

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 20 1992

Mr. Richard Fisher
E. I. DuPont De Nemours & Co., Inc.
Agricultural Products Business
Barley Mill Plaza, P.O. Box 80038
Wilmington, DE 19880-0038

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Dear Mr. Fisher:

Subject: Amended Labeling - Adjustment of the PHI for Potatoes
DuPont Manzate 200 Fungicide
EPA Registration No. 352-341
Your Submission Dated June 23, 1992

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

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

- In the Reentry Statement, revise the posting statement to replace "until sprays have dried or dusts have settled." with appropriate restrictions for agricultural and turf uses. Turf grown on sod farms is considered an agricultural use. Add "(including sod farms)" following Agricultural Uses or "(other than sod farms)" following turf uses.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,



Susan T. Lewis
Product Manager (21)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

H7505C:J.Fairfax:352-341:8/ CONCURRENCES

SYMBOL	H7505C						
SURNAME	J. Fairfax						
DATE	8/20/92						

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 29 1982



MANZATE® 200

5 9 12

Under the Fungicide, Molluscicide, and Plant Growth Regulator Act as amended for the pesticide registered under EPA Reg. No. 352-341

FUNGICIDE
WETTABLE POWDER

ACTIVE INGREDIENT

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

Manganese++	16%	80%
Zinc++	2%	
Ethylene bisdithiocarbamate ion (C ₄ H ₆ N ₂ S ₄)=	62%	

INERT INGREDIENTS

20%
TOTAL 100%

This product contains the toxic inert ingredient paraformaldehyde.

EPA Reg No. 352-341

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 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. 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 directly 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 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, a wettable powder 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".

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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 aerial 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 taggers 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 Mancozeb 200 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 "Mancozeb" 200 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 aerial. Add "Mancozeb" 200 slowly to water in the spray tank with agitation or premix thoroughly in separate holding tank for concentrate or air draft sprayers. Continuous agitation is required to keep the product in suspension. Add a spreader/sticker spray adjuvant if needed.

CHEMIGATION

Apply "Mancozeb" 200 Fungicide only through sprinkler including center pivot, lateral move, end tow, side (wheeled) 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 "Mancozeb" 200 through any other type of irrigation system or 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), specifically designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply ~~at a speed~~ ^{at a speed} faster than 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 as a continuous injection. In nonmoving systems inject "Manzate" 200 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 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 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 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 3 iLs (6.4 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 (24 lbs active) per acre per growing cycle. Minimum preharvest interval (0 days).

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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 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 (4.8 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.
Caprfig (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 (18 lbs active) per acre per crop east of Mississippi and AR and LA. Do not apply more than 7.5 lbs (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 (12 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 (6.4 lbs active) per acre per crop. Do not apply within 45 days of harvest. Do not feed treated forage to livestock. Do not graze livestock in treated areas Do not feed gin trash to livestock.

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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 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 (14.4 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 (19.2 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 (12.8 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 (19.2 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 PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Melons 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 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 (19.2 lbs active) per acre per crop.
Oats (See barley)				
Onions (dry bulb) (furrow drench)	Botrytis leaf blight Downy mildew Neck rot Purple blotch	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.	Do not apply within 7 days of harvest. Do not apply to exposed bulbs. Do not apply more than 30 lbs (24 lbs active) per acre per crop.
	Smut		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 use more than 2.4 lbs active per acre (29,000 linear feet of furrow) with an 18 inch row spacing
Papaya	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 (28 lbs active) per acre per crop. Minimum pre-harvest interval (0 days).
Peanuts	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 (12.8 lbs active) per acre per crop. Do not feed treated vines to livestock.
Peanuts (Tank mix with "Benlate" Fungicide)	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 (9.6 lbs active) per acre per crop. Do not feed treated vines to livestock.
Pears (See Pomefruit)				

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 PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
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.	Pre-Bloom Use: 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. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES	Do not apply more than 6 lbs (4.8 lbs active) per acre per application. Do not apply after bloom. Do not apply more than 24 lbs (19.2 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.	Extended Application Schedule or for Use in Tank Mixtures: 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. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES	Do not apply more than 3 lbs (2.4 lbs active) per acre per application. Do not apply within 77 days of harvest. Do not apply more than 21 lbs (16.8 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.

