Department of Agriculture
STATE OF HAWAII
LICENSED
PERIOD 2012-2014 LIC. NO.
Department of Agriculture 8026.77
STATE OF HAWAII
LICENSED
PERIOD 2015-2017 LIC. NO.

UPI

# Supplemental Label

# MANZATE® MAX FUNGICIDE

**EPA Reg. No. 70506-194**

**This supplemental label expires on March 14, 2015 and must not be used or distributed after this date.**

## DIRECTIONS FOR USE

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

**IMPORTANT**

Read the label affixed to the container for MANZATE MAX FUNGICIDE before applying. Carefully follow all precautionary statements and applicable use directions.

This Supplemental Label contains new or supplemental instructions for use of this product which do not appear on the package label. Follow the instructions carefully. This labeling must be in the possession of the user at the time of pesticide application.

Read the Limitation of Warranty and Liability on the container labeling before buying or using MANZATE MAX FUNGICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the container label.

## USE RATES AND APPLICATION TIMINGS FOR LETTUCE (HEAD AND LEAF)

| Diseases Controlled | Rate per application MANZATE MAX | Remarks | Restrictions |
|---|---|---|---|
| Downy Mildew | 1.2 – 1.6 qt/A | Begin applications when disease appears and reapply on a 7 to 10-day treatment schedule. | **In California**, do not apply more than 6.4 qts product (6.4 lbs active ingredient)/A/ year and do not apply within 14 days of harvest of head or leaf lettuce.<br><br>**In states other than California**, do not apply more than 9.6 qts product (9.6 lbs active ingredient)/A/year and do not apply within 10 days of harvest of head lettuce or within 14 days of harvest of leaf lettuce.<br><br>For all states: minimum retreatment interval is 7 days. Do not apply this product with a U-boom device. |

Rev. 12/27/13

United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071

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## USE RATES AND APPLICATION TIMINGS FOR PEPPER

| Diseases Controlled | Rate per application Manzate Max | Remarks | Restrictions |
|---|---|---|---|
| Anthracnose<br>Early Blight<br>Phomopsis Blight or<br>Fruit Rot | West of the Mississippi:<br>1.2 – 1.6 qt/A<br><br>East of the Mississippi:<br>1.2 – 2.4 qt/A | Begin application when disease appears and reapply on a 7 to 10-day spray schedule. | **West of the Mississippi River**, do not apply more than 9.6 qt product (9.6 lbs active ingredient)/A/year.<br><br>**East of the Mississippi River**, do not apply more than 14.4 qt product (14.4 lbs active ingredient)/A/year.<br><br>Do not apply this product with a U-boom device<br><br>Minimum retreatment interval is 7 days.<br>Do not apply within 7 days of harvest. |

Rev. 12/27/13



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PERIOD 2015-2017 LIC. NO.
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# Supplemental Label

# MANZATE® MAX FUNGICIDE

**EPA Reg. No. 70506-194**

## For Use on Walnuts

This supplemental label expires on July 30, 2016 and must not be used or distributed after this date.

### DIRECTIONS FOR USE

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

The supplemental labeling and the entire MANZATE MAX FUNGICIDE container label, EPA Registration Number 70506-194, must be in possession of the user at the time of application. Read the label affixed to the container for MANZATE MAX FUNGICIDE before applying. Carefully follow all precautionary statements and applicable use directions. Use MANZATE MAX FUNGICIDE according to this supplemental labeling is subject to the use precautions and limitations imposed by the label affixed to the container for MANZATE MAX FUNGICIDE.

Read the Limitation of Warranty and Liability on the container labeling before buying or using MANZATE MAX FUNGICIDE. If terms are not acceptable, return the unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by Buyer or any other User constitutes acceptance of the terms of the Limitation of Warranty and Liability on the container label.

