



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

January 12, 2015

Cheryl Wagner
Agent Willowood, LLC
c/o Wagner Regulatory Associates, Inc.
P. O. Box 640
Hockessin, DE 19707

Subject: Label Notification per PRN 98-10 – Adding bracketed optional referral statement; asterisk in pome fruit section; add downy mildew to use on grapes
Product Name: Willowood Mancozeb 75WDG
EPA Registration Number: 87290-48
Application Date: 8/18/2014, resubmission dated 12/10/2014
Decision Number: 494783

Dear Ms. Wagner:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please contact Tamue Gibson by phone at (703) 305-9096 or via email at gibson.tamue@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "HJ", enclosed in a rectangular box.

Hope Johnson, Product Manager 21
Fungicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Willowood Mancozeb 75 WDG

ACTIVE INGREDIENT:

Mancozeb (a coordination product of zinc ion and manganese ethylenebisdithiocarbamate)..... 75.0%
in which the ingredients are:
manganese++..... 15.0%
zinc.....1.9%
ethylenebisdithiocarbamate ion..... 58.1%

OTHER INGREDIENTS:..... 25.0%
TOTAL:100.0%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

| FIRST AID | |
|---|--|
| IF ON SKIN OR CLOTHING: | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice. |
| IF IN EYES: | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice. |
| IF SWALLOWED: | <ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person. |
| IF INHALED: | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice. |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 a.m. to 4:30 p.m. Pacific Time or your poison control center at 1-800-222-1222 . | |
| This product contains mancozeb and ETU, chemicals known to the State of California to cause cancer. ETU is also known to the State of California to cause birth defects or other reproductive harm. | |

[See inside label booklet for complete First Aid, Precautionary Statements and Directions for Use including Storage and Disposal instructions.]

EPA Reg. No. 87290-48

EPA Est. No. _____

Manufactured for:
Willowood, LLC
1600 NW Garden Valley Blvd. #120
Roseburg, OR 97471

Net Weight: 30 lbs.

NOTIFICATION
87290-48
The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:
01/12/2015

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION. Harmful if absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are nitrile rubber, natural rubber, or butyl rubber. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- long-sleeved shirt
- long pants
- shoes and socks
- chemical-resistant gloves made of any waterproof material

Aerial application of Willowood Mancozeb 75 WDG on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator with an N, R, P filter, NIOSH approval prefix TC 84-A.

See **Engineering Controls** for additional requirements.

User Safety Requirements

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

Engineering Controls

Enclosed Cockpits: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)].

Mechanical Flagging Engineering Controls: Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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 aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. For guidance, contact your State Water Board or Regional Office of the Environmental Protection Agency.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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, oil or water, is:

- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks

INSTRUCTIONS FOR USE

Willowood Mancozeb 75 WDG Fungicide is a broad-spectrum fungicide for use on outdoor and greenhouse-grown crops and ornamentals. A regularly scheduled preventative spray program will provide optimal control. An agricultural surfactant labeled for use with fungicides will enhance performance by providing a more uniform foliar coverage, and enhanced fungicide retention during wet weather.

Use Rate Determination

- Read and follow all label use rates and restrictions.
- When two pesticides are tank mixed, observe the more restrictive label conditions.
- Do not tank mix with any product which prohibits tank mixing.
- Use minimum label rates under low disease pressure. Use maximum label rates and the minimum interval under severe or threatening disease conditions.
- Calibrate spray equipment prior to use. Determine the number of acres to be treated, the required application rate and the volume to be applied per acre.
- When applied by hand sprayers, 1 pound Willowood Mancozeb 75 WDG per 100 gallons per acre is equivalent to 1 level tablespoon per gallon spray solution.

Mixing Procedures

Mixing

Pour slowly into the spray tank while agitation is maintained. For low volume or aircraft sprayers thoroughly premix in a nurse tank. Add other co-applied fungicides, insecticides, growth regulators, and micronutrients only after Willowood Mancozeb 75 WDG has been completely dispersed. When tank mixing with other pesticides, observe the more restrictive label limitations and precautions.

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

Compatibility

Willowood Mancozeb 75 WDG is compatible with most commonly used agricultural fungicides, insecticides and growth regulators. When preparing tank mixes, consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed

Do not apply at wind speeds greater than 15 mph.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, and b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of mancozeb. Where states have more stringent regulations, they must be observed.

Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applicators:

1. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
2. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless greater height is required for aircraft safety.
3. When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Application

Ground

Thorough coverage with foliar sprays generally results in optimum disease control. To achieve satisfactory coverage use proper spray pressure, volume of spray mixture per acre, nozzles (generally hollow cone), disc (generally D-5 to D-7), nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

Hand Sprayers

Thoroughly spray plant foliage until runoff.

Aerial

A uniform initial spray deposit over the crop canopy generally results in optimum disease control. Each aircraft should be prechecked for droplet size, uniformity of spray pattern, swath width, and spray volume. During aerial application, human flaggers are prohibited.

Aerial application of Willowood Mancozeb 75 WDG on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator

with an N, R, P filter, NIOSH approval prefix TC 84-A.

Nozzle Selection: Hollow cone brass nozzles with a D-series orifice disc and core (whirlplate) are recommended. Nozzles should point straight down or slightly backward.

Swath width: For most field and vegetable crops, swaths just beyond the wingspan of 36 to 40 feet for light aircraft and up to 45 feet for heavier aircraft are suggested. Optimum swath for helicopters is usually 5 to 10 feet beyond normal boom length.

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 volumes of 5 gallons per acre. Some tall or dense foliage crops requiring greater penetration to the lower leaf surface will require higher spray volumes. Do not apply this product in fewer than 5 gallons spray volume per acre in California.

Altitude: For most crops, position the spray boom 5 to 10 feet above the crop canopy.

Flagging: Mark swaths at the end of the field with permanent flags. Measure swaths accurately with a chain or other device except when rows can be accurately counted.

Chemigation Use Directions

Sprinkler Irrigation

- Willowood Mancozeb 75 WDG must be applied on a regular protectant fungicide schedule, not an irrigation schedule. If irrigation cycles are less frequent than specified Willowood Mancozeb 75 WDG application intervals, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

Chemigation Use Requirements

- Apply Willowood Mancozeb 75 WDG 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 nonuniform distribution of treated water.
- If you have questions about calibration, contact a State Extension Service specialist, 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 system 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 Chemigation Equipment Requirements

- Before applying Willowood Mancozeb 75 WDG 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 at 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 must 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.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor 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 the size of the area to be treated.
 - Determine the time required to apply no more than 1/4 inch 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 Willowood Mancozeb 75 WDG required for the treatment area.
 - Add the required amount of Willowood Mancozeb 75 WDG 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 Willowood Mancozeb 75 WDG 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 Willowood Mancozeb 75 WDG required for the treatment area.
- Add the required amount of Willowood Mancozeb 75 WDG 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 Willowood Mancozeb 75 WDG at the end of the irrigation cycle or as separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until Willowood Mancozeb 75 WDG solution has cleared the last sprinkler head.

Disease Monitoring

Willowood Mancozeb 75 WDG is a broad-spectrum fungicide. Scout crops on a weekly basis if not applied on a routine protectant spray schedule.

Apply fungicide at the required 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

Read the entire label; understand and follow all use restrictions prior to using Willowood Mancozeb 75 WDG.

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 amount in pounds of active ingredient per acre per season, then the total pounds active ingredient of all such EBDC product is the maximum seasonal pounds 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, which have registered seed treatment uses.

Cole Crops (Brassica) Leafy Vegetables

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|----------------------|----------------------|---|--|---|
| broccoli and cabbage | Alternaria leaf spot | 1.6 to 2.1 | <p>In plant beds or direct-seeded fields, apply 7 to 10 days after planting or earlier if disease is present.</p> <p>If field applications, apply as soon as disease is present and reapply as needed on a 7 to 10 day spray schedule.</p> | <p>Do not apply more than 12.8 lbs. Willowood Mancozeb 75 WDG (9.6 lbs. AI) per acre per year.</p> <p>Preharvest interval: Do not apply within 7 days of harvest.</p> <p>Do not apply this product with a U boom device.</p> <p>Minimum Pretreatment Interval: 7 days</p> <p>Aerial application of Willowood Mancozeb 75 WDG on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a</p> |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|------|---------------------|---|------------|---|
| | | | | particulate respirator with an N, R, P filter, NIOSH approval prefix TC 84-A. |

