

#### OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

December 4, 2023

Luiza Vietri Pereiro Regional Regulatory Manager UPL NA INC 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406

Subject: Notification per PRN 98-10 – Add a referral statement for commercial packaging.

Product Name: Manzate Pro-Stick Fungicide

EPA Registration Number: 70506-234

Application Date: 2/28/2023

Case Number: 473222

#### Dear Luiza Vietri Pereiro:

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 placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, please contact Carmen Swinger at swinger.carmen@epa.gov.

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Sincerely,

Stephanie Suarez, Ph.D. Acting Product Manager 21 Fungicide Branch

Registration Division (7505T)

#### NOTIFICATION

70506-234

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:

Manzate ProStick Fungicide Label Notification - marked copy February, 09 2023

**GROUP M3 Fungicide** 

12/04/2023 [OPTIONAL DESCRIPTOR ON COMMERCIAL PACKAGING: MULTI-SITE FUNGICIDE PROTECTION]

# Manzate<sup>®</sup> Pro-Stick<sup>™</sup> fungicide

# **DISPERSIBLE GRANULES**

(ALTERNATE BRAND NAMES: MANZATE 75DF, MANZATE PRO-STICK T&O FUNGICIDE)

## **IOPTIONAL REFERRAL STATEMENTS FOR COMMERICAL PACKAGING:**

See attached booklet on back for additional Precautionary Statements, First Aid and complete Directions For Use. See inside for complete Precautionary Statements, First Aid and Directions For Use. See containers inside for additional Precautionary Statements, First Aid and complete Directions for Use.']

ACTIVE INGREDIENT	BY WEIGHT
Mancozeb: A coordination product of zinc ion and mangane	se ethylenebisdithiocarbamate75.0%
in which the ingredients are:	
Manganese++	15.0%
Zinc++	1.9%
Ethylenebisdithiocarbamate ion (C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> S <sub>4</sub> )	58.1%
OTHER INGREDIENTS	<u>25.0%</u>
TOTAL	100.0%

Contains 0.75 Pound of Mancozeb Per Pound of Product

# **KEEP OUT OF REACH OF CHILDREN CAUTION**

	FIRST AID
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice</li> </ul>
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably by mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>

Manzate ProStick Fungicide Label Notification – marked copy February, 09 2023

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. For emergency medical assistance, call the Rocky Mountain Poison Control and Drug Safety at 1-866-673-6671.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300

UPL NA Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071
EPA REG. NO. 70506-234
EPA EST. NO.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, clothing or eyes. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are nitrile rubber, natural rubber, or butyl rubber.

## Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt
- long pants
- shoes and socks
- Chemical resistant gloves, made of any waterproof material (except pilots, groundboom applicators, and airblast applicators)
  - Aerial applications of Manzate Pro-Stick Fungicide 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 minimum of a NIOSH-approved particulate filtering facepiece respirator with R or P filter, OR a NIOSH approved elastomeric particulate respirator with any R or P filter.

## In addition mixers/loaders supporting aerial applications to walnuts must wear:

a minimum of a NIOSH-approved particulate filtering facepiece respirator with R or P filter, NIOSH approved elastomeric particulate respirator with any R or P filter.

See engineering controls for additional requirements.

Follow the 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 or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### **ENGINEERING CONTROL STATEMENTS**

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

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

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 clothing/ PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product 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, 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 washwater or rinsate. Cover or incorporate spilled treated

seed.

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

#### 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.

Commercial seed treatments and applications to lawn grasses, golf courses, industrial (office park), and municipal lawns are not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter treated areas until sprays have dried.

MANZATE® PRO-STICK™, a dispersible granule containing mancozeb, is labeled for use as a spray for the control of many important plant diseases.

## APPLICATION INSTRUCTIONS

AS A SPRAY (Ground or Aerial Equipment) - Apply MANZATE PRO-STICK at the rate shown; use sufficient water to provide thorough coverage: use 20 to 100 gallons per acre for ground equipment and no less than 2 gallons per acre for aircraft. Add MANZATE PRO-STICK 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. A spreader-sticker spray adjuvant may be used with this product if needed; contact your local product distributor or UPL NA Inc. representative for specific recommendations. If tank mixed, follow more restrictive labeling of any tank mix partner. Do not tank mix with any product that contains a prohibition on tank mixing.

