

ACCEPTED

Reg # 352-449

PM-21

17/11

MAR 19 1992



# MANZATE® 200 DF

## FUNGICIDE

DISPERSIBLE GRANULES

### ACTIVE INGREDIENT

A coordination product of zinc ion and manganese ethylene-bisdithiocarbamate in which the ingredients are:

Manganese++	15.0%
Zinc++	1.9%
Ethylene bisdithiocarbamate ion (C <sub>2</sub> H <sub>2</sub> N <sub>2</sub> S <sub>4</sub> )=	58.1%

### BY WEIGHT

75%

### INERT INGREDIENTS

25%  
TOTAL 100%

This product contains the toxic inert ingredient paraformaldehyde.

EPA Reg No. 352-449

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION! MAY IRRITATE EYES, NOSE, THROAT AND SKIN. MAY BE HARMFUL IF ABSORBED THROUGH SKIN, INHALED OR SWALLOWED**

Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing. Keep away from fire or sparks.

All agricultural workers/handlers (i.e., mixers, loaders, and applicators) applying this product must wear coveralls over a long sleeved-shirt and pants; shoes, socks, and chemical-resistant gloves must also be worn. During mixing and loading, a chemical-resistant apron and goggles or face shield must also be worn. See Directions For Use.

Do not apply this product in such a manner as to directly or through drift expose workers, other persons or animals. The area being treated must be vacated by unprotected persons.

### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Dilute by giving two glasses of water to drink and call a physician. Never give anything by mouth to an unconscious person.

**IF INHALED:** Move subject to fresh air. Consult a physician.

**IF IN EYES:** Flush eyes with large amounts of water for at least 15 minutes. Consult a physician if irritation persists.

**IF ON SKIN:** Wash affected skin areas with soap and water. Consult a physician if irritation persists.

For medical emergencies involving this product, call toll free 1-800-441-3637.

### ENVIRONMENTAL HAZARDS

This product is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or incorporate spilled treated seed. Do not contaminate water by disposing of equipment washwaters.

### DIRECTIONS FOR USE

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

Manzate® 200 DF should be used only in accordance with recommendations on this folder or in separate published Du Pont recommendations available through local dealers.

Du Pont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Du Pont. User assumes all risks associated with such nonrecommended use.

Manzate® 200 DF, a dispersible granule containing mancozeb, is recommended for use as a spray for the control of many important plant diseases.

### WORKER SAFETY RULES

Keep all unprotected persons, children, livestock, and pets away from treated area or where there is danger of drift.

Do not rub eyes or mouth with hands. See "Statement of Practical Treatment."

**BEST AVAILABLE COPY**

PERSONAL PROTECTIVE EQUIPMENT—For Mixers, Loaders, Applicators and Early Reentry Workers.

HANDLE THIS PRODUCT ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT: All agricultural workers/handlers (i.e., mixers, loaders, and applicators) applying this product must wear coveralls over a long sleeved-shirt and long pants; shoes, socks, and chemical-resistant gloves must also be worn. During mixing and loading, a chemical-resistant apron and goggles or a face shield must also be worn.

For agricultural workers, where completely enclosed cabs with positive pressure filtration or an enclosed cockpit for aenal application are used, a long-sleeved shirt and long pants may be worn in place of the protective clothing worn above. Chemical-resistant gloves must be available in the cab or cockpit and worn upon exiting. The gloves must be kept in an enclosed container in the cab or cockpit to prevent contamination of the inside of the cab or cockpit.

**IMPORTANT!** Before removing gloves, wash them with soap and water. Always wash hands, face, and arms with soap and water before eating, smoking or drinking. Always wash hands and arms with soap and water before using the toilet.

After work take off all clothes and shoes. Shower using soap and water. Wear only clean clothes. Do not use contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Personal clothing worn during use must be laundered separately from household articles. Clothing and protective equipment heavily contaminated or drenched with mancozeb must be destroyed according to state and local regulations.

**HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.**

During aerial application, human flaggers are prohibited unless in totally enclosed vehicles.

#### REENTRY STATEMENTS

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Warnings must include the following information: "CAUTION. Area treated with 'Manzate' 200 DF on (date of application). Do not enter without appropriate protective clothing until sprays have dried or dusts have settled. In case of contact, flush skin or eyes with plenty of water; for eyes, consult a physician if irritation persists."

