



Dovetail[®]

FUNGICIDE

Dovetail prevents and controls fungal diseases on ornamental plants grown in containers, fields or greenhouses, as well as fungal turf diseases on greens, fairways, trees and similar turf sites. This product may be applied to ornamentals by chemigation or ground spray equipment, and to turf sites using ground spray equipment.

For use by individuals/firms licensed or registered by the state to apply ornamental or turf pest control products. This product is NOT for residential/homeowner use.

ACTIVE INGREDIENTS:

Thiophanate-methyl: Dimethyl [(1,2-phenylene)bis(iminocarbonothioyl)] bis(carbamate)*	19.65%
Iprodione: 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide**	19.65%

OTHER INGREDIENTS: 60.70%

TOTAL: 100.00%

*Equivalent to 1.87 pounds Thiophanate-methyl per gallon.

**Equivalent to 1.87 pounds Iprodione per gallon.

EPA Reg. No. 70506-261

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID

If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergency, call the Rocky Mountain Poison Control Center at 1-866-673-6671.

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

Mixers, loaders, others exposed to the concentrate and cleaners/repairers of equipment must wear:

- Long-sleeve shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant apron and,
- Chemical-resistant footwear plus socks.

Applicators using handheld equipment must wear:

- Coveralls over long-sleeve shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposures and,
- Dust-mist filtering respirator (NIOSH-approved respirator with any R, P or HE filter).

Applicators using mechanical ground equipment must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks.

Applicators using truck-mounted equipment with a handgun at the end of the hose (i.e., for commercial turfgrass or ornamental applications) and all the other handlers not specified above must wear:

- Long-sleeved shirt and long pants and shoes plus socks,
- Chemical-resistant gloves.

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical can contaminate surface waters through aerial and ground spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips and areas overlaying tile drainage systems that drain to surface water.

This product is toxic to invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Cover, incorporate or clean up spills. Do not contaminate water when disposing of equipment washwater or rinsate.

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.

If applying this product adjacent to a water body such as a lake, reservoir, river, permanent stream, marsh or natural pond, estuary, or commercial fish pond, there must be at least a 25-foot vegetative buffer strip between the water body and the point of application. Do not apply this product when the wind direction is toward aquatic area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls,
- Chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton),
- Dust/mist respirator,
- Shoes plus socks.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

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.

Do not allow people (other than the applicator) or pets on the treatment area during application. Do not enter or allow others to enter the treated area until sprays have dried.

CHEMIGATION INSTRUCTIONS (For Non-Turf uses only)

Apply this product only through pressurized drench (flood), sprinkler (overhead), or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from 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 connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems

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 out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation System Requirements

Systems utilizing a pressurized water and pesticide system must meet the following requirements:

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Precautions

Do not apply in greenhouses when temperatures are above 95°F.

Do not allow the spray mixture to stand in the tank for more than 12 hours.

For best results do not water treated areas within 24 hours of application.

Chemigation Mixture Preparation and Application

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system and flush thoroughly with clean water.

See the label instructions in the Ornamentals section of this label for dilution rates and timing of application.

Shake product container well before pouring into spray tank.

When applying Dovetail via chemigation, a pesticide supply tank should be used. Prepare a suspension of Dovetail in a mix tank by filling the tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation and slowly add the recommended amount of Dovetail. Complete the mix by adding the remaining volume of water.

Dovetail may be applied with liquid fertilizers that are chemically neutral. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may degrade the pesticide resulting in reduced performance, and should be avoided.

The spray mixture must be continuously agitated during application.

Dovetail should be applied continuously for the duration of the water application.

Except in cases of severe infestation, allow one week between applications of this and other control products. (This guideline can be relaxed where a severe insect or disease attack requires immediate treatment.)

Instructions for Sprinkler (Overhead) Chemigation

Observe the requirements in the Chemigation System Requirements section.

Follow recommendations in the Chemigation Mixture Preparation and Application section.

