PM21

OCT 9 1998

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Mr. Richard H. Collier Griffin L.L.C. P.O. Box 1847 2509 Rocky Ford Road Valdosta, Georgia 31603-1847

Dear Mr. Collier:

Subject: Manzate 200 DF Fungicide EPA Reg. No. 1812-414 Manzate 200 Fungicide EPA Reg. No. 1812-415 Manzate 200 Flowable Fungicide EPA Reg. No. 1812-416 Submissions of August 21,1996 (DuPont Submissions)

1812-415

The amendments referred to above which add the crops edible gourds, garlic and shallots to the labels, submitted in connection with registration under FIFRA sec. 3(c)(7)(A), are acceptable. It was determined that residues of these crops are adequate based on the definitions in 40 CFR 180.1(h). Stamped copies of the labels are enclosed for your records.

Sincerely yours,

Mary I. Was

Mary L. Waller Product Manager (21) Fungicide Branch Registration Division (7505C)

Enclosures

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# WETTABLE POWDER

MANZATE<sup>®</sup> 200

#### **ACTIVE INGREDIENT**

A coordination product of

| zinc ion and manganese ethylene bisdithiocarbamate in which the ingredients are: |      | 80 ? |    |
|----------------------------------------------------------------------------------|------|------|----|
| Manganese++                                                                      |      |      |    |
| Zinc++                                                                           |      |      |    |
| Ethylene bisdithiocarbamate ion (C4H6N2S4)=                                      |      |      | æ  |
| INERT INGREDIENTS                                                                | ***  |      | EC |
|                                                                                  | TOTA | Å.   | 2  |

|                     | TOTAL ,          | <del>10</del> 0% | ö    |
|---------------------|------------------|------------------|------|
| EPA Reg No. 352-341 |                  | SEF              | EP   |
| KEEP OUT OF F       | EACH OF CHILDREN | 1                | 3/1  |
| CA                  | UTION            |                  | /PP/ |
| PRECAUTION          | ARY STATEMENTS   | N.               | DP   |

# 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.

# 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.

# PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers (other than mixers and loaders) must wear:

Coveralls over long-sleeved shirt and long pants. Waterproof gloves. Shoes plus socks. Mixers and Loaders must wear:

Coveralls over long-sleeved shirt and long pants. Waterproof gloves, Shoes plus socks. Protective eyewear. Chemical-resistant apron when mixing or loading.

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

During aerial application, human flaggers must be in enclosed cabs.

# ENGINEERING CONTROL STATEMENTS

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

# USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

This 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.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

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

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

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

Coveralls over long-sleeved shirt and long pants. Waterproof gloves. Shoes plus socks.

"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.

# **APPLICATION INSTRUCTIONS**

AS A SPRAY (Ground or Aerial Equipment)—Apply "Manzate" 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 aircraft. Add "Manzate" 200 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.

# RESTRICTIONS

#### **Foliar Applications**

# Where EBDC Products Used Allow the Same Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient (maneb, mancozeb or metiram) is used on a crop during the same

growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any one of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

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#### Where EBDC Products Used Allow Different Maximum Poundage of Active Ingredient Per Acre Per Season

If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

#### Seed Treatment

In addition to the maximum number of foliar applications permitted by the formula stated above, a single application for seed treatment may be made on crops which have registered seed treatment uses.

# CHEMIGATION

Apply "Manzate" 200 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 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.

- 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.
- 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.
- 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.
- Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all "Manzate" 200 is flushed from system.