#### For Agricultural Uses

After sprays have dried do not enter or allow entry into treated areas until the 24-hour reentry interval has expired unless wearing the personal protective equipment listed on this label.

#### For Turf Uses

Do not enter treated areas without protective clothing until sprays have dried.

### APPLICATION INSTRUCTIONS

**AS A SPRAY** (Ground or Aerial Equipment)—Apply "Manzate" 200 DF at the rate shown; use sufficient water to provide thorough coverage, use 20 to 100 gals per acre for ground equipment and no less than 2 gals per acre for aircraft. Add "Manzate" 200 DF slowly to water in the spray tank with agitation or premix thoroughly in separate holding tank for concentrate or aircraft sprayers. Continuous agitation is required to keep the product in suspension. Add a spreader-sticker spray adjuvant if needed.

### CHEMIGATION

Apply "Manzate" 200 DF Fungicide only through sprinkler, center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move irrigation systems only on crops specifically noted in the "Directions For Use" for that particular crop. Do not apply "Manzate" 200 DF through any other type of irrigation system or on other crops.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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.

#### Specific Instructions for Public Water Systems:

1. 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.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow 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 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.
3. The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must 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.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

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**Specific Instructions for Sprinkler Irrigation Systems:**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Good agitation is required in the injection tank.
9. In moving systems, apply specified dosage of "Manzate" 200 DF as a continuous injection. In nonmoving systems inject "Manzate" 200 DF for 15 to 30 minutes at end of cycle. Use the least amount of water possible consistent with uniform coverage.
10. Mix the amount of "Manzate" 200 DF needed for acreage to be treated into the quantity of water determined during prior calibration. For moving systems inject into the system continuously for one complete revolution of the field. For nonmoving systems inject into system for the time established during calibration.
11. Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all "Manzate" 200 DF is flushed from system.

**RECOMMENDED USES (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)**

CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 DF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Apples (See Pomefruit)				
Asparagus	Cercospora leaf spot Rust	2	Start applications when rust first appears and repeat at 10 day intervals. Four applications are usually sufficient.	Apply only on asparagus ferns after spears have been harvested. Do not apply within 180 days of harvest in all states except CA and AZ (120 days). Do not apply more than 8 lbs (6 lbs active) per acre per season.
Asparagus Crown (planting stock)	Crown rot	1 lb per 100 gals	Dip clean, loosely packed crowns into continuously agitated fungicide suspension for 5 minutes. Drain and plant as soon as possible.	Wash dirty crowns before dip treatment. Replace suspension in clean tank when discolored by soil.
Bananas	Sigatoka	2 to 3	Apply when leaves first appear and repeat every 14 to 21 days or as required. Use sufficient water to provide adequate coverage.  The addition of a surfactant to spray solutions will improve performance.	Do not apply more than 30 lbs (22.5 lbs active) per acre per growing cycle.  Minimum preharvest interval (0 days).

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CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 DF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Barley, Oats, Rye, Wheat	Helminthosporium leaf spot Leaf rust Septoria glume blotch Septoria leaf spot Tan spot	2	Start application at onset of disease or when plants are in the tillering to jointing stage and repeat at 7 to 10 day intervals. The addition of a surfactant to spray solutions will improve performance.	Do not make more than three applications during the season. Do not apply more than 6 lbs (4.5 lbs active) per acre per crop. Do not apply after Feekes' growth stage 10.5. Do not apply within 26 days of harvest. Do not graze livestock in treated areas prior to harvest.
Caprifig (Non-food use)	Endosepsis (Fusarium) Mold	4 lbs/100 gals	Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the continuously agitated suspension for at least 15 minutes. Drain before placement in trees.	Use fresh dipping suspension after treating 4 to 5 batches of figs.
Corn (sweet corn for fresh use and hybrid seed production).  (popcorn)  (field and field corn for hybrid seed production)	Common rust Helminthosporium leaf blight	1 1/2	Use sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4 to 7 day intervals.  The addition of a surfactant to spray solutions will improve performance.	Do not apply within 7 days of harvest. Do not apply more than 22.5 lbs (17 lbs active) per acre per crop east of Mississippi and AR and LA. Do not apply more than 7.5 lbs (5.6 lbs active) per acre per crop west of the Mississippi except AR and LA. Do not feed treated forage to livestock.  Do not apply within 40 days of harvest. Do not apply more than 15 lbs (11.25 lbs active) per acre per crop. Do not feed treated forage to livestock.
Cotton (Southwest only)	Rust	1 1/4 to 2	Begin when rust first appears in the area. Repeat at 10 to 14 day intervals.	Do not apply after bolls open. Do not apply more than 8 lbs (6 lbs active) per acre per crop. Do not apply within 45 days of harvest. Do not feed treated forage to livestock. Do not feed gin trash to livestock. Do not graze livestock in treated areas.

