



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

SEP 2 1999

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Fred J. Pearson, Zeneca Agent for
GB Biosciences Corporation
1800 Concord Pike
P.O. Box 15458
Wilmington, DE 19850-5458

SUBJECT: Application for Amended Registration
Daconil SDG
EPA Reg. No. 50534-202
Your Submission Dated April 14, 1999

Dear Mr. Pearson:

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

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

- You must add the following statement under the Signal Word: See side panel for additional precautionary statements.
- We note that the container label was not submitted for review. The container label must be identical to the front panel of the booklet label. It should include Precautionary Statements, Reg No., product name and WPS language.

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2. Submit one copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

Sincerely yours,



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

Enclosure

3/22

DACONIL® SDG
Turf Care®
Turf and Ornamental Fungicide

Active Ingredient: Chlorothalonil (tetrachloroisophthalonitrile)	82.5%
Inert Ingredients:	<u>17.5%</u>
TOTAL	100.0%

(82.5% Water Dispersible Granules)

EPA Reg. No. 50534-202
EPA Est. No. 50534-TX-1

Keep Out of Reach of Children
Danger - Peligro

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.)

GB Biosciences Corporation
1800 Concord Pike
Wilmington, Delaware 19850-5458

ACCEPTED
with COMMENTS
In EPA Letter Dated:

SEP 2 1991

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

50534-202

**CONDITIONS OF SALE
AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of GB Biosciences or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold GB Biosciences and Seller harmless for any claims relating to such factors.

GB Biosciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or GB Biosciences, and Buyer and User assume the risk of any such use. GB BIOSCIENCES MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall GB Biosciences or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF GB BIOSCIENCES AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF GB BIOSCIENCES OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

GB BIOSCIENCES and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of GB BIOSCIENCES.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. May be a potential skin sensitizer.

DO NOT get in eyes or on clothing. Harmful if inhaled. Avoid breathing dust or spray mist. Avoid prolonged contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

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.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633)

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.

Personal Protective Equipment (PPE):

WPS USES: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) – in general, agricultural-plant uses are covered – must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear, and a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C). 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).

NON-WPS USES: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) – in general, only agricultural-plant uses are covered – must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear.

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

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 contaminate water when disposing of equipment washwaters. DO NOT apply when weather conditions favor drift from treated areas. Apply only to areas specified on label.

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 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.

STORAGE AND DISPOSAL

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

Storage: Store in a dry place.

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

DACONIL® SDG is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. DACONIL SDG is recommended for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

DACONIL SDG is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. DACONIL SDG, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your federal or state Cooperative Extension Service representatives for guidance on the proper use of DACONIL SDG in programs which seek to minimize the occurrence of disease resistance to other fungicides.

DO NOT combine DACONIL SDG 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 SDG 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. Latron B-1956 and Latron AG-98 are trademarks of Rohm and Haas Company.

The required amount of DACONIL SDG should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of DACONIL SDG 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 & Other Turfgrasses:

Not for use on residential (home) lawns.

Apply DACONIL SDG 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 SDG should always be used in conjunction with good turf management practices.

Diseases Controlled*	Interval of Application	Application Rate Per Acre
1. Dollar spot	7-10 days	2.5 ^{a/} to 5 lbs
	14-21 days	5 to 9.1 lbs
2. Leaf spot, Melting-out, Brown blight	7-10 days	5 lbs
	14-21 days	5 to 9.1 lbs

Diseases Controlled*	Interval of Application	Application Rate Per Acre
3. Brown patch	7-14 days	5 to 9.1 lbs
4. Gray leaf spot	7-10 days	5 to 10 lbs
5. Red thread	7-10 days	5 to 15 lbs
6. Anthracnose	7-14 days	7.5 to 15 lbs

^{a/} 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 SDG 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.