Cucurbits

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|--|--|---|--|---|
| chayote Chinese waxgourd citron melon cucumber gherkin gourd, edible <i>Momordica</i> spp. muskmelon pumpkin squash, summer squash, winter watermelon | Alternaria leaf spot anthracnose cercospora leaf spot downy mildew gummy stem blight scab | 2 to 3 | Start application when plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct the spray to provide thorough coverage of both upper and lower leaf surfaces. Consult State Cooperative Extension Specialist prior to use. | Do not apply more than 25.6 lbs. of Willowood Mancozeb 75 WDG (19.2 lbs. AI) per acre per year. Do not make more than 8 applications per year. Do not apply within 5 days of harvest. |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|---|---|--|---|--|
| melons cantaloupes casaba crenshaw honeydew | Alternaria leaf spot anthracnose downy mildew gummy stem blight Microdochium blight | 2 to 3 | Start application when plants are in the two-leaf stage and repeat at 7- to 10-day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces. Some cantaloupe varieties (Including Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to Willowood Mancozeb 75 WDG. Consult a State Cooperative Extension Service Specialist prior to use. | Do not apply within 5 days of harvest. Do not apply more than 25.6 lbs. Willowood Mancozeb 75 WDG (19.2 lbs. AI) per acre per crop. Do not make more than 8 applications per year. |
| Watermelons | Microdochium blight* scab | 2 to 3 | *not approved in California for this disease. | Do not apply within 5 days of harvest. Do not apply more than 25.6 lbs. Willowood Mancozeb 75 WDG (19.2 lbs. AI) per acre per crop. Do not make more than 8 applications per year. |

Fruiting Vegetables Other than Cucurbits

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|-------------|--|---|---|---|
| Peppers | Anthrachnose early blight Phomopsis blight or fruit rot | 2 (West of the Mississippi River), 3 (East of the Mississippi River) | Begin application when disease appears and reapply on a 7 to 10 day spray schedule. | East of the Mississippi River, do not apply more than 19.2 lbs. Willowood Mancozeb 75 WDG (14.4 lbs. AI) per acre per crop and do not |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|------|---------------------|---|------------|--|
| | | | | <p>apply within 7 days of harvest.</p> <p>West of the Mississippi River, do not apply more than 12.8 lbs. Willowood Mancozeb 75 WDG (9.6 lbs. AI) per acre per crop and do not apply within 7 days of harvest.</p> <p>Minimum retreatment interval is 7 days.</p> <p>Do not apply this product with a U-boom device.</p> <p>Aerial application of Willowood Mancozeb 75 WDG on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator with an N, R, P filter, NIOSH approval prefix TC 84-A.</p> |

Lettuce (Head and Leaf)

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|-------------------------|---------------------|---|--|--|
| Lettuce (head and leaf) | downy mildew | 2 | Begin applications when disease appears and reapply on a 7 to 10 day treatment schedule. | In California, do not apply more than 8.5 lbs. Willowood Mancozeb 75 WDG (6.4 lbs. AI) per acre per crop and do not apply within 14 days of harvest. |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|------|---------------------|---|------------|--|
| | | | | <p>In states other than California, do not apply more than 12.8 lbs. Willowood Mancozeb 75 WDG (9.6 lbs. AI) per acre per crop and do not apply within 10 days of harvest.</p> <p>Minimum retreatment interval is 7 days.</p> <p>Do not apply this product with a U-boom device.</p> <p>Aerial application of Willowood Mancozeb 75 WDG on broccoli, cabbage, lettuce (leaf and head), and peppers requires that occupational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a particulate respirator with an N, R, P filter, NIOSH approval prefix TC 84-A.</p> |

Pome Fruits

Use either the Pro-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 | Willowood Mancozeb 75 WDG Rate (lb. / acre / application)* | Directions | Restrictions |
|---|------------------------------------|--|---|---|
| apples crabapples pears quince | Fabraea leaf spot rusts scab | 6.0 | Pre-Bloom/Bloom Use: Begin applications at 1/4 to 1/2 inch green tip and continue on a 7 to | Do not apply more than 6 lbs. Willowood Mancozeb 75 WDG (4.5 lbs. AI) per acre per application. |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application)* | Directions | Restrictions |
|---|---------------------|--|---|--|
| | | | <p>10 day schedule through bloom.</p> <p>Do not combine or integrate the prebloom application schedule with the post-bloom extended application schedule.</p> | <p>Do not apply after bloom.</p> <p>Do not apply more than 24 lbs. Willowood Mancozeb 75 WDG (18 lbs. AI) per acre per year.</p> <p>Do not graze livestock in treated areas.</p> |
| | | 3.0 | <p>Extended Application Schedule for Use in Tank Mixtures with systemic fungicides:</p> <p>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 or to within 77 days of harvest.</p> <p>Do not combine or integrate the prebloom application schedule with the post-bloom Extended Application Schedule.</p> | <p>Do not apply more than 3 lbs. Willowood Mancozeb 75 WDG (2.25 lbs. AI) per acre per application.</p> <p>Do not apply within 77 days of harvest.</p> <p>Do not apply more than 21 lbs. Willowood Mancozeb 75 WDG (15.75 lbs. AI) per acre per year.</p> <p>Do not graze livestock in treated area.</p> |
| <p>*Maximum per acre use rate based on thorough coverage dilute sprays.</p> | | | | |