### USE RATES AND APPLICATION TIMING FOR USE ON WALNUTS

| Disease | Rate MANZATE MAX FUNGICIDE per application | Directions for use |
|---|---|---|
| Walnut Blight (*Xanthomonas campestris* pv. *Juglandis*) | 1.8 qts/A (1.8 lbs ai) | Apply by ground in a minimum of 100 gallons water per acre, or by air in a minimum of 10 gallons water per acre. Do not apply through any irrigation system. Begin applications at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage, or as needed if frequent rainfall occurs. The minimum reapplication interval is 10 days. Do not make more than 10 applications per season. Do not apply more than 18 quarts product (18 lbs ai) per acre per use season. |
| **Restrictions**: This product must be tank mixed with a fixed copper product (such as Cuprofix Ultra 40 Disperss, EPA Registration Number 70506-201) which is registered for use on walnuts.<br>**Pre-harvest Interval:** Do not apply within 75 days before harvest. | | |

Rev. 8/5/2013

United Phosphorus,
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1-800-438-6071

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PERIOD 2012-2014 LIC. NO.

# MANZATE® MAX

## FUNGICIDE

A 37% Coordination Product of Manganese and Zinc and Ethylenebisdithiocarbamate

| | |
|---|---|
| **ACTIVE INGREDIENT** | |
| A coordination product of zinc and manganese ethylenebisdithiocarbamate | 37.0%* |
| Manganese++ | 7.4% |
| Zinc++ | 0.9% |
| Ethylenebisdithiocarbamate ion $(C_4H_6N_2S_4)$– | 28.7% |
| **OTHER INGREDIENTS** | 63.0% |
| **TOTAL** | 100.0% |

*Equivalent to 4 lbs. active ingredient per gallon.

**EPA Reg. No. 70506-194** **EPA Est. No. 41876-IND-003**

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

| FIRST AID | |
|---|---|
| **If inhaled:** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.<br>• Call a poison control center or doctor for treatment advice. |
| **If on skin or clothing:** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If in eyes:** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye.<br>• Call a poison control center or doctor for treatment advice. |
| **If swallowed:** | • Call a poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to swallow.<br>• Do not induce vomiting unless told to do so by the poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person. |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment.<br>For emergency medical treatment information, contact the Rocky Mountain Poison Control Center at 1-866-673-6671. | |

REGISTERED
JUL 20 2012
Pesticides Branch

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300.**

FUNGICIDE

**NET CONTENTS: 2.5 GALLONS**

UPI

Sold by: **United Phosphorus, Inc.** • 630 Freedom Business Center, Suite 402 • King of Prussia, PA 19406 U.S.A. • 1-800-438-6071

## PRECAUTIONARY STATEMENTS
## HAZARDS TO HUMANS AND DOMESTIC ANIMALS
## CAUTION

Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Mixers and Loaders must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Goggles or face-shield
- Chemical-resistant apron

Discard clothing and 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.

### ENGINEERING CONTROLS STATEMENTS

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

Human flaggers must be in enclosed cabs.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 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 clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE 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 pesticide is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark except as specified for the labeled use on cranberries. Do not contaminate water when disposing of equipment washwaters or disposing of wastes. For Seed Treatment Products - cover or incorporate spilled treated seed.

## DIRECTIONS FOR USE

### SHAKE WELL BEFORE USING

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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Goggles or face-shield

## GENERAL USE INFORMATION

Manzate Max is a broad-spectrum protectant fungicide recommended for outdoor crops. Optimum disease control is achieved when the fungicide is applied in a regularly scheduled preventive spray program. The addition of an agricultural surfactant will improve fungicide performance by providing a more uniform spray deposit, increased foliar redistribution, and improved fungicide retention during periods of wet weather.

## USE RATE DETERMINATION

Carefully read, understand, and follow label use rates and restrictions.

Under low disease conditions, minimum label rates per application can be used while maximum label rates and the minimum interval should be used for severe or threatening disease conditions.

