

JAN 24 1997

Mr. Jon M. Gehring  
ISK Biosciences Corporation  
P.O. Box 8000  
Mentor, OH 44061-8000

Dear Mr. Gehring:

Subject: Revised Labeling  
Daconil Zn Flowable Fungicide  
EPA Registration No. 50534-211  
Your Submission Dated December 24, 1996

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

- On the Container Label, the PPE section and User Safety Recommendations section must appear in the Precautionary Statements section. According to 40 CFR 156.10(i)(1)(ii) only directions for use may appear on printed or graphic matter that accompanies the pesticide.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,



Cynthia Giles-Parker  
Product Manager (22)  
Fungicide Herbicide Branch  
Registration Division (7505C)

Enclosure

2814

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
JAN 24 1997

Net Contents:

(Container Label)

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
50534-211



**ISK BIOSCIENCES™**

**DACONIL Zn™**

**Flowable Fungicide**

**Turf Care®**

**Turf and Ornamental Fungicide**

Contains 4.17 pounds chlorothalonil active  
ingredient per gallon (500 grams per liter)

|  |        |
|--|--------|
| <b>Active Ingredient:</b>                          |        |
| Chlorothalonil (tetrachloroisophthalonitrile)..... | 38.5%  |
| <b>Inert Ingredients:</b> .....                    | 61.5%  |
| <b>Total:</b> .....                                | 100.0% |

Keep Out of Reach of Children

**WARNING-AVISO**

See side panel for additional precautionary statements.

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.)

DACONIL Zn and WEATHER STIK logo are trademarks of ISK Biosciences Corporation  
TURF CARE is a Registered Trademark of ISK Biosciences Corporation.

ISK Biosciences Corporation  
5966 Heisley Road  
P.O. Box 8000  
Mentor, Ohio 44061-8000

EPA Reg. No. 50534-211  
EPA Est. No. 50534-TX-1

REC'D...  
96 DEC 27 P 2:57  
.../PP/DPD1

## DACONIL Zn™

Read entire label carefully and use only as directed.

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

#### WARNING-AVISO

Causes substantial but temporary eye injury. Harmful if swallowed, or absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin. DO NOT get in eyes or on clothing. DO NOT take internally.

**Note to User:** This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Affected persons should consult a physician.

#### First Aid

**If swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. DO NOT induce vomiting or give anything by mouth to an unconscious person.

**If in eyes:** Immediately flush eyes with plenty of water and continue for 15 minutes. Seek medical attention for eyes immediately.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**Note to physician:** Persons having temporary irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

#### Environmental Hazards

This product is toxic to fish, aquatic invertebrates, and marine/ estuarine organisms. 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. DO NOT apply when weather conditions favor drift from treated areas. Apply only to areas specified on label. DO NOT contaminate water when disposing of equipment washwaters.

#### Storage and Disposal

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Storage:** Store in a cool place. Protect from excessive heat.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### Warranty and Limitation of Damages

Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by Seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use, and Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty or guaranty exceed the purchase price of the product as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

OK

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14

### Directions for Use

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**SEE ENCLOSED FOLDER FOR  
DIRECTIONS FOR USE.**

**PLACE INSERT  
POUCH HERE**

11 6 7

5 9 14

# DACONIL Zn™

(Leaflet label)

## Flowable Fungicide

### Turf Care®

### Turf and Ornamental Fungicide

**Active Ingredient:** Chlorothalonil

(tetrachloroisophthalonitrile) 38.5%

**Inert Ingredients:** 61.5%

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**Total:** 100.0%

Contains 4.17 pounds chlorothalonil active ingredient per gallon (500 grams per liter)

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TURF CARE is a Registered Trademark of ISK Biosciences Corporation.

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(If you do not understand the label, find someone to explain it to you in detail.)

### See precautionary statements.

### ISK Biosciences Corporation

5966 Heisley Road

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EPA Reg. No. 50534-211

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**If in eyes:** Immediately flush eyes with plenty of water and continue for 15 minutes. Seek medical attention for eyes immediately.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**Note to physician:** Persons having temporary irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

### Personal Protective Equipment (PPE):

Applicators and other handlers must wear long sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. For exposures in enclosed areas, applicators and other handlers must wear a respirator with either an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

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

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

**User Safety Recommendations**

Users should:

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

**Environmental Hazards**

This product is toxic to fish, aquatic invertebrates, and marine/estuarine organisms. 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. DO NOT apply when weather conditions favor drift from treated areas. Apply only to areas specified on label. DO NOT contaminate water when disposing of equipment washwaters.