#### RESISTANCE MANAGEMENT

Manzate Pro-Stick Fungicide is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. Manzate Pro-Stick is recommended for use in program which are compatible with the principles of Integrated Pest Management (IPM). Manzate Pro-Stick is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. Manzate Pro-Stick, with a multi-site mode of action, may be used in an Integrated Pest Management (IPM) program to delay or prevent the development of resistance to single-site fungicides. Consult with your private crop consultant or Federal or State Cooperative Extension Service representatives for guidance on the proper use of Manzate Pro-Stick in programs which seek to minimize the occurrence of disease resistance to other fungicides.

# MAXIMUM SEASONAL POUNDAGE WHEN USED IN CONJUNCTION WITH ONE OR MORE OTHER SPECIFIED ETHYLENE BISDITHIOCARBAMATE (EBDC) PRODUCTS

## **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 (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.

# 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 PRO-STICK fungicide only through sprinkler systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems. Do not apply MANZATE PRO-STICK through any other type of irrigation system.

Crop injury, lack of 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.

#### **Specific Instructions for Public Water System**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) 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.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8. Good agitation is required in the injection tank.
- 9. In moving systems, apply specified dosage of MANZATE PRO-STICK as a continuous injection. In non-moving systems inject MANZATE PRO-STICK 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 PRO-STICK 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 non-moving systems inject into system for the time established during calibration.
- 11. Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all MANZATE PRO-STICK is flushed from system.

#### **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, or 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 applications:

- 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 a 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:

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

#### **Tank Mixing Procedures**

- When two pesticides are tank mixed, the more restrictive label conditions apply.
- Do not tank mix with any product which contains a restriction on tank mixing.

Slowly pour into spray tank as long as it is being filled while agitation is maintained or thoroughly premix in a nurse tank for concentrate or aircraft sprayers. Add other co-applied fungicides, insecticides, growth regulators, micronutrients after MANZATE PROSTICK has been placed into suspension. When tank mixing with other pesticides, observe the more restrictive label limitations, restrictions, and precautions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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 ProStick 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.

[note UPL reserves the right to list some, all or none of the applicable crop names on its commercial label. Further UPL may also alphabetize crops and diseases in these tables on its commercial labeling.]

## **CROP USE TABLE AND APPLICATION DIRECTIONS.**

CROP	DISEASES CONTROLLED	RATE OF MANZATE PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
Almond	Anthracnose Bacterial Spot Blossom Blight ( <i>Monilinia spp.</i> ) Rust	6.4 lbs/A (4.8 lbs ai/A)	Begin application at dormant to popcorn stage, full bloom or petal fall. Reapply every 7 to	Do not apply more than 19.2 lbs of product (14.4 lbs. of active ingredient) per acre per use season. Maximum number of applications per season is 3.

		RATE OF MANZATE		1 Cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
	Scab Shothole (Stigmina spp.)		10 days if bloom is staggered and weather is rainy.  For increased control of Bacterial Spot, tank mix Manzate Pro-Stick with copper or an EPA approved bactericide registered for use on almonds.	Do not make last application later than 5 weeks after petal fall. Do not graze livestock in treated area. Do not use less than 10 gallons of spray volume per acre if aerially applied.  Minimum retreatment interval is 7 days. Do not apply this product with a U-boom device.
Asparagus	Cercospora Leaf Spot, Rust	2 lbs/A (1.50 lbs ai/A)	Start applications when disease first appears and repeat at 10 day intervals.	Apply only on asparagus ferns after spears have been harvested. Do not apply more than 8 lbs of product (6 lbs of active ingredient) per acre per season. Maximum number of applications per season is 4. Preharvest Interval (PHI) for California and Arizona: 120 days.  Preharvest Interval (PHI) for all other states: 180 days
Asparagus Crown (Planting Stock)	Crown Rot	1.0 lb/100 gals (0.75 lbs ai/100 gals)	Dip clean, loosely packed crowns into continuously agitated fungicide suspension for 5 minutes. Drain and plant as soon as possible. Wash dirty crowns before dip treatment. Replace suspension in clean tank when discolored by soil.	
Banana (Including Plantain)	Sigatoka	2 to 3 lbs/A (1.50 to 2.25 lbs ai/A)	Apply when leaves first appear and repeat every 14 to 21 days or as required. Use sufficient water to provide adequate coverage.	Do not apply more than 30 lbs of product (22.5 lbs of active ingredient) per acre per growing cycle. Maximum number of applications per season is 10 at the highest use rate; 15 at the lowest use rate.  Preharvest Interval (PHI): 0 days