Set the sprinkler system to deliver 0.1 to 0.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and uniformly inject the suspension of Dovetail into the irrigation water line so as to deliver the desired rate per acre. The suspension of Dovetail should be injected with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing.

Maintain continuous agitation in the mix tank during mixing and application to assure uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting larger volumes of a more dilute suspension per unit time.

Application of more than recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well pivot injection unit to prevent spray being applied to this area.

Where sprinkler distributions do not overlap sufficiently, unacceptable disease control may result.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

Check local restrictions and requirements regarding sprinkler irrigation application as they might vary from state to state.

NOTE: When treatment with Dovetail has been completed, do not irrigate area for 24-48 hours to prevent washing the chemical off the crop.

Instructions for Pressurized Drench (Flood) Chemigation

Observe the requirements in the Chemigation System Requirements section.

Follow recommendations in the Chemigation Mixture Preparation and Application section.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

Instructions for Drip (Trickle) Chemigation

Observe the requirements in the Chemigation System Requirements section. Follow recommendations in the Chemigation Mixture Preparation and Application section.

TURF APPLICATIONS

For use only by certified applicators or those under their immediate supervision. Dovetail prevents and controls the following turf diseases:

- Anthracnose (on *Poa annua*)
- Brown patch
- Dollar spot (including benzimidazole tolerant strains)
- Leaf spot/melting out (*Drechslera* spp./*Bipolaris* spp.)
- Pink snow mold (Washington, Oregon and California only)

Turf Use Restrictions

- DO NOT apply this product to turf through any type of irrigation system (chemigation).
- DO NOT apply this product by air (i.e., using fixed wing aircraft or helicopter).
- DO NOT use this product on residential sites (not for homeowner use).
- DO NOT use this product on turf being grown for sale or other commercial use as sod.
- DO NOT apply this product when the wind direction may carry overspray towards water bodies.
- DO NOT make more than six applications of this product in a year.
- DO NOT use less than a 14-day retreatment interval.
- DO NOT contaminate feed or foodstuffs.

DO NOT graze treated areas, and do not feed clippings to livestock.

For golf courses only: When water bodies are present, DO NOT apply to turf cut taller than 1".

Preparation

Use with 2-7 gallons of water per 1,000 sq. ft. for tees and greens. For larger turf areas, water volumes as low as 1 gal./1,000 sq. ft. may be used.

Shake the Dovetail container well before adding to the spray mix.

While filling the spray tank with the desired amount of water, start agitation and add the recommended amount of Dovetail to the tank (see the table below for recommended rates).

Thoroughly rinse the Dovetail container and pour the rinsate into spray tank.

NOTE: Do not use surfactants or other adjuvants with Dovetail.

Application

Do not allow the spray mixture to stand in the tank for longer than 12 hours prior to application.

Agitate the spray mixture continuously during application.

Apply with properly calibrated spray equipment using standard pressures to minimize spray drift.

For Disease Prevention:

Apply using the Light Pressure rates when weather conditions are favorable for the development of disease. Repeat applications every 14-21 days as necessary.

For Disease Control:

Apply using the appropriate rate based on the level of infestation (Light/Medium/Heavy) and repeat applications every 14 days until the disease is brought under control. Once the disease is controlled, follow instructions for disease prevention above.

For best results do not water or mow treated areas within 24 hours of application.

Recommended Turf Application Rates

Use Site	Disease Pressure	Single Application Rate (fl. oz. product/1,000 sq. ft.)	Maximum Seasonal Application Rate (fl. oz. product/1,000 sq. ft.)
Non- Residential Turf	Light	1.0-2.0	16.0
	Medium	2.0-3.0	
	Heavy	3.0-4.0	
Golf Courses-Tees/Greens/Aprons	Light	1.0-2.0	24.0
	Medium	2.0-3.0	
	Heavy	3.0-4.0	
Golf Courses-Fairways (except Florida)	Light	1.0-2.0	8.0
	Medium	2.0-3.0	
	Heavy	3.0-4.0	
Golf Courses- Fairways (Florida only and only during overseeding)	Light	1.0-2.0	4.0
	Medium	2.0-3.0	
	Heavy	3.0-4.0	

ORNAMENTAL APPLICATIONS

Do not apply to home orchards/fruit trees after fruit set.