**Directions for Use**

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement 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 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

**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 (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Keep children and domestic animals off treated areas until this material has been washed into the soil.**

Zinc is incorporated into this formulation as a micronutrient to provide plants with zinc required for growth.

DO NOT combine DACONIL Zn in the spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. DO NOT combine DACONIL Zn with Dipel 4L, Foil, Triton AG-98, Triton B-1956, Latron B-1956 or Latron AG-98 as phytotoxicity may result from the combination when applied to some species on this label.

Dipel is a registered trademark of Abbott Laboratories; Foil is a registered trademark of Ecogen, Inc. Corporation. Triton AG-98, Triton B-1956, Latron B-1956 and B-1956 Latron AG-98 are trademarks of Rohm and Haas Company.

The required amount of DACONIL Zn should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of DACONIL Zn in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

**Golf Course Fairways, Lawns and Other Turfgrasses:**

Apply DACONIL Zn in 30 to 40 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry; DACONIL Zn should always be used in conjunction with good turf management practices. **Do not use on fine fescue turf.**

| Diseases Controlled*                       | Interval of Application | Application Rate Per Acre                |
|--|-------------------------|--|
| 1. Dollar spot                             | 7-10 days<br>14-21 days | 4 <sup>1/2</sup> to 8 pts<br>8 to 14 pts |
| 2. Leaf spot, Melting-out,<br>Brown blight | 7-10 days<br>14-21 days | 8 pts<br>8 to 14 pts                     |
| 3. Brown patch                             | 7-14 days               | 8 to 14 pts                              |
| 4. Gray leaf spot                          | 7-10 days               | 8 to 16 pts                              |
| 5. Red thread                              | 7-10 days               | 8 to 24 pts                              |
| 6. Anthracnose                             | 7-14 days               | 12 to 24 pts                             |

\* Low rate is not effective on intensively mowed turfgrasses such as golf course tees and greens.

### Golf Course Tees, Greens and Ornamental Turfgrass:

Apply DACONIL Zn in an adequate amount of water to provide complete coverage. This amount may vary from 90 to 450 gallons per acre. See below for suggested rates and timing. Under severe disease conditions, use the high rate and apply on a 7 day schedule. Do not use on fine fescue turf.

| Diseases Controlled*                         | Interval of Application | Rate: Liquid Ounces Per 1,000 Sq. Ft. |                            |
|--|-------------------------|---------------------------------------|----------------------------|
|  |                         | Before Disease Occurs                 | After Disease Has Occurred |
| 1. Dollar spot                               | 7-14 days               | 3-6                                   | 6-11                       |
| 2. Brown patch                               | 7-14 days               | 3-6                                   | 6-11                       |
| 3. Leaf spots, Melting-out                   | 7-10 days               | 3-6                                   | 6-11                       |
| 4. Gray leaf spot                            | 7-10 days               | 3-6                                   | 6-11                       |
| 5. Red thread                                | 7-10 days               | 3-9                                   | 9-11                       |
| 6. Anthracnose                               | 7-14 days               | 5-9                                   | —                          |
| 7. Copper spot                               | 7-10 days               | 6-9                                   | 9-11                       |
| 8. Stem rust (bluegrass)                     | 7-14 days               | 6-9                                   | 9-11                       |
| 9. DICHONDRA: Leaf spot<br>(California only) | 7-14 days               | 6-9                                   | 9-11                       |

\*Diseases listed are caused by fungi, some of which are named as follows:

1. Dollar spot: *Sclerotinia homeocarpa*; *Lanzia* or *Moellerodiscus* spp.
2. Brown patch: *Rhizoctonia solani*, *R. zeae*, *R. cerealis*
3. Leaf spots, Melting-out, Brown blight: *Drechslera* spp. (including *D. poae*, *D. sicans*), *Bipolaris sorokiniana*, *Curvularia* spp.
4. Gray leaf spot: *Pyricularia grisea*, *P. oryzae*
5. Red thread: *Laetisaria fuciformis*
6. Anthracnose: *Colletotrichum graminicola*
7. Copper spot: *Gloeocercospora sorghi*
8. Stem rust: *Puccinia graminis*
9. Dichondra leaf spot: *Alternaria* spp.

