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**ACCEPTED**  
MAR -5 1990  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended  
50534-4

Net Contents

**FERMENTA ASC**

**SPECIMEN LABEL**

# **Daconil 2787<sup>®</sup> Fungicide**

Active ingredient: Chlorothalonil (Tetrachloroisophthalonitrile)*	75.0%
Inert ingredients:	25.0%
Total:	100.0%

\*Covered under U.S. Patent No. 3,290,353 and No. 3,331,736

**Fermenta ABC Corporation**  
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Mentor, Ohio 44061-8000

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EPA Est. No. 35862-TX-1  
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AG-3-SL-8 11/87

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## A Broad-Spectrum Fungicide For Use on Golf Course Tees, Greens and Fairways, Ornamental Turfgrass and Ornamentals.

Read entire label carefully and use only as directed.

### General Information

Daconil 2787 Fungicide 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.

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

Do not combine Daconil 2787 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.

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

#### Danger

Corrosive, causes severe eye damage. May be a potential skin sensitizer.

Do not get in eyes. Wear goggles or eye shield when handling this product. In case of contact with eyes, flush with plenty of water immediately for 15 minutes. Seek medical attention for eyes immediately.

Avoid contact with skin or clothing. Wash exposed areas of skin with soap and warm water after handling or using.

Do not take internally.

Avoid breathing dust or 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 reaction should contact a physician.

#### First Aid:

**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 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.

**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 reaction should contact a physician.

**Note to User:** Wear long sleeve shirt, long pants, and gloves while mixing, loading and applying this product.

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

**Golf Course Fairways:** Apply Daconil 2787 Fungicide 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	2.3-4 to 5-1.2 lb 5-1.2 to 10 lb
Helminthosporium crown rot	7 - 10 Days 14 - 21 Days	5-1.2 lb 5-1.2 to 10 lb
Rhizoctonia brown patch	7 - 14 Days	5-1.2 to 10 lb
Anthraxnose	7 - 14 Days	8 to 16 lbs

**Golf Course Tees and Greens and Ornamental Turfgrass:** Apply Daconil 2787 Fungicide 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	Interval of Application	RATE Ounces Per 1,000 sq. ft.	
		Preventive**	Curative**
Anthraxnose	7-14 Days	3-6	—
Copper spot	7-10	4-6	6-8
Curvularia leaf spot	7-10	2-4	4-8
Dollar spot	7-14	2-4	4-8
Gray leaf spot	7-10	2-4	4-8
Helminthosporium leaf spot and melting out	7-10	2-4	4-8
Large brown patch	7-10	2-4	4-8
Red wheat	7-10	2-6	6-8
Stem rot of bluegrass	7-14	4-5	6-8
DICHONDRA Alternaria leaf spot (California only)	7-14	4-6	6-8

\* Recommended rates for preventing disease establishment. Use lower rates 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 square feet). Apply 5-1/2 to 11 ounces of Daconil 2787 Fungicide 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 2787 at 5-1/2 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 2787 at 5-1/2 ounces per 1,000 square feet in combination with either Tersan® 1991 50WP at 2 ounces per 1,000 square feet or Chipco® 26019 50WP at 4 ounces per 1,000 square feet of turf area.

**Fusarium (Gerlachia) Patch:** For control of Fusarium patch only in areas where snow cover is intermittent or lacking during the winter, apply 5-1/2 to 10 ounces of Daconil 2787 Fungicide 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.

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

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

**Ornamentals and Containers:** Apply Daconil 2787 Fungicide at rate of 1-1.2 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 may be used in greenhouses. Applicators and attending personnel should wear protective clothing including long sleeves, gloves, goggles or eye shield plus a face fitting respirator specifically designed to remove organic pesticide vapors and particles. Do not use mistblowers or high pressure spray equipment when making applications of Daconil 2787 in greenhouses.

Use of Daconil 2787 is recommended for disease control on the ornamentals and containers listed in the tables below. Use of Daconil 2787 is not recommended for species that are not listed.

