

Reg no: 352-449

PM-21 137

REGISTRATION CODE XXX-000
PACKAGE SIZE
8 - 6 POUND BAGS / CARTON
50 - POUND BAGS

MANZATE® 200 DF

FUNGICIDE
DISPERSIBLE GRANULES

ACTIVE INGREDIENT

A coordination product of zinc ion and manganese ethylene-bis(dithiocarbamate) in which the ingredients are:

Manganese ⁺⁺	15%
Zinc ⁺⁺	1.9%
Ethylene bis(dithiocarbamate ion (C ₄ H ₆ N ₂ S ₄) ⁻)	58.1%

BY WEIGHT
ACCEPTED
DEC 28 1983
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the purpose of registration under
EPA Reg No. 252-449

TOTAL 100%

INERT INGREDIENTS

This product contains the toxic inert 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 INHALED OR SWALLOWED.

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

During mixing, loading, and application wear a long-sleeve shirt, long pants or coveralls, socks, shoes, chemical resistant gloves, and goggles or face shield. During mixing and loading a chemical resistant apron 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.

FIRST AID: In case of contact, flush skin or eyes with plenty of water; for eyes, get medical attention.
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 directly to water or wetlands (swamps, bogs, marshes, and potholes) except as specified for the labeled use on cranberry. 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 First Aid

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

HANDLE THIS PRODUCT ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT: a long-sleeve shirt and long pants or a coverall that covers all parts of the body except the head, hands, and feet; chemical resistant gloves; shoes, socks, and goggles or a face shield. During mixing and loading, a chemical resistant apron must also be worn

During application from a tractor with a completely enclosed cab with positive pressure filtration, or aerially with an enclosed cockpit, a long-sleeve shirt and long pants may be worn in place of the above protective clothing. Chemical resistant gloves must be available in the cab or cockpit and worn while exiting.

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.

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, get medical attention."

REENTRY STATEMENTS

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.

AS A SPRAY (Ground or Aerial Equipment)—Apply "Manzate" 200 DF at the rate shown; use sufficient water to provide thorough coverage, usually 20 to 100 gals per acre for ground equipment and 5 to 8 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 including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems only on crops specifically designated in the "Directions For Use" for that particular crop. Do not apply "Manzate" 200 DF through any other type of irrigation system on any 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.

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.

FIELD CROPS - Application Restrictions

CROP	DISEASE/PEST	RATE	TIMING INTERVAL	LAST APPLICATION TO HARVEST	LIVESTOCK GRAZING /FEEDING	COMMENTS
Corn (popcorn)	Helminthosporium leaf blight Rust	1 1/2 lbs/acre	Begin when disease threatens. Repeat every 4 to 7 days.	40 days		
Corn (sweet, hybrid seed production)	Helminthosporium leaf blight Rust	1 1/2 lbs/acre	Begin when disease threatens. Repeat every 4 to 7 days.	7 days	Do not graze or feed forage or fodder to livestock.	
Peanuts	Cercospora leaf spot Rust	1 to 2 lbs/acre	Begin when disease threatens. Repeat at 7 to 14 day intervals.		Do not feed vine hay to livestock.	
Peanuts (Tank mix with Benlate® Fungicide)	Ascochyta web blotch Cercospora leaf spot Rust	1 1/2 lbs plus 4 ozs "Benlate"/acre	Begin 35 to 40 days after planting or when disease threatens. Repeat at 7 to 14 day intervals (7 to 10 days for rust).	14 days	Do not graze or feed treated vines, hay or hulls to livestock.	Spray oil may be added at 1/2 to 1 qt/acre. Do not use "Benlate" where benzimidazole-resistant Cercospora is present.
Sugar beets	Cercospora leaf spot	1 1/2 to 2 lbs/acre	Begin when disease first threatens. Repeat at 7 to 10 day intervals.	14 days	Do not feed treated sugar beet tops to livestock.	
Wheat	Helminthosporium leaf blight Septoria glume spot Septoria leaf spot Tan spot Wheat leaf rust (Puccinia spp.)	2 lbs/acre	Begin when disease threatens or at tillering-to-jointing stage. Repeat every 7 to 10 days, maximum of 3 applications.	26 days	Do not graze livestock in treated areas within 26 days after application.	

FRUIT AND NUT CROPS - Application Restrictions

CROP	DISEASE/PEST	RATE	TIMING INTERVAL	LAST APPLICATION TO HARVEST	LIVESTOCK GRAZING /FEEDING	COMMENTS
Bananas	Sigatoka (Mycosphaerella)	2 to 4 lbs/acre in water or water/oil emulsion or oil alone	Begin when leaves first appear and repeat every 2 to 3 weeks or as required			Add spreader sticker when using water as carrier
Caprifig	Endosepas (Fusarium) Mold	4 lbs/100 gals	Prepare mature figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mature 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
Cranberries	Fruit rot	3 to 6 lbs/acre	Begin at mid-bloom. Repeat at 7 to 10 day intervals.	30 days		
Grapes	Black rot Bunch rot Dead arm Downy mildew	1 1/2 to 4 lbs/acre	Apply when shoots are 1/2 to 1 1/2' long, 3 to 5' long, & 8 to 10' long. Continue at 10 to 14 day intervals.	66 days (in California do not apply after fruit set)		