Diseases Controlled*	Interval of Application	Rate: Pounds Per Acre	
		Before Disease Occurs	After Disease Has Occurred
1. Dollar spot	7-14 days	5-10	10-20
2. Brown patch	7-14 days	5-10	10-20
3. Leaf spots, Melting-out	7-10 days	5-10	10-20
4. Gray leaf spot	7-10 days	5-10	10-20
5. Red thread	7-10 days	5-15	15-20
6. Anthracnose	7-14 days	7.5-15	-
7. Copper spot	7-10 days	10-15	15-20
8. Stem rust (bluegrass)	7-14 days	10-15	15-20
9. DICHONDRA: Leaf spot (California only)	7-14 days	10-15	15-20

*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. siccanis*), *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 (90 to 450 gallons per acre). Apply 13.6 to 27.2 pounds of DACONIL SDG per acre 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 SDG at 13.6 pounds per acre 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 SDG at 13.6 pounds per acre in combination with products containing either benomyl at 44 ounces active ingredient per acre, or iprodione at 88 ounces active ingredient per acre 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 13.6 to 24 pounds of DACONIL SDG per acre 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: For prevention of algae on turfgrasses, apply DACONIL SDG at the rate of 5 to 10 pounds per acre on a 7 to 14 day schedule. Under severe algae conditions use the high rate and apply on a 7 day schedule. When algae 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 SDG applications at the rate of 10 to 20 pounds per acre on a 7 to 14 day schedule. Several applications of DACONIL SDG at the high rate may be necessary for turfgrass recovery. Only a preventive spray program with DACONIL SDG will prevent a recurrence of the algae when environmental conditions are favorable.

Ornamental Plants:

Apply DACONIL SDG at a rate of 1.4 pounds 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 SDG at 7 day intervals. DACONIL SDG should be applied to plants when both foliage and flowers are dry, or nearly dry.

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

Use of DACONIL SDG 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 SDG 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 SDG

BROADLEAF SHRUBS AND TREES

Andromeda (Pieris) (4)	Holly (1)
Ash (Fraxinus) (1)	Lilac (5)
Aspen (1)	Magnolia (1)
Azalea (1,2,4)	Maple (1)
Buckeye, Horsechestnut (1)	Mountain Laurel (1)
Cherry-Laurel (1)	Oak (red group only) (1,7)
Crabapple (1,6,8)	Oregon-Grape (Mahonia) (6)
Dogwood (1)	Photinia (1)
Eucalyptus (3)	Poplar (1)
Euonymus (1)	Privet (Ligustrum) (1)
Firethorn (Pyracantha) (1)	Rhododendron (1,2,4)
Flowering Almond (1,2)	Sand Cherry (1,2)
Flowering Cherry (1,2)	Sequoia (1)
Flowering Peach (1,2)	Spiraea (1)
Flowering Plum (1,2)	Sycamore, Planetree (1)
Flowering Quince (1,2)	Viburnum (5)
Hawthorn (1,6)	Walnut (Juglans) (1)

Flowering Plants* and Bulbs

Arabian Violet (2)	Iris (1,2)
Begonia (1)	Lily (1)
Camellia (2)	Marigold (1)
Carnation (1,2)	Narcissus (1)
Chrysanthemum (1,2)	Pansy (1)
Crocus (1)	Petunia (1,4)
Daffodil (1)	Phlox (1)
Daisy (1)	Poinsettia ^{b/} (1)
Geranium (1,6)	Rose ^{c/} (1)
Gladiolus (1,2)	Statice (1)
Hollyhock (6)	Tulip (1)
Hydrangea (foliage only) (1,6)	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 pound per 100 gallons of water.

FOLIAGE PLANTS

Aglaonema (1)	Ming aralia (1)
Areca palm (1)	Oyster plant (Rhoeo) (1)
Artemesia (1)	Pachysandra ^{d/} (1)
Boston fern (1)	Parlor palm
Dumbcane (Diffenbachia) (1)	(Chamaedorea) (1)
Dracaena (1)	Peperomia (1)
Fatsia (Aralia) (1)	Philodendron (1,4)
Ficus (1)	Prayer plant (Maranta) (1)
Florida Ruffle Fern (1)	Syngonium (1)
Leatherleaf Fern (1)	Zebra plant (Aphelandra) (1)
Lipstick plant (1)	

^{d/} Use 2.5 pounds of DACONIL SDG per 100 gallons of water.