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**RECOMMENDED USES** (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)

CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 OF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Cranberries	Fruit rot	3 to 6	Start applications at mid-bloom and repeat at 7 to 10 day intervals.	Do not apply within 30 days of harvest. Do not apply more than 18 lbs (13.5 lbs active) per acre per season.
Cucumbers	Anthrachnose Cercospora leaf spot Downy mildew Gummy stem blight Scab	2 to 3	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.	Do not apply within 5 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per crop.
Fennel	Early & late blights	2	Begin in plant beds at emergence. Repeat at 7 to 10 day intervals.	Do not apply within 14 days of harvest. Do not apply more than 16 lbs (12 lbs active) per acre per crop Do not graze treated area to livestock.
Grapes (East of the Rocky Mountains)	Black rot Bunch rot Deadarm Downy mildew	1 1/2 to 4	Apply in sufficient water to provide thorough coverage starting when new shoots are 1/2 to 1 1/2 inches long. Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long, and then at 7 to 10 day intervals until fruit is set.  For late season control of black rot, deadarm and downy mildew the use of other approved and recommended fungicides is suggested.	Do not apply within 66 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per season
		1 1/2 to 2 1/2		Do not apply within 66 days of harvest except in CA where no application can be made after bloom  Do not apply more than 7.5 lbs (5.6 lbs active) per acre per season.
(West of the Rocky Mountains)				

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**RECOMMENDED USES** (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)

CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 DF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
<b>Melons</b>  Cantaloupes Casaba Crenshaw Honeydew Watermelon	Alternaria leaf spot Anthracnose Downy mildew Gummy stem blight Cercospora leaf spot	2 to 3	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.  Some varieties are sensitive to Manzate 200 DF fungicide. Consult State Cooperative Extension Service Specialist prior to use.	Do not apply within 5 days of harvest.  Do not apply more than 24 lbs (18 lbs active) per acre per crop.
<b>Oats</b> (See barley)				
<b>Onions (dry bulb)</b>         (furrow drench)	Botrytis leaf blight Downy mildew Neck rot Purple blotch   Smut	3	Follow a protective spray schedule starting when diseases are first reported in the areas and repeat at 7 day intervals throughout the season.  The addition of a surfactant to spray solutions will improve performance.  Apply 3 lbs per acre as a furrow drench at time of planting onion seeds. Use 75 to 125 gallons of water per acre.	Do not apply within 7 days of harvest.  Do not apply to exposed bulbs.  Do not apply more than 30 lbs (22.5 lbs active) per acre per crop.  Do not use more than 2.25 lbs active per acre (29,000 linear feet of furrow) with an 18 inch row spacing.
<b>Papaya</b>	Anthracnose (Colletotricum) Phytophthora fruit rot Black spot (Cercospora)	2 to 2.5 (minimum 50 gals per acre)	Begin at flowering; treat central column crown, blossom area and developing fruit. Repeat at 14 to 21 day intervals.	Do not use more than 35 lbs (26.25 lbs active) per acre per crop.  Minimum pre-harvest interval (90 days).
<b>Peanuts</b>	Cercospora leaf spot Rust	1 to 2	Start application when disease first appears or is reported in area. Repeat sprays at 7 to 14 day intervals. Reduce sprays to a 7 day interval during humid weather.	Do not apply within 14 days of harvest.  Do not use more than 16 lbs (12 lbs active) per acre per crop.  Do not feed treated vines to livestock.
<b>Peanuts (Tank mix with "Benlate" Fungicide)</b>	Ascochyta web blotch Cercospora leaf spot Rust	1 1/2 plus 4 ozs "Benlate"	Begin 35 to 40 days after planting or when disease threatens. Repeat at 7 to 14 day intervals (7 to 10 days for rust).	Do not apply within 14 days of harvest.  Do not use more than 12 lbs Manzate 200 DF (9 lbs active) per acre per crop.  Do not feed treated vines to livestock.