If only a portion of the container's contents are to be used, thoroughly shake the container prior to measuring. When small quantities of spray solution are being prepared for use in hand or power sprayers, the following conversion table should be followed (rates are based on dilute thorough coverage sprays):

| Recommended Label Use Rate Per Acre or 100 Gals.* | Fluid Ounces Manzate Max Required for: | | | |
|---|---|---|---|---|
| | 10 Gals. | 5 Gals. | 2 Gals. | 1 Gal. |
| 0.8 qts. | 2.6 | 1.3 | 0.5 | 0.3 |
| 1.0 qts. | 3.2 | 1.6 | 0.7 | 0.35 |
| 1.2 qts. | 3.8 | 1.9 | 0.9 | 0.4 |
| 1.6 qts. | 5.1 | 2.6 | 1.0 | 0.5 |
| 2.0 qts. | 6.4 | 3.2 | 1.3 | 0.6 |
| 2.4 qts. | 8.0 | 4.0 | 1.6 | 0.8 |
| 3.2 qts. | 10.3 | 5.1 | 2.1 | 1.0 |
| 4.8 qts. | 15.4 | 7.7 | 3.1 | 1.6 |

1 cup = 8 fluid ounces or 237 milliliters
1 fluid ounce = 2 tablespoons or 30 milliliters
1 tablespoon = 3 teaspoons or 15 milliliters
* Dilute thorough coverage sprays

## MIXING

Add Manzate Max slowly to water in the spray tank with agitation, or premix thoroughly in a nurse tank for concentrate or aircraft sprayers. Continuous agitation is required to keep the product in suspension. Add other fungicides, insecticides, growth regulators, micronutrients, and spray adjuvants after Manzate Max has been placed into suspension.

When preparing spray solutions for use in a hand sprayer, premix as a slurry in a small container, and then add to sprayer containing 1/3 to 1/2 the desired final water volume.

## COMPATIBILITY

Manzate Max is compatible with most commonly used agricultural fungicides, insecticides, and growth regulators. When preparing tank mixes, user should consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use.

## SPRAY ADJUVANTS

The addition of agricultural surfactants to Manzate Max sprays may improve initial spray deposits, fungicide redistribution and weatherability.

Place Manzate Max into suspension prior to adding an adjuvant to the spray mixture. Read and carefully observe the precautionary statements and all other information appearing on both product labels prior to spray preparation.

## APPLICATION

**Ground -** Thorough coverage of the targeted crop generally results in optimum disease protection. To achieve good coverage, use proper spray pressure, gallonage per acre, nozzles, nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration. Use 20 to 100 gallons per acre for ground application equipment.

**Hand Sprayers -** Thoroughly spray plant foliage until runoff.

**Aerial -** A uniform spray deposit over the crop canopy generally results in optimum disease protection. Each aircraft should be prechecked for droplet size, uniformity of spray pattern, swath width, and spray volume. During aerial application, human flaggers are prohibited unless in totally enclosed vehicles.

**Spray Volume -** Aerial applications are to be made in a minimum of two (2) gallons of water per acre. On vegetable and field crops, 2 to 3 gallons of spray per acre are generally optimum; orchards and vineyards can be handled with spray volume of 10 gallons per acre.

## CHEMIGATION USE DIRECTIONS

**Sprinkler Irrigation**

Manzate Max must be applied on a regular protectant fungicide schedule, not an irrigation schedule. If irrigation cycles are less frequent than recommended Manzate Max application intervals, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

Apply Manzate Max only through sprinkler irrigation systems including center-pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move irrigation systems. Do not apply product through any other type of irrigation system.

Lack of fungicidal effectiveness or illegal pesticide residues in the crop can result from non-uniform 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.

Before applying Manzate Max through sprinkler irrigation equipment, the chemigation system must meet the following specifications:

- 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 a least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ), backflow preventer 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.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- 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.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**Center-pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment: (Use only with electric or oil hydraulic drive systems which provide a uniform water distribution.)**

- Determine size of area to be treated.
- Determine the time required to apply no more than 1/4 inch of water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Manzate Max required to treat area.
- Add the required amount of Manzate Max and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until Manzate Max solution has cleared the sprinkler head.

**Solid-set, Side (wheel) Roll, and Hand Move Irrigation Equipment:**

- Determine acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- Determine the amount of Manzate Max required to treat area.
- Add the required amount of Manzate Max into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject Manzate Max at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until Manzate Max solution has cleared the last sprinkler head.

## DISEASE MONITORING

Manzate Max is a broad-spectrum, protectant fungicide. If not applied on a routine protectant spray schedule, crops should be scouted on a weekly basis. Fungicide application should be made, at the recommended label use rate and spray schedule, at the first sign of disease, report of disease in the area, or during environmental conditions favorable for disease development.

## RESTRICTIONS

Users must carefully read, understand, and follow all use restrictions prior to using Manzate Max.

**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 of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

**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 that have registered seed treatment uses.

## FRUIT CROPS

Not intended for use on fruit trees by homeowners.

For pome fruit, use either the "Pre-Bloom/Bloom Use" or "Extended Application" schedule. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES. It is recommended that this product be used in an Integrated Pest Management program (IPM).

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Apples<br>Crabapples<br>Pears<br>Quince | Fabraea Leaf Spot<br>Fly Speck<br>Rusts-<br>including<br>Cedar Apple Rust<br>Quince Rust<br>Scab<br>Sooty Blotch | 4.8* | **Pre-Bloom/Bloom Use:**<br>Begin applications at 1/4 to 1/2 inch green tip and continue on a 7- to 10-day schedule through bloom. | Do not apply more than 4.8 qts. (4.8 lbs. active) per acre per application. Do not apply after bloom. Do not apply more than 19.2 qts. (19.2 lbs. active) per acre per year. |
| | | 2.4* | **Extended Application Schedule for Use in Tank Mixtures with Systemic Fungicides:**<br>For implementation of IPM programs, applications based on tree-row volume, or for use as a resistance management tool, begin applications at 1/4 to 1/2 inch green tip and continue applications on a 7- to 10-day schedule through the second cover spray. | Do not apply more than 2.4 qts. (2.4 lbs. active) per acre per application. Do not apply more than 16.8 qts. (16.8 lbs. active) per acre per year. |
| | | General | Do not apply within 77 days of harvest. | Apply in a minimum of 50 gallons of water per acre. Do not graze livestock in treated areas. |
| Bananas, including Plantains | Sigatoka | 1.6 to 2.4 | Apply when leaves first appear and repeat every 14 to 21 days or as required. Use sufficient water to provide adequate coverage. A spreader sticker may be used for better coverage and weatherability. | Do not apply more than 24 qts. (24 lbs. active) per acre per growing cycle. Applications can be made up on the day of harvest. |
| Cranberries | Fruit Rot | 2.4 to 4.8 | Start applications at early bloom and repeat at 7- to 10-day intervals as required. | Do not apply within 30 days of harvest. Do not apply more than 14.4 qts. (14.4 lbs. active) per acre per season. |

## FRUIT CROPS (continued)

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Grapes | Black Rot<br>Bunch Rot<br>Downy Mildew<br>Phomopsis (Deadarm) | 1.2 to 2.0 West of the Rocky Mountains<br><br>1.2 to 3.2 East of the Rocky Mountains | Apply in sufficient water to provide thorough coverage starting when new shoots are 1/2 to 1 1/2 inches long. Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long, and then at 7- to 10-day intervals until fruit is set or 66 days before harvest. For late season control of black rot, deadarm and downy mildew, the use of other approved and recommended fungicides is suggested. | **In California,** do not apply after bloom. In other areas, do not apply within 66 days of harvest.<br>**West of the Rocky Mountains,** do not apply more than 6 qts. (6 lbs. active) per acre per season.<br>**East of the Rocky Mountains,** do not apply more than 19.2 qts. (19.2 lbs. active) per acre per season. |
| Large Tropical Fruit: Canistel, Mamey Sapote, Mango, Sapodilla, Star Apple (caimito), White Sapote | Anthracnose<br>Black Spot (Cercospora)<br>Phytophthora Fruit Rot | 1.6 to 2.0 | Start applications at flowering and continue at 14- to 21-day intervals. Direct spray to crown and blossom area. Use 20 to 100 gallons water per acre. | Do not apply more than 28 qts. product (28 lbs. active ingredient) per acre per year. Do not apply more than 14 applications per year.<br>Applications may be made up to the day of harvest. |
| Small Tropical Fruit: Atemoya, Cherimoya, Custard Apple, Sugar Apple, Sweetsop | Anthracnose | 1.6 to 1.8 | Begin applications at flowering and continue at a 7-day retreatment interval.<br>Applications made with aerial equipment must be made in a minimum spray volume of 10 gallons per acre. | Do not apply more than 26.25 qts. product (26.25 lbs. active ingredient) per acre per year. Do not apply more than 14 applications per year.<br>Applications may be made up to the day of harvest. |
| Papayas | Anthracnose<br>Black Spot<br>Cercospora<br>Phytophthora Fruit Rot | 1.2 to 2 | Use 20 to 100 gallons water per acre. Start applications at flowering and continue at 14- to 21-day intervals. Direct spray to crown and blossom area. A spreader sticker may be used for better coverage and weatherability. | Do not apply more than 28 qts. (28 lbs. active) per growing cycle. Applications may be made up to the day of harvest. |
| Pears | Please refer to Apples, above. | | | |
| Plantains | Please refer to Bananas, above. | | | |

* Maximum per acre use rate based on thorough coverage dilute sprays.

## VEGETABLES

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Asparagus | Cercospora Leaf Spot<br>Rust | 1.6 | Start applications when disease first appears and repeat at 10-day intervals. Four applications are usually sufficient. | Apply only on asparagus ferns after spears have been harvested.<br>Do not apply more than 6.4 qts. (6.4 lbs. active) per acre per season.<br>Do not apply within 120 days of harvest in California and Arizona, or within 180 days in all other states. |
| Corn (sweet corn for fresh use or processing; popcorn; and sweet corn for seed production, including hybrid seed) | Common Rust<br>Gray Leaf Spot<br>Helminthosporium Leaf Blight | 0.8 to 1.2 | Use sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4- to 7-day intervals.<br>A spreader sticker may be used for better coverage and weatherability. | Do not apply within 7 days of harvest.<br>**East of the Mississippi River, Arkansas and Louisiana,** do not apply more than 18 qts. (18 lbs. active) per acre per crop.<br>**West of the Mississippi River** (except Arkansas and Louisiana), do not apply more than 6 qts. (6 lbs. active) per acre per crop.<br>Do not feed treated forage to livestock. |

**VEGETABLES** (continued)

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Cucurbits:<br>Chayote,<br>Chinese waxgourd,<br>Citronmelon,<br>Cucumber,<br>Gherkin,<br>Gourd, edible,<br>*Momordica* spp.,<br>Muskmelon,<br>Pumpkin,<br>Squash (Summer and Winter),<br>Watermelon | Alternaria Leaf Spot<br>Anthracnose<br>Cercospora Leaf Spot<br>Downy Mildew<br>Gummy Stem Blight<br>Scab | 1.6 to 2.4 | Start applications when the plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.<br>For aerial applications, the minimum spray volume is 2 gallons per acre.<br>Some cantaloupe varieties (i.e., Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to Manzate Max fungicide. Consult State Cooperative Extension Service Specialist prior to use. | Do not apply more than 19.2 qts. product (19.2 lbs. active ingredient) per acre per year.<br>Do not apply more than 8 applications per year.<br>Do not apply within 5 days of harvest. |
| Fennel | Early Blight<br>Late Blight | 1.6 | Start applications when disease first appears and repeat applications every 7 to 10 days. | Do not apply more than 12.8 qts. (12.8 lbs. active) per acre per crop.<br>Do not apply within 14 days of harvest. |
| Ginseng | Alternaria Blight | 1.5 | Start applications when disease first threatens and repeat every 7-10 days as needed.<br>In Wisconsin, apply with ground equipment and a minimum of 80 gallons of water per acre. | Do not apply more than 18 qts. product (18 lbs. active ingredient) per acre per year.<br>Do not apply more than 12 applications per year.<br>Do not apply within 30 days of harvest. |
| Melons<br>Cantaloupe<br>Casaba<br>Crenshaw<br>Honeydew<br>Muskmelon<br>(Watermelon, see below) | Alternaria Leaf Spot<br>Anthracnose<br>Cercospora Leaf Spot<br>Downy Mildew<br>Gummy Stem Blight | 1.2 to 2.4 | Start applications when plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.<br>Some cantaloupe varieties (i.e., Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to mancozeb. Consult State Cooperative Extension Service Specialist Prior to use. | Do not apply within 5 days of harvest.<br>Do not apply more than 19.2 qts. (19.2 lbs. active) per acre per crop. |
| Onions<br>(dry bulb)<br>Garlic<br>Shallots | Botrytis Leaf Blight<br>Downy Mildew<br>Neck Rot<br>Purple Blotch | 1.6 to 2.4 | Follow a protective spray schedule starting when diseases are first reported in the area and repeat at 7-day intervals throughout the season.<br>A spreader sticker may be used for better coverage and weatherability.<br>Do not allow spray or drift to contact bulbs after lifting from soil. | Do not apply within 7 days of harvest.<br>Do not apply more than 24 qts. (24 lbs. active) per acre per crop.<br>Do not apply to exposed bulbs. |
| Onions<br>(furrow drench) | Damping-off<br>Seed Rots<br>Seedling Blights<br>Smut | 2.4 | Apply 2.4 qts. per acre as a furrow drench at time of planting onion seeds.<br>Use 75 to 125 gallons of water per acre. | Do not use more than 2.4 qts. (2.4 lbs. active) per acre (29,000 linear feet of furrow) with an 18-inch row spacing.<br>Not registered for this use in California. |

