

JUL 27 1990

Ralph P. Burton
Fermenta ASC Corporation
5966 Haisley Road
P.O. Box 8000
Mentor, OH 44061-8000

Dear Mr. Burton:

Subject: Amended Precautionary Statements
Technical Chlorothalonil
EPA Registration No. 50534-7
Technical Daconil
EPA Registration No. 50534-24
Daconil 2787 WDG
EPA Registration No. 50534-195
Your Submission Dated November 7, 1989

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

1. Make the labeling change listed below before you release the product for shipment bearing the amended labeling:
 - In the Note to Physician, insert the word "may" between the words ". . . symptom" and "respond"
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.

54323:I/C:Stone;LR-9:KENCO;07/13/90;08/11/90;ek;jh;ek

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

427

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUL 27 1990

Net Contents

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide
registered under EPA Reg. No.
50534-195

SPECIMEN LABEL



Daconi 2787W

Turf Care

Turf and Ornamental Fungicide	Active Ingredient
(90% Water Dispersible Granule)	Propiconazole
	Inert Ingredients
	Total:

Keep out of reach of children
DANGER!
See label for additional precautionary statement

Fermenta ASC Corporation
5966 Heisley Road
P.O. Box 8000
Mentor, Ohio 44061-8000

EPA Est. No. 37429-GA-1
EPA Reg. No. 50534-195

23

Ornamentals:

Species	Diseases Controlled	Suggested First Application
BROADLEAF SHRUBS AND TREES		
Ash (Fraxinus)	Cercospora leafspot Cercosporidium leafspots Lyndrosporium leafspots	Spring bud break
Azalea Rhododendron	Phytophthora die back Ovulinia flower blight	New leaf emergence Early bloom
Buckeye Horsechestnut	Leaf blotch Anthracnose	Spring bud break
Cherry - Laurel Crabapple	Cercospora leafspot Scab Cedar-apple rust Sphaeropsis leafspot	Petal fall Spring bud break
Dogwood	Septoria leafspot	Early bloom
Euonymus	Anthracnose	Spring bud break
Furze Flowering Almond	Scab	Spring bud break
Quince Sand Cherry	Monilia blossom branch blight	Early bloom
Hawthorn	Rust Fabraea leafspot	Pre-bloom
Holly	Rhizoctonia web blight	Warm, moist conditions
Mountain Laurel	Cercospora leafspot	Spring bud break
Oak (red group only)	Taphrina blister Actinopeltis leafspot Anthracnose	Dormant budswell
Oregon - Grape (Mahonia)	Rust	Spring bud break
Prinina	Fabraea (Entomosprium) leafspot	Spring bud break
Pieris (Andromeda)	Phytophthora die back	New leaf emergence
Poplar	Marssonina leafspot	Spring bud break
Privet	Cercospora leafspot	Following wet conditions
Sycamore Viburnum	Anthracnose Powdery mildew	Spring bud break Mid-summer

Species	Diseases Controlled	Suggested First Application
BULBS AND FLOWERING PLANTS:		
Carnation	Alternaria leafspot/ branch rot Botrytis flower blight	Transplant of cuttings Cool, moist conditions
Chrysanthemum Daisy	Mycosphaerella ray blight Septoria leafspot	Transplant of cuttings
Geranium	Botrytis flower blight (gray mold)	Pre-bloom
Gladiolus	Botrytis blight, rust	Cool, moist conditions
Hollyhock	Rust	Early propagation
Hydrangea* (foliage only)	Cercospora and Septoria leafspots, Rust	Early propagation
Iris	Curvularia leaf/flower spot Botrytis leaf/flower spot	Cool, moist conditions
Lily Crocus, Daffodil Narcissus, Tulip	Botrytis blight (gray mold, fire, measles) Stagonospora leaf scorch	Pre-bloom
Petunia	Phytophthora blight (foliar phase) Botrytis blight	Pre-bloom
Rose (Use 1/4 lb per 100 gallons)	Black spot Botrytis blight	Spring bud break
Statice	Anthracnose Cercospora Alternaria, Botrytis leaf blights	Spring bud break
Zinnia	Powdery mildew	First sign of disease

* Discoloration of blooms has been noted on certain varieties when applications are made during flowering

