

4581-370

2-2-2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Luis Castro
Manager, Product Registration
Cerexagri, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

FEB 2 2004

Subject: Penncozeb® DF 75% Dry Flowable Fungicide for Turf and Ornamentals
EPA Reg. No. 4581-370
Your amendment dated September 17, 2003

Dear Mr. Castro:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. Make the following changes in the table "ORNAMENTALS COMMERCIAL AND HOMEOWNER USE"
 - In the disease column next to "Firethorn", change "Fusicaldium" to "Fusicladium"
 - Change "Pittosporum" to "Pittosporium"
 - In the remarks column next to "Strawflower", delete the letter "p"

One copy of the label stamped "Accepted with comments" is enclosed for your records. This label supercedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely,

Mary J. Waller

Mary Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Enclosure

PENNCOZEB[®] 75DF

DRY FLOWABLE FUNGICIDE

for Agricultural, Seed Treatment, and Turf & Ornamental Uses

ACTIVE INGREDIENT:

A coordination product of zinc ion and manganese ethylene

bisdithiocarbamate	75.0%
Manganese ⁺⁺	15.0%
Zinc ⁺⁺	1.9%
Ethylenebisdithiocarbamate ion (C ₄ H ₆ N ₂ S ₄)	58.1%

OTHER INGREDIENTS 25.0%

TOTAL 100.0%

EPA Registration No. 4581-370

EPA Establishment No. 33910-HL-01

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 inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

If on skin or clothing

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

If in eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If swallowed

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

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

Net Contents _____

Cerexagri, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)
CAUTION**

Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing.

PERSONAL PROTECTIVE EQUIPMENT

- Applicators and other handlers must wear:
- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear when mixing or loading
- Shoes plus socks
- Chemical-resistant apron when cleaning equipment, mixing or loading

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.

ENGINEERING CONTROLS STATEMENTS

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.

Human flaggers must be in enclosed cabs

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS:

Users should:

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

ENVIRONMENTAL HAZARDS
This pesticide is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark, except as specified for the labeled use on cranberries. Do not contaminate water when disposing of equipment washwaters.
CHEMICAL HAZARDS
Do not allow to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of the product as a fungicide and create vapors which may be flammable. Keep container closed when not in use.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) 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:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Seed treatments and professional applications to lawn grasses, golf courses, industrial (office park), municipal and residential lawns are not within the scope of the Worker Protection Standard.

PROFESSIONAL TURF AND LANDSCAPE USES:

Do not enter or allow entry into treated areas until sprays have dried unless wearing

the personal protective equipment listed on this label.

GENERAL INFORMATION FOR AGRICULTURAL USES

PENNZOZEB 75DF is a dry flowable fungicide containing a coordination product of zinc ion and manganese ethylenebisdithiocarbamate, and is recommended for use as a spray for the control of many important plant diseases.

INSTRUCTIONS FOR APPLICATION FOR AGRICULTURAL USES

FOR AIR APPLICATION use at the rate indicated in sufficient water for thorough coverage, a minimum of 2 gallons per acre for field crops and 10 gallons per acre for orchard crops.

Use a Spreader Sticker at rate of 4 fl. oz. per 100 gallons spray if needed. Add product slowly to water in the spray tank with agitation, or premix thoroughly in separate holding tank for concentrate or aircraft sprayers. Continuous agitation is required to keep the product in suspension.

When dosage ranges are given, use the higher rate and shorter intervals under severe disease pressure, but do not exceed the maximum rate or apply more frequently than the minimum interval given in the directions for that crop.

Maximum Seasonal Poundage When Used In Conjunction With One or More Other EBDC Products

FOLIAR APPLICATIONS

Where EBDC Products Used Allow The Same Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient (maneb, mancozeb, or metiram) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any one of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

Where EBDC Products Used Allow Different Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

SEED TREATMENT

In addition to the maximum number of foliar applications permitted by the formula stated above, a single application for seed treatment may be made on crops which

have registered seed treatment uses.

FIELD CROPS

CROPS	DISEASES	RATE LBS/ACRE	DIRECTIONS
Field Corn, and Corn Grown for Seed	Common Rust Gray Leaf Spot Helminthosporium Leaf Blight	1.0-1.5	Start application at the onset of disease and repeat as needed. Do not apply more than 12 lbs. active ingredient per season (16 lbs. product.) Do not apply within 40 days of harvest.
Cotton	Rust Alternaria leaf spot	1.5-2.0	Start applications at the onset of disease. Apply as needed. Do not apply more than 6.4 lbs. active ingredient per season (8.5 lbs. product). Do not apply within 45 days (60 days in California) of harvest (or after boll opening).
Peanuts	Cercospora Leaf Spot Rust	1.0-2.0	Begin applications when disease first appears and repeat at 7- to 14-day intervals, using shorter interval under severe disease pressure. Do not feed treated vines to livestock. Do not use more than 12.8 lbs. active ingredient (17 lbs. product) per acre per season. Do not apply within 14 days of harvest.
Peanuts (tank- mix with Topsin M)	Cercospora Leaf Spot Rust Ascochyta Web Blotch Limb Rot	1.5 lb Penncozeb 75DF plus 4-8 oz Topsin® M 70WSB Fungicide	Begin applications when disease first appears and repeat at 7- to 14-day intervals, using shorter interval during humid weather. Do not feed treated vines to livestock. Do not use more than 17 lbs. Penncozeb 75DF per acre per season. Do not apply within 14 days of harvest.
Sugarbeets	Cercospora Leaf Spot Rust	1.5-2.0	Begin applications when disease first threatens and repeat at 7-10 day intervals. Do not apply more than 11.2 lbs. active ingredient (15 lbs. product) per acre per season. Do not apply within 14 days of harvest.
Wheat (including triticale) Barley Oats Rye	Helminthosporium Leaf Spot Septoria Leaf Spot Septoria Glume Blotch Leaf Rust Tan Spot Scab (head blight)*	1.0-2.0	Start application at onset of disease or when plants are in tillering to jointing stage and repeat at 7- to 10-day intervals. Do not make more than 3 applications in one season. Do not apply more than 4.8 lbs. active ingredient (6.4 lbs. product) per acre per crop. Do not apply

			within 26 days of harvest. (46-day preharvest interval in California.) Do not graze livestock in treated areas prior to harvest. Do not apply after heading (around 10.5 Feekes).
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* In California - scab control on wheat only

VEGETABLE CROPS

CROPS	DISEASES	RATE LBS/ACRE	DIRECTIONS
Asparagus	Rust Cercospora Leaf Spot	2.0	Begin applications when rust first appears and repeat at 10 day intervals as needed. Use only on ferns after spears have been harvested. Do not apply more than 6.4 lbs. active ingredient (8.5 lbs. product) per acre per season. Do not apply within 180 days of harvest. (In California and Arizona, the PHI is 120 days).
Corn, sweet corn used for fresh and processing, popcorn, and sweet corn used for seed production, including hybrid seed	Common Rust Gray Leaf Spot Helminthosporium Leaf Blight	1.0-1.5 1.0-1.5	East of the Mississippi (including Arkansas and Louisiana) Apply in sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4-7 day intervals. Do not apply within 7 days of harvest. Do not feed treated forage (plant stalk and leaves) to livestock. Do not apply more than 18 lbs. active ingredient (24 lbs. product) per acre per crop. West of the Mississippi (except Arkansas & Louisiana) Apply in sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4-7 day intervals. Do not apply within 7 days of harvest. Do not feed treated forage (plant stalk and leaves) to livestock. Do not apply more than 6.0 lbs. active ingredient (8 lbs. product) per acre per crop.
Cucumbers	Alternaria (Macrosporium) Leaf Spot Anthracnose Downy Mildew Pythium Fruit Rot Cercospora Leaf Spot Gummy Stem Blight Scab	1.5-3.0	Begin when disease threatens or plants begin to run. Spray on a 7-10 day interval using higher rate and/or shorter intervals under severe disease pressure. Do not apply more than 19.2 lbs. active ingredient (25.6 lbs. product) per acre per season. Do not apply within 5 days of harvest.

Fennel	Early Blight Late Blight	1.5-2.0	Apply when disease threatens. Make applications as needed on a 7-10 day interval. Do not use more than 12.8 lbs. active ingredient per season (17 lbs. product). Do not apply within 14 days of harvest.
Melons including: cantaloupes, casabas, crenshaws, honeydews, muskmelons, watermelons	Alternaria Leaf Spot Anthracnose Cercospora Leaf Spot Downy Mildew Gummy Stem Blight	2.0-3.0	Apply as soon as plants begin to run or when disease threatens. Spray on a 7-10 day interval as necessary using higher rate and/or shorter intervals under severe disease pressure. Do not apply more than 19.2 lbs. active ingredient (25.6 lbs. product) per acre per season. Do not apply within 5 days of harvest. Some cantaloupe varieties (ie. Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to Penncozeb 75DF fungicide. Consult State and Cooperative Extension Service Specialist prior to use.
Onions (Dry Bulb) including garlic and shallots	Botrytis Leaf Blight Downy Mildew Neck Rot Purple Blotch Rust	2.0-3.0	Begin applications when diseases are first reported in the area. Repeat at 7 day intervals throughout the season. Do not apply within 7 days of harvest; do not apply to exposed bulbs. Do not apply more than 24.0 lbs. active ingredient (32 lbs. product) per acre per crop. Do not allow spray or drift to contact bulbs after lifting from soil.
Onions (Furrow Drench)	Smut Damping Off Seed Rots Seedling Blights	3.0	Apply as a furrow drench at time of planting onion seeds. Use 75 to 125 gallons of water per acre. Do not use more than 2.4 lbs. active ingredient (3.2 lbs. product) per 29,000 linear feet of row (18 inch spacing). Do not use in California.
Potatoes	Early Blight Late Blight	0.5- 2.0	Begin applications when plants are 4-6 inches high by applying 0.4 to 0.8 lbs. active ingredient (0.5 to 1.1 lbs. product) per acre. As the vines increase in size, apply 1.2 to 1.6 lbs active ingredient (1.6 to 2.1 lbs. product) per acre at 5 to 10 day intervals or 0.6 to 0.9 lbs active ingredient (0.8 to 1.1 lbs. product) per acre at 3 to 5 day intervals. Do not apply more than 11.2 lbs. active ingredient (15 lbs. product) per acre per crop. Do not apply within 14 days of harvest (except in Connecticut,

			Delaware, Florida, Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin when a 3 day PHI is allowed). It is recommended that this product be used within an Integrated Pest Management Program. Vine kill should occur 14 days before harvest.
Potato Seedpiece Treatment	Fusarium Seed Piece Decay Seedborne Common Scab		Dip whole or cut seed pieces in mixture of 1 1/4 lbs. of product per 50 gallons of water, drain and plant immediately. If seed pieces are to be held before planting, spread out to dry in a cool place. Do not use treated seed pieces for food or feed purposes.
Squash (Summer) including edible gourds	Anthrachnose Downy Mildew	2.0-3.0	Start applications when plants are in the two-leaf stage. Spray on a 7-10 day interval as needed using higher rate and/or shorter intervals under severe disease pressure. Do not apply more than 19.2 lbs. active ingredient (25.6 lbs. product) per acre per season. Do not apply within 5 days of harvest.
Tomatoes	Anthrachnose Early Blight Late Blight Gray Leaf Mold Gray Leaf Spot Septoria Leaf Spot	0.75-3.0	East of the Mississippi Begin applications when seedlings emerge or transplants are set. Repeat applications of 0.6- 1.2 lbs active ingredient per acre (0.75-1.5 lbs product) at 3-7 day intervals, or 1.2-2.4 lbs active ingredient per acre (1.5-3.0 lbs product) at 7-10 day intervals throughout the season. Do not apply within 5 days of harvest. Do not apply more than 16.8 lbs. active ingredient (22.4 lbs. product) per acre per crop.
		0.75-2.0	West of the Mississippi Begin applications when seedlings emerge or transplants are set. Repeat applications of 0.6- 0.8 lbs active ingredient per acre (0.75-1.0 lbs product) at 3-7 day intervals, or 1.2-1.6 lbs active ingredient per acre (1.5-2.0 lbs product) at 7-10 day intervals throughout the season. Do not apply more than 6.4 lbs. active ingredient (8.5 lbs. product) per acre per season. Do not apply within 5 days of harvest.

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			Do not apply more than 14.4 lbs. active ingredient (19.2 lbs. product) per acre per season.
Grapes	Black Rot Bunch Rot Phomopsis (Deadarm) Downy Mildew	1.5-4.0 or (0.375-1.0 lbs. per 100 gal. in a dilute spray) 1.5-2.5 or (0.375-0.625 lbs. per 100 gal. in a dilute spray)	East of the Rocky Mountains Apply when shoots are 1/2 to 1 1/2 inches long. Continue at 7-10 day intervals. Do not apply within 66 days of harvest. Do not apply more than 19.2 lbs. active ingredient (25.6 lbs. product) per acre per season. West of the Rocky Mountains Apply when shoots are 1/2 to 1 1/2 inches long. Continue at 7-10 day intervals. Do not apply within 66 days of harvest. Do not apply more than 6.0 lbs. active ingredient (8 lbs. product). California---Do not apply after bloom. For late season control of black rot, deadarm, and downy mildew, the use of other approved fungicides is suggested.
Papayas	Anthrachnose Phytophthora Fruit Rot Black Spot Cercospora	1.5-2.5 or (0.375- 0.625 lbs. per 100 gal. in a dilute spray)	Apply first when disease pressure threatens and continue on a 14-21 day interval. Do not apply more than 28 lbs. active ingredient (37.3 lbs. product) per acre per season. Applications can be made up to the day of harvest.

MISCELLANEOUS

CROPS	DISEASES	RATE LBS/ACRE	COMMENTS
Christmas Trees (Conifer)	Lophodermium needle cast Pine gall rust Scirrhia brown spot	2 to 4 lbs. per acre	Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at two week intervals as long as needed.
Douglas Fir	Swiss needle cast		
Asparagus Crown (Planting Stock)	Crown Rot	1 lb per 100 gal.	Place loosely packed crowns into a burlap bag and soak, with gentle agitation, in the fungicide solution for 5 minutes. Remove bag, drain well, and plant crowns as soon as possible. A tank large enough to hold a single burlap bag will treat 2 bags of

			crowns. Clean dipping suspension should then be prepared in a clean tank. Dirty crowns should be pre-washed to remove excess soil. Do not use in California.
Caprifig	Assorted molds Endosepsis (Fusarium)	1 lb per 25 gal.	Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the fungicide suspension for a minimum of 15 minutes. The fungicide suspension should be stirred frequently to prevent settling out. Fresh dipping solution should be used after treating 4 or 5 batches of figs. After treatment, figs should be drained prior to placement in trees. Do not use in California.
Pineapple	Phytophthora heart rot	3.2 lbs. per 10 gal.	Dip planting material in fungicide solution prior to planting. Stir solution frequently to prevent settling out. A new solution should be prepared when at least two-thirds of the volume has been used or sooner if soil from plant material has noticeably discolored the solution. Depending on the cleanliness and size of planting stock, up to 100 gallons of fungicide solution should be used to treat the propagative materials used to plant one acre. Do not use in California.

TURF- COMMERCIAL SOD FARMS- Not for use by homeowners
Not for use in California

Start applications when grass greens-up in the spring or when disease first appears, and repeat at 7- to 14-day intervals or until disease is past. When conditions are especially favorable for disease development, apply maximum fungicide use rate on a 7-day spray schedule. Apply in sufficient water to provide adequate coverage.

TURF TOLERANCE- Treated turfgrass should be maintained in a vigorous growing condition. Turfgrass under stress will not respond to fungicide treatments as well as well-maintained turfgrass. Turfgrass tolerance to this product has been found to be acceptable, however, this product and tank mixtures with other products have not been tested on all varieties of every turfgrass species or under all possible growing conditions. If user is unfamiliar with the performance of Penncozeb 75DF or tank mixtures, under user growing conditions, a limited area of turfgrass should be treated

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prior to initiating large-scale applications. The user should always exercise reasonable judgement and caution when using this product.

Crop	Diseases Controlled	Rate per Application oz/1000 Sq. Ft.	Remarks- (Also refer to Directions for Use)	Restrictions
Assorted Grasses	Helminthosporium melting out	4		Do not graze treated areas. Do not use on grasses intended for grazing, such as range or pasture grasses. Do not feed clippings to livestock. Do not use on grasses grown for seed.
	Rust (leaf, stem, stripe)	4		
	Copper spot Fusarium blight Red thread slime mold	4 to 8		
	Algae	6		
	Dollar spot	6 to 8		
	Rhizoctonia brown patch	4	Apply on a 7-day spray schedule	
	Pythium blight	8	Apply at 5-day intervals, or more frequently, if conditions are especially favorable for disease development	
	Fusarium snow mold	6 to 8	Apply at 2- to 6-week intervals during winter.	

SEED TREATMENT**

Seeds to be treated should be cleaned and well cured prior to treatment. PENNCOZEB 75DF may be applied to dry seed with conventional slurry or mist seed treating equipment or as a planter-box application. For best results, the seed must be completely and uniformly covered with fungicide. For seed treatment, a dye must be added to PENNCOZEB 75DF which will impart an unnatural color to the seed.

CROP	DISEASES CONTROLLED	RATE OF PENNCOZEB 75DF PER APPLICATION		REMARKS (Also refer to Directions for Use)	RESTRICTION S
		OZ./BU.	OZ./100 LBS.		

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Barley	Covered smut Damping-off False loose smut Seed rots Seedling blights	1.4 to 2.1	2.9 to 4.5	For planter box treatment only	Treated seed should be labeled, "Seed has been treated with Penncozeb 75DF Dry Flowable Fungicide, a mancozeb product. Seed must not be used for food, feed, or oil purposes."
Corn (field)	Damping-off Seed rots Seedling blights	1.6 to 3.2	2.9 to 5.8		
Cotton (acid delinted) (reginned)	Damping-off Seedling blights		3.2		
	Damping-off Seedling blights		6.4		
Flax	Damping-off Seed rots Seedling blights	2.1 to 4.3	3.8 to 7.6		
Oats	Damping-off Seed rots Seedling blights Smuts	1.4 to 2.1	4.3 to 6.7	For planter box treatment only	
Peanuts (shelled)	Damping-off Seed rots Seedling blights	2.1 to 4.3	8.5 to 17.1		
Rice	Damping-off Seed rots Seedling blights		2.1 to 4.3	Apply before, during and after soaking in water	
Rye	Bunt Damping-off Seed rots Seedling blights	1.4 to 2.1	2.5 to 3.8	For planter box treatment only	
Safflower	Seedborne rust (Puccinia carthami)		2.1		
Sorghum	Covered kernel smut Damping-off Seed rots Seedling blights	1.6 to 2.7	2.9 to 4.8		
Tomatoes	Damping-off Seed rots Seedling blights		8.5		
Wheat	Bunt Damping-off Seed rots Seedling blights	1.4 to 2.1	2.3 to 3.5	For planter box treatment only	

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** Not for this use in California

GENERAL INFORMATION FOR TURF & ORNAMENTAL USES

PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE is a dry flowable containing a coordination product of zinc ion and manganese ethylenebisdithiocarbamate and is recommended for use as a spray for the control of many important plant diseases. When used according to directions, it provides very high fungicidal activity and can be safely used on both turf grasses and certain ornamentals.

PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE is a broad-spectrum protectant fungicide which provides control of most common turf grass diseases and it is also effective in controlling many fungal diseases of certain ornamentals.

Diseases of turf grass and ornamentals can attack suddenly and unexpectedly causing severe damage and may even result in total loss of large areas of valuable turf grass and ornamental plants. The use of a regular protective spray program will minimize the risk of disease damage and can generally be accomplished with lower rates and less frequent fungicide applications. Once diseases have become established, higher rates of fungicide and more frequent applications are required to bring them under control. Follow a regular protective program for maximum product performance.

INSTRUCTIONS FOR APPLICATION FOR TURF & ORNAMENTAL USES

To mix: Slowly add PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE into half-filled spray tank while the agitator is running to form a well-mixed suspension. If tank-mixing with other materials, add soluble materials (those that form a true solution) first. Then add emulsifiable concentrates (those that form an emulsion in water) in that order after the PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE. Wettable powder products may be mixed at the same time as PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE. PENNZOZEB DF 75% DRY FLOWABLE FUNGICIDE is compatible with most commonly used pesticides. Read and observe the most restrictive precautionary statements and other information appearing on product labels used in mixtures.

For air application: Use at rate indicated in sufficient water for thorough coverage or a minimum of 2 gallons per acre. Use a spreader-sticker at label-recommended rates for the desired use as needed. Add product slowly to water in the spray tank with agitation or premix thoroughly in separate holding tank for concentrate or aircraft sprayers. Follow similar mixing order instructions as stated above for best results. Continuous agitation is required to keep the product in suspension.

COMMERCIAL (NON-SOD FARM) TURF APPLICATIONS

Not for Use by Homeowners

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For use on all fine turf applications such as commercial and home lawns, athletic fields, sod, cemeteries, parks and golf course greens, tees and fairways of cool season and warm season grasses (such as Bent, Bermuda, Bluegrass, Fescue, Rye, St. Augustine and Zoysia types) or their mixtures. PENNCOZEB DF 75% DRY FLOWABLE FUNGICIDE is not phytotoxic to any of the above-mentioned grasses when used in accordance with the label. Refer to General Use instructions except when more specific instructions are given for individual crops or diseases.

General Use: PENNCOZEB DF 75% DRY FLOWABLE FUNGICIDE is to be used for the prevention and control of the diseases mentioned below. Start preventive applications when conditions for disease occurrence are favorable or when disease first appears and repeat at 7-14 day intervals or until disease threat is past. When conditions are especially favorable for disease development, apply maximum fungicide use rate on a 7-day spray schedule. For best results, use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated power sprayer. Apply after mowing or avoid mowing twelve hours after application. Apply recommended amounts in sufficient water to obtain thorough coverage, 2-4 gallons per 1,000 square feet suggested for mechanical applications, smaller volumes are acceptable for hand applications and with proper equipment calibration. When treating golf greens, always treat aprons and approaches. Do not use on pasture or range grasses. Do not graze treated areas. Do not feed clippings to livestock. Do not use on grass if grown for seed.

COMMERCIAL USE ONLY. NOT FOR SOD OR HOMEGARDEN USE.

Disease(s) Controlled	Rate Oz/1,000 Sq Ft
Copper Spot ,Red Thread, Fusarium Blight (<i>F. roseum</i>), Slime Mold	4-8
Helminthosporium, Melting Out, Rhizoctonia Brown Patch, Rust	4
Pythium Blight, Damping Off	8
Note: Apply at 5-day intervals or more frequently if conditions are especially favorable for disease development.	
Dollar Spot	6-8
Algae	6
Pink Snow Mold (<i>Microdochium nivale</i>)	6-8
Note: Apply at 2-week intervals during winter snow-free periods.	
Downy Mildew	6-8

**HORTICULTURAL APPLICATIONS
FIELD, NURSERY, GREENHOUSE and LANDSCAPE**

General Use: PENNCOZEB DF 75% DRY FLOWABLE FUNGICIDE provides excellent protective activity and is most effective when applied prior to infection periods.

CROP	DISEASES	REMARKS
ORNAMENTALS COMMERCIAL AND HOMEGARDEN USE		Refer to General Use Instructions except when more specific directions are given for individual crops and diseases.
GENERAL USE INSTRUCTIONS		<p>Apply 1½ lb. PENNCOZEB DF 75% DRY FLOWABLE FUNGICIDE per 100 gallons of water in full coverage sprays. To improve performance, add 2-4 oz of an effective spreader-sticker per 100 gallons of spray.</p> <p>Begin spraying when plants are growing, well leafed out or at first sign of disease. Apply at 7-10 day intervals throughout the season as disease development conditions persist and as the plants grow, or follow State Extension Service recommendations for specific disease control practices.</p> <p>Do not use edible portions of any listed plant for food or feed purposes.</p>
African Violet	Botrytis blight	
Ageratum	Botrytis blight Rust	
Almond (ornamental)	Leaf spot	
Alyssum	Leaf spot	
Anthurium	Anthracnose, spadix rot	
Apple (ornamental) – <i>Malus</i> sp	Fabrea Leaf Spot Rust Scab	
Arborvitae	Cercospora Blight	
Areca Palm	Leaf Spot	
Ash, white	Anthracnose Cylindrosporium Leaf Spot	
Ash, Mountain	Entomosporium Leaf Spot Guignardia Leaf Blotch	
Aster	Leaf Spot	
Aster, perennial	Puccinia Rusts	
Aucuba, japonica	Alternaria Leaf Spot Anthracnose	
Azalea*	Cylindrocladium rot Petal Blight Phytophthora Twig and Bud Blight	Apply in full coverage spray 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under bushes.
Begonia	Botrytis Blight	
Bougainvillea	Leaf Spot	
Boxwood	Leaf Spot	
Buffaloberry	Cylindrosporium Leaf Spot	