Diseases Controlled with DACONIL SDG

1. Leafspots/Foliar Blights:

Actinopelte leafspot
 Alternaria leafspot/leaf blight
 Anthracnose leaf blotch, spot
 Anthracnose (Discula) blight
 Ascochyta blight
 Bipolaris (Helminthosporium) leafspot
 Black spot on roses
 Botrytis leafspot, leaf blight
 Cephalosporium leafspot
 Cercospora leafspot
 Cercosporidium leafspot
 Corynespora leafspot
 Coryneum blight (shot-hole)
 Curvularia leafspot
 Cyindrosporium 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
 Ramularia leafspot
 Rhizoctonia web blight
 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.
 Pucciniastrum hydrangeae

Puccinia spp

7. Taphrina blister

8. Scab (Venturia inaequalis)

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

Botanical Name	Common Name
<i>Aechmea fasciata</i>	Aechmea
<i>Araucaria heterophylla</i>	Norfolk Island Pine
<i>Asplenium nidus</i>	Birdnest Fern
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Caladium</i> spp.	Caladium
<i>Calathea makoyana</i>	Peacock plant
<i>Calistephus chinensis</i>	Aster
<i>Carissa grandiflora</i>	Natal plum
<i>Clerodendron thomsonae</i>	Bleeding Heart
<i>Codiaeum</i> spp.	Croton
<i>Cordyline terminalis</i>	Ti Plant
<i>Crassula argentea</i>	Jade Plant
<i>Cyrtomium falcatum</i>	Holly Leaf Fern
<i>Dionaea muscipula</i>	Venus Fly Trap
<i>Dizygotheca elegantissima</i>	False Aralia
<i>Epipremnum aureum</i>	Golden Pothos, Scindapsus
<i>Episcia cupreata</i>	Flame Violet
<i>Fittonia</i> spp.	Silver-nerve Plant
<i>Gerbera jamesonii</i>	Gerbera Daisy
<i>Gynura sarmientosa</i>	Purple Passion Vine
<i>Gypsophila paniculata</i>	Baby's Breath
<i>Hoya</i> spp.	Wax Plant
<i>Ilex cornuta</i>	Chinese Holly
<i>Ilex crenata</i>	Japanese Holly
<i>Impatiens</i> spp.	Impatiens
<i>Pilea cadieriei</i>	Aluminum Plant
<i>Platynerium</i> spp.	Staghorn Fern
<i>Sansevieria trifasciata</i> "Hahnii"	Birdsnest Sansevieria
<i>Tolmeia menziesii</i>	Piggy-back Plant
<i>Yucca elephantipes</i>	Spineless Yucca
<i>Zygocactus truncatus</i>	Christmas Cactus

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

~~Conifers: Apply DICONIL SDG 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, DICONIL SDG 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 DICONIL SDG 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)

DISEASES CONTROLLED	DACONIL SDG RATE PER ACRE ————— 100 GAL*	APPLICATION DIRECTIONS
Swiss needlecast	2.5 to 5.0 lbs — 2.5 to 5.0 lbs	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.
Scleroderris canker — (pines); Swiss needlecast — (Douglas-fir) Sirococcus tip blight Rhizosphaera — needlecast — (spruces); Scirrhia brown spot — (pines)	1.25 to 2.5 lbs — 1.25 to 2.5 lbs 1.8 to 3.2 lbs — 1.8 to 3.2 lbs 5.0 lbs — 5.0 lbs	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. For use in nursery beds, apply the highest rate specified on a 3 week schedule.
Cyclaneusma and — Lophodermium — needlecasts (pines)	2.5 to 5.0 lbs — 2.5 to 5.0 lbs	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.
Rhabdochline — needlecast — (Douglas-fir)	1.4 to 2.5 lbs — 1.4 to 2.5 lbs	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.