Species	Diseases Controlled	Suggested First Application
FOLIAGE PLANTS:		
Dracaena	Fusarium leafspot	Pre-transplant
Pachysandra (Use 2 1/4 lb per 100 gallons)	Volutella leaf blight	Spring bud break
Leatherleaf fern	Ascochyta blight, Cercospora leafspot, Cylindrocladium leafspot, Rhizoctonia blight	Spring bud break
Parlor palm (Chamaedorea)	Bipolaris (Helminthosporium) leafspot	Cool, moist conditions
Prayer plant (Maranta)	Helminthosporium leafspot	Early propagation
Oyster plant (Rhoeo)	Tan leafspot	Early propagation
Syngonium	Cephalosporium leafspot	Warm, moist conditions
Philodendron	Phytophthora blight Dactyaria leafspot	Moist conditions

Conifers:

Diseases Controlled	Decemil 2787 WDG Rate/Acre	Application Directions
Rhabdocline needlecast (Douglas-fir)	1 1/4 to 2 1/4 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.
Botrytis seedling blight, Phoma twig blight	1 1/4 to 2 1/4 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.

Diseases Controlled	Decemil 2787 WDG Rate/Acre	Application Directions
Sclerotinia Canker (pines), Swiss Needlecast (Douglas-fir)	1 1/4 to 2 1/4 lbs	Make 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. In nursery beds, apply the highest rate specified on a 3 week schedule.
Sirococcus Tip Blight	1 1/4 to 3 lbs	
Rhizosphaera Needlecast (spruces), Scirrhia brown spot (pines)	4 1/2 lbs	
Cyclaneusima and Lophodermium needlecasts (pines)	2 1/4 to 4 1/2 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.

5x7

25

Daconil 2787* WDG

A Broad Spectrum Fungicide for Use on Golf Course Tees, Greens and Fairways, Ornamental Turfgrass, Ornamental Herbs, Shrubs and Trees.

Read entire label carefully and use only as directed.

Precautionary Statements

Hazards to Humans and Domestic Animals

Danger

Corrosive. causes severe eye damage. Do not get in eyes. Wear goggles or face shield when handling this product.

Causes skin irritation. May be a potential skin sensitizer. Avoid prolonged contact with skin. Wear long sleeve shirt, long pants, and gloves while mixing, loading and applying this product. Wash exposed areas of skin with soap and warm water after handling or using. Launder clothing worn during mixing, loading and spraying, before re-wearing.

Do not take internally.

Avoid breathing spray mist.

~~Note to User: This product may produce temporary allergic side effects characterized by redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas. Persons having allergic reactions should consult a physician.~~

First Aid:

In case of contact with eyes, flush with plenty of water immediately for 15 minutes. Seek medical attention for eyes immediately. Call physician.

~~Note to Physician: Persons having an allergic reaction 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. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters.

Apply only to areas specified on label.

General Information

DACONIL 2787 WDG is formulated for use on golf course tees, greens and fairways, ornamental turfgrass and ornamental herbs, shrubs and trees. It is highly effective for the control of a broad spectrum of turf and ornamental plant diseases when it is used according to the directions on this product label. Thorough, uniform coverage of plant surfaces is essential for good disease control.

Directions for Use

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

Add the required amount of Daconil 2787 WDG to the spray tank while filling with water. Keep agitator running when filling spray tank and during spray operations.

Do not combine Daconil 2787 WDG in the spray tank with pesticides, surfactants or fertilizers unless your prior use has shown the combination physically compatible, effective and non-injurious under your conditions of use. Do not combine Daconil 2787 WDG with Dipel® 4L, Triton® B-1956® or Triton AG-98, as phytotoxicity may result from the combination when applied to some crops on this label.

Dipel is a registered trademark of Abbott Laboratories. Triton and B-1956 are registered trademarks of Rohm and Haas Company.

TURF: Do not mow or water after treatment until spray deposit on turfgrass is thoroughly dry. Daconil 2787 WDG should always be used in conjunction with good turf management practices.

Golf Course Fairways: Apply Daconil 2787 WDG 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.

Disease	Application Interval	Application Rate Per Acre
Sclerotinia dollar spot	7 - 10 Days 14 - 21 Days	2 1/4 to 4 1/2 lbs 4 1/2 to 8 lbs
Helminthosporium leafspot	7 - 10 Days 14 - 21 Days	4 1/2 lbs 4 1/2 to 8 lbs
Rhizoctonia brown patch	7 - 14 Days	4 1/2 to 8 lbs
Anthrachnose	7 - 14 Days	7 to 14 lbs

Golf Course Tees and Greens and Ornamental Turfgrass: Apply Daconil 2787 WDG in an adequate amount of water to provide complete coverage. This amount may vary from 2 to 10 gallons per 1,000 square feet. See below for suggested rates and timing. Under severe disease conditions, use the curative rates and spray on a 7 day schedule.

Disease	Application Interval	RATE	
		Ounces Per 1,000 sq. ft. Preventive*	Curative**
Anthrachnose	7-14 Days	2 1/2 to 5	-
Copper spot	7-10 Days	3 1/2 to 5	5 to 6 1/2
Curvulana leafspot	7-10 Days	1 1/4 to 3 1/2	3 1/2 to 6 1/2
Dollar spot	7-14 Days	1 1/4 to 3 1/2	3 1/2 to 6 1/2
Gray leafspot	7-10 Days	1 1/4 to 3 1/2	3 1/2 to 6 1/2
Helminthosporium leafspot and melting out	7-10 Days	1 1/4 to 3 1/2	3 1/2 to 6 1/2
Large brown patch	7-10 Days	1 1/4 to 3 1/2	3 1/2 to 6 1/2
Red thread	7-10 Days	1 1/4 to 5	5 to 6 1/2
Stem rust of bluegrass	7-14 Days	3 1/2 to 5	5 to 6 1/2
DICHONDRA Alternaria leafspot (California only)	7-14 Days	3 1/2 to 5	5 to 6 1/2

* Recommended rates for preventing disease establishment. Use lower rate when disease conditions are light to moderate. Higher indicated rates when conditions are severe.

** Rates for use on a 7 day schedule when disease is present. Higher indicated rate should be applied under severe conditions.

Turfgrasses: Gray Snow Mold caused by *Typhula* spp. - Apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 1,000 sq. ft.). Apply 4 1/2 to 9 ounces of Daconil 2787 WDG per 1,000 sq. ft. 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 2787 WDG at 4 1/2 ounces per 1,000 sq. ft. at monthly intervals until gray snow mold conditions no longer prevail. In areas where pink snow mold (*Gaelectria* or *Fusarium* patch) is likely to occur, apply Daconil 2787 WDG at 4 1/2 ounces per 1,000 sq. ft. in combination with either Tersan® 1991 50WP at 2 ounces per 1,000 sq. ft. or Chipco® 26019 50WP at 4 ounces per 1,000 sq. ft. of turf area.

* Tersan is a registered trademark of E. I. DuPont de Nemours & Company, Inc.

** Chipco is a registered trademark of Rhone-Poulenc Inc.

Fusarium (Gaelectria) Patch: For control of Fusarium patch only in areas where snow cover is intermittent or lacking during the winter, apply 4 1/2 to 8 ounces of Daconil 2787 WDG per 1,000 sq. ft. 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.

ORNAMENTALS AND CONIFERS: Apply Daconil 2787 WDG at rate of 1 1/4 pounds per 100 gallons of water unless other directions are given in the tables below. Begin applications as directed for each species and disease condition cited and repeat on a 7 to 14 day schedule until conditions are no longer favorable for disease development. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, use the higher rate specified and the shortest indicated interval between applications.

Daconil 2787 WDG may be used in greenhouses. Applicators and attending personnel should wear protective clothing including long sleeves, gloves, goggles or face shield plus a face-fitting respirator specifically designed to remove organic pesticide vapors and particulates. Do not use mistblowers or high pressure spray equipment when making applications of Daconil 2787 WDG in greenhouses. Use of Daconil 2787 WDG is recommended for disease control on the ornamentals and conifers listed in the tables below. Use of Daconil 2787 WDG is not recommended for species that are not listed.

Note to Physician: Persons having temporary irritation symptoms respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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.

687

Application and Calibration Techniques for Sprinkler Irrigation on Ornamental Herbs, Shrubs and Trees:

Apply **Daconil 2787 WDG** only through center pivot motorized lateral move, solid set or portable (side roll, end low or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system. Do not use **Daconil 2787 WDG** through sprinkler irrigation equipment on golf courses.

Crop injury or lack of effectiveness 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 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 irrigation water into the water source.

26
Always inject **Daconil 2787 WDG** 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" high, all 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.

Daconil 2787 WDG 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 2787 WDG** 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 2787 WDG** 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 2787 WDG** for acreage to be covered with water so that the total mixture of **Daconil 2787 WDG** 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 2787 WDG** 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 2787 WDG** 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 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: 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 that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of fitness or of merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

Fermenta ASC Corporation
5966 Messey Road, P.O. Box 8000
Mentor, OH 44061-8000

EPA Reg. No. 50534-195
EPA Est. No. 37429 GA 1