

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Reg no: 352-341

PM-21

138

DEC 28 1989

Timothy D. Stoner
E.I. duPont de Nemours & Company
Agricultural Products
Barley Mill Plaza, WMS-108
P.O. Box 80038
Wilmington, Delaware 19880-0038

BEST AVAILABLE COPY

Dear Mr. Stoner:

Subject: Amended Labeling - Deletion of Uses for Mancozeb
Manzate 200 EPA Reg. No. 352-341
Manzate 200 Flowable EPA Reg. No. 352-398
Manzate 200 DF EPA Reg. No. 352-449
Your Submission Dated September 6, 1989

EPA issued a notice, published in the FEDERAL REGISTER of December 4, 1989 (54 FR 50020), which announced the receipt of requests from registrants of certain technical and end-use EBDC pesticide products to amend their registrations to delete certain uses on food crops or to voluntarily cancel certain products. The ten-day period following publication is now over. The purpose of this letter is to approve and give effect to these requests.

On September 6, 1989, duPont submitted applications for amendments to delete certain crops from its mancozeb product registrations and labels. For the above-referenced products, the Agency agrees to the deletion of the following food crops:

apples	fennel	quince
barley	field corn	rye
carrots	melons	squash(summer and
celery	oats	winter)
cotton(foliar)	papayas	tobacco(plant bed
crabapple	pears	and field)
cucumbers	pineapples	

As a result of similar requests by Penwalt and Rohm and Haas, the above listed mancozeb products are registered for no more than one or more of the following food uses:

asparagus	grapes	sugar beets
bananas	onions	sweet corn
cranberries	peanuts	tomatoes
caprifig*	potatoes	wheat

CONCURRENCES

SYMBOL	H7505C	H7505C	H7505C	H7505C	H7505C			
SURNAME	Manoza	Manoza	Manoza	Manoza	Manoza			
DATE	12/22/89	12/21/89	12/22/89	12/22/89	12/22/89			

The Agency has completed review of the amended labels and finds them acceptable subject to the comments listed below. Stamped copies of the labels are enclosed for your records. Five copies of the finished labeling must be submitted.

- For Manzate 200, EPA Reg. No. 352-341, the second page (containing the ingredients statement) is for the Manzate 200 Flowable, EPA Reg. No. 352-398, formulation. Assure that when these labels are printed the appropriate pages are included for each product.

AFTER JANUARY 1, 1990, ALL TECHNICAL PRODUCT REMAINING WHICH IS NOT IN FORMULATOR'S HANDS AND ALL END-USE PRODUCT REMAINING WHICH IS NOT IN GROWERS' HANDS MUST BE RELABELED TO REFLECT THE USE DELETIONS. ALL NEW PRODUCTION MUST BEAR LABELING REFLECTING ONLY RETAINED USES.

Persons that sell or distribute affected mancozeb products after January 1, 1990, without the revised labeling (i.e., instead has labeling that does not reflect the deletion of the subject uses) will be in violation of FIFRA and subject to enforcement action.

The uses deleted from these registrations and labeling cannot be reinstated by the registrant until such time as the Agency determines risks associated with these uses are found to be reasonable, informs the registrant of such finding(s), and approves any subsequent amendments to registration.

If you have any questions concerning this letter, please contact Susan Lewis, Product Manager (21), (703)557-1900.

Sincerely,

151 Stephanie
Lindsay

Anne Lindsay, Director
Registration Division

Enclosure - Stamped labels

ACCEPTED
WITH COMMENTS
1/10/64 Water Dept

Under Fungicide A
Fungicide A
under registration
Fungicide A



Manzate[®] 200 FLOWABLE

FUNGICIDE



TRADEMARK

LIQUID SUSPENSION

MANZATE 200 FLOWABLE



Manzate® 200 FUNGICIDE

ACTIVE INGREDIENT:

A coordination product of zinc ion and manganese ethylene bisdithiocarbamate	80%
in which the ingredients are	
Manganese	16%
Zinc	2%
Ethylene bisdithiocarbamate ion (C ₂ H ₄ N ₂ S ₂)=	62%

INERT INGREDIENTS 20%

This product contains the toxic inert paraformaldehyde

EPA Reg. No. 352-341

EPA Est. 34302-CL-1

Keep out of reach of children.