DISEASES CONTROLLED	DACONIL SDG RATE PER ACRE ——— 100 GAL*	APPLICATION DIRECTIONS
Botrytis seedling blight Phoma twig blight	1.4 to 2.5 lbs — 1.4 to 2.5 lbs	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.

Tree and Orchard Crops

Apply DACTONIL SDG 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, DACTONIL SDG 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 DACTONIL SDG 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:

CROP	SPRAY VOLUME (Gallons per Acre)	
Peach,	20 (concentrate)	
Nectarine,	to	
Apricot,	300 (full dilute)	
Tart Cherry,		
Plum,		
Prune		
Sweet Cherry	20 (concentrate)	
	to	
	400 (full dilute)	
Conifers:	<u>Dilute</u>	<u>Concentrate</u>
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)

CROP	DISEASES	DACONIL SDG RATE PER		APPLICATION DIRECTIONS
		ACRE	100 GAL*	
Peach, Nectarine, Apricot, Cherry, Plum, Prune	Leaf curl; Coryneum blight (shothole)	2.8 to 3.8 lbs	0.9 to 1.25 lbs	For best control of both diseases apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of DACONIL SDG for control of leaf curl may be made at any time prior to budswell the following spring. Where Coryneum blight (shothole) occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections.
	Brown rot blossom blight; Lacy (russet) scab (plum/prune)	2.8 to 5.0 lbs	0.9 to 1.25 lbs	Use 3.8 to 5.0 lbs per acre on trees taller than 20 feet and 2.8 to 3.8 lbs per acre on smaller trees. Make one application at popcorn (pink, red or early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.
	Cherry leafspot; Peach, Nectarine, Apricot scab Black knot (cherry, plum)	2.8 to 3.8 lbs	0.9 to 1.25 lbs	In addition to the bloom application listed above, make one application at shuck split. DO NOT apply DACONIL SDG after shuck split and before harvest. If additional disease control is needed before harvest, use another registered fungicide. For control of cherry leafspot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leafspot incidence, make a second application 10-14 days later.

CROP	DISEASES	DACONIL SDG RATE PER		APPLICATION DIRECTIONS
		ACRE	100 GAL *	
Conifers (pines, spruces)	Swiss needlecast	2.5 to 5.0 lbs	2.5 to 5.0 lbs	<p>Single application technique: In Christmas plantations or forest stands make one application in the spring when new shoot growth is 1/2 to 2 inches in length.</p> <p>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. For use in nursery beds, apply the highest rate specified on a 3 week schedule.</p>
	Sclerodermis canker (pines), Swiss needlecast	1.25 to 2.5 lbs	1.25 to 2.5 lbs	
	Sirococcus tip blight	1.8 to 3.2 lbs	1.8 to 3.2 lbs	<p>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.</p>
	Rhizosphaera needlecast (spruces), Scirrhia brown spot (pines)	5.0 lbs	5.0 lbs	
	Cyclaneusma and Lophodermium needlecasts (pines)	2.5 to 5.0 lbs	2.5 to 5.0 lbs	<p>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.</p>
	Rhabdocline needle- cast (Douglas-fir)	1.4 to 2.5 lbs	1.4 to 2.5 lbs	
	Botrytis seedling blight, Phoma Twig Blight	1.4 to 2.5 lbs	1.4 to 2.5 lbs	<p>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.</p>
	Autoecious needle rust (Weir's cushion) (spruce)	1.8 to 3.2 lbs	1.8 to 3.2 lbs	<p>Begin applications when 10% of buds have broken and twice thereafter at 7-10 day intervals.</p>

* Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.

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 SDG 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 SDG 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.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

DACONIL SDG 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.

Thoroughly mix recommended amount of DACONIL SDG 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 SDG 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 DAPONIL SDG for acreage to be covered with water so that the total mixture of DAPONIL SDG 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. DAPONIL SDG 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 DAPONIL SDG has been cleared from last sprinkler head.

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