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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)

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CROP	DISEASES CONTROLLED	RATE OF MANZATE 200 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 (11.2 lbs active) per acre per crop. Do not use within 3 days of harvest in CT, DE, FL, MA, ME, MI, NH, NY, OH, PA, RI, 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 common scab	1 1/4 per 50 gal	Dip whole or cut potato tubers in 1 1/4 lbs Manzate 200 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 (19.2 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. (11.2 lbs active) per acre per crop. Do not feed treated sugar beet tops to livestock.
Tomatoes (East of the Mississippi River)	Anthraxnose 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 (16.8 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 (6.4 lbs active) per acre per crop.
Watermelon (See Melons)				
Wheat (See Barley)				

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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 (16-22lbs/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 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, Seedling blights	1.3 to 2.0	2.7 to 4.2
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 before drying or after soaking in water
Rye	Bunt, Covered smut, Damping off, Seed decay, Seedling blights	1.3 to 2.0	2.8 to 3.6
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		3.0
Wheat	Bunt, Covered smut, Damping off, Seed decay, Seedling blights	1.3 to 2.0	2.2 to 3.3

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 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 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"> *Alternaria—leaf spots and flower blights *Anthracnose—Colletotrichum or Elsinoe or Gloeosporium or Glomerella or Gnomonia Aschochyta *Blackspot of rose or elm Blight—Phytophthora Blister—Taphrina Botryosphaera Botrytis blights, gray mold Brown rot of Prunus spp—Monilia Cephalosporium *Cercospora *Collectotrichum *Coryneum Curvulana Cylindrocladium 	<ul style="list-style-type: none"> *Cylindrosporium *Dactylaria Didymella *Diplocarpo Downy mildews—Plasmopara or Peronospora *Elsinoe *Entomosporium Fabraea Flower blights Fusanum Fusicladium *Gloesporium *Gnomonia Gray mold—Botrytis Guignardia 	<ul style="list-style-type: none"> *Gymnosporangium *Lea spots *Leptosphaena Lophodermium Macrothoma *Melampsora *Melampsoridium Monochaetia Mycosphaerella *Pestalotia Phomopsis—Phragmidium *Phyllosticta Phytophthora Pseudonectria Puccinia Ramularia 	<ul style="list-style-type: none"> Rhizoctonia *Rhytisma *Rusts—Gymnosporangium, Melampsora, Melampsoridium, Phragmidium, Puccinia, Uromyces *Scab—Fusicladium or Venturia or Sphaeloma Scirrhia *Septoria *Shot-hole—Coryneum *Sphaeropsis Stemphylium Taphrina Uromyces
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*denotes leaf spots

ORNAMENTALS FOR WHICH "MANZATE" 200 IS RECOMMENDED

COMMON NAME	LATIN NAME	COMMON NAME	LATIN NAME	COMMON NAME	LATIN NAME
African violet	Sansevieria ionantha	Ficus	Ficus benjamina	Pilea	Pilea spp
Almond	Aglaonema commutatum	Fir Douglas	Ficus pumila	Pine, Norfolk Island	Aracacia
Andromeda Mountain	Prunus amygdalus	Fir Noble	Pseudotsuga menziesii	Pine, White	Pinus strobus
Anthurium	Paris floribunda	Fuchsia	Abies procera	Philodendrum	Philosporium tobra
Arbutus	Anthurium spp	Fittoua	Pyracantha coccinea	Plane Tree	Platanus occidentalis
Areca Palm	Thuja occidentalis	Fittonia	Fittonia argentea	Poinsettia*	Euphorbia pulcherrima
Ash	Chrysalidocarpus lutescens	Geranium	Palargonium hortorum	Prayer Plant	Maranta kerchoveana
Ash Mountain	Fragaria spp	Gladiolus**	Gladiolus spp**	Primrose	Primula spp
Aster China	Sorbus spp	Gold Dust Tree	Aucuba japonica	Privet	Ligustrum spp
Azalea	Callistephus chinensis	Gypsophila	Gypsophila paniculata	Protea	Leucospermum cordifolium
Baby's Breath	Rhododendron spp	Hawthorn	Crataegus spp	Prune	Prunus spp
Begonia	Gypsophila paniculata	Hemp-bowstring	Sansevieria trifasciata	Pussywillow	Salix babylonica
Birch	Begonia spp	Holly	Ilex spp	Pyracantha	Pyracantha wateri
Boxwood	Betula pendula	Holly Chinese	Ilex cornuta	Redwood (seedlings)	Sequoia sempervirens
Burke	Buxus microphylla	Holly Japanese	Ilex crenata	Rhododendron	Rhododendron spp
Buffalo Berry	Buxus sempervirens	Hollyhook	Athaea rosea	Rose	Rosa spp
Camelia	Aesculus spp	Horsechestnut	Aloca spp	Sand Cherry	Prunus ostiana
Carnation	Shepherdia argentea	Iris	Aesculus hippocastanum	Santolina	Santolina spp
Cedar, Red	Camellia japonica	Ivy	Iris spp	Schellera	Schellera arborea
Christmas Cactus	Dianthus caryophyllus	Juniper	Hemera helix	Sequoia, Giant (seedlings)	Sequoia gigantea
Chrysanthemum	Juniperus virginiana	Laurel Mountain	Juniperus chinensis	Snapdragons	Antirrhinum majus
Cordylina	Zygocactus truncatus	Lavender Cotton	Juniperus horizontalis	Spondias, Winged	Evonymus alatus
Cotoneaster	Chrysanthemum spp	Lily	Juniperus sabina	Spruce, Alberta (dwarf)	Picea glauca conica
Crabapple	Dracaena spp	Lily Easter	Kalmia latifolia	Spruce, Engelmann	Picea engelmannii
Croton	Cotoneaster divaricata	Madagascar Palm	Santolina chamaecyparissus	Spruce, Norway	Picea abies
Cyprus Arizona	Cotoneaster horizontalis	Magnolia	Lilium spp	Spruce, Japanese	Pachysandra terminalis
Dahlia	perpusilla	Maple	Lilium longiflorum	Starflower	Limnium angustum
Daisy Transvaal	Malus ioensis	Maple Red	Liriodendron	Sunac, Slumbush	Hebe pectinata
Jeffersonia	Crassula argentea	Maple Sugar	Chrysalidocarpus lutescens	Sycamore	Malus spp
Juglans	Codaeum variegatum	Nannyberry	Magnolia stellata	Syngonium	Syngonium podophyllum
Juglans nigra	Codaeum punctatum	Nephthys	Mahonia nervosa	Velvet plant	Guznera spp
Juglans nigra	aureum	Oak	Acor spp	Venus Flytrap	Urtica mucronata
Juglans nigra	Cyprissus spp	Osmanthus	Acor rubrum	Verbena	Verbena spp
Juglans nigra	Dahlia spp	Pansy	Acor saccharum	Viburnum	Viburnum dentat
Juglans nigra	Gerbera spp	Papaya	Viburnum lentago	Walnut	Juglans spp
Juglans nigra	Delphinium	Peperomia	Naphthys alba	Witch, Black	Juglans nigra
Juglans nigra	Comus amomum	Pereskia	Quercus borealis	Yucca	Salix spp
Juglans nigra	Comus Florida	Phlox	Quercus rubrum	Zinnia plant	Yucca elephantipes
Juglans nigra	Comus racemosa	Pink	Quercus velutina	Zinnia	Yucca filamentosa
Juglans nigra	Comus sericea	Pink	Osmanthus heterophyllus		Aphelandra squarrosa
Juglans nigra	Comus strictifolia	Pink	Viola spp		Zinnia elegans
Juglans nigra	Dracaena marginata	Pink	Paeonia spp		
Juglans nigra	Dracaena sandersonii	Pink	Paperonia spp		
Juglans nigra	Centaseia chieriana	Pink	Vinca spp		
Juglans nigra	Ulmus americana	Pink	Peruna hybrida		
Juglans nigra	Ulmus parvifolia	Pink	Phloxendron spp		
Juglans nigra	Euonymus japonica	Pink	Thymus Pasteri		
Juglans nigra	Nephthys exaltata	Pink	Toxaria menziesii		
Juglans nigra	Polystichum adiantiforme	Pink	Pans spp		
Juglans nigra	Pteris ensiformis				

* Do not exceed 1 1/2 lbs/100 gallons

** Do not exceed 3/4 lb/100 gal on flower spikes

STORAGE AND DISPOSAL

STORAGE: Important—Never allow "Manzate" 200 to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of "Manzate" 200 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 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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