Dovetail will control fungal diseases on the following ornamentals:

Ageratum	Croton	Holly	Plum-Ornamental
Ajuga	Cyclamen ²	Hoya	Poinsetta ²
Almond-Ornamental	Daffodils	Hydrangea	Poppy
Alyssum	Dahlia	Impatiens ¹	Pothos ¹
Andromeda	Delphinium	Iris	Primrose
Aphelandra	Deutzia	Juniper	Privet
Artemesia	Dianthus	Kalanchoe	Protea
Aster	Dieffenbachia	Lilies	Pyracantha
Azalea	Dizygotheca	Lipstickvine (Aeschynanthus)	Rhododendron
Boxwood	Dogwood	Marigold	Rose
Cactus	Dracena	Monarda (Bee Balm)	Rose Tree of China
Calendula	English ivy	Palm	Salvia
Carnation	Episcle	Pansy	Schefflera
Cherry-Ornamental	Euronymous	Peach-Ornamental	Snapdragon
Chrysanthemum ³	Ficus	Peperomia	Statice
Cineraria	Forsythia	Periwinkle	Tree Ivy
Coleus	Gazania	Petunia ¹	Viburnum
Columbine	Geranium	Philodendron	Violet
Conifers	Gladiolus	Phlox	Zinnia
Coral bells (Heuchera)	Gloxinia	Pilea	
Crape myrtle	Gypsophila	Pine	
Crassula	Hawthorn	Pittosporum	

¹ Do not use Dovetail as a drench on impatiens, petunias or pothos.

² Residue may be noticeable on foliage if plants are treated prior to sale when in bloom.

³ On chrysanthemums, do not make repeat applications at high drench rates.

NOTE: DO NOT use Dovetail on *Spathiphyllum* or New Guinea Impatiens.

Apply Dovetail by ground spray or chemigation only to control the following diseases:

Foliar Applications

Aerial web blight	Botrytis gray mold	Entomosporium leaf spot	Powdery mildew
Alternaria leaf blight	Cercospora leaf spot	Fusarium leaf spot	Ramularia leaf spot
Anthracnose	Corynespora leaf spot	Helminthosporium leaf spot	Ray blight
Asocyta blight	Cylindrocladium ²	Ink spot	Rhizoctonia blight
Black Spot ¹	Didymellina leaf spot	Ovulinia	Scab
Botrytis blight	Diplodia tip blight	Phomopsis blight	Septoria leaf spot

¹ Roses only.

² Not effective on *Cylindrocladium spathiphylli*.

Drench Applications (after transplant)

Alternaria leaf blight	Fusarium crown rot	Ink spot	Thielaviopsis rot
Botrytis blight	Fusarium root rot	Rhizoctonia root rot	
Cylindrocladium rot	Fusarium stem rot	Sclerotinia stem, crown and root rot	

Preparation

Mix 17-34 fl. oz. of Dovetail with 100 gallons of water. Use the lower rates listed for disease prevention or when pest pressure is low. When pest pressures are moderate to high apply using the higher range of the rates listed.

Application

Foliar spray:

When conditions are favorable for disease development, apply to foliage just to the point of runoff. Make repeat applications every 10-14 days as necessary for control.

DO NOT apply more than 192 fl. oz. of Dovetail per acre in a single application.

Drench:

After transplant into propagation beds or containers, apply 1-2 pints of mix per square foot. To maintain control, make repeat applications every 2-4 weeks as necessary while conditions remain favorable for disease development.

DO NOT apply more than 1,536 fl. oz. (12 gallons) of Dovetail per acre in a single application.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, clean, dry place. Do not store at temperatures exceeding 120°F or at temperatures below 32°F.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of 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: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available 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.

IMPORTANT INFORMATION READ BEFORE USING PRODUCT

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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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Rev. 03/14/2011

70506-261(113012-6224)