RECOMMENDED USES (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)

CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 DF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Pears (See Pomefruit)				
Pineapple (Seed-Piece Treatment Only)	Phytophthora heart rot	3.2 lbs/10 gals. Use up to 100 gals of suspension to treat clean propagation material for one acre.	Dip planting material in fungicide suspension prior to planting. Stir frequently to prevent settling.	Prepare new suspension when 2/3 of volume is used or sooner if noticeably discolored by soil from plant material.
Pomefruits  Apples Pears Crabapples Quince	Rusts Scab Fabrea leaf spot	6.0  Maximum per acre use rate based on thorough coverage dilute sprays.  Use 2 lbs per 100 gal, up to 300 gal per acre  Consult State Extension Service if necessary to adjust for variable tree size.	<b>Pre-Bloom Use:</b> Begin application at 1/4 to 1/2 inch green tip and continue on a 7 to 10 day schedule through bloom.  Use either the "Pre-Bloom" or "Extended Application" schedule. <b>DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES</b>	Do not apply more than 6 lbs (4.5 lbs active) per acre per application.  Do not apply after bloom  Do not apply more than 24 lbs (18 lbs active) per acre per year.  Do not graze livestock in treated areas.  It is recommended that this product be used in an Integrated Pest Management Program
Pomefruits  Apples Pears Crabapples Quince	Rusts Scab Fabrea leaf spot	3.0  Maximum per acre use rate based on thorough coverage dilute sprays.  Use 1 lb per 100 gal, up to 300 gal per acre  Consult State Extension Service if necessary to adjust for variable tree size	<b>Extended Application Schedule or for Use in Tank Mixtures:</b> For implementation of IPM programs, applications based on tree-row volume, or for use as a resistance management tool; begin applications at 1/4 to 1/2 inch green tip and continue applications on a 7 to 10 day schedule through the second cover spray.  Use either the "Pre-Bloom" or "Extended Application" schedule. <b>DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES</b>	Do not apply more than 3 lbs (2.25 lbs active) per acre per application.  Do not apply within 77 days of harvest.  Do not apply more than 21 lbs (15.75 lbs active) per acre per year.  Do not graze livestock in treated areas.  It is recommended that this product be used in an Integrated Pest Management Program

**RECOMMENDED USES** (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)

CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 DF PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Potatoes	Early blight Late blight	1 to 2	Begin applications when plants are 4 to 6 inches high by applying 1 lb per acre. As the vines increase in size, apply 1 1/2 to 2 lbs per acre at intervals of 5 to 10 days.  The addition of a surfactant to spray solutions will improve performance.	Do not apply more than 14 lbs (10.5 lbs active) per acre per crop.  Do not use within 3 days of harvest in CT, FL, ME, MA, NH, NY, PA, VT, WI and within 14 days elsewhere.  Vine-kill should occur 14 days before harvest.  It is recommended that this product be used in an Integrated Pest Management Program.
Seedpiece (treatment)	Fusarium decay Seedborne <i>common scab</i>	1 1/4 per 50 gal	Dip whole or cut potato tubers in 1 1/4 lbs Manzate 200 DF fungicide per 50 gallons of water. Place treated tubers in a clean container following treatment and plant as soon as possible. Spread treated seedpieces in a cool place if held before planting.	Do not use treated seed potatoes for food or feed purposes.
Squash (Summer squash)	Downy mildew	2 to 3	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals.  Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.	Do not apply within 5 days of harvest.  Do not apply more than 24 lbs (18 lbs active) per acre per crop
Sugar Beets	Cercospora leaf spot	1 1/2 to 2	Begin when disease first threatens. Repeat at 7 to 10 day intervals.	Do not apply within 14 days of harvest.  Do not apply more than 14 lbs (10.5 lbs active) per acre per crop.  Do not feed treated sugar beet tops to livestock.
Tomatoes (East of the Mississippi River)	Anthracnose Early blight Gray leaf spot Late blight Leaf mold Septoria leaf spot	1 1/2 to 3	Start application when seedlings emerge or transplants are set and repeat at 7 to 10 day intervals throughout the season.  The addition of a surfactant to spray solutions will improve performance.	Do not apply within 5 days of harvest.  Do not apply more than 21 lbs (15.75 lbs active) per acre per crop.
(West of the Mississippi River)		1 1/2 to 2		Do not apply within 5 days of harvest  Do not apply more than 8 lbs (6 lbs active) per acre per crop
Watermelon (See Melons)				
Wheat (See Barley)				

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**RECOMMENDED USES** (When this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season)

