

**Agri Star**<sup>®</sup>  
By Albaugh Inc.

# COC DF

## Copper Oxycloride Dry Flowable Agricultural Fungicide

**ACTIVE INGREDIENT:**

Copper Oxychloride\* ..... 86.2%

**INERT INGREDIENTS:** ..... 13.8%

**TOTAL** ..... 100.0%

(Metallic copper equivalent 50%)

\*CAS No. 1332-65-6

### KEEP OUT OF REACH OF CHILDREN WARNING AVISO

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

#### FIRST AID

<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><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>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><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 the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

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

**See Additional Precautionary Statements inside booklet**

Manufactured For:  
**Albaugh, Inc.**  
Ankeny, IA

**FOR CHEMICAL SPILL, LEAK,  
FIRE, OR EXPOSURE, CALL  
CHEMTREC (800) 424-9300**

EPA Reg. No. 45002-17  
EPA Est. No. 45002-MEX-2  
AD 010402

# PRECAUTIONARY STATEMENTS

## WARNING

### Hazards To Humans And Domestic Animals

Causes substantial but temporary eye injury. Harmful if swallowed. May cause skin sensitization reactions in certain individuals. Avoid contact with skin, eyes, or clothing.

### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are any waterproof material. 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:

1. Coveralls over short-sleeved shirt and short pants
2. Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
3. Chemical-resistant footwear plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure
6. Chemical-resistant apron when cleaning equipment, mixing, or loading

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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### USER SAFETY RECOMMENDATIONS

Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to lakes, streams, ponds, estuaries, oceans or public water unless specifically labeled for this use. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not allow rinsate from cleaning of equipment or disposed materials to enter surface or ground water.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry intervals. 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.

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:

1. Coveralls over short-sleeved shirt and short pants
2. Chemical resistant gloves made of any waterproof material
3. Chemical-resistant footwear plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure

### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal of this product.

**STORAGE:** Store in a secure, cool, dry area.

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

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

## GENERAL INSTRUCTIONS

COC DF may be applied by aerial, or by dilute or concentrate ground sprayers on crops and at rates given on this label unless specifically prohibited for that crop use. Sufficient spray volume and spray pressure are essential to thoroughly penetrate the plant canopy and give thorough spray coverage at the times indicated. On crops sensitive to copper fungicides use the higher volumes of spray water per acre.

Use the higher dosage rates of COC DF on mature trees, or when disease pressure is severe or weather conditions warrant.

When using adjuvants or other pesticides in combinations with this product, always observe the caution statements on the product's label and required days before harvest. Sprays of COC DF may be applied up to day of harvest. Residue is exempt from a residue tolerance.

Before mixing with other products in spray tank, be sure that products are compatible. COC DF should not be applied in spray water having a pH of less than 6.5 as phytotoxicity may result. Also avoid using water having a pH of greater than 9.0 as effectiveness may be reduced.

## MINIMUM RECOMMENDED SPRAY VOLUME in gallons per acre (GPA)

If crop is sensitive to copper sprays, higher volumes of spray water will decrease potential injury. A full dilute spray on tree crops means the maximum amount of spray when uniformly applied that an acre of such trees will hold to the point that excess spray begins to drip off. Thus the dilute spray volume per acre will depend on tree size and leaf surface per acre. The following listed dilute spray volumes is the volume that will generally provide such coverage on average size of full leaf trees. A concentrate spray is a spray applied in less volumes than a dilute. The extent of the concentration varies by equipment used. Thus the following spray volumes for a concentrated spray are the minimum volumes recommended per acre.

## GROUND SPRAYS – CONCENTRATED AND DILUTE

### Citrus –

**Concentrate:** 100 GPA (Florida 50 GPA).

**Dilute:** 800 to 1,000 GPA on mature fruit trees and decrease towards 100 GPA as tree size decreases.

### Fruit and Nut Trees –

**Concentrate:** 50 GPA

**Dilute spray:** 250 GPA for mature fruit trees, and to 400 to 800 GPA for other tree crops depending on size. (On young fruit tree plantings, use a minimum of 15 gallons spray per acre).

### Vegetable and Field Crops –

**Concentrate:** 20 GPA.

**Dilute:** 100 to 125 GPA

## AIR APPLICATION

For vegetables and field crops, use 3 to 20 gallons per acre. For tree crops, use 10 to 20 gallons per acre.

## GENERAL CHEMIGATION INSTRUCTIONS

Do not apply this product through any irrigation 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, end tow, side (wheel) roll, traveling gun, solid set, or hand move irrigation system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness 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 safety device for public water systems is 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.