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 when disposing of equipment washwaters.

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.

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. 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. DUPONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

DIRECTIONS FOR USE

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

"Manzate" 200 Flowable should be used only in accordance with recommendations on this label or in separate published DuPont recommendations available through local dealers

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

"Manzate" 200 Flowable 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 Flowable on (date of application). Do not enter without appropriate protective clothing until sprays have dried. 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.

BEST AVAILABLE COPY

AS A SPRAY (Ground or Aerial Equipment)—Apply "Manzate" 200 Flowable 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. Under severe disease conditions, use the higher rate and shorter interval specified for each crop. Add "Manzate" 200 Flowable 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.

CHEMIGATION: Apply "Manzate" 200 Flowable 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 Flowable 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, independent-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 a functional interlocking device to automatically shut off the pesticide injection pump when the water pump shuts down, or when there is no water pump, when the water pump shuts down, or when the water pump is not operating.
6. The system must contain a functional interlocking device to automatically shut off the pesticide injection pump when the water pump is not operating, or when the water pump is not operating, or when the water pump is not operating.
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 Flowable as a continuous injection. In nonmoving systems inject "Manzate" 200 Flowable 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 Flowable 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 Flowable is flushed from system.

CROPS	DISEASES	APPLICATION		LAST APPLICATION DAYS	
		QUARTS PER ACRE	TIMING/INTERVAL	TO HARVEST	TO LIVESTOCK, GRAZING/FEEDING
Asparagus	Rust	17	Begin when rust appears. Apply as long as rust persists—usually 4 applications/10 days	Apply only on ferns after spears have been harvested	
Crown (planting stock)	Crown Rot	0.8 per 100 gals	Dip Treat for 5 min		
Bananas	Sigatoka	17-34	Begin when leaves first appear 14-21 days		
Caprifig	Endosepsis (Fusarium Fungus), Mold	3.3 per 100 gals	Cut figs open and dip treat for at least 15 min		
Cereal Grains—Wheat	Helminthosporium Leaf Blight, Septoria Leaf Spot	17	Begin at tillering-to-jointing stage/7-10 days. Maximum of 3 applications	26	Do not graze livestock in treated areas within 26 days after application
Conifers	Lophodermium Fungi	3.3 per 100 gals*	Nursery plantings and newly transplanted stock/21 days during sprinkler irrigation 28 days rest of year		
Corn—popcorn, sweet—hybrid seed production	Helminthosporium Leaf Blight	13	Begin when disease appears/4-7 days	7 Sweet 40-hd popcorn 3 seed prod	Do not graze or feed sweet corn forage or fodder
Cranberries	Fruit Rot	2.5-5*	Begin at mid-bloom/7-10 days	30	
Grapes	Black Rot, Bunch Rot, Dead Arm, Downy Mildew	13-34	Apply when shoots are 2-4 inches long 3-5 inches long 8-10 inches long. Continue at 10-14 days	66 10A—do not apply after fruit set	
Onions (Dry Bulb)	Blast (Botrytis Leaf Blight), Downy Mildew, Purple Blotch (Blight), Neck Rot	1.7-2.5	Begin when diseases are reported in area 7 days	7 (Do not apply to exported bulb)	
Seed—(NY only)	Onion Smut (on emerging seedlings in muck soil)	2.5	Furrow Drench at planting		
Peanuts	Cercospora Leaf Spot, Rust	2.5-3.3	Begin when disease appears 10-14 days 3 applications 2 weeks apart	14	Do not graze or feed within 14 days after application

*Use 3.3 quart of Benlate and apply only to seedlings in muck soil and prevent further infection.

*Add spreader sticker

BEST AVAILABLE COPY

CROPS	DISEASES	APPLICATION		LAST APPLICATION DAYS	
		QUARTS PER ACRE	TIMING/INTERVAL	TO HARVEST	TO LIVESTOCK, GRAZING/FEEDING
Peanuts (Tank mix with Benlate)	Cercospora Leafspot	1.3 plus 4 oz Benlate	Begin 35-40 days after planting, or when disease appears/ 7-14 days	14	Do not graze treated areas or feed to livestock
	Ascochyta Web Blight	1.3 plus 4 oz Benlate	Begin 35-40 days after planting, or when disease first appears/ 7-14 days		
	Rust	1.3 plus 4 oz Benlate	Begin 35-40 days after planting, or when disease first appears/ 7-14 days		
Potatoes	Early Blight, Late Blight	0.8-1.7	Begin when plants are 4-6 inches high/ 7-10 days		
Potato seed pieces	Fusarium Seed Piece Decay Common Scab	2.1 per 100 gals	Dip treat. Plant as soon as possible following treatment	Do not use treated pieces for food or feed purposes	
Sugar Beets	Cercospora Leaf Spot	1.2-1.7	Begin when disease first threatens/ 7-10 days	14	Do not feed treated roots to livestock
Tomatoes	Anthrachnose, Early Blight, Gray Leaf Mold, Gray Leaf Spot, Stemphylium Late Blight	1.3-2.5	Begin when seedlings emerge/ 7 days	5	
	Bacterial Spot	1.3 plus 4 lbs tribasic copper sulphate	Begin when seedlings emerge/ 3-4 days	5	
Turf Grasses	Algae	10 fl oz/ 1000 sq ft	Begin when algae begins to appear/ 7 days		Do not graze treated areas or feed to livestock
	Copper Spot, Fusarium Blight (F. Poaeum), Red Thread, Slime Molds	7-10 fl oz/ 1000 sq ft	Begin when grass greens-up in spring/ 7-14 days		
		10-14 fl oz/ 1000 sq ft	Use during favorable disease conditions/ 7 days		
	Dollar Spot (Sclerotinia)	10-14 fl oz/ 1000 sq ft	Begin when grass greens-up in spring/ 7-14 days		
		14 fl oz/ 1000 sq ft	Use during favorable disease conditions/ 7 days		
	Pink (Fusarium) Snow Mold	10-14 fl oz/ 1000 sq ft	During winter/ 14-42 days		
	Leaf Spot (Helminthosporium spp.) Rhizoctonia Brown Patch	5-7 fl oz/ 1000 sq ft	Begin when disease appears/ 7-10 days tees & greens—7-14 days, fairways—14-21 days, home lawns		
		10-14 fl oz/ 1000 sq ft	Use during favorable disease conditions/ 3-5 days		
	Pythium Blight	14 fl oz/ 1000 sq ft	Begin at first sign of disease/ 5 days or more often during favorable disease conditions		
	Leaf, Stem and Sheath Rust	5-7 fl oz/ 1000 sq ft	Begin when disease appears/ 7-10 days		

*Add spreader-sticker

BEST AVAILABLE COPY

SEED TREATMENT	DISEASES	SEED TREATMENT RATE—APPLY AS A SLURRY		
		FLUID OZ/BU	FLUID OZ/CWT	
Barley	Seed Decay, Seedling Blights, Covered Smut, Bunt	22	45	LABEL TREATED SEED—Do not use for food, feed or oil purposes. This seed treated with Manzate 200 Fungicide.
Corn	Damping Off, Seed Rots, Seedling Blights	25	45	
Cotton	Damping off, Seedling Blights	—	51	
Alfalfa	—	—	101	
Flax	Seed Decay, Seedling Blight	34	61	
Oats	Seed Decay, Seedling Blights, Loose Smut	22	67	Note: The incorporation of a dye into the treating slurry is recommended.
Potatoes	Fusarium Seedpiece Decay, Seed Borne Common Scab	—	25.6	
Rice	Achilla, Other Soil and Seed Borne Fungi Causing Seed Rot and Reduced Seedling Vigor	—	34—67 (of dry rice seed) (21—42 lbs/ton of seed) Apply before, during or after soaking in water	
Rye	Seed Decay, Seedling Blights, Covered Smut, Bunt	22	40	
Safflower	Puccinia Carthami (which causes foot-and-rot disease and foliage rust disease)	—	34	
Sorghum	Damping Off, Seedling Blights	25	51	
Tomatoes	Damping—Off, Seedling Blights	—	135	
Wheat	Seed Decay, Seedling Blights, Covered Smut, Bunt	22	37	

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

AG-2605 8028.8129 2 11 88

Made by Du Pont in Mexico

Printed in U.S.A.

BEST AVAILABLE COPY