| CROP                                | DISEASES<br>CONTROLLED          | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS/ACRE | TIMING/INTERVALS<br>(Also refer to Directions for Use)                                                                                    | RESTRICTIONS/COMMENTS                                                                                                                       |
|-------------------------------------|---------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Apples<br>(See Pomefruit)           |                                 |                                                          | Ì                                                                                                                                         |                                                                                                                                             |
| Asparagus                           | Cercospora<br>leaf spot<br>Rust | 2                                                        | Start applications when rust first<br>appears and repeat at 10 day<br>intervals. Four applications are<br>usually sufficient.             | Apply only on asparagus ferns<br>after spears have been<br>harvested.<br>Do not apply within 180 days of<br>harvest in all states except CA |
|                                     |                                 |                                                          |                                                                                                                                           | and AZ (120 days).<br>Do not apply more than 8 lbs (6.4<br>lbs active) per acre per season.                                                 |
| Asparagus Crown<br>(planting stock) | Crown rot                       | 1 lb per 100 gals                                        | Dip clean, loosely packed crowns<br>into continuously agitated<br>fungicide suspension for 5<br>minutes.                                  | Wash dirty crowns before dip<br>treatment. Replace suspension<br>in clean tank when discolored by<br>soil.                                  |
|                                     |                                 |                                                          | Drain and plant as soon as possible.                                                                                                      | _                                                                                                                                           |
| Bananas<br>(including<br>plantain)  | Sigatoka                        | 2 to 3                                                   | Apply when leaves first appear<br>and repeat every 14 to 21 days or<br>as required. Use sufficient water<br>to provide adequate coverage. | Do not apply more than 30 lbs<br>(24 lbs active) per acre per<br>growing cycle.<br>Minimum preharvest interval                              |
|                                     |                                 |                                                          | The addition of a surfactant to<br>spray solutions will improve<br>performance.                                                           | (0 days).                                                                                                                                   |

| CROP                                                                                                                                                                                                 | DISEASES<br>CONTROLLED                                                                                      | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS/ACRE | TIMING (INTERVALS<br>(Also refer to Directions for Use)                                                                                                                                                                                         | RESTRICTIONS/COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Barley, Oats, Rye,<br>Wheat<br>(including<br>triticale)                                                                                                                                              | Helminthosporium<br>leaf spot<br>Leaf rust<br>Septoria glume<br>blotch<br>Septoria leaf<br>spot<br>Tan spot | 2                                                        | Start application at onset of<br>disease or when plants are in the<br>tillering to jointing stage and repeat<br>at 7 to 10 day intervals. The<br>addition of a surfactant to spray<br>solutions will improve performance.                       | Do not make more than three<br>applications during the season.<br>Do not apply more than 6 lbs (4.8<br>lbs active) per acre per crop.<br>Do not apply within 26 days of<br>harvest.<br>Do not graze livestock in treated<br>areas prior to harvest.                                                                                                                                                                                               |
| Caprifig<br>(Non-food use)                                                                                                                                                                           | Endosepsis<br>(Fusarium)<br>Mold                                                                            | 4 lbs/100 gals                                           | Prepare mamme figs by making a<br>shallow cut through the eye and<br>then hand dividing to avoid wasp<br>injury. Submerge mamme figs in<br>the continuously agitated<br>suspension for at least 15 minutes.<br>Drain before placement in trees. | Use fresh dipping suspension after treating 4 to 5 batches of figs.                                                                                                                                                                                                                                                                                                                                                                               |
| Corn<br>(sweet corn for<br>fresh use or<br>processing;<br>popcorn; and sweet<br>corn for seed<br>production,<br>including hybrid<br>seed)<br>(field and field corn<br>for hybrid seed<br>production) | Common rust<br>Helminthosporium<br>leaf blight                                                              | 1 1/2                                                    | Use sufficient water for thorough<br>coverage. Start applications when<br>disease first appears and repeat at<br>4 to 7 day intervals.<br>The addition of a surfactant to<br>spray solutions will improve<br>performance.                       | Do not apply within 7 days of<br>harvest.<br>Do not apply more than 22.5 lbs<br>(18 lbs active) per acre per crop<br>east of Mississippi and AR and LA.<br>Do not apply more than 7.5 lbs (6<br>lbs active) per acre per crop west<br>of the Mississippi except AR and<br>LA.<br>Do not feed treated forage to<br>livestock.<br>Do not apply within 40 days of<br>harvest.<br>Do not apply more than 15 lbs (12<br>lbs active) per acre per crop. |
| Cotton<br>(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 feed treated forage to<br>livestock.<br>Do not apply after bolls open.<br>Do not apply more than 8 lbs(6.4<br>lbs active) per acre per crop.<br>Do not apply within 45 days of<br>harvest.<br>Do not feed treated forage to                                                                                                                                                                                                                |
|                                                                                                                                                                                                      |                                                                                                             |                                                          |                                                                                                                                                                                                                                                 | livestock.<br>Do not graze livestock in treated<br>areas.<br>Do not feed gin trash to livestock.                                                                                                                                                                                                                                                                                                                                                  |

| CROP                                       | DISEASES<br>CONTROLLED                                                              | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS/ACRE | TIMING/INTERVALS<br>(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<br>harvest.<br>Do not apply more than 18 lbs<br>(14.4 lbs active) per acre per<br>season.                                                            |
| Cucumbers                                  | Anthracnose<br>Cercospora<br>leaf spot<br>Downy mildew<br>Gummy stem blight<br>Scab | 2 to 3                                                   | Start applications when plants are<br>in the two-leaf stage and repeat at<br>7 to 10 day intervals.<br>Use sufficient water and direct<br>spray to provide thorough<br>coverage of both upper and lower<br>leaf surfaces.                                                                                                                                                                                              | Do not apply within 5 days of<br>harvest.<br>Do not apply more than 24 lbs<br>(19.2 lbs active) per acre per crop                                                                   |
| Fennel                                     | Early & late blights                                                                | 2                                                        | Begin in plant beds at emergence.<br>Repeat at 7 to 10 day intervals.                                                                                                                                                                                                                                                                                                                                                  | Do not apply within 14 days of<br>harvest.<br>Do not apply more than 16 lbs<br>(12.8 lbs active) per acre per crop<br>Do not graze treated area to<br>livestock.                    |
| Grapes<br>(East of the Rocky<br>Mountains) | Black rot<br>Bunch rot<br>Deadarm<br>Downy mildew                                   | 1 1/2 to 4                                               | Apply in sufficient water to provide<br>thorough coverage starting when<br>new shoots are 1.2 to 1 1/2 inches<br>long. Repeat when shoots are 3 to<br>5 inches long, when shoots are 8<br>to 10 inches long, and then at 7 to<br>10 day intervals until fruit is set.<br>For late season control of black rot,<br>deadarm and downy mildew the<br>use of other approved and<br>recommended fungicides is<br>suggested. | Do not apply within 66 days of<br>harvest.<br>Do not apply more than 24 lbs<br>(19.2 lbs active) per acre per<br>season.                                                            |
| (West of the Rocky<br>Mountains)           |                                                                                     | 1 1/2 to 2 1/2                                           |                                                                                                                                                                                                                                                                                                                                                                                                                        | Do not apply within 66 days of<br>harvest except in CA where no<br>application can be made after<br>bloom.<br>Do not apply more than 7.5 lbs (6<br>lbs active) per acre per season. |