		RATE OF MANZATE		1 Cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
Cereals  Barley, Oat, Rye, Wheat (Including Triticale)	Helmintho- sporium Leaf Spot, Leaf Rust, Septoria Glume Blotch, Septoria Leaf Spot, Tan Spot  Disease Suppression: Head Blight (fusarium spp.)	2 lbs/A (1.50 lbs ai/A)	For leaf and stem diseases, start application at onset of disease or when plants are in the tillering to jointing stage and repeat at 7 to 10 day intervals.  For Fusarium head blight in barley the optimum timing for suppression is when barley heads on the main stem are fully emerged which is Feekes growth stage 10.51.  For Fusarium head blight in wheat the optimum timing for suppression is at early flower which is Feekes growth stage 10.51.  Good coverage of crop heads is required,	Do not apply more than 6 lbs of product (4.5 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 3. Do not graze livestock in treated areas prior to harvest. Preharvest Interval (PHI): 26 days.
Broccoli	Alternaria Leaf Spot Downy Mildew	1.6 to 2.1 lbs/A (1.2 to 1.575 lbs ai/A)	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7 to 10-day intervals, if needed. Use higher specified rates when conditions favor disease.	Do not apply more than 12.8 lbs of product (9.6 lbs of active ingredient) per acre per season. Maximum number of applications per season is 6 at the highest use rate; 8 at the lowest use rate.  Minimum retreatment interval is 7 days.  Do not apply this product with a U-boom device. Aerial application of Manzate Pro-Stick on broccoli, requires that occupational handlers performing mixing/loading operational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a minimum of a NIOSH-approved

		RATE OF MANZATE		1 cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
				particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A. Preharvest Interval (PHI): 7 days
Cabbage	Alternaria Leaf Spot Downy Mildew	1.6 to 2.1 lbs/A (1.2 to 1.575 lbs ai/A)	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7 to 10-day intervals, if needed. Use higher specified rates when conditions favor disease.	Do not apply more than 12.8 lbs of product (9.6 lbs of active ingredient) per acre per season. Maximum number of applications per season is 6 at the highest use rate; 8 at the lowest use rate.  Minimum retreatment interval is 7 days.  Do not apply this product with a U-boom device. Aerial application of Manzate Pro-Stick on cabbage, requires that occupational handlers performing mixing/loading operational handlers performing mixing/loading observe the additional mitigation measures of wearing a minimum of a NIOSH-approved particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A. Preharvest Interval (PHI): 7 days
Caprifig (Non-Food Use)	Endosepsis (Fusarium), Mold	4 lbs/100 gals (3.0 lbs ai/100 gals)	Prepare mamme figs by making a shallow cut through the eye and then hand dividing to avoid wasp injury. Submerge mamme figs in the continuously agitated suspension for at least 15 minutes. Drain before placement in trees. Use fresh dipping suspension after treating 4 to 5 batches of figs.	Sweet Corn:
Corn	Common Rust,	1.5 lbs/A	Use sufficient	Sweet Corn:

	DISEASES	RATE OF MANZATE PRO-STICK PER APPLICATION LBS	APPLICATION	10014413, 07 2020
CROP	DISEASES CONTROLLED	PRODUCT/ACRE (LBS AI / A)	DIRECTIONS	RESTRICTIONS
(Sweet Corn for Fresh Use or Processing; Popcorn; and Sweet Corn for Seed Production, including Hybrid Seed)	Helmintho- sporium Leaf Blight, Gray Leaf Spot	(1.125 lbs ai/A)	water for thorough coverage. Start applications when disease first appears and repeat at 4 to 7 day intervals.	Do not apply more than 22.5 lbs of product (17 lbs of active ingredient) per acre per crop east of the Mississippi River (including Arkansas and Louisiana). Maximum number of applications per season is 15.  Do not apply more than 7.5 lbs of product (5.6 lbs of active ingredient) per acre per crop west of the Mississippi River (excluding Arkansas and Louisiana). Maximum number of applications per season is 5. Do not apply to sweet corn in home gardens.  Preharvest interval (PHI): 7 days
(Field and Field Corn for Hybrid Seed Production)				Field Corn: Do not apply more than 15 lbs of product (11.25 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 10. Preharvest interval (PHI): 40 days
Cranberry	Fruit Rot	3 to 6 lbs/A (2.25 to 4.5 lbs ai/A)	Start applications at early-bloom and repeat at 7 to 10 day intervals.	Do not apply more than 18 lbs of product (13.5 lbs of active ingredient) per acre per season. Maximum number of applications per season is 3 at the highest use rate; 6 at the lowest use rate. Preharvest interval (PHI): 30 days
Cucurbit Crop Group  Chayote Chinese wax gourd Citron melon Cucumber Gherkin Gourd, edible Momordica spp. Muskmelon Pumpkin	Alternaria Leaf Spot Anthracnose, Cercospora Leaf Spot, Downy Mildew, Gummy Stem Blight, Pythium Fruit Rot, Scab,	2 to 3 lbs/A (1.50 to 2.25 lbs ai/A)	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. For aerial applications, the minimum spray	Do not apply more than 25.6 lbs. of product (19.2 lbs. of active ingredient) per acre per year.  Maximum number of applications per year is 8 at the highest use rate; 12 at the lowest use rate  Preharvest Interval (PHI): 5 days

		RATE OF MANZATE		1 Cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
Squash, summer Squash, winter Watermelon			volume is 2 gallons per acre.  Some cantaloupe varieties (i.e. Harvest Queen, Gold Star, Super Star, Sweet and Early, and Saticoy) are sensitive to Manzate Pro-Stick fungicide. Consult State Cooperative Extension Service Specialist prior to use.	
Fennel	Early Blight, Late Blight	2 lbs/A (1.5 lbs ai/A)	Begin in plant beds at emergence. Repeat at 7 to 10 day intervals.	Do not apply more than 16 lbs of product (12 lbs of active ingredient) per acre per crop. Maximum number of applications per year is 8. Do not graze livestock in treated areas.  Preharvest Interval (PHI): 14 days
Ginseng	Alternaria Blight	2 lbs/A (1.5 lbs ai/A)	Start applications when disease first threatens and repeat every 7-10 days as needed.  In Wisconsin, apply with ground equipment and a minimum of 80 gallons of water per acre.	Do not apply more than 24 lbs. of product (18 lbs. of active ingredient ingredient) per acre per year. Maximum number of applications per year is 12.  Preharvest Interval (PHI): 30 days
Grape (East of the Rocky Mountains)	Black Rot, Bunch Rot, Deadarm, Downy Mildew	1.5 to 4 lbs/A (1.125 to 3.0 lbs ai/A)	Apply in sufficient water to provide thorough coverage starting when new shoots are 1/2 to 1 1/2 inches long. Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long, and then at 7 to 10 day intervals until fruit is set. For late season control of black rot,	Do not apply more than 24 lbs of product (18 lbs of active ingredient) per acre per season. Maximum number of applications per season is 6 at the highest use rate; 16 at the lowest use rate. Preharvest Interval (PHI): 66 days

		RATE OF MANZATE		1 cordary, 09 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
			deadarm and downy mildew, the use of other approved fungicides is suggested.	
Grape (West of the Rocky Mountains)	Black Rot, Bunch Rot, Deadarm, Downy Mildew	1.5 to 2.5 lbs/A (1.125 to 1.875 lbs/A)	Apply in sufficient water to provide thorough coverage starting when new shoots are 1/2 to 1 1/2 inches long. Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long, and then at 7 to 10 day intervals until fruit is set. For late season control of black rot, deadarm and downy mildew, the use of other approved fungicides is suggested.	Do not apply more than 7.5 lbs of product (5.6 lbs of active ingredient) per acre per season. Maximum number of applications per season is 3 at the highest use rate; 5 at the lowest use rate. Preharvest Interval (PHI) for California: No application after bloom. Preