

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 19 2002

Dear Mr. Castro:

SUBJECT: Penncozeb Turf and Ornamentals Fungicide  
EPA Registration Number ~~4581~~-357  
Your Submission of September 5, 2002

The amendment referred to above, submitted in connection with registration under section (3) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is acceptable provided that you make the following changes:

**Ingredient Statement:**

Line up the 80.0 % for mancozeb, the 20.0% for "inert ingredients" and the 100.0% for "total" so that the decimal points fall along the same vertical line.

**Precautionary Statements:**

Add the following referral statement if all precautionary statements are not on the front panel: "See additional precautionary statements."

**Non-Agricultural Use Requirements Box:**

Delete "Golf course and home garden use" because this phrase does not cover all non-WPS uses for this product.

**Storage and Disposal:**

Replace "Storage Instructions" with "Pesticide Storage", replace "Pesticide Disposal Instructions" with "Pesticide Disposal" and replace "Container Disposal Instructions" with "Container Disposal".

**Application Rate Table:**

- Delete "Not for Homegarden Use" in the Turf row.
- Remove "Do not graze treated areas. Do not feed clippings to livestock" from the Remarks column in the row with "General Use Instructions."
- Replace the heading "Ornamentals Commercial and Homegarden Use" with "Ornamentals Commercial and Home Use".
- In the Crabapple row, add "do not use on treated fruit for food or feed." to the Remarks column.
- Under "Turf", revise the text in the Dollar Spot row to remove references to cadmium fungicides. These fungicides have all been cancelled so there are no such registered products to use as supplements.

Submit one (1) copy of your final printed labeling before you release the product for shipment. A stamped copy of the label is enclosed for your records.

If you have any questions, please contact Lisa Jones of my staff by phone at (703) 308-9242 or by e-mail at jones.lisa@epa.gov.

Sincerely,

*Mary L. Waller*

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

Enclosure: Stamped label

CONCURRENCES							
SYMBOL ▶	7505C						
SURNAME ▶	Lisa Jones						
DATE ▶	Dec 17, 2002						

# PENNCOZEB® TURF and ORNAMENTALS FUNGICIDE

An 80% Coordination Product of Manganese and Zinc  
and Ethylenebisdithiocarbamate

**ACTIVE INGREDIENT:**

A coordination product of zinc ion and manganese ethylene  
bisdithiocarbamate 80.0%

Manganese++ 16.0%

Zinc++ 2.0%

Ethylenebisdithiocarbamate ion (C<sub>4</sub>H<sub>6</sub>N<sub>2</sub>S<sub>4</sub>) 62.0%

**INERT INGREDIENTS:** 20.0%

**TOTAL** 100.0%

EPA Registration No. 4581-357

EPA Establishment No. 33910-HL-01

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

DEC 19 2002

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.

458  
4581-357

**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-to-mouth, if possible.
- Call a poison control center or doctor for 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 the eye.
- Call a poison control center or doctor for treatment advice.

**If swallowed**

- Call a 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

PR  
Notice  
200-1

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

**CAUTION**

Causes moderate eye injury. 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.

Change requested  
on spray  
product  
labels →

**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

*Change requested on other similar product labels*

**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.

**GOLF COURSE AND HOMEGARDEN USE:**

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**

PENNCOZEB TURF AND ORNAMENTALS FUNGICIDE is a wettable powder

containing a coordination product of zinc ion and manganese ethylenebis-dithiocarbamate. 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. PENNCOZEB provides control of most common turf grass diseases and it is also effective in controlling major fungus 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**

To mix, slowly sift PENNCOZEB TURF AND ORNAMENTALS FUNGICIDE into spray tank while it is being filled and the agitator is running. Add insecticide and nutritional sprays last. PENNCOZEB TURF AND ORNAMENTALS FUNGICIDE is compatible with most commonly used pesticides. Read and observe the 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 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.

## DO NOT USE ANY OF THESE CROPS FOR FOOD OR FEED PURPOSES

CROP	DISEASES	RATE OF PENNCOZEB PER APPLICATION Oz./1000 SQ. FT.	REMARKS
TURF	COMMERCIAL USE ONLY NOT FOR HOMEGARDEN USE		Refer to General Use Instructions except when more specific directions are given for individual crops or diseases.
GENERAL USE INSTRUCTIONS- To be used on golf courses, sod farms, and for professional applications to industrial, municipal and residential lawns. Do not use on pasture or range grasses. Do not feed clippings to livestock. Do not use if grass is grown for seed.			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 threat 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 for adequate coverage. Do not graze treated areas. Do not feed clippings to livestock.
	Copper Spot Red Thread Fusarium Blight (F. Roseum) Slime Molds	4-8	
	Helminthosporium Melting Out Rhizoctonia Brown Patch Rust	4	Apply on a 7 day schedule for Rhizoctonia.
	Pythium Blight	8	Apply at 5 day intervals or more frequently if conditions are especially favorable for disease development.
	Dollar spot	6-8	A cadmium fungicide may be added to supplement Dollar Spot control under severe disease conditions.
	Algae	6	
	Fusarium Snow Mold	6-8	Apply at 2 week intervals during winter



CROP	DISEASES	REMARKS
<b>ORNAMENTALS COMMERCIAL AND HOMEGARDEN USE</b>		Refer to General Use Instructions except when more specific directions are given for individual crops or diseases.
GENERAL USE INSTRUCTIONS		<p>Apply the equivalent of 1½ lbs. PENNCOZEB TURF AND ORNAMENTALS FUNGICIDE per 100 gallons of water (1½ level tablespoons per gallon) in full coverage spray. To improve performance, add 2 to 4 oz. spreader-sticker per 100 gallons of spray.</p> <p>Begin spraying when plants are well leafed out or at first sign of disease and apply at 7 to 10 day intervals throughout the season, or follow State Extension Service recommendations for disease control on the following ornamental plants:</p>
Azaleas	Petal Blight	Spray 2 to 3 times a week while flowers are opening. Direct spray into flowers and spray ground under bushes thoroughly.
Camelias	Petal Blight	Refer to azaleas
Carnation	Leaf Spot	
Chrysanthemum	Botrytis Petal Spot	Apply at 1 to 2 lbs. per 100 gallons or 1½ level table spoons per gallon in full coverage spray. Apply twice weekly during the blooming season.
Crabapple (ornamental)	Scab Cedar-Apple Rust	
Dahlia	Botrytis Blight	
Dogwood, Flowering	Anthracnose	Apply when buds begin to open, when bracts have fallen, 4 weeks later, and again in late summer after flower buds for next season are formed.
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.
Holly	Purple Spot	
Honeysuckle	Herpobasidium Blight	
Iris	Leaf Spot	
Lily	Botrytis Blight	
Pachysandra	Volutella Blight	Use a drenching spray of 2 lbs. per 50 gallons of water per 5000 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	
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.
Rhododendron	Petal Blight	Refer to azalea.
Roses	Black Spot	
Snapdragon	Rust	
Tulip	Botrytis Blight (fire)	
Zinnia	Leaf Blight	

**CHEMIGATION**  
**NOT FOR THIS USE IN CALIFORNIA**  
**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 only through systems containing anti-siphon 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.

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 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 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 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 into the irrigation water line so as to deliver the desired rate per acre. The suspension of PENNCOZEB 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 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 and disposal.

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**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.

**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.