| CROP                                                                         | DISEASES<br>CONTROLLED                                                                              | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS/ACRE | TIMING/INTERVALS (Also refer to Directions for Use)                                                                                                                                                                                                                                                                                                            | RESTRICTIONS/COMMENTS                                                                                                                                           |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Melons</b><br>Cantaloupes<br>Casaba<br>Crenshaw<br>Honeydew<br>Watermelon | Alternaria leaf spot<br>Anthracnose<br>Downy mildew<br>Gummy stem blight<br>Cercospora<br>leaf spot | 2 to 3                                                   | Start applications when plants are<br>in the two-leaf stage and repeat at<br>7 to 10 day intervals. Use<br>sufficient water and direct spray to<br>provide thorough coverage of both<br>upper and lower leaf surfaces.<br>Some varieties are sensitive to<br>Manzate 200 fungicide. Consult<br>State Cooperative Extension<br>Service Specialist prior to use. | Do not apply within 5 days of<br>harvest.<br>Do not apply more than 24 lbs<br>(19.2 lbs active) per acre per crop.                                              |
| Oats<br>(See barley)                                                         |                                                                                                     |                                                          |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                 |
| Onions (dry bulb)<br>Garlic and<br>Shallots                                  | Botrytis leaf blight<br>Downy mildew<br>Neck rot<br>Purple blotch                                   | 3                                                        | Follow a protective spray schedule<br>starting when diseases are first<br>reported in the areas and repeat at<br>7 day intervals throughout the<br>season.<br>The addition of a surfactant to<br>spray solutions will improve<br>performance.                                                                                                                  | Do not apply within 7 days of<br>harvest.<br>Do not apply to exposed bulbs.<br>Do not apply more than 30 lbs (24<br>lbs active) per acre per crop.              |
| (furrow drench)                                                              | 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<br>active per acre (29,000 linear feet<br>of furrow) with an 18 inch row<br>spacing.                                               |
| Рарауа                                                                       | Anthracnose<br>(Colletotricum)<br>Phytophthora<br>fruit rot<br>Black spot<br>(Cercospora)           | 2 to 2.5<br>(minimum 50 gals<br>per acre)                | Begin at flowering; treat central<br>column crown, blossom area and<br>developing fruit. Repeat at 14 to<br>21 day intervals.                                                                                                                                                                                                                                  | Do not use more than 35 lbs (28<br>lbs active) per acre per crop.<br>Minimum pre-harvest interval (0<br>days).                                                  |
| Peanuts                                                                      | Cercospora<br>leaf spot<br>Rust                                                                     | 1 to 2                                                   | Start application when disease first<br>appears or is reported in area.<br>Repeat sprays at 7 to 14 day<br>intervals. Reduce sprays to a 7<br>day interval during humid weather.                                                                                                                                                                               | Do not apply within 14 days of<br>harvest.<br>Do not use more than 16 lbs (12.8<br>lbs active) per acre per crop.<br>Do not feed treated vines to<br>livestock. |
| <b>Peanuts</b> (Tank mix<br>with "Benlate"<br>Fungícide)                     | Ascochyta<br>web blotch<br>Cercospora<br>leaf spot<br>Rust                                          | 1 1/2 pius 4 ozs<br>"Beniate"                            | Begin 35 to 40 days after planting<br>or when disease threatens.<br>Repeat at 7 to 14 day intervals (7<br>to 10 days for rust).                                                                                                                                                                                                                                | Do not apply within 14 days of<br>harvest.<br>Do not use more than 12 lbs<br>Manzate 200 (9.6 lbs active) per<br>acre per crop.<br>Do not feed treated vines to |

| CROP                                                  | DISEASES<br>CONTROLLED            | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS/ACRE                                                                                                                                                                         | TIMING/INTERVALS<br>(Also refer to Directions for Use)                                                                                                                                                                                                                                                                                                                                                                                                                                       | RESTRICTIONS/COMMENTS                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pineapple<br>(Seed-Piece<br>Treatment Only)           | Phytophthora heart<br>rot         | 3.2 lbs/10 gals<br>Use up to 100<br>gals of<br>suspension to<br>treat clean<br>propagation<br>material for one<br>acre.                                                                                                          | Dip planting material in fungicide<br>suspension prior to planting. Stir<br>frequently to prevent settling.                                                                                                                                                                                                                                                                                                                                                                                  | Prepare new suspension when 2/3<br>of volume is used or sooner if<br>noticeably discolored by soil from<br>plant material.                                                                                                                                                                                                                    |
| Pomefruits<br>Apples<br>Pears<br>Crabapples<br>Quince | Rusts<br>Scab<br>Fabrea leaf spot | 6.0<br>Maximum per<br>acre use rate<br>based on<br>thorough<br>coverage dilute<br>sprays.<br>Use 50 gal<br>minimum<br>per acre.<br>Consult State<br>Extension<br>Service if<br>necessary to<br>adjust for variable<br>tree size. | Pre-Bloom/Bloom Use: Begin<br>application at 1/4 to 1/2 inch green<br>tip and continue on a 7 to 10 day<br>schedule through bloom.<br>Use either the<br>"Pre-Bloom/Bloom" or "Extended<br>Application" schedule. DO NOT<br>COMBINE OR INTEGRATE THE<br>TWO TREATMENT SCHEDULES                                                                                                                                                                                                               | Do not apply more than 6 lbs (4.8<br>lbs active) per acre per application<br>Do not apply after bloom.<br>Do not apply more than 24 lbs<br>(19.2 lbs active) per acre per year.<br>Do not graze livestock in treated<br>areas.<br>It is recommended that this produc<br>be used in an Integrated Pest<br>Management Program.                  |
| Pomefruits<br>Apples<br>Pears<br>Crabapples<br>Quince | Rusts<br>Scab<br>Fabrea leaf spot | 3.0<br>Maximum per<br>acre use rate<br>based on<br>thorough<br>coverage dilute<br>sprays.<br>Use 50 gal<br>minimum<br>per acre.<br>Consult State<br>Extension<br>Service if<br>necessary to<br>adjust for variable<br>tree size. | Extended Application Schedule<br>or for Use in Tank Mixtures: For<br>implementation of IPM programs,<br>applications based on tree-row<br>volume, or for use as a resistance<br>management tool; begin<br>applications at 1/4 to 1/2 inch<br>green tip and continue applications<br>on a 7 to 10 day schedule through<br>the second cover spray.<br>Use either the<br>"Pre-Bloom/Bloom" or "Extended<br>Application" schedule. DO NOT<br>COMBINE OR INTEGRATE THE<br>TWO TREATMENT SCHEDULES | Do not apply more than 3 lbs (2.4<br>lbs active) per acre per application<br>Do not apply within 77 days of<br>harvest.<br>Do not apply more than 21 lbs<br>(16.8 lbs active) per acre per year.<br>Do not graze livestock in treated<br>areas.<br>It is recommended that this produc<br>be used in an Integrated Pest<br>Management Program. |

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| CROP                                                     | DISEASES                                                                                        | RATE OF<br>MANZATE 200<br>PER<br>APPLICATION<br>LBS ACRE | TIMING/INTERVALS<br>(Also refer to Directions for Use)                                                                                                                                                                                                                                                                 | RESTRICTIONS/COMMENTS                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potatoes                                                 | Early blight<br>Late blight                                                                     | 1 to 2                                                   | Begin applications when plants are<br>4 to 6 inches high by applying 1 lb<br>per acre. As the vines increase in<br>size, apply 1 1/2 to 2 lbs per acre<br>at intervals of 5 to 10 days or 1 lb<br>per acre at 3 to 5 day intervals.<br>The addition of a surfactant to<br>spray solutions will improve<br>performance. | Do not apply more than 14 lbs<br>(11.2 lbs active) per acre per crop.<br>Do not use within 3 days of harvest<br>in CT, DE, FL, MA, ME, MI, NH,<br>NY,OH, PA, RI, VT, WI, and within<br>14 days elsewhere.<br>Vine-kill should occur 14 days<br>before harvest.<br>It is recommended that this product<br>be used in an Integrated Pest<br>Management Program. |
| Seedpiece<br>(treatment)                                 | Fusarium decay<br>Seedborne<br>common scab                                                      | 1 1/4 per 50 gał                                         | Dip whole or cut potato tubers in<br>1 1/4 lbs Manzate 200 fungicide<br>per 50 gallons of water. Place<br>treated tubers in a clean container<br>following treatment and plant as<br>soon as possible. Spread treated<br>seedpieces in a cool place if held<br>before planting.                                        | Do not use treated seed potatoes<br>for food or feed purposes.                                                                                                                                                                                                                                                                                                |
| Squash<br>(Summer squash,<br>including edible<br>gourds) | Downy mildew                                                                                    | 2 to 3                                                   | Start applications when plants are<br>in the two-leaf stage and repeat at<br>7 to 10 day intervals.<br>Use sufficient water and direct<br>spray to provide thorough<br>coverage of both upper and lower<br>leaf surfaces.                                                                                              | Do not apply within 5 days of<br>harvest.<br>Do not apply more than 24 lbs<br>(19.2 lbs active) per acre per crop.                                                                                                                                                                                                                                            |
| Sugar Beets                                              | Cercospora leaf<br>spot                                                                         | 1 1/2 to 2                                               | Begin when disease first threatens.<br>Repeat at 7 to 10 day intervals.                                                                                                                                                                                                                                                | Do not apply within 14 days of<br>harvest.<br>Do not apply more than 14 lbs.<br>(11.2 lbs active) per acre per crop.<br>Do not feed treated sugar beet<br>tops to livestock.                                                                                                                                                                                  |
| Tomatoes<br>(East of the<br>Mississippi River)           | Anthracnose<br>Early blight<br>Gray leaf spot<br>Late blight<br>Leaf mold<br>Septoria leaf spot | 1 1/2 to 3                                               | Start application when seedlings<br>emerge or transplants are set and<br>repeat at 7 to 10 day intervals<br>throughout the season.<br>The addition of a surfactant to<br>spray solutions will improve<br>performance.                                                                                                  | Do not apply within 5 days of<br>harvest.<br>Do not apply more than 21 lbs<br>(16.8 lbs active) per acre per crop.                                                                                                                                                                                                                                            |
| (West of the<br>Mississippi River)                       |                                                                                                 | 1 1/2 to 2                                               |                                                                                                                                                                                                                                                                                                                        | Do not apply within 5 days of harvest.<br>Do not apply more than 8 lbs (6.4                                                                                                                                                                                                                                                                                   |
|                                                          | (One Malana)                                                                                    |                                                          |                                                                                                                                                                                                                                                                                                                        | lbs active) per acre per crop.                                                                                                                                                                                                                                                                                                                                |
| Watermelon<br>Wheat<br>(including<br>triticale)          | (See Melons)<br>(See Barley)                                                                    |                                                          |                                                                                                                                                                                                                                                                                                                        | ······································                                                                                                                                                                                                                                                                                                                        |

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

| DISEASE/<br>PEST                                                         | RATE                                                                                                   | TIMING<br>INTERVAL                                                                                                                                                                                                                                                                                                                                                                                     | LAST<br>APPLICATION<br>TO HARVEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LIVESTOCK<br>GRAZING/<br>FEEDING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Algae                                                                    | 6 ozs in 3 to 5<br>gats/1000 sq ft<br>(16 tbs in 130-220<br>gats/acre).                                | Begin when algae first<br>appears. Repeat at<br>7-day intervals as long<br>as condition persists.                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Do not graze treated<br>areas or feed clippings<br>to livestock.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Do not use on grasses grown<br>for seed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Leaf stem,<br>strip rust                                                 | 3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 lbs in 130-<br>220 gats/acre).                           | Begin when disease<br>threatens. Repeat at<br>7 to 10-day intervals<br>as long as disease<br>persists.                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Do not graze treated<br>areas or feed clippings<br>to livestock.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Do not use on grasses intended<br>for grazing, such as range or<br>pasture grasses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Leaf spol<br>(Helminthosporium spp.)<br>Rhizoctonia solam<br>brown patch | 3-4 ozs in 3 to 5<br>gats/1000 sq fi-<br>(8-11 fbs in 130-<br>220 gats/acre)                           | Begin when disease<br>threatens.                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Do not graze treated<br>areas or feed clippings<br>to livestock.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | When conditions are unusually<br>lavorable for disease, use<br>6-8 ozsi/000 sq ft (16-221bs/acre)<br>and reduce intervals to 3 to 5 days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                          | PEST<br>Algae<br>Leaf stem,<br>strip rust<br>Leaf spot<br>(Helminthosporium spp.)<br>Rhizoctonia solan | DISEASE/<br>PEST     RATE       Algae     6 ozs in 3 to 5<br>gats/1000 sq ft<br>(16 lbs in 130-220<br>gats/acre).       Leal stem,<br>strip rust     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 lbs in 130-<br>220 gats/acre).       Leal spot<br>(Hebrinithosportum spp.)<br>Rhizoctonia solam     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 lbs in 130-<br>gats/1000 sq ft<br>gats/1000 sq ft | DISEASE/<br>PEST     RATE     TIMING<br>INTERVAL       Algae     6 ozs in 3 to 5<br>gats/1000 sq ft<br>(16 ibs in 130-220<br>gals/acre).     Begin when algae first<br>appears. Repeat at<br>7-day intervals as long<br>as condition persists.       Leaf stem,<br>strip rust     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 ibs in 130-<br>220 gals/acre).     Begin when disease<br>threatens. Repeat at<br>7 to 10-day intervals<br>as long as disease<br>persists.       Leaf spot<br>(Hetrrinthosporium spp.)<br>Rhizoctonia solam     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 ibs in 130-<br>gats/1000 sq ft     Begin when disease<br>threatens. | DISEASE/<br>PEST     RATE     TIMING     APPLICATION<br>TO HARVEST       Algae     6 ozs in 3 to 5<br>gats/1000 sq ft<br>(16 bs in 130-220<br>gats/acre).     Begin when algae first<br>appears. Repeat at<br>7-day intervals as long<br>as condition persists.     APPLICATION<br>TO HARVEST       Leaf stem,<br>strip ns1     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 bs in 130-<br>220 gats/acre).     Begin when algae first<br>appears. Repeat at<br>7-day intervals as long<br>as condition persists.     Begin when disease<br>treatens. Repeat at<br>7 to 10-day intervals<br>as long as disease<br>persists.       Leaf spot<br>(Helminithosporium spp.)<br>Rhizoctonia solam     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 bs in 130-<br>gats/1000 sq ft<br>(8-11 bs in 130-     Begin when disease<br>threatens. | DISEASE/<br>PEST     RATE     TIMING<br>INTERVAL     APPLICATION<br>TO HARVEST     GRAZING/<br>FEEDING       Algae     6 ozs in 3 to 5<br>gats/1000 sq ft<br>(16 lbs in 130-220<br>gats/acre).     Begin when algae first<br>appears. Repeat at<br>7-day intervals as tong<br>as condition persists.     Do not graze treated<br>areas or feed clippings<br>to livestock.       Leaf stem,<br>stip nst     3-4 ozs in 3 to 5<br>gats/1000 sq ft<br>(8-11 lbs in 130-<br>220 gats/acre).     Begin when disease<br>threatens. Repeat at<br>7 to 10-day intervals<br>as condition persists.     Do not graze treated<br>areas or feed clippings<br>to livestock.       Leaf spot<br>(Heiminthosporium spp.)<br>Rhizoctonia solam     3-4 ozs in 3 to 5<br>gats/1000 sq ft-<br>(8-11 lbs in 130-<br>210 gats/1000 sq ft-<br>(8-11 lbs in 130-<br>210 gats/1000 sq ft-<br>(8-11 lbs in 130-<br>210 gats/1000 sq ft-<br>(8-11 lbs in 130-     Begin when disease<br>threatens.     Do not graze treated<br>areas or feed clippings<br>to livestock. |