Camellia*	Petal Blight	Refer to azaleas.
Carnation	Rust Septoria Leaf Spot	
Cedar, Red	Cercospora Blight Phomopsis Blight	
Chrysanthemum*	Ascochyta Blight Botrytis Petal Spot Rust	Apply at 1 to 2 lbs. per 100 gallons or 1½ level tablespoons per gallon in full coverage spray. Apply twice weekly during the blooming season.
Cockscomb	Alternaria Leaf Spot	
Conifers (Christmas Trees)	Lophodermium Needle Cast Pine Gall Rust Scirrhia Brown Spot	Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at two-week intervals as long as needed.
Cordyline	Cercospora Leaf Spot	
Crabapple (ornamental)	Cedar Apple Rust Scab Sphaeropsis Leaf Spot	
Cypress, Arizona	Cercospora Blight Monochaetia canker	
Dahlia	Botrytis Blight	
Delphinium	Botrytis Blight	
Dieffenbachia	Leptosphaeria Brown Spot	
Dogwood, flowering*	Anthracnose Elsinoe Leaf Spot Septoria Leaf Spot	Apply when buds begin to open, when bracts have fallen, 4 weeks later, and again in late summer after flower buds for next season have formed
Dracaena	Fusarium Leaf Spot	
Elm	Black Leaf Spot	
Euonymus	Anthracnose	
Fatsia	Anthracnose	
Ferns*	Rhizoctonia Blight	
Ficus	Cercospora Leaf Spot	
Fig (ornamental)	Cylindrocladium Leaf Spot	
Firethorn	Fusicaldium Scab	
Fir, Douglas	Swiss Needle Cast	
Fir, Fraser	Swiss Needle Cast	
Fuchsia	Botrytis Blight Rust	
Geranium	Rust	
Gladiolus	Curvularia Leaf Spot Botrytis Blossom Blight	On flower spikes, use at ¾ lb. per 100 gallons. Make weekly applications starting before diseases appear and increase to 2 or 3 applications per week during periods of heavy disease and during rainy weather.
Gloxinia	Botrytis Blight	
Gypsophila	Botrytis Blight	
Hawthorn	Cedar Apple Rust Fabraea Leaf Spot Frogeye Leaf Spot Hawthorn Rust Scab	
Hickory	Gnomonia Leaf Spot	
Holly	Purple Spot	

Hollyhock	Anthracnose Cercospora Leaf Spot Puccinia Rust	
Honeysuckle	Herpobasidium Blight	
Horsechestnut	Alternaria Leaf Spot Guignardia Leaf Blotch	
Hydrangea	Botrytis Blight Cercospora Leaf Spot	
Impatiens	Botrytis Blight	
Iris	Didymellina Leaf Spot Mycoshaerella Leaf Spot Mystrosporium Ink Spot	
Juniper	Phomopsis Blight	
Larkspur	Rust	
Laurel, Mountain	Cercospora Leaf Spot Petal Blight	Refer to Azaleas
Ligustrum	Cercospora Leaf Spot	
Lily	Botrytis Blight	
Magnolia	Gloeosporium Leaf Spot	
Maple	Alternaria Leaf Spot Phyllosticta Leaf Spot	Do not use on Sugar maples intended for the production of maple syrup.
Narcissus	Botrytis Blight (fire) Smoulder	
Oak	Actinopelte Leaf Spot Taphrina Leaf Blister	
Orchids	Botrytis Blossom Blight	
Oxalis	Rust	
Pachysandra*	Volutella Blight	Use a drenching spray of 2 lbs. per 50 gallons of water per 5,000 sq. ft. of bed area. Start application at first sign of disease and make at least 5 applications at 10 to 14 day intervals.
Pansy	Anthracnose	
Pear (ornamental)	Fabraea Leaf Spot Rust Scab	
Peony*	Phytophthora Blight Botrytis Blight	Apply in early spring and early fall, drenching soil around plants as well as the foliage. Promptly destroy all infected plant parts.
Peperomia	Cercospora Leaf Spot	
Petunia	Botrytis Blight	
Philodendron	Dactylaria Leaf Spot Phytophthora Leaf Spot	
Phlox	Leaf Spot	
Photinia (Red Tip)	Entomosporium Leaf Spot	
Pine, Australia	Cyclaneusma Needle Cast	
Pine Scotch	Cyclaneusma Needle Cast Gall Rust	
Pittosporum	Alternaria Leaf Spot	
Pleomele	Fusarium Leaf Spot	
Poinsettia	Sphaceloma Scab	
Poplar	Rust	
Primrose	Botrytis Blight	

Protea	Botrytis Blight	
Quince – ornamental	Fabraea Leaf Spot Rust Scab	
Rhododendron*	Cercospora Leaf Spot Discosia Leaf Spot Petal Blight	Refer to azalea.
Rose	Black Spot Cercospora Leaf Spot Rust	
Rosemary	Rhizoctonia Aerial Blight	
Schefflera	Alternaria Blight	
Skunkbush, sumac	Cylindrosporium Leaf Spot	
Snapdragons	Rust	
Spathaphylum	Myrothecium Leaf Spot	
Statice	Cercospora Frogeye	
Strawflower	Rust	p
Syngonium	Cephalosporium Leaf Spot	
Thorn Apple	Rust	
Tulip	Botrytis Blight (fire)	
Venus Flytrap	Anthracnose	
Viburnum	Downy Mildew Ramularia Leaf Spot	
Walnut	Anthracnose	Do not use treated walnuts for food or feed purposes.
Zinnia	Leaf Blight	

***See "Special Instructions" for additional information on use with selected plant material. This product is not recommended for the treatment of Marigolds due to highly variable plant responses.**

Note: The Directions for Use of this product and the list of ornamental plants given on this label reflect cumulative inputs from both field use experience and product testing programs. However, it is impossible to test this product on all ornamental plant species and cultivars. Before treating any ornamental plant for prevention of infection from a listed pathogen, a preliminary trial is suggested on a small scale before a full treatment is applied. Wait 5-7 days after treatment to evaluate results.

Special Instructions – Follow the Directions listed below for the specified plant and pathogen.

- **Azaleas, Camellias, Rhododendron – Petal Blight:** Spray 2-3 times a week while flowers are opening. Direct spray into flowers and spray ground under plants thoroughly.
- **Chrysanthemum – Botrytis Petal Spot:** Apply in full coverage spray twice weekly during the blooming season.
- **Dogwood, flowering – Anthracnose:** Apply when buds begin to open, when bracts have fallen, 4 weeks later, and again in late summer after the flower buds for next season are formed.
- **Fern – Anthracnose:** Apply 2-3 times weekly as needed through chemigation, or air blast spray to thoroughly wet the entire plant canopy. PENNCOZEB DF 75% DRY FLOWABLE FUNGICIDE may be tank mixed with other systemic products as recommended by the local extension services for enhanced control.
- **Pachysandra – Volutella Blight:** Use a drenching spray of 3 - 4 lbs. per 100 gallons of water applied to 10,000 sq. ft. of bed area. Start application at first sign of disease and make at least 5 applications at 10-14 day intervals.

- **Peony** – Phytophthora Blight, Botrytis Blight: Apply in early spring and early fall, drenching soil around plants as well as foliage. Promptly destroy all infected plant parts.

CHEMIGATION

GENERAL INSTRUCTIONS

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. 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 any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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.

Do not connect chemigation system to any public water system. Public water system means a system for the provision 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.

SYSTEM REQUIREMENTS

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

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, 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.

INSTRUCTIONS FOR SPRINKLER (OVERHEAD) IRRIGATION:

Observe the requirements in the System Requirements section.

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

Apply PENNCOZEB 75DF only through systems containing anti-syphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off.

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Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time.

Application of more than recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area.

Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

PENNCOZEB 75DF may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state.

SPRAY PREPARATION:

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

Prepare a suspension of PENNCOZEB 75DF in a mix tank. Fill the tank with 1/2 or 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of PENNCOZEB 75DF and then the remaining volume of water.

APPLICATION INSTRUCTIONS:

Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of PENNCOZEB 75DF into the irrigation water line so as to deliver the desired rate per acre. The suspension of PENNCOZEB 75DF should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

NOTE: When treatment with PENNCOZEB 75DF has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

STORAGE AND DISPOSAL

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

Storage Instructions: Store in the original container in a dry area. If allowed to become wet the product will deteriorate and represent a fire hazard. Keep away from sources of ignition (e.g. sparks and open flame). Close bag when not in use. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling sweep up spillage and dispose of in accordance with the Pesticide Disposal Instructions listed below.

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Pesticide Disposal Instructions: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal Instructions: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill, by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND DISCLAIMER

Cerexagri, Inc. warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the risks referred to therein. CEREXAGRI MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL CEREXAGRI OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, BUSINESS REPUTATION, OR CUSTOMERS; LABOR COST; OR OTHER EXPENSES INCURRED IN PLANTING OR HARVESTING. Cerexagri and seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of Cerexagri.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
FEB 2 2004

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for use upon the
pesticide label and EPA Reg. No.
4581-370