<br>ground equipment at no less than 50<br>gallons of water per acre. |
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## VINES

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| CROP   | DISEASE  | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS  |
|--------|--|---|---|
| Grapes | Black Rot,<br>Powdery Mildew,<br>Downy Mildew,<br>Phomopsis                  | 1.25 - 3                                    | <ul> <li>Begin applications at late dormant up to bud<br/>break with subsequent applications throughout<br/>the season depending upon disease severity.</li> <li>NOTE: Foliage injury may occur on copper<br/>sensitive varieties such as Concord, Delaware,<br/>Niagara, and Rosette. Either test for sensitivity<br/>or add 1 to 3 pounds of hydrated lime per<br/>pound of Cuprofix 40 Disperss DF.</li> </ul> |
| Hops   | Downy Mildew   | 1 – 1.5                                     | Make crown treatment after pruning, but before<br>training. After training, make additional<br>applications at 7 to 10 day intervals or as<br>needed. Discontinue use 2 weeks before<br>harvest.  |
| Kiwi   | Pseudomonas<br>syringae,<br>Erwinia herbicola,<br>Pseudomonas<br>fluorescens | 5   | Apply in 200 gallons of water per acre. Make<br>applications on a monthly basis. A maximum<br>of three applications may be made.  |

## MISCELLANEOUS

| CROP    | DISEASE     | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS  |
|---------|-------------|---|---|
| Atemoya | Anthracnose | 2 - 3                                       | Make initial application just before<br>flowering and repeat on a weekly<br>schedule. |

| Carambola   | Anthracnose                                      | 4 - 5      | Make initial application just before   |
|-------------|--|------------|--|
|             | Antifactiose                                     | 4-3        | flowering and repeat on a weekly<br>schedule until just before harvest.<br>Apply in sufficient water for thorough<br>coverage.   |
| Chives      | Downy Mildew                                     | 1.25       | Begin applications when plants are<br>established in the field. Repeat<br>applications every 7 to 10 days as<br>dictated by disease conditions. If<br>disease pressure is high, use the shorter<br>spray interval.   |
| Dill        | Phoma Leaf Spot<br>Rhizoctonia Foliage<br>Blight | 1 – 1.75   | Begin applications when plants are first<br>established in the field and repeat at 7<br>to 10 day intervals depending upon<br>disease severity and environmental<br>conditions. If disease pressure is high,<br>use the shorter spray interval and the<br>higher rate.   |
| Douglas Fir | Rhabdocline<br>Needlecast                        | 1.25       | Begin applications at bud break and<br>repeat at 3 to 4 week intervals. Apply<br>in a tank mix with another registered<br>compatible fungicide if moderate to<br>severe disease pressure is present.   |
| Ginseng     | Alternaria Leaf<br>Blight,<br>Stem Blight        | 1.75 – 2.5 | Use as a tank mix with Rovral <sup>®</sup> 50W in<br>100 gallons of water. Begin Cuprofix<br>40 Disperss DF + Rovral applications<br>as soon as plants have emerged in<br>spring.  |
|             |  |            | Applications should be repeated every 7<br>days until plants become dormant.<br>Apply fungicides at least 8 hours before<br>rain. Use of a spreader-sticker or<br>sticker is advised.  |
|             |  |            | <b>NOTE:</b> Alternaria Leaf and Stem<br>Blight is most severe in humid<br>conditions such as those found in the<br>dense canopies of 2 to 4 year old<br>Ginseng. It is very important that the<br>stems be thoroughly covered with<br>fungicide; therefore, use a spray<br>apparatus that distributes the fungicide<br>throughout the canopy. |
| Guava       | Anthracnose,<br>Red Algae                        | 2 - 3      | Make initial application just before<br>flowering and repeat on a weekly<br>schedule until just before harvest.  |

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|                     |   |          | Apply in sufficient water volume for thorough coverage.   |
| Litchi              | Anthracnose   | 2 - 3    | Make initial application just before<br>flowering and repeat on a weekly<br>schedule until just before harvest.<br>Apply in sufficient water volume for<br>thorough coverage.   |
| Pecan,<br>Live Oaks | Ball Moss   | 5        | Apply 5 pounds per 100 gallons of<br>water in the spring when Ball Moss is<br>actively growing, using 1.5 gallons of<br>spray per foot of tree height. Make sure<br>to wet Ball Moss tufts thoroughly. A<br>second application may be required<br>after 12 months.                            |
|                     |   |          | <b>NOTE:</b> Cuprofix 40 Disperss DF may<br>be injurious to ornamentals grown<br>under Live Oaks. This product may be<br>reactive on metal and masonry surfaces<br>such as galvanized roofing. Avoid<br>contact with metal surfaces. Do not<br>spray on cars, houses, lawn furniture,<br>etc. |
| Macadamia           | Anthracnose   | 4        | Begin applications at first sign of<br>flowering and repeat on a weekly<br>schedule until just before harvest.<br>Apply in sufficient water for thorough<br>coverage.   |
|                     | Phytophthora Blight<br>(P. capsici),<br>Raceme Blight<br>(Botrytis cinerea) | 3 - 4    | Apply during raceme development and<br>bloom periods. Apply in sufficient<br>water for thorough coverage. Use<br>higher rates when conditions favor<br>disease development.   |
| Mamey<br>Sapote     | Anthracnose,<br>Algal Leaf Spot   | 4 - 5.25 | Apply when conditions favor disease<br>development. Repeat on 14 to 28 day<br>schedule as disease severity and<br>environmental conditions dictate. Use<br>higher rates when conditions favor<br>disease development.   |
| Papayas             | Anthracnose   | 2.5 - 6  | Apply before disease appears. Apply at<br>10 to 14 day intervals under light<br>disease pressure and at 5 to 7 day<br>intervals under heavy disease pressure.<br>The addition of an approved spreader is<br>recommended. Use higher rates when<br>conditions favor disease development.       |

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| Parsley          | Bacterial Blight<br>(Pseudomonas sp.) | 2        | Begin applications when plants are first<br>established in the field and repeat at 5<br>to 7 day intervals depending upon<br>disease severity and environmental<br>conditions.   |
|------------------|---------------------------------------|----------|--|
| Passion<br>Fruit | Anthracnose                           | 4 - 5    | Make initial application just before<br>flowering and repeat on a weekly<br>schedule until just before harvest.<br>Apply in sufficient water volume for<br>thorough coverage.  |
| Sugar<br>Apple   | Anthracnose                           | 8 - 10   | Make initial application just before<br>flowering and repeat on a weekly<br>schedule until just before harvest.<br>Apply in sufficient water volume for<br>thorough coverage.  |
| Sycamore         | Anthracnose                           | 1.25 - 2 | Apply as a full cover spray. Apply in<br>100 gallons of water or sufficient<br>volume for thorough coverage. Make<br>first application at bud crack and<br>second application 7 to 10 days later (at<br>10% leaf expansion). Use higher rates<br>when conditions favor disease<br>development. |

## **TURFGRASS** Not for this use in California

To control algae in turfgrass, apply 1 to 5 oz. of Cuprofix 40 Disperss DF per 1,000 square feet in 5 gallons of water. Cuprofix 40 Disperss DF may be used alone or in combination with other registered compatible fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

**NOTE:** Phytotoxicity may occur depending upon varietal differences. Apply the recommended rate to a small area and observe for 7 to 10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in spray solutions with a pH of less than 6.5.

**NOTE:** Multiple applications of copper based fungicides to turfgrasses has the potential to cause phytotoxicity.

## **GREENHOUSE AND SHADEHOUSE CROPS**

Notice to User: Cuprofix 40 Disperss DF may be used in greenhouses and shadehouses to control diseases on crops that appear on this label; specific instructions have been included for certain crops. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differ greatly from crops grown under field conditions. Neither the manufacturer nor seller has

determined whether or not Cuprofix 40 Disperss DF can be used safely on all greenhouse and shadehouse grown crops. The user should determine if Cuprofix 40 Disperss DF can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e. foliage, fruit, etc. and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

Apply Cuprofix 40 Disperss DF according to specific rates given for those crops in pounds per acre or pounds per 100 gallons. One level teaspoon of Cuprofix 40 Disperss DF per 1000 square feet is equivalent to 1 pound per acre. Cuprofix 40 Disperss DF should be applied in adequate water for thorough coverage of plant parts. Begin applications at first sign of disease and repeat at 7 to 14 day intervals as needed. Use shorter intervals during periods when severe disease conditions persist.

NOTE: Do not use Cuprofix 40 Disperss DF on citrus seedlings grown in greenhouses or shadehouses.

| • | CROP     | DISEASE   | RATE IN LBS<br>Cuprofix 40 Disperss<br>DF/A | USE INSTRUCTIONS  |
|---|----------|---|---|---|
|   | Cucumber | Angular Leaf<br>Spot,<br>Downy Mildew   | 1.25  | Apply weekly when plants begin to vine. Use<br>higher rates when conditions favor disease<br>development.   |
|   | Eggplant | Alternaria Blight,<br>Anthracnose   | 1.25  | Begin applications prior to development of disease symptoms. Repeat at 7 to 10 day intervals or as disease pressure dictates.   |
|   | Peppers  | Bacterial Spot  | 1.25 – 3                                    | Begin applications when conditions first favor<br>disease development and repeat at 5 to 10 day<br>intervals as needed depending on disease<br>severity. Use higher rates for severe disease. |
|   | Tomatoes | Anthracnose,<br>Bacterial Speck,<br>Bacterial Spot,<br>Early Blight,<br>Gray Leaf Mold,<br>Late Blight,<br>Septoria Leaf Spot | 1.25 - 3                                    | Begin when disease first threatens and repeat at<br>7 to 10 day intervals or as needed depending on<br>disease severity. Use higher rate for severe<br>disease.                               |

## ORNAMENTALS

**Notice to User:** Plant sensitivities to Cuprofix 40 Disperss DF have been found to be acceptable in specific genera and species listed on this label, however, phytotoxicity may occur. Due to the large number of species, widely varying growth conditions, and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to Cuprofix 40 Disperss DF. Neither the manufacturer nor seller has determined whether or not Cuprofix 40 Disperss DF can be safely used on all ornamental or nursery plants. The user should determine if Cuprofix 40 Disperss DF can be used safely prior to commercial use. In a small area, apply the recommended rate(s) to the plants in

question, i.e. bedding plants, foliage, etc. and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

One level teaspoon of Cuprofix 40 Disperss DF per gallon of water is equivalent to 1 pound per 100 gallons. Apply as a thorough cover spray using 0.75 pounds of Cuprofix 40 Disperss DF per 100 gallons of water. Begin applications at first sign of disease and repeat at 7 to 14 day intervals, as needed. Use a shorter interval during periods of frequent rains or when severe disease conditions persist.

Cuprofix 40 Disperss DF may be used alone or in combination with other registered, compatible fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

**NOTE:** Do not tank mix Cuprofix 40 Disperss DF with Aliette<sup>®</sup> fungicide unless appropriate precautions have been taken to buffer the spray solution. Severe phytotoxicity may result if adequate precautions are not taken.

| CROP                        | LATIN NAME                        | DISEASE  |
|-----------------------------|-----------------------------------|--|
| Althea (Rose of<br>Sharon)  | Hibiscus syriacus                 | Bacterial Leaf Spot  |
| Aralia                      | Dizygotheca<br>elegantissima      | Xanthomonas Leaf Spot, Cercospora Leaf Spot, Alternaria                        |
| Arborvitae                  | Thuja sp.                         | Alternaria Twig Blight, Cercospora Leaf Blight                                 |
| Azalea <sup>1</sup>         | Rhododendron sp.                  | Cercospora Leaf Spot, Botrytis Blight, Phytophthora<br>Dieback, Powdery Mildew |
| Begonia                     | Begonia semperflorens             | Bacterial Leaf Spot (Xanthomonas sp., Erwinia sp.,<br>Pseudomonas sp.)         |
| Bougainvillea               | Bougainvillea<br>spectabilis      | Anthracnose, Bacterial Leaf Spot   |
| Bulbs (Tulip,<br>Gladiolus) | Miscellaneous                     | Anthracnose, Bacterial Leaf Spot   |
| Camphor Tree                | Cinnamomum<br>camphora            | Pseudomonas Leaf Spot  |
| Carnation <sup>1</sup>      | Dianthus sp.                      | Alternaria Blight, Pseudomonas Leaf Spot, Botrytis Blight                      |
| Camellia                    | Camellia japonica,<br>C. sasanqua | Anthracnose, Botrytis Blight   |
| Canna                       | Canna sp.                         | Pseudomonas Leaf Spot  |
| Chinese Tallow<br>Tree      | Sapium sebiferum                  | Bacterial Leaf Spot (Xanthomonas sp., Pseudomonas sp.)                         |
| Chrysanthemum <sup>1</sup>  | Chrysanthemum                     | Septoria Leaf Spot, Botrytis Blight  |

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|   | morifolium                      | ]  |
|---|---------------------------------|--|
| Cotoneaster                             | Cotoneaster sp.                 | Botrytis Blight  |
| Dahlia                                  | Dahlia pinnata                  | Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf<br>Spot  |
| Date Palm                               | Phoenix canariensis             | Pestalotia Leaf Spot   |
| Dianthus                                | Dianthus sp.                    | Bacterial Spot, Bacterial Soft Rot                                 |
| Dogwood                                 | Cornus florida                  | Anthracnose  |
| Dusty Miller                            | Senecio cineraria               | Bacterial Leaf Spot (Pseudomonas cichorii)                         |
| Easter Lily <sup>2</sup>                | Lilium longiflorum              | Botrytis Blight  |
| Echinacea                               | Echinacea sp.                   | Bacterial Leaf Spot (Pseudomonas cichorii)                         |
| Elm A <b>Drake</b> @                    | Ulmus parvifolia                | Xanthomonas Leaf Spot  |
| Euonymus                                | Euonymus sp.                    | Botrytis Blight, Anthracnose                                       |
| European Fan<br>Palm                    | Champaerops numilis             | Pestalotia Leaf Spot   |
| Gardenia                                | Gardenia jasminoides            | Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf<br>Spot    |
| Geranium                                | Pelargonium sp.                 | Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf<br>Spot  |
| Gladiolus                               | Gladiolus sp.                   | Alternaria Leaf Spot, Botrytis Gray Mold, Bacterial Leaf<br>Blight |
| Golden Rain Tree                        | Koelreuteria paniculata         | Bacterial Leaf Spot  |
| Hibiscus                                | Hibiscus rosa-sinensis          | Bacterial Leaf Spot  |
| Holly Fern                              | Cyrtomium falcatum              | Pseudomonas Leaf Spot  |
| Impatiens                               | Impatiens sallerana             | Bacterial Leaf Spot  |
| India Hawthorn <sup>3</sup>             | Raphiolepis indica              | Anthracnose, Entomosporium Leaf Spot                               |
| Ivy (English,<br>Algerian) <sup>1</sup> | Hendera helix<br>H. canariensis | Xanthomonas Leaf Spot  |
| Ixora                                   | Ixora coccinea                  | Xanthomonas Leaf Spot  |
| Juniper (Eastern<br>Red Cedar)          | Juniperus virginiana            | Anthracnose  |
| Lantana                                 | Lantana camera                  | Bacterial Leaf Spot  |
| Lilac                                   | Syringa sp.                     | Cercospora Leaf Spot   |
| Loblolly Bay                            | Gordonia lasianthus             | Anthracnose  |

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|                                   | Entomosporium maculata, Colletotrichum sp.  |
|-----------------------------------|---|
| Mandevilla sp.                    | Anthacnose  |
| Magnolia grandiflora              | Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot   |
| Magnolia virginiana               | Anthracnose   |
| Magnolia soulangiana              | Bacterial Leaf Spot   |
| Tagetes sp.                       | Alternaria Leaf Spot, Botrytis Leaf Rot, Flower Rot,<br>Cercospora Leaf Spot  |
| Morus alba                        | Bacterial Leaf Spot   |
| Nerium oleander                   | Bacterial Leaf Spot, Fungal Leaf Spot   |
| Quercus laurifolia                | Algal Leaf Spot (Cephaleuros virescens)   |
| Pachysandra<br>procumbens         | Volutella Leaf Blight   |
| Viola sp.                         | Downy Mildew  |
| Pyrus calleryana                  | Fire Blight, Leaf Spot  |
| Paeonia spp.                      | Botrytis Blight   |
| Pentas spp.                       | Bacterial Leaf Spot (Xanthomomas sp.)   |
| Catharanchus roseus,<br>Vinca sp. | Phomopsis Stem Blight   |
| Phlox sp.                         | Alternaria Leaf Spot  |
| Pistacia chinensis                | Anthracnose   |
| Hosta sp.                         | Bacterial Leaf Spot   |
| Calliandra sp.                    | Bacterial Leaf Spot   |
| Philodendron selloum              | Bacterial Leaf Spot   |
| Photinia fraserii,<br>P. glabra   | Anthracnose, Entomosporium  |
| Pyracantha sp.                    | Fire Blight, Scab   |
| Arecastrum<br>romanzoffianum      | Exosporium Leaf Spot, Phytophthora Bud Rot  |
| Rhododendron sp.                  | Alternaria Flower Spot  |
|                                   | Magnolia grandiflora<br>Magnolia virginiana<br>Magnolia soulangiana<br>Tagetes sp.<br>Morus alba<br>Nerium oleander<br>Quercus laurifolia<br>Pachysandra<br>procumbens<br>Viola sp.<br>Pyrus calleryana<br>Paeonia spp.<br>Pentas spp.<br>Catharanchus roseus,<br>Vinca sp.<br>Phlox sp.<br>Phlox sp.<br>Pistacia chinensis<br>Hosta sp.<br>Calliandra sp.<br>Philodendron selloum<br>Photinia fraserii,<br>P. glabra<br>Pyracantha sp. |

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| Rose <sup>1</sup>        | Rosa sp.                                   | Powdery Mildew, Black Spot               |
|--------------------------|--|--|
| Verbena                  | Verbena sp.                                | Xanthomonas Leaf Spot                    |
| Viburnum                 | Viburnum<br>odoratissimum,<br>V. suspensum | Anthracnose                              |
| Washingtonia<br>Palm     | Washingtonia robusta                       | Pestalotia Leaf Spot                     |
| Weeping Willow           | Salix babylonica                           | Anthracnose                              |
| Yucca (Adam=s<br>needle) | Yucca sp.                                  | Cercospora Leaf Spot, Septoria Leaf Spot |

<sup>1</sup> Discoloration of foliage and/or blooms have been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.

<sup>2</sup> Apply 1.125 to 1.875 pounds of Cuprofix 40 Disperss DF in 20 to 100 gallons of water per acre.

 $^3$  For Indian Hawthorn use 0.75 to 1.5 pounds per 100 gallons or 0.25 to 0.5 level tablespoons per gallon.

## **GENERAL CHEMIGATION INSTRUCTIONS**

Apply this product only through one or more of the following types of sprinkler irrigation systems: center pivot, lateral move, traveler, big gun, plastic pipe solid set systems which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

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

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

Shut off injection equipment after treatment and continue to operate irrigation system until Cuprofix 40 Disperss DF has been cleared from the last sprinkler head.

**NOTE:** It must be determined in the selection process if proper application equipment is available and if the waste associated with its use can be properly handled. Materials used in the construction of application equipment is also an important factor as agricultural chemicals are

often reactive with soft metals such as aluminum and even some synthetic material such as plastics, rubbers, etc. Therefore, it is necessary when working with equipment containing these materials that they are thoroughly flushed with clean water after each day=s use.

Do not apply this product through any type of irrigation (chemigation) system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product.

### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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, reducedpressure 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 the 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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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

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

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.

When mixing, fill nurse tank half full with water. Add Cuprofix 40 Disperss DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. DO NOT PRE-MIX OR SLURRY Cuprofix 40 Disperss DF before adding to the nurse tank. Stickers, spreaders (cleared for use on growing crops), nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe the most stringent cautions and limitations on the label of all products used in mixtures.

Cuprofix 40 Disperss DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Agitation of the mixture in the nurse tank is recommended.

#### **SPRINKLER CHEMIGATION**

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

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.

When mixing, fill nurse tank half full with water. Add Cuprofix 40 Disperss DF slowly to tank while hydraulic or mechanical agitation is operating and continue filing with water. DO NOT PRE-MIX OR SLURRY Cuprofix 40 Disperss DF. Stickers, spreaders (cleared for use on growing crops), nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe the most stringent cautions and limitations on the label of all products used in mixtures.

Cuprofix 40 Disperss DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Agitation of the mixture in the nurse tank is recommended.

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rev. date 08/23/04