VEGETABLE CROPS - Application Restrictions

CROP	DISEASE/PEST	RATE	TIMING/INTERVAL	LAST APPLICATION TO HARVEST	LIVESTOCK GRAZING /FEEDING	COMMENTS
Asparagus	Rust	2 lbs/acre	Begin when rust threatens. Repeat every 10 days as needed.	Apply only on ferns after spears have been harvested		
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.
Corn (Sweet)	Helminthosporium leaf blight Rust	1 1/2 lbs/acre	Begin when disease threatens. Repeat every 4 to 7 days.	7 days	Do not graze or feed forage or fodder to livestock.	
Onions (dry bulb)	Botrytis leaf blight Downy mildew Neck rot Purple blotch	3 lbs/acre	Begin when disease is first reported in the area. Repeat every 7 days.	7 days		Do not allow spray or drift to contact exposed bulbs.
	Smut	3 lbs/acre in 75 to 125 gals/acre (29,000 linear feet of furrow)	Apply as a furrow drench to muck soils at planting to protect seedlings.			
Potatoes	Early & late blights	1 to 2 lbs/acre	Begin when plants are 4 to 6" high. Repeat every 7 to 10 days			
	Early blight	1 to 2 lbs/acre plus Triphenyl Tin Hydroxide (TPH) at 1/2 to full labeled use rate				
Potato (seed piece)	Fusarium seed piece decay Common scab (seedborne)	2 1/2 lbs/100 gals	Dip treat, drain, and plant as soon as possible following treatment		Do not use treated pieces for food or seed purposes	If seed pieces are to be held before planting, spread out to dry in a cool place
Tomatoes	Anthracoza Early & late blights Gray leaf mod. Gray leaf spot	1 1/2 to 3 lbs/acre	Begin when seedlings emerge. Repeat every 7 days	5 days		
	Bacterial leaf spot	1 1/2 lbs plus 1 lb/acre (29,000 linear feet of furrow)	Begin when seedlings emerge. Repeat every 7 to 8 days			

GRASSES (TURF) - Application Restrictions

CROP	DISEASE/PEST	RATE	TIMING/INTERVAL	LAST APPLICATION TO HARVEST	LIVESTOCK GRAZING /FEEDING	COMMENTS
Turf grasses	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.	
	Leaf stem, and strip rust	3 to 4 ozs in 3 to 5 gals/1000 sq ft (8 to 11 lbs in 130 to 220 gals/acre)	Begin when disease threatens. Repeat at 7 to 10 day intervals as long as disease persists.			
	Leaf spot (Helminthosporium spp.) Rhizoctonia solani brown patch	3 to 4 ozs in 3 to 5 gals/1000 sq ft (8 to 11 lbs in 130 to 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.			When conditions are unusually favorable for disease, use 6 to 8 ozs/1000 sq ft (16 to 22 lbs/acre) and reduce intervals to 3 to 5 days.

SEED TREATMENT

CROP	DISEASES	SEED TREATMENT RATE - APPLY AS A SLURRY		COMMENTS
		Ozs/Bu	Ozs/100 lb	
Barley	Bunt, Covered smut, Damping-off, Fake loose smut, Seed decay, Seedling blights	1.3 to 2.0	2.7 to 4.2	<p>LABEL TREATED SEED "Do not use for food, feed or oil purposes. This seed treated with 'Manzate' 200 Fungicide."</p> <p>The incorporation of a dye into the treating slurry is recommended. Dye must color seed to distinguish as treated.</p>
Corn	Damping off, seed rot, seedling blight	1.5 to 3.0	2.7 to 5.4	
Cotton Acid Delinted	Damping-off, Seedling blights	-	3	
Cotton Reginned	Damping-off, Seedling blights	-	6	
Flax	Seed decay, Seedling blights, Damping-off	2.0 to 4.0	3.6 to 7.1	
Oats	Damping-off, Seedling blights, Seed decay, Smuts	1.3 to 2.0	4.0 to 6.3	
Peanuts (shelled)	Damping-off, Seed rots, Seedling 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 3x/yr., during, or after soaking in water.	
Rye	Bunt, Covered smut, Damping-off, Seed decay, Seedling blights	1.3 to 2.0	2.3 to 3.4	
Safflower	Puccinia carthami (which causes foot and-rot disease and foliage rust disease)	-	2.0	
Sorghum	Covered kernel smut, Damping off, Seedling blights, Seed rots	1.5 to 2.5	2.7 to 4.5	
Tomatoes	Damping off, Seedling blights, Seed rots	-	8.0	
Wheat	Bunt, Covered smut, Damping off, Seed decay, Seedling blights	1.3 to 2.0	2.2 to 3.3	

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.

PESTICIDE 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.

NC. **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.

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