**VEGETABLES** (continued)

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Potatoes | Early Blight<br>Late Blight | 0.4 to 1.6 | Begin applications when plants are 4 to 6 inches high by applying 0.4 to 0.8 qts./acre. As the vines increase in size, apply 1.2 to 1.6 qts./acre at 5- to 10-day intervals or 0.6 to 0.8 qts./acre at 3- to 5-day intervals. Do not apply more than 11.2 qts./acre per crop. A spreader sticker may be used for better coverage and weatherability. **It is recommended that this product be used within an Integrated Pest Management Program. Also, vine kill should occur 14 days before harvest.** | Do not apply more than 11.2 qts. (11.2 lbs. active) per acre per crop. Do not apply within 3 days of harvest, in Connecticut, Delaware, Florida, Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Vermont and Wisconsin and at least 14 days elsewhere. |
| Potato Seedpiece (treatment) | Fusarium Decay<br>Seedborne Common Scab | | Dip whole or cut potato seedpieces in 1 qt. Manzate Max per 50 gallons of water. Place treated seedpieces in a clean container following treatment and plant as soon as possible. Spread treated seedpieces in a cool place if held before planting. | Do not use treated seed potatoes for food or feed purposes. |
| Squash, summer (including edible gourds) | Anthracnose<br>Downy Mildew | 1.6 to 2.4 | Start applications when plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces. | Do not apply within 5 days of harvest. Do not apply more than 19.2 qts. (19.2 lbs. active) per acre per crop. |
| Tomatoes | Anthracnose<br>Early Blight<br>Gray Leaf Mold<br>Gray Leaf Spot<br>Late Blight<br>Septoria Leaf Spot | 0.6 to 2.4 East of the Mississippi River<br><br>0.6 to 1.6 West of the Mississippi River | **East of the Mississippi:** Start applications when seedlings emerge or transplants are set. Repeat applications of 0.6 to 1.2 lbs. active ingredient per acre (0.6 to 1.2 qts. product) at 3- to 7-day intervals, or at 1.2 to 2.4 lbs. active ingredient per acre (1.2 to 2.4 qts. product) at 7- to 10-day intervals throughout the season.<br>**West of the Mississippi:** Start applications when seedlings emerge or transplants are set. Repeat applications of 0.6 to 0.8 lbs. active ingredient per acre (0.6 to 0.8 qts. product) at 3- to 7-day intervals, or at 1.2 to 1.6 lbs. active ingredient per acre (1.2 to 1.6 qts. product) at 7- to 10-day intervals throughout the season. A spreader sticker may be used for better coverage and weatherability. | Do not apply within 5 days of harvest.<br>**East of the Mississippi River,** do not apply more than 16.8 qts. (16.8 lbs. active) per acre per crop.<br>**West of the Mississippi River,** do not apply more than 6.4 qts. (6.4 lbs. active) per acre per crop. |
| | Bacterial Speck and Spot | | Use of a full rate of a fixed copper fungicide in tank mix combination with a half to full rate of Manzate Max. Follow the application intervals recommended on the copper fungicide label. | |
| Watermelons | Alternaria Leaf Spot<br>Anthracnose<br>Cercospora Leaf Spot<br>Downy Mildew<br>Gummy Stem Blight<br>Scab | 1.6 to 2.4 | Start applications when plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces. | Do not apply within 5 days of harvest. Do not apply more than 19.2 qts. (19.2 lbs. active) per acre per crop. |

## FIELD CROPS

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|
| Barley | Please refer to Wheat, below. | | | |
| Corn, field and hybrid seed corn | Common Corn Rust<br>Gray Leaf Spot<br>Helminthosporium Leaf Blight | 0.8 to 1.2 | Start applications when disease symptoms first appear and, depending on severity of infection, continue on a 4- to 14-day schedule. A spreader sticker may be used for better coverage and weatherability. | Do not apply more than 12 qts. (12 lbs. active) per acre per season.<br>Do not apply within 40 days of harvest. |
| Oats | Please refer to Wheat, below. | | | |
| Peanuts | Cercospora Leaf Spot<br>Rust | 0.8 to 1.6 | Start applications when disease first appears or is reported in area. Repeat sprays at 7- to 14-day intervals, using shorter interval during humid weather. | Do not apply within 14 days of harvest.<br>Do not use more than 12.8 qts. (12.8 lbs. active) per acre per crop.<br>Do not feed treated vines to livestock. |
| Peanuts (tank-mix with Topsin M) | Ascochyta Web Blotch<br>Cercospora Leaf Spot<br>Limb Rot<br>Rust | 1.2 qt. Manzate Max plus 0.35 lbs. a.i. Topsin® M Fungicide | Begin applications when disease first appears and repeat at 7- to 14-day intervals, using shorter interval during humid weather. | Do not feed treated vines to livestock. Do not use more than 12.8 qts. Manzate Max (12.8 lbs. active) per acre per crop. Do not apply within 14 days of harvest. |
| Rye | Please refer to Wheat, below. | | | |
| Sugar Beets | Cercospora Leaf Spot<br>Rust | 1.2 to 1.6 | Start applications when disease first threatens and repeat every 7 to 10 days as needed. A spreader sticker may be used for better coverage and weatherability. | Do not apply within 14 days of harvest.<br>Do not apply more than 11.2 qts. (11.2 lbs. active) per acre per crop per season.<br>Do not feed treated tops to livestock. |
| Triticale | Please refer to Wheat, below. | | | |
| Wheat, including Triticale, Barley, Oats, Rye | Helminthosporium Leaf Spot<br>Leaf Rust<br>Scab*<br>Septoria Glume Blotch<br>Septoria Leaf Spot<br>Tan Spot | 0.8 to 1.6 | Start applications at onset of disease or when plants are in the tillering to jointing stage and repeat at 7- to 10-day intervals.<br>A spreader sticker may be used for better coverage and weatherability. | Do not make more than three applications during the season.<br>Do not apply after Feekes' growth stage 10.5 or heading, but not less than 26 days of harvest (46-day pre-harvest interval in California.)<br>Do not graze livestock in treated areas prior to harvest. |

* In California – scab control on wheat only

**SEED TREATMENT**** – Seeds to be treated should be cleaned and well-cured prior to treatment. Manzate Max may be applied to dry seed with conventional slurry or mist seed treating equipment or as a planter-box application. For best results, the seed must be completely and uniformly covered with fungicide. For commercial seed treatments, an EPA approved dye must be added to Manzate Max which will impart an unnatural color to the seed.