Gray snow mold caused by *Typhula* spp. – Apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 1,000 square feet). Apply 8 to 16 fluid ounces of DACONIL Zn per 1,000 square feet of turf area. Application must be made before snow cover in autumn. Use the higher rate if turf layer remains frozen prior to snow cover. If snow cover is intermittent or lacking during the winter, re-apply DACONIL Zn at 8 fluid ounces per 1,000 square feet at monthly intervals until gray snow mold conditions no longer prevail. In areas where pink snow mold (*Gerlachia* or *Fusarium* patch) is likely to occur, apply DACONIL Zn at 8 fluid ounces per 1,000 square feet in combination with products containing either benomyl at 1 ounce active ingredient per 1,000 square feet, or iprodione at 2 ounces active ingredient per 1,000 square feet of turf area. Read and observe all label directions for products containing these active ingredients.

**Fusarium (Gerlachia) Patch:** For control of Fusarium patch only in areas where snow cover is intermittent or lacking during the winter, apply 8 to 14 fluid ounces of DACONIL Zn per 1,000 square feet of turf area. Begin applications in late autumn and re-apply at 21 to 28 day intervals until conditions favorable for Fusarium patch no longer prevail.

**Algae Algal Scum:** For prevention of algae algal scum on turfgrasses, caused by cyanobacteria of the genus *Lyngbia*, apply DACONIL Zn at the rate of 3 to 6 fluid ounces per 1,000 square feet on a 7 to 14 day schedule. Under severe algae scum conditions, use the high rate and apply on a 7 day schedule. When algae algal scum is well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with DACONIL Zn applications at the rate of 6 to 11 fluid ounces per 1,000 square feet on a 7 to 14 day schedule. Several applications of DACONIL Zn at the high rate may be necessary for turfgrass recovery. Only a preventive spray program with DACONIL Zn will prevent a recurrence of the algae when environmental conditions are favorable, for algal growth.

**Ornamental Plants:**

Apply DACONIL Zn at a rate of 2 pints per 100 gallons of water unless other directions are given in the tables below. Apply in a spray to run-off, when conditions are favorable for disease development. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply DACONIL Zn at 7 day intervals. DACONIL Zn should be applied to plants when both foliage and flowers are dry, or nearly dry.

DO NOT combine DACONIL Zn in the spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination to be physically compatible, effective and noninjurious under your conditions of use.

DACONIL Zn may be used in greenhouses. DO NOT use mistblowers or high pressure spray equipment when making applications of DACONIL Zn in greenhouses.

Use of DACONIL Zn is recommended for control of fungal diseases referred to by numbers in parentheses following each ornamental. Ornamentals listed on this label have been tested and found to tolerate applications of DACONIL Zn at the recommended rates. The user should test for possible phytotoxic responses, using recommended rates on ornamental plants on a small area prior to commercial use. Applications made during bloom may damage flowers and/or fruits.

Fruits and other structures which may be borne on treated plants MUST NOT BE EATEN.

**Ornamentals Recommended for Treatment With DACONIL Zn**

**BROADLEAF SHRUBS AND TREES**

- Andromeda (Pieris) (4)
- Ash (Fraxinus) (1)
- Aspen (1)
- Azalea (1,2,4)
- Buckeye, Horsechestnut (1)
- Cherry-Laurel (1)
- Crabapple (1,6,8)
- Dogwood (1)
- Eucalyptus (3)
- Euonymus (1)
- Firethorn (Pyracantha) (1)
- Flowering Almond (1,2)
- Flowering Cherry (1,2)
- Flowering Peach (1,2)
- Flowering Plum (1,2)
- Flowering Quince (1,2)
- Hawthorn (1,6)
- Holly (1)
- Lilac (5)
- Magnolia (1)
- Maple (1)
- Mountain Laurel (1)



**BEST AVAILABLE COPY**



- Oak (red group only) (1,7)
- Oregon-Grape (Mahonia) (6)
- Photinia (1)
- Poplar (1)
- Privet (Ligustrum) (1)
- Rhododendron (1,2,4)
- Sand Cherry (1,2)
- Sequoia (1)
- Spiraea (1)
- Sycamore, Planetree (1)
- Viburnum (5)
- Walnut (Juglans) (1)

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**FLOWERING PLANTS<sup>a/</sup> and BULBS**

- Arabian Violet (2)
- Begonia (1)
- Camellia (2)
- Carnation (1,2)
- Chrysanthemum (1,2)
- Crocus (1)
- Daffodil (1)
- Daisy (1)
- Geranium (1,6)
- Gladiolus (1,2)
- Hollyhock (6)
- Hydrangea (foliage only) (1,6)
- Iris (1,2)
- Lily (1)
- Marigold (1)
- Narcissus (1)
- Pansy (1)
- Petunia (1,4)
- Phlox (1)
- Poinsettia<sup>b/</sup>(1)
- Rose<sup>c/</sup>(1)
- Statice (1)
- Tulip (1)
- Zinnia (1,5)

a/ Avoid applications during bloom period on plants where flower injury is unacceptable.  
 b/ Discontinue applications prior to bract formation; phytotoxicity is possible on the bracts.  
 c/ Use 1.5 pints per 100 gallons of water.