Fruits

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|---------------------------------|---|--|---|--|
| Bananas (including plantain) | sigatoka | 2 to 3 | <p>Apply when leaves first appear and repeat every 14 to 21 days or as required.</p> <p>Use sufficient water to provide adequate coverage.</p> <p>The addition of a Latron surfactant to spray solutions will improve performance.</p> | <p>Do not apply more than 30 lbs. Willowood Mancozeb 75 WDG (22.5 lbs. AI) per acre per growing cycle.</p> <p>Applications can be made up to the day of harvest.</p> |
| cranberries | fruit rot | 3 to 6 | Start applications at early bloom and repeat at 7 to 10 day intervals as required. | <p>Do not apply within 30 days of harvest.</p> <p>Do not apply more than 18 lbs. Willowood Mancozeb 75 WDG (13.5 lbs. AI) per acre per season.</p> |
| grapes | black rot bunch rot Phomopsis downy mildew | <p>1.5 to 2.5 West of the Rocky Mountains</p> <p>1.5 to 4 East of the Rocky Mountains.</p> | <p>Apply in sufficient water to provide thorough coverage starting when new shoots are 1/2 to 1 1/2 inches long.</p> <p>Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long, and when 7- to 10-day intervals until fruit is set.</p> <p>Other fungicides labeled for use on grapes may provide late season control of black rot, phomopsis and downy mildew.</p> | <p>In California, do not apply after bloom.</p> <p>In other areas, do not apply within 66 days of harvest.</p> <p>West of the Rocky Mountains, do not apply more than 7.5 lbs. Willowood Mancozeb 75 WDG (5.6 lbs. AI) per acre per season.</p> <p>East of the Rocky Mountains, do not apply more than 24 lbs. Willowood Mancozeb 75 WDG (18 lbs. AI) per acre per season.</p> |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|---------|---------------------------------------|---|--|--|
| papayas | anthracnose Phytophthora fruit rot | 2 to 5 | Use minimum 50 gallons water per acre. Start applications at flowering and continue at 14- to 21-day intervals. Direct spray to crown and blossom area. Do not make more than 14 applications per year. | Do not apply more than 37 lbs. Willowood Mancozeb 75 WDG (28 lbs. AI) per acre per year. Applications may be made up to the day of harvest. |

Clarification of the Maximum Use Rate for Mancozeb and Zoxamide When Gavel 75 WDG is used on Grapes Grown East of the Rocky Mountains

Willowood Mancozeb 75 WDG contains only one active ingredient, mancozeb, Gavel® 75 WDG contains two active ingredients, mancozeb and zoxamide. The maximum allowable application rate for mancozeb on grapes is 3.0 lbs. AI/acre and a total of 18 lbs. AI/acre per season, regardless of the source of mancozeb. Do not apply any product containing mancozeb within 66 days of grape harvest. The maximum allowable application rate for zoxamide on grapes is 0.2075 lb. AI/acre and a total of 1.25 lbs. AI per season. The maximum rate for Gavel® 75 WDG per application and per season may not exceed the maximum rate per application and per season for either mancozeb or zoxamide.

Formulations and Active Ingredient

| Fungicide | Unit of Measure | Pounds zoxamide AI per pound product | Pounds mancozeb per pound product |
|---------------------------|-----------------|--------------------------------------|-----------------------------------|
| Willowood Mancozeb 75 WDG | 1 lb. | 0 | 0.75 |
| Gavel 75 DF | 1 lb. | 0.083 | 0.67 |

Tree Nuts

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|--------|---|---|---|--|
| almond | Blossom blight (<i>Monillinia</i>) | 6.4 | Begin application at dormant to popcorn | Do not apply more than 19.2 lbs. Willowood |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|------|---|---|---|---|
| | spp.) shothole (<i>Stigmina</i> spp.) | | stage, full bloom or petal fall. Reapply every 7 to 10 days if bloom is staggered and weather is rainy. Do not use less than 10 gallons of spray volume per acre if aerially applied. | Mancozeb 75 WDG (14.4 lbs. AI) per acre per use season. Do not make last application later than 5 weeks after petal fall. Do not graze livestock in treated area. Minimum retreatment interval is 7 days. Do not apply this product with a U-boom device. |

Tropical Fruits

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|--|--|---|---|--|
| atemoya cherimoya custard apple sugar apple sweetsop | Anthrachnose | 2 to 2.5 | Begin applications at flowering and continue at a 7-day retreatment interval. Applications made with aerial equipment must be made in a minimum spray volume of 10 gallons per acre. | Do not apply more than 35 lbs. Willowood Mancozeb 75 WDG (26.25 lbs. AI) per acre per year. Do not make more than 14 applications per year. Applications may be made up to the day of harvest |
| canistel mamey sapote mango sapodilla star apple (caimito) white sapote | Anthrachnose black spot (<i>cercospora</i>) phytophthora fruit rot | 2 to 2.5 | Begin applications at flowering and continue at 14- to 21-day intervals. Direct spray to crown and blossom area. Use 20 to 100 gallons of water per acre. | Do not apply more than 37.3 lbs. of Willowood Mancozeb 75 WDG (28 lbs. AI) per acre per year. Applications may be made up to the day of harvest. |

Vegetables

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|--|---|--|---|--|
| onions (dry bulb) garlic shallots | Botrytis leaf blight downy mildew neck rot purple blotch rust | 3 | Follow a protective spray schedule starting when diseases are first reported in the area and repeat at 7-day intervals throughout the season. Do not allow spray or drift to contact bulbs after lifting from soil. | Do not apply within 7 days of harvest. Do not apply more than 30 lbs. Willowood Mancozeb 75 WDG (22.5 lbs. AI) per acre per crop. Do not apply to exposed bulb. |
| Onions (furrow drench) | damping-off seed rots seedling blights smut | 3 | Apply 3 lbs. of product per acre as a furrow drench at time of planting onion seeds. Use 75 to 125 gallons water per acre. | Do not use more than 3 lbs. per acre of Willowood Mancozeb 75 WDG (2.25 lbs. per acre AI) (29,000 linear feet of furrow) with an 18-inch row spacing. Do not use in California. |
| Potatoes | early blight late blight | 1 to 2 | Begin applications when plants are 4 to 6 inches high by applying 0.5 to 1.0 lb./acre. As the vines increase in size, apply 1.5 to 2.0 lbs./acre at 5- to 10-day intervals or apply 0.75 to 1.0 lb./acre at 3- to 5-day intervals. Use within an integrated Pest Management Program. Vine-kill should occur 14 days before harvest. | Do not apply more than 15 lbs. Willowood Mancozeb 75 WDG (11.2 lbs. AI) per acre per crop. Do not apply within 3 days of harvest in Connecticut, Florida, Maine, Massachusetts, New Hampshire, New York, Ohio, Pennsylvania, Vermont, and Wisconsin and at least 14 days elsewhere. |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|-----------------------------|---|---|---|--|
| Potato seed piece treatment | Fusarium decay late blight seedborne common scab Rhizoctonia shoot blight silver scurf | See directions next column | <p>Dip whole or cut potato tubers in 1.25 lbs. Willowood Mancozeb 75 WDG per 50 gallons of water.</p> <p>Place treated tubers in a clean container following treatment and plant as soon as possible.</p> <p>Spread treated seed pieces in a cool place until planting.</p> | <p>Do not use treated seed potatoes for food or feed purposes.</p> <p>Seed pieces that have been treated with this product that are then packaged or bagged for future use must be colored with an EPA-approved dye to impart an unnatural color and must contain the following labeling on the outside of the seed piece package or bag: "Treated Seed Pieces. Seed pieces have been treated with the fungicide mancozeb. When opening this bag or loading/pouring the treated seed pieces, wear long-sleeved shirt, long pants, shoes, socks, chemical resistant gloves, and a particulate respirator with an N, R, or P filter, NIOSH approval prefix TC 84-A. Do not use for food, feed, or oil purposes. After the seed pieces have been planted, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.</p> <p>Exception: Once the seed pieces are planted in the soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with the soil/media subsurface."</p> |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|-------------|--|--|---|---|
| Tomatoes | Anthrachnose early blight gray leaf spot late blight leaf mold Septoria leaf spot | 0.75 to 1.0 West of the Mississippi River 0.75 to 1.5 East of the Mississippi River | Start application when seedlings emerge or transplants are set. Repeat at 3- to 7-day intervals throughout the season. | Do not apply within 5 days of harvest. West of the Mississippi River, do not apply more than 8.5 lbs. Willowood Mancozeb 75 WDG (6.4 lbs. AI) per acre per crop. East of the Mississippi River, do not apply more than 22.4 lbs. Willowood Mancozeb 75 WDG (16.8 lbs. AI) per acre per crop. |
| | Bacterial speck and spot | 1.5 to 2 West of the Mississippi River 1.5 to 3 East of the Mississippi River | Start application when seedlings emerge or transplants are set. Repeat at 7- to 10-day intervals throughout the season. | West of the Mississippi River, do not apply more than 8.5 lbs. Willowood Mancozeb 75 WDG (6.4 lbs. AI) per acre per crop. East of the Mississippi River, do not apply more than 22.4 lbs. Willowood Mancozeb 75 WDG (16.8 lbs. AI) per acre per crop. |