| Crop | Diseases Controlled | Rate Manzate Max Per Application | | Remarks (Also Refer to Directions For Use) | Restrictions |
|---|---|---|---|---|---|
| | | Fl. Oz./Bu. | Fl. Oz./100 lbs. | | |
| Corn (field) | Damping-off<br>Seed Rots<br>Seedling Blights | 2.4 to 4.8 | 4.3 to 8.6 | | Commercially treated seed must be labeled, "Must not be used for food, feed, or oil purposes." |
| Cotton (acid delinted) (reginned) | Damping-off<br>Seedling Blights | | 4.8 | | |
| | Damping-off<br>Seedling Blights | | 9.6 | | |
| Flax | Damping-off<br>Seed Rots<br>Seedling Blights | 3.2 to 6.4 | 5.7 to 11.3 | | |
| Peanuts (shelled) | Damping-off<br>Seed Rots<br>Seedling Blights | 3.2 to 6.4 | 12.8 to 25.6 | | |
| Rice | Damping-off<br>Seed Rots<br>Seedling Blights | | 3.2 to 6.4 | Apply before, during or after soaking in water. | |
| Safflower | Seedborne Rust (Puccinia carthami) | | 3.2 | | |
| Sorghum | Covered Kernel Smut<br>Damping-off<br>Seed Rots<br>Seedling Blights | 2.4 to 4.0 | 4.3 to 7.2 | | |
| Tomatoes | Damping-off<br>Seed Rots<br>Seedling Blights | | 12.8 | | |

**** Not registered for this use in California.**

## MISCELLANEOUS

| Crop | Diseases Controlled | Rate Manzate Max Per Application Qts./A. | Remarks (Also Refer to Directions For Use) |
|---|---|---|---|
| Asparagus crowns (planting stock) | Crown Rot | 0.8 qts. per 100 gals. | Place loosely packed crowns into a burlap bag and soak, with gentle agitation, in the fungicide solution for 5 minutes. Remove bag, drain well, and plant crowns as soon as possible.<br>A tank large enough to hold a single burlap bag will treat 2 bags of crowns. Clean dipping suspension should then be prepared in a clean tank. Dirty crowns should be pre-washed to remove excess soil.<br>Not registered for this use in California. |
| Caprifig | Assorted Molds<br>Endosepsis (Fusarium) | 0.8 qts. per 25 gals. | Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the fungicide suspension for a minimum of 15 minutes.<br>The fungicide suspension should be stirred frequently to prevent settling out.<br>Fresh dipping solution should be used after treating 4 or 5 batches of figs.<br>After treatment, figs should be drained prior to placement in trees.<br>Not registered for this use in California. |
| Christmas Trees (Conifer) | Lophodermium Needle Cast<br>Pine Gall Rust<br>Scirrhia Brown Spot | 1.6 qts. to 3.2 qts. per acre | Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at two-week intervals as long as needed. |
| Douglas Fir | Swiss Needle Cast | | |

## STORAGE AND DISPOSAL

**Do not contaminate water, food or feed by storage or disposal.**

**PESTICIDE STORAGE:** Keep from freezing. Store in a cool, well-ventilated area, but not below 32°F. Do not allow to become overheated in storage. This may bring on chemical changes which will impair the fungicidal effectiveness of Manzate Max. Keep container closed when not in use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Dike and contain the spill. Transfer liquid and solid diking material to separate containers for recovery or disposal. Flush contaminated area with a large amount of water to a chemical or sanitary sewer containing a settling pit. Remove contaminated clothing and wash affected skin areas with soap and water. Wash clothing before reuse. Keep the solids out of the municipal sewers and open bodies of water. Refer to Precautionary Statements.

## EMERGENCY TELEPHONE NUMBERS:

**CHEMTREC: (800) 424-9300**

**MEDICAL: (866) 673-6671 Rocky Mountain Poison Control Center**

**IMPORTANT INFORMATION**
**READ BEFORE USING PRODUCT**

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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