## 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, 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 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 COC DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, insecticides, 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 all cautions and limitations on the label of all products used in mixtures.

COC DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation 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 towards 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 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 COC DF slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, insecticides, 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 all cautions and limitations on the label of all products use in mixtures.

COC DF should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

### **MIXING INSTRUCTIONS FOR SPRAY APPLICATION**

Fill the spray tank one-fourth to one-third full with clean water. Start agitation (NOTE: Proper agitation creates a rippling or rolling action on the liquid surface). Add COC DF at the recommended rate.

Mix thoroughly and then add enough water to fill spray tank. Maintain sufficient agitation during mixing and during application of sprays to ensure a uniform spray mixture. When tank mixing with other pesticides, add wettable powders or dry flowables first and emulsifiable concentrates or spreader-stickers last. Before adding a second pesticide, be sure that prior product is well mixed and suspended before adding the next ingredient.

### **RECOMMENDED APPLICATION RATES FROST INJURY PROTECTION**

Bacterial ice nucleation inhibitor – Application of COC DF to all crops listed on this label at rates and stages of growth indicated on this label at least 24 hours and more than 72 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) and may thereby provide some protection against light frost. The degree of frost protection will vary with weather conditions and other factors. Not recommended for those geographical areas where weather conditions favor severe frost.

## FRUIT AND NUT CROPS

### ALMONDS:

Coryneum blight (shot hole), Brown rot blossom blight, Twig blight – Use 8 to 12 lbs. and apply in dormant before buds begin to swell. Use the higher rate during wet seasons or when disease pressure is high. Use 6 to 8 lbs. in pre-bloom at bud swell and petal fall stages.

### APPLES:

(NOTE: Spraying of fruit on yellow varieties will cause fruit russetting. Non-yellow varieties may differ in susceptibility to copper resulting in russetting or injury. Where possible, pick before spraying if a potential problem).

Anthracnose, European Canker, Pseudomonas – Use 12 to 16 lbs. per acre. Apply at 10% and 80% leaf fall but before fall rains. Repeat before winter pruning. If fire blight spray is not made, repeat between silver-tip and green-tip, but do not use after green tip exceeds 1/2 inch.

Fire blight – Use 8 to 16 lbs. Make first application between silver-tip and green-tip, but do not use after green tip exceeds 1/2 inch as phytotoxicity may occur. During bloom, apply 1 to 1 1/2 lbs. per acre as a dilute cover spray. Begin spray at 10% bloom and repeat at 5 day intervals until late bloom is over. For fire blight in California, use only 1 lb. during the bloom period and follow directions for application as above.

### APRICOT:

Coryneum blight (shot hole), Brown rot blossom blight, Twig blight – Use 8 to 12 lbs. and apply in fall dormant, and repeat at popcorn to full bloom.

### AVOCADO:

Scab – Apply 8 to 12 lbs. per acre. Begin spray when bloom bud begin to swell and continue at monthly intervals for 5 to 6 applications or as needed. Use the higher rate when conditions favor disease. Addition of a spreader-sticker is recommended especially when rainfall is heavy and frequent.

### BANANAS:

Sigatoka – Apply by air at 3 to 4 lbs. per acre 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 – Apply at 4 to 6 lbs. per 100 gallons directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second week after emergence.

### BERRIES: (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries):

Anthracnose – Apply 4 to 5 lbs. per acre. Begin spray when leaf buds begin to open. Repeat when flower buds show white and continue at 10-14 day intervals.

Leaf/Cane spot and Yellow rust – In spring sprays, use 4 to 5 lbs. per acre and apply when leaf buds begin to open and repeat when flower buds show white. Also make a post-harvest spray after pruning but before fall rains begin, using 12 to 15 lbs. per acre combined with a spreader-sticker.

### CACAO:

Black pod – Begin application at the start of the rainy season and continue while conditions persist for infection. Sprays should be made as often as 14 to 21 days in high rainfall areas at rates from 3 to 6 lbs. per acre depending on disease severity. For drier areas, 2 to 4 applications are recommended during critical infection periods and at longer intervals, using 8 to 10 lbs. per acre depending on the disease incidence and planting density. Use the higher rates for heavier disease pressure and denser plantings.

### CHERRIES:

Blossom blight, Brown rot, Twig blight and Leaf spot – Use 8 to 12 lbs. and apply popcorn, full bloom and again at petal fall. Do not apply after petal fall stage.