**TURF GRASSES** - Applications restricted to lawn grasses by professional applicators. Not for homeowner use.

CROP	DISEASE/ PEST	RATE	TIMING INTERVAL	LAST APPLICATION TO HARVEST	LIVESTOCK GRAZING/ FEEDING	COMMENTS
Lawn grasses Golf Courses, Sod Farms, Professional Application to industrial office park, municipal and residential lawns	Algae	6 ozs in 3 to 5 gals/1000 sq ft (16 lbs in 130-220 gals/acre).	Begin when algae first appears. Repeat at 7-day intervals as long as condition persists.		Do not graze treated areas or feed clippings to livestock	Do not use on grasses grown for seed
	Leaf stem strip rust	3-4 ozs in 3 to 5 gals/1000 sq ft (8-11 lbs in 130- 220 gals/acre).	Begin when disease threatens. Repeat at 7 to 10-day intervals as long as disease persists.		Do not graze treated areas or feed clippings to livestock	Do not use on grasses intended for grazing, such as range or pasture grasses
	Leaf spot (Helminthosporium spp.) Rhizoctonia solani brown patch	3-4 ozs in 3 to 5 gals/1000 sq ft (8-11 lbs in 130- 220 gals/acre)	Begin when disease threatens. Tees and greens: Repeat at 7 to 10- day intervals. Fairways: Repeat at 7 to 14-day intervals. Home lawns: Repeat at 14 to 21-day intervals. Continue as long as disease persists.		Do not graze treated areas or feed clippings to livestock	When conditions are unusually favorable for disease, use 6-8 ozs/1000 sq ft (16-22 lbs/acre) and reduce intervals to 3 to 5 days

**SEED TREATMENTS**

LABEL TREATED SEED "Do not use for food, feed or oil purposes. This seed treated with 'Manzate' 200 DF Fungicide."

For seed treatment, a dye must be added to the treating slurry so that an unnatural color will distinguish the seed as treated.

CROP	DISEASES	SEED TREATMENT RATE - APPLY AS A SLURRY	
		Ozs/Bu	Ozs/100 lb
Barley	Bunt, Covered smut, Damping-off, Fake loose smut, Seed decay, Seeding blights	1.3 to 2.0	2.7 to 4.2
Corn	Damping-off, seed rot, seeding blight	1.5 to 3.0	2.7 to 5.4
Cotton Acid Defoliated	Damping-off, Seeding blights	-	3
Cotton Reginned	Damping-off, Seeding blights	-	6
Flax	Seed decay, Seeding blights, Damping-off	2.0 to 4.0	3.6 to 7.1
Oats	Damping-off, Seeding blights, Seed decay, Smuts	1.3 to 2.0	4.0 to 6.3
Peanuts (shelled)	Damping-off, Seed rots, Seeding blights	2.0 to 4.0	8.0 to 16.0
Rice	Achlya, other soil and seedborne fungi causing seed rot and reduced seedling vigor.	-	2.0 to 4.0 Apply before, during, or after soaking in water
Rye	Bunt, Covered smut, Damping-off, Seed decay, Seeding blights	1.3 to 2.0	2.3 to 3.6
Safflower	Puccinia carthami (which causes foot and rot disease and foliage rust disease)	-	2.0
Sorghum	Covered kernel smut, Damping off, Seeding blights, Seed rots	1.5 to 2.5	2.7 to 4.5
Tomatoes	Damping off, Seeding blights, Seed rots		3.0
Wheat	Bunt, Covered smut, Damping off, Seed decay, Seeding blights	1.3 to 2.0	2.2 to 3.3

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**FLOWERS, FOLIAGE PLANTS, AND ORNAMENTALS**

**NOT INTENDED FOR USE ON FRUIT TREES BY HOMEOWNERS.**

**TREATED PLANTS MUST NOT BE USED FOR FOOD OR FEED PURPOSES.**

Apply in the field, nursery or greenhouse as a thorough coverage spray, using 1 to 2 lbs "Manzate" 200 DF per 100 gals of water (1-1/2 to 3 tsp per gal) For hard-to-wet plants, add a suitable wetting agent. Begin applications when new growth starts or when disease first threatens and continue at 7 to 10 day intervals between applications. Use higher rate and shorter intervals during periods of excessive wetness and rapid plant growth.

Du Pont "Manzate" 200 DF is recommended for use on certain flower, foliage and ornamental plants listed in the table below for control of the following diseases and pathogens:

<ul style="list-style-type: none"> <li>Alternaria—leaf spots and flower blights</li> <li>*Anthracnose—Cotletotrichum or Elsinoe</li> <li>    or Gloeosporium or Glomerella</li> <li>    or Gnomonia Aschochyta</li> <li>*Blackspot of rose or elm</li> <li>Blight—Phytophthora</li> <li>Blight—Taphrina</li> <li>Botryosphaera</li> <li>Botrytis blights, gray mold</li> <li>Brown rot of Prunus spp.—Monilia</li> <li>Cephalosporium</li> <li>*Cercospora</li> <li>*Collectotrichum</li> <li>*Coryneum</li> <li>Curvularia</li> <li>Cylindrocladium</li> </ul>	<ul style="list-style-type: none"> <li>*Cylindrosporium</li> <li>*Dactyaria</li> <li>Didymella</li> <li>*Diplocarpon</li> <li>Downy mildews—Plasmopara</li> <li>    or Peronospora</li> <li>*Elsinoe</li> <li>*Entomosporium</li> <li>Fabraea</li> <li>Flower blights</li> <li>Fusicium</li> <li>Fusicladium</li> <li>*Gloeosporium</li> <li>*Gnomonia</li> <li>Gray mold—Botrytis</li> <li>Gugnardia</li> </ul>	<ul style="list-style-type: none"> <li>*Gymnosporangium</li> <li>*Leafspots</li> <li>*Lepidophæna</li> <li>Lophodermium</li> <li>Macrophoma</li> <li>*Melampsora</li> <li>*Melampsorioidium</li> <li>Monochaeta</li> <li>Mycosphaerella</li> <li>*Pestalotia</li> <li>Phemosis—Phragmidium</li> <li>*Phyllosticta</li> <li>Phytophthora</li> <li>Pseudonectria</li> <li>Puccinia</li> <li>Ramularia</li> </ul>	<ul style="list-style-type: none"> <li>Rhizoctonia</li> <li>*Rhynisma</li> <li>*Rusts—Gymnosporangium, Melampsora,</li> <li>    Melampsorioidium, Phragmidium,</li> <li>    Puccinia, Uromyces</li> <li>*Scab—Fusicladium or Venturia</li> <li>    or Sphaeceloma Scirrhia</li> <li>*Septoria</li> <li>*Shot-hole—Coryneum</li> <li>*Sphaeropsis</li> <li>Stemphylium</li> <li>Taphrina</li> <li>Uromyces</li> </ul>
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\*denotes leaf spots

**ORNAMENTALS FOR WHICH "MANZATE" 200 DF IS RECOMMENDED**

COMMON NAME	LATIN NAME	COMMON NAME	LATIN NAME	COMMON NAME	LATIN NAME
African Violet	Santipaulia ionantha	Ficus	Ficus benjamina	Pilea	Pilea spp
Almond	Agaveaema commutatum	Fr. Douglas	Ficus pumila	Pine, Norfolk Island	Aracacia
Andromeda, Mountain	Prunus amygdalus	Fr. Noble	Pseudotsuga menziesii	Pine, White	Pinus strobus
Anthurium	Pilea rotunda	Freedom	Abies procera	Pinusponum	Pinusponum robora
Arboretum	Anthurium spp	Fritonia	Pyracantha coccinea	Plane Tree	Platanus occidentalis
Arca Palm	Thuja occidentalis	Geranium	Fritonia argentea	Pansy	Euphorbia pulcherrima
Ash	Chrysalidocarpus lutescens	Gladolus **	Palargonium hortorum	Prayer Plant	Maranta kerrioveana
Ash, Mountain	Fragaria spp	Gold Dust Tree	Gladolus spp **	Privet	Prunella spp
Asar, China	Sorbus spp	Gypsophila	Aucuba japonica	Protea	Ligustrum spp
Azalea	Calceolapilus chinensis	Hemlock	Gypsophila paniculata	Prunella	Leucocarpum cordatum
Baby's Breath	Rhododendron spp	Holly	Crataegus spp	Prunus	Prunus spp
Begonia	Gypsophila paniculata	Holly, Chinese	Sambucus racemosa	Pussywillow	Salis babylonica
Bird	Begonia spp	Holly, Japanese	Ilex spp	Pyracantha	Pyracantha water
Birch	Betula pendula	Holly, Chinese	Ilex cornuta	Redwood (seedlings)	Sequoia sempervirens
Birchwood	Buxus microphylla	Holly, Japanese	Ilex ornata	Rhododendron	Rhododendron spp
	Buxus sempervirens	Hollyhock	Althaea rosea	Rose	Rosa spp
Buckeye	Aesculus spp	Horsechestnut	Alcea spp	Sand Cherry	Prunus serotina
Bullfinch Berry	Spergularia argentea	Iris	Aesculus hippocastanum	Santolina	Santolina spp
Camellia	Camellia japonica	Iris	Iris spp	Schefflera	Schefflera arboricola
Carnation	Dianthus caryophyllus	Ivy	Hedera helix	Schefflera acronychia	Schefflera acronychia
Cedar, Red	Juniperus virginiana	Juniper	Juniperus chinensis	Sequoia, Giant (seedlings)	Sequoia gigantea
Christmas Cactus	Zygocactus truncatus	Juniper	Juniperus horizontalis	Snapdragon	Antirrhinum majus
Chrysanthemum	Chrysanthemum spp	Laurel, Mountain	Juniperus procera	Spindle tree, Winged	Eucalyptus alatus
Cordyline	Dracaena spp	Lavender Cotton	Kalmia latifolia	Sorbus, Alberta (dwarf)	Prunella glauca conica
Coltunaster	Coltunaster divaricata	Lily	Santolina chamaecyparissus	Sorbus, Engelmans	Prunella engelmanni
	Coltunaster horizontalis	Lily, Easter	Lilium spp	Sorbus, Norway	Prunella abies
	perpusilla	Madagascar Palm	Lilium longiflorum	Sourge, Japanese	Pachysandra terminalis
Crabapple	Malus ioensis	Magnolia	Linopoe muscan	Sailor	Limonium sinuatum
	Crataegus argentea	Mahonia	Chrysalidocarpus lutescens	Strawflower	Helichrysum tricoloratum
Crohn	Codibeum variegatum	Maple	Magnolia stellata	Sumac, Stunibush	Rhus glabra
	Codibeum punctatum	Maple, Red	Mahonia nervosa	Sycamore	Platanus spp
	auratum	Maple, Sugar	Acer spp	Syngonium	Syngonium podochyllum
Cyprus, Arizona	Cyperus spp	Maple, Sugar	Acer rubrum	Velvet plant	Gynura spp
Dahlia	Dahlia spp	Nannyberry	Acer saccharum	Venus Flytrap	Utricularia muscivora
Daisy, Transval	Gerbera spp	Nephthytis	Viburnum lentago	Verbena	Verbena spp
Dianthus	Dianthus barbata	Oak	Nephthytis alba	Viburnum	Viburnum cava
Dogwood	Cornus amomum	Osmanthus	Quercus borealis	Walnut	Viburnum opulus
	Cornus Florida	Pansy	Quercus rubrum	Walnut, Black	Juglans spp
	Cornus racemosa	Peony	Quercus velutina	Willow	Juglans nigra
	Cornus sericea	Paperonia	Osmanthus heterophyllus	Yucca	Salix spp
	Cornus stolonifera	Pereskia	Viola spp	Zebra plant	Yucca erichsonnii
Dracaena	Dracaena marginata	Pereskia	Paeonia spp	Zinnia	Yucca filamentosa
	Dracaena sanderiana	Pereskia	Paperonia spp		Aphelandra squarrosa
Dusty Miller	Centaurea cineraria	Phlox	Pereskia spp		Zinnia spp
Em. American	Ulmus americana	Phlox	Palafoxia hybrida		
Em. Chinese	Ulmus parvifolia	Phlox	Phlox paniculata		
Euonymus	Euonymus alata	Phlox	Phlox subulata		
Euonymus	Nepenthes exaltata	Phlox	Phlox subulata		
Euonymus	Phytolacca adiantiformis	Phlox	Phlox subulata		
Euonymus	Phlox amabilis	Phlox	Phlox subulata		

Do not exceed 1 1/2 lbs per 100 gallons  
Do not exceed 3/4 lb per 100 gal on flower spikes

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**STORAGE AND DISPOSAL**

**STORAGE:** Important—Never allow "Manzate" 200 DF to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of "Manzate" 200 DF as a fungicide and create vapors which may be flammable. Keep container closed when not in use. Store product in original container only, away from other pesticides, fertilizer, food or feed.

**PRODUCT DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**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.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States

**NOTICE OF WARRANTY**

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

**NET CONTENTS 6 LBS**

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