16:07-11

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Seed trearments and professional applications to lawn grasses, golf courses, industrial (office park), municipal and residential lawns are not within the scope of the Worker Protection Standard.

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

#### SEED TREATMENTS

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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.

|                             |                                                                                        | SEED TREATMENT RATE -<br>APPLY AS A SLURRY |                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------|
| CROP                        | DISEASES                                                                               | 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                                                           |
| Com 🗄 📃                     | 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,<br>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 rol and<br>reduced seedling vigor. | -                                          | 2.0 to 4.0<br>Apply before,<br>during, or after<br>soaking in water. |
| Rye                         | Bunt, Covered smut, Damping-off, Seed decay.<br>Seedling blights                       | 1.3 to 2.0                                 | 2.3 to 3.6                                                           |
| Sattlower                   | Puccinia canhami (which causes loot-and-rot disease and<br>foliage rust disease)       | _                                          | 2.0                                                                  |
| Sorghum                     | Covered kernel smut, Damping-off, Seedling blights,<br>Seed rots                       | 1.5 to 2.5                                 | 2.7 to 4.5                                                           |
| Tomatoes                    | Damping-off, Seedling blights, Seed rots                                               | -                                          | 8.0                                                                  |
| Wheat (including Triticale) | Bunt, Covered smut, Damping-off, Seed decay,<br>Seeding blights                        | 1.3 to 2.0                                 | 2.2 to 3.3                                                           |

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# 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.

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# 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.

#### ACCEPTED with COMMENTS In EPA Letter Dated:

OCT 9 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the posticide registered under EPA Reg. No. /812-2115