Field Crops

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|---|--|--|---|---|
| barley wheat triticale oats rye | Helminthosporium leaf spot leaf rust Septoria glume blotch Septoria leaf spot tan spot | 2 | Start application at onset of disease or when plants are in the tillering to jointing stage and repeat at 7- to 10-day intervals. | Do not make more than three applications during the season. PHI: Do not apply after Feekes Growth Stage 10.5 (typically 35-45 days), but no less than 26 days before harvest. Do not graze livestock in treated areas prior to harvest. |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|---|---|---|--|--|
| | | | | Do not apply more than 6 lbs. Willowood Mancozeb 75 WDG (4.5 lbs. AI) per acre per crop. |
| corn (sweet corn for fresh use or processing; popcorn; sweet corn for hybrid seed production) | common rust Helminthosporium leaf blight | 1.5 | Use sufficient water for thorough coverage. Start applications when disease first appears and repeat at 4- to 7-day intervals. | Do not apply within 7 days of harvest. Do not feed treated forage to livestock. East of the Mississippi River, Arkansas and Louisiana: Do not apply more than 22.5 lbs. Willowood Mancozeb 75 WDG (17 lbs. AI) per acre per crop. West of the Mississippi River (Except Arkansas and Louisiana): Do not apply more than 7.5 lbs. (5.6 lbs. AI) per acre per crop. Sweet Corn for Hybrid Seed Production: Do not apply within 40 days of harvest. Do not apply more than 15 lbs. Willowood Mancozeb 75 WDG (11.25 lbs. AI) per acre per crop. |
| peanuts | Cercospora leaf spot Rust | 1 to 2 | Start applications when disease first appears or is reported in area. Repeat sprays at 7- to 14-day intervals. Reduce sprays to a 7 day interval during humid weather. | Do not apply within 14 days of harvest. Do not use more than 16 lbs. (12 lbs. AI) per acre per crop. Do not feed treated vines to livestock. |
| sugar beets | Cercospora leaf spot | 1.5 to 2 | Start applications when disease first threatens and repeat every 7- to 10-days as needed. | Do not apply within 14 days of harvest. Do not use more than 14 lbs. (10.5 lbs. AI) per |

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate (lb. / acre / application) | Directions | Restrictions |
|------|---------------------|---|--|---|
| | | | The addition of a Latron surfactant to spray solutions will improve performance. | acre per crop. Do not feed treated sugar beets to livestock. |

Miscellaneous Crops

| Crop | Diseases Controlled | Willowood Mancozeb 75 WDG Rate per Application | Directions |
|---------------------------|---|--|---|
| asparagus crowns | crown rot | 1 lb. 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. 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. |
| caprifig | assorted molds endosepsis (Fusarium) | 4 lbs. per 100 gals. | Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the fungicide suspension for a minimum of 15 minutes. The fungicide suspension should be stirred frequently to prevent settling out. Fresh dipping solution should be used after treating 4 or 5 batches of figs. After treatment, figs should be drained prior to placement in trees. |
| Christmas Trees (conifer) | Lophodermium needle cast pine gall rust Scirrhia brown spot | 1 to 2 lbs. per acre or 1 to 2 lbs. per 100 gals. | Begin application in spring or early summer before infection occurs. Repeat after heavy rains. Make applications at 7- to 10-day intervals. |
| Douglas fir | Swiss needle cast | | |

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container in a dry area. Keep away from sources of ignition, (e.g., sparks and open flame.) Close bag when not in use. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, sweep up spillage and dispose of in accordance with the Pesticide Disposal Instructions listed below.

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

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Non-recyclable container. 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.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Willowood, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Willowood, LLC and Seller harmless for any claims relating to such factors.

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