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**FOLIAGE PLANTS**

- Aglaonema (1)
- Areca palm (1)
- Artemesia (1)
- Boston fern (1)
- Dumbcane (Dffenbachia) (1)

- Dracaena (1)
- Fatsia (Aralia) (1)
- Ficus (1)
- Florida Ruffle Fern (1)
- Leatherleaf Fern (1)
- Lipstick plant (1)
- Ming aralia (1)
- Oyster plant (Rhoeo) (1)
- Pachysandra <sup>d</sup> (1)
- Parlor palm (Chamaedorea) (1)
- Peperomia (1)
- Philodendron (1,4)
- Prayer plant (Maranta) (1)
- Syngonium (1)
- Zebra plant (Aphelandra) (1)

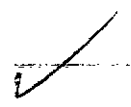
d/ Use 4 pints of DACONIL Zn per 100 gallons of water.

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**Diseases Controlled with DACONIL Zn**

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1. **Leafspots/Foliar Blights:**
  - Actinopelte leafspot
  - Alternaria leafspot/leaf blight
  - Anthracoze leaf blotch, spot
  - Anthracoze (Discula) blight
  - Ascochyta blight
  - Bipolaris (Helminthosporium) leafspot
  - Black Spot on Roses
  - Botrytis leafspot, leaf blight
  - Cephalosporium leafspot
  - Cercospora leafspot
  - Cercosporidium leafspot
  - Coryneum blight (shothole)
  - Corynespora leafspot
  - Curvularia leafspot
  - Cylindrosporium leafspot
  - Dactylaria leafspot
  - Didymellina leafspot
  - Drechslera leafspot
  - Fabraea (Entomosporium) leafspot
  - Fusarium leafspot
  - Gloeosporium black leafspot
  - Ink spot (Drechslera)
  - Marssonina leafspot
  - Monilinia blossom blight, twig blight
  - Mycosphaerella ray blight
  - Myrothecium leafspot, brown rot
  - Nematostoma leaf blight
  - Phyllosticta leafspot
  - Rhizoctonia web blight



- Ramularia leafspot
- Septoria leafspot
- Sphaeropsis leafspot
- Stagonospora leaf scorch
- Tan leafspot (Curvularia)
- Volutella leaf blight

**2. Flower spots/blights:**

- Botrytis flower spot, flower blight
- Curvularia flower spot
- Monilinia blossom blight
- Ovulinia flower blight
- Rhizopus blossom blight
- Sclerotinia flower blight

**3. Cylindrocladium stem canker**

**4. Phytophthora leaf blight, dieback**

**5. Powdery mildews:**

- Erysiphe cichoracearum
- Microsphaera spp.

**6. Rusts:**

- Gymnosporangium spp.
- Puccinia spp.
- Pucciniastrum hydrangeae

**7. Taphrina blister**

**8. Scab (Venturia inaequalis)**

The following ornamental plant species which have been tested with DACONIL Zn at recommended rates did not exhibit phytotoxicity:

| <b>Botanical Name</b>     | <b>Common Name</b>        |
|---------------------------|---------------------------|
| Aechmea fasciata          | Aechmea                   |
| Araucaria heterophylla    | Norfolk Island Pine       |
| Asplenium nidus           | Birdnest Fern             |
| Bougainvillea spp.        | Bougainvillea             |
| Caladium spp.             | Caladium                  |
| Calathea makoyana         | Peacock plant             |
| Calistephus chinensis     | Aster                     |
| Carissa grandiflora       | Natal plum                |
| Clerodendron thomsonae    | Bleeding Heart            |
| Codiaeum spp.             | Croton                    |
| Cordyline terminalis      | TI Plant                  |
| Crassula argentea         | Jade Plant                |
| Cyrtomium falcatum        | Holly Leaf Fern           |
| Dionaea muscipula         | Venus Fly Trap            |
| Dizygotheca elegantissima | False Aralia              |
| Epipremnum aureum         | Golden Pothos, Scindapsus |
| Episcia cupreata          | Flame Violet              |
| Fittonia spp.             | Silver-nerve Plant        |
| Gerbera jamesonii         | Gerbera Daisy             |
| Gynura sarmentosa         | Purple Passion Vine       |
| Gypsophila paniculata     | Baby's Breath             |

|                                  |                       |
|----------------------------------|-----------------------|
| Hoya spp.                        | Wax Plant             |
| Ilex cornuta                     | Chinese Holly         |
| Ilex crenata                     | Japanese Holly        |
| Impatiens spp.                   | Impatiens             |
| Pilea cadierei                   | Aluminum Plant        |
| Platynerium spp.                 | Staghorn Fern         |
| Sansevieria trifasciata "Hahnii" | Birdsnest Sansevieria |
| Tolmeia menziesii                | Piggy-back Plant      |
| Yucca elephantipes               | Spineless Yucca       |
| Zygocactus truncatus             | Christmas Cactus      |

**NOTE:** DO NOT apply DACONIL Zn to either green or variegated Pittosporum or to Schefflera, as multiple applications have been demonstrated to cause phytotoxic responses.

**CONIFERS:** Apply DACONIL Zn in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, DACONIL Zn may be applied with aircraft using at least 20 gallons per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of DACONIL Zn listed may be used. DO NOT allow livestock to graze in treated areas. The following spray volumes are recommended as gallons of spray per acre:

|                 | Dilute   | Concentrate                             |
|-----------------|----------|---|
| Forest stands   | Not used | 10 to 20 (aircraft)                     |
| Christmas trees | 100      | 10 to 50 (aircraft or ground equipment) |
| Nursery beds    | 100      | 5 to 10 (ground equipment only)         |

| Disease Controlled  | DACONIL Zn Rate Per |            | Application Directions  |
|---|---------------------|------------|---|
|   | Acre                | 100 GAL*   |   |
| Swiss needlecast  | 4 to 8 pts          | 4 to 8 pts | Single application technique: In Christmas tree plantations or forest stands make one application in the spring when new shoot growth is 1/2 to 2 inches in length.   |
| Scieroderris canker (pines),<br>Swiss Needlecast (Douglas-fir)    | 2 to 4 pts          | 2 to 4 pts | Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development.  |
| Sirococcus tip blight   | 3 to 5 pts          | 3 to 5 pts | For use in nursery beds, apply the highest rate specified on a 3 week schedule.   |
| Rhizosphaera needlecast (spruces),<br>Scirrhia brown spot (pines) | 8 pts               | 8 pts      |   |
| Cyclaneusma and Lophodermium<br>needlecasts (pines)               | 4 to 8 pts          | 4 to 8 pts | Apply in early spring prior to budbreak. Repeat applications at approximately 6 to 8 week intervals, until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness. |
| Rhabdocline needlecast (Douglas-fir)                              | 2 to 4 pts          | 2 to 4 pts | Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance, or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule.                     |
| Botrytis seedling blight<br>Phoma twig blight                     | 2 to 4 pts          | 2 to 4 pts | Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist.   |

\*Volumetric rates to be used only with full dilute spray volume specified on this label.

## Application and Calibration Techniques for Sprinkler Irrigation

Apply this product only through center pivot, motorized lateral move, solid set or portable (wheel move, side roll, end tow, or hand move) irrigation system(s). DO NOT apply this product through any other type of irrigation system. DO NOT use DACONIL Zn through sprinkler irrigation equipment on golf courses.

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

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

DO NOT apply this product through irrigation systems connected to a public water system. "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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

**Always inject DACONIL ZN into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

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 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.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment.

DACONIL Zn may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

### A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered.

Thoroughly mix recommended amount of DACONIL Zn for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until DACONIL Zn has been cleared from last sprinkler head.

### B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of DACONIL Zn for acreage to be covered with water so that the total mixture of DACONIL Zn plus water in the injection tank is equal to the quantity of water used during calibration, and operate entire system at normal pressures recommended by the manufacturer of injection equipment used, for amount of time established during calibration. Agitation is recommended. DACONIL Zn can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until DACONIL Zn has been cleared from last sprinkler head.

## Storage and Disposal

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Storage:** Store in a cool place. Protect from excessive heat.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Warranty and Limitation of Damages**

Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use and Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty or guaranty exceed the purchase price of the product as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

(EPA Stamped 8/15/96; Minor Amendment to clarify Algae, add logo, change warranty, add black spot 12/24/96)

12/96