### CITRUS:

Melanose, Pink pitting, and Scab (except Texas) – Use 1 1/2 lbs. per 100 gallons by dilute spray or 8 to 12 lbs. per acre by concentrate or aerial spray. Apply at beginning of dormant season. Repeat at 2/3 petal fall, and again when fruit is 1/2 inch in diameter, and as necessary thereafter. In Texas, use 5 to 8 lbs. per acre with above timings. For Pink pitting apply about mid July in Florida.

Greasy spot – Use 0.75 to 1.5 lbs. per 100 gallons by dilute spray, or 3 to 6 lbs. per acre by concentrate or aerial spray.

For Brown rot – Use 1/2 to 1 1/2 lbs. per 100 gallons in dilute spray, applying 6 gallons per tree to the lower 3-4 feet of tree skirt and to the bare ground under tree and one foot beyond the tree line before fall rains, and 2-4 gallons per tree in January or February depending upon the amount of rain during this period. Addition of spreader-sticker adjuvant may increase the effectiveness of the treatment.

**NOTE:** Do not use or apply in areas where copper injury is known to occur or where fumigation with hydrogen cyanide gas is practiced. (California only – In areas subject to copper injury, add 1/2 to 1 lb. of high grade spray lime per each lb. of COC added.

**COFFEE:**

Iron spot (*Cercospora coffeicola*) and Pink disease (*Costicium salmonicolor*) – Apply 3 to 4 lbs. per acre as a concentrate or dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three sprays.

Leaf rust – Apply 4 to 6 lbs. per acre for average density plantations. High density plantations may require 8 to 12 lbs. per acre. Make application before onset of rainy season and when disease is expected for that area, following local recommendations for number and timing of sprays.

**FILBERT:**

Bacterial blight – Mix 6 lbs. dilute spray basis, or 16 to 24 lbs. per acre applied by concentrate, and apply post-harvest in late August or early September before first heavy fall rain. If heavy fall rains occur, repeat spray after 3/4 leaves have dropped. If weather conditions require, a spreader-sticker may be added.

**MANGO:**

Anthraxnose (except California) – Apply 12-15 lbs. per acre. Add a suitable spreader-sticker. Begin spray treatment when panicles are about 2 inches long. Repeat weekly until fruit set and then continue sprays monthly through September for a total of 5-12 applications, depending upon area.

**OLIVES:**

Leaf spot (Peacock) – Use 5 to 6 lbs. per 100 gallons per acre applied by dilute spray before fall rains begin.

**Note:** In areas with 10 inches or less of rainfall per year, use only 2 lbs. In concentrate sprays, apply 8 to 12 lbs. per acre in not less than 40 gallons of water, or 4 to 8 lbs. per acre in areas with less than 10 inches of rainfall per year.

**PAPAYA:**

Anthraxnose (except California) – Mix 2 lbs. per 100 gallons of water in a dilute spray basis. Addition of a spreader-sticker is desirable. Begin treatment before rains begin or when disease is first expected. Repeat at 10-14 day intervals during periods of heavy rainfall.

**PEACHES AND NECTARINES:**

Peach blight, Coryneum blight (Shot hole) and Peach leaf curl – Apply 8 to 16 lbs. per acre and apply in fall dormant period before fall rains begin. Repeat in spring before foliage buds begin to swell if needed.

For suppression of Brown rot blossom blight, Twig blight – Apply 8 to 12 lbs. per acre and apply in full cover spray before buds swell and again at pink bud, but before leaves emerge.

Bacterial spot – Apply 8 to 16 lbs. per acre as a dormant spray and at bud swell. If needed, 1 lb. per acre may be added in the first and second post bloom cover sprays.

**NOTE:** Application in cover sprays may cause some leaf spotting and defoliation and shedding of some fruits. If applied within three weeks of harvest, some fruit spotting may also occur.

**PECANS:**

Shuck and Kernel rot (*Phytophthora cactorum*) and Zonate leaf spot (*Cristulariella pyramindalis*) – For suppression, use 2 to 4 lbs. per acre and apply at 2 to 4 week intervals starting at kernel growth and continue until shucks open. Use the shorter interval and higher rates when rainfall is frequent and/or heavy.

Mosses, Alga and Lichen – Mix 6 lbs. per 100 gallons spray plus spreader-sticker by dilute spray, or 12 to 16 lbs. per acre by concentrate, and apply in dormant season (before buds swell) thoroughly wetting limbs and mosses.

**PLUMS AND PRUNES:**

Coryneum blight (shot hole) – Apply 8 to 16 lbs. per acre at the dormant stage before heavy fall rains begin. Use the higher rates on mature trees and in wet period with heavy disease potential.

For suppression of Brown rot blossom blight, Twig blight – Apply 4 to 6 lbs. per acre in full cover spray at green bud and at early pink to white bud stage.

**NOTE:** Limit 6 lbs. per acre and do not apply more than 500 gallons per acre.

**STRAWBERRIES:**

Downy mildew, Leaf spot – Use 2-3 lbs. and apply after leaves form. Repeat at 10-14 day intervals.

**WALNUTS:**

Bacterial blight – Apply 8 to 14 lbs. per acre in early pre-bloom (1% pistillate, not catkins blooms showing) and the second application when 10% to 20% pistillate (not catkins) blooms are showing. Repeat applications 3-4 times as needed during bloom and nutlet development.

## VEGETABLE AND FIELD CROPS

### **BEANS (Green and Dry):**

Angular leaf spot, Anthracnose, Bacterial blights, and Downy mildew – Use 2-4 lbs. per acre. Begin spraying when plants have second trifoliolate leaf set (when plants are about 5 inches tall), or before disease first appears. Repeat at 5-10 day intervals as needed.

### **BEETS:**

Downy mildew, Leaf blight and Leaf spot – Use 2-4 lbs. per acre and apply when disease first appears. Repeat as 7-10 day intervals as needed.

### **CARROTS:**

Leaf blight, Leaf spots – Use 3 to 6 lbs. in 25 to 100 gallons of water per acre. Begin before diseases appear and repeat at 7-10 day intervals.

### **CANTALOUPE, HONEYDEWS AND MUSKMELONS:**

Downy mildew – Apply weekly at 3 to 4 lbs. per acre. Begin before disease first appears.

### **CELERY:**

Bacterial blight, Early/Late blight – Use 3 to 6 lbs. in 25 to 100 gallons of water per acre. Begin when plants are set in field or diseases are first reported in area. Repeat at 5 to 10 day intervals.

### **CUCUMBERS:**

Angular leaf spot, Downy mildew, Cercospora leaf spot, Anthracnose – Apply weekly once plants begin to vine. Use 3 to 4 lbs. per acre.

### **EGGPLANT: (Except California)**

Alternaria blight, Anthracnose, Phomopsis – Use 3 to 4 lbs. per acre before disease appears. Repeat at 7 to 10 day intervals.

### **ONIONS, GARLIC AND LEEKS:**

Purple blotch, Downy mildew – Use 3 to 4 lbs per acre. A spreader-sticker may be added to better wet the foliage. Begin spray when plants are 4-6 inches high and repeat at 7-10 day intervals as needed.

### **PEANUTS:**

Cercospora leaf spot – Use 2 to 3 lbs. per acre in ground, chemigation, or aerial spray application. Make first spray before first disease symptoms appear or are reported in the area, which is usually 25 to 40 days after planting. Thorough canopy penetrating coverage is required for good control. For best ground spray control, use as much spray water as practically possible and a spray pressure of at least 60 psi or more. With aerial application use 3 to 5 gallons per acre. Continue sprays at 10 to 14 day intervals preferably up to day of harvest. Use shorter intervals and higher rates when disease pressure is high and when late leaf spot is expected. May be tank mixed with a sulfur formulation or other compatible fungicides at labeled rates.

### **PEAS:**

Powdery mildew, Bacterial blights – Begin when disease symptoms first appear. Use 1.5 to 3 lbs. per acre according to disease severity and repeat at weekly intervals as needed.

### **PEPPERS:**

Bacterial spot – Use 3 to 4 lbs. per acre. Start sprays in seed bed or field before disease first appears and usually right after transplanting. Repeat every 5-10 days in field and especially during fruiting stages.

Damping-off (cold frames, greenhouses, etc.) – Use 4 to 5 lbs. per 100 gallons of water and apply as a light spray to soil before seedlings emerge. Continue spray when plants emerge and repeat at 4 to 7 day intervals until transplanting time.

### **POTATOES:**

Early blight, Late blight – Use 3-4 lbs. in 25 or more gallons of water per acre. Begin when plants are 4 to 6 inches high or when disease first appears in the area. Repeat at 4-10 day intervals to harvest or as needed. If late blight is a problem, apply prior to digging or in vine kill spray.

### **PUMPKINS AND SQUASH:**

Downy and Powdery mildew, Alternaria leaf spot, Anthracnose, and Angular leaf spot on squash – Use 3 to 4 lbs. per acre. Begin application when plants are about 3 weeks old or when symptoms first appear in the area. Repeat at weekly intervals as needed.

### **RICE:**

Algae Control in flooded rice fields – Apply 3 to 5 lbs. per acre. Application by dusting or spraying the flooded rice fields as needed to control algae is preferred and repeat as needed. Use the higher rate as water depth is increased from 4 to 6 inches and as algae infection level increases.

## **SUGAR BEETS:**

Leaf spot – Use 3 to 5 lbs. per acre. Begin when disease is first expected and repeat as necessary.

## **TOBACCO:**

Angular leaf spot, Damping-off (cold frames, greenhouses, etc.) and Root rot – Use 1/4 to 2/3 lb. per 10 gallons of water and apply as spray to each 15 yards of bed and repeat every 10-14 days. Begin at plant emergence using the lower rate on smaller plants and increase as seedlings grow.

## **TOMATOES:**

Bacterial spot, Bacterial speck, Early and Late blights, Anthracnose, Gray leaf mold, Septoria leaf spot – Use 3 to 4 lbs. per acre in sufficient water for thorough coverage. Begin in seed bed and repeat at 5-7 day intervals after first leaves appear. In the field, especially where Bacterial spot or speck infections are usually heavy, begin spray after transplanting or when disease is first expected and repeat at 4-7 day intervals. COC DF used alone may be sprayed up to day of harvest. Control of Bacterial spot and speck may be enhanced by a tank-mix with maneb or mancozeb if labeled for use on tomatoes, and observe days before harvest on each product label. For Target leaf spot control, tank-mix with a Chlorothalonil formulation.

Damping-off (cold frames, greenhouses, etc.) – Use 4 to 5 lbs. of COC DF per 100 gallons of water and apply as a light spray to soil surface around plants. Begin when plants emerge and repeat at 4-7 day intervals until transplanting time.

## **WHEAT, OATS, AND BARLEY:**

Septoria leaf blotch or Glume blotch, Helminthosporium leaf or spot blotch – Apply 2 to 3 lbs. per acre. Make first application at early heading and repeat 10 days later.

## **ORNAMENTAL PLANTS, HEDGES, AND FOREST TREES**

**ASTERS, BEGONIAS, CARNATIONS, CHRYSANTHEMUMS, DAHLIA, GARDENIAS, GERANIUMS, GLADIOLUS, HOLLY-HOCK, LILIES, MARIGOLDS, NASTURTIUM, PANSIES, PEONIES, PHLOX, ROSES, SNAPDRAGONS, SWEETPEAS, TULIPS, VIOLETS AND ZINNIA:**

Anthracnose, Botrytis blight, Leaf spots, Downy mildew and Powdery mildew – Apply 4 lbs. per 100 gallons of water and begin spray before disease appears. Repeat every 7-10 days as needed and after each rain. Use equivalent rates when applied by chemigation.

**ARBOR VITAE, AZALEAS, BOXWOOD, DOGWOODS, IVIES, LILACS, MAPLES, OAKS, PALMS, PINES, RHODODENDRON AND VIRGINIA CREEPER:** Anthracnose, Blights, Leaf spots and smuts (on palms) – Apply 4 lbs. per 100 gallons of water and begin spray before disease appears. Repeat every 7-10 days as needed and after each rain. Use equivalent rates when applied by chemigation.

## **POPLARS:**

Leaf rust – Apply by full dilute spray just before point of runoff, using 1 2/3 - 2 lbs. per 100 gallons of water. Make first spray at the first sign of rust pustules. Repeat every 4 weeks as needed to control the disease.

## **PINES:**

Needle blights (including Dothistroma Needle Blight) – In forests, hedges and windbreaks, apply 1 1/2 - 3 lbs. per acre in sufficient water for good coverage. If applied by aircraft equipped with low volume sprayers, such as the micronaire, adjust the droplet size to apply 4 pints per acre or more, applying 1 1/2 lbs. per acre (1.66 kg/ha) in 1 3/4 pint medium crop oil and add sufficient water to give thorough coverage for disease control. Make application as needles are just emerging. When disease potential is heavy, repeat about 3 weeks later. Repeat at yearly intervals as needed. In nurseries and ornamentals, apply by dilute spray to point of runoff, applying at a rate of 2 1/2 - 3 1/2 lbs. per 100 gallons of water (300-420 grams per 100 liters), using above timings and repeat as needed to control disease.

**NOTICE:** Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on this label when used in accordance with directions under normal conditions of use; but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions not reasonably foreseeable to seller; the buyer assumes the risk of any such use.