**Ornamentals:**

Species	Diseases Controlled	Suggested First Application
<b>WIND-LEAF SHRUBS AND TREES:</b>		
Ash (Fraxinus)	Cercospora Cercosporium Cylindrosporium leafspots	Spring bud break
Azalea* Rhododendron*	Phytophthora die-back Ovulinia flower blight	New leaf emergence Early bloom
Buckeye Horseshoevine	Leaf blight Anthracnose	Spring bud break
Cherry - Laurel	Cercospora leafspot	Petal fall
Crabapple	Scab Cedar-apple rust Sphaeropsis leafspot	Spring bud break
Dogwood	Septoria leafspot	Early bloom
Eucalyptus	Anthracnose	Spring bud break
Euonymus	Scab	Spring bud break
Flowering Almond	Monilinia blossom	Early bloom
Quince Sand Cherry	branch blight	
Hawthorn	Rust Fabrea leafspot	Pre-bloom
Holly	Rhizoctonia web blight	Warm, moist conditions
Mountain Laurel	Cercospora leafspot	Spring bud break
Oak (red group only)	Taphrina blister Acinopella leafspot Anthracnose	Dormant buds well
Oregon - Grape (Mahonia)	Rust	Spring bud break
Photinia	Fabrea (Entomosporium) leafspot	Spring bud break
Pieris (Andromeda)	Phytophthora die-back	New leaf emergence
Yew	Marssonina leafspot	Spring bud break
Privet	Cercospora leafspot	Prolonged wet conditions
Sycamore Platanus	Anthracnose	Spring bud break
Viburnum	Powdery mildew	Mid-summer

Species	Diseases Controlled	Suggested First Application
<b>BULBS AND FLOWERING PLANTS:</b>		
Camellia	Alternaria leafspot branch rot Botrytis flower blight	Transplant of cuttings. Cool moist conditions
Chrysanthemum Daisy	Mycosphaerella ray blight, Septoria leafspot, Botrytis flower blight (gray mold)	Transplant of cuttings Pre-bloom
Geranium	Botrytis blight, rust	Cool, moist conditions
Gladiolus	Curvularia leaf flower spot Botrytis leaf flower spot	Early propagation
Hollyhock	Rust	Early seedling stage
Hydrangea* (foliage only)	Cercospora and Septoria leafspots Rust	Early propagation
Iris	Botrytis blossom blight, Delymatina leafspot	Cool, moist conditions
Lily	Botrytis gray mold	Pre-bloom
Petunia*	Phytophthora blight (lethal phase), Botrytis blight	Pre-bloom
Rose (Use 1 lb per 100 gallons)	Black spot, Botrytis blight	Spring bud break
Stachys	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

**Conifers:**

Diseases Controlled	Recommended Rate/Acre	Application Directions
Schweferia Canker (pines) Swiss Needlecast and Rhizoctonia Needlecast (Douglas fir)	1-12 to 2-34 lb	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. For use in nursery beds, apply the highest rate specified on a 3 week schedule.
Sarcococcus Tip Blight	2 to 3 1/2 lb	
Rhinospheera Needlecast (spruces) Scirrhia brown spot (pines)	5-12 lb	
Lophodermium Needlecast	1-12 to 2-34 lb	North Central and Northeastern States: Begin applications in mid-July to early August before infection occurs. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. For use in nursery beds, apply 2-34 lb per acre on a 3 week schedule.
Botrytis seedling blight Phoma twig blight	1-12 to 2-34 lb	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.

Dogwood - Anthracnose (limb tip), Septoria leaf spot

Spring bud swell  
Early bloom

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

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and 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 Bacanal 2787 Fungicide 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 BACONIL 2787 FUNGICIDE 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, such as retail greenhouses.

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 area 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 1/4 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.

Bacanal 2787 Fungicide 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 line required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of Bacanal 2787 Fungicide 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 Bacanal 2787 Fungicide 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 Bacanal 2787 Fungicide for acreage to be covered with water so that the total mixture of Bacanal 2787 Fungicide 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. Bacanal 2787 Fungicide 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 Bacanal 2787 Fungicide 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 residue 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. It 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.

This package is sold by weight, not by volume. Some settling of contents may have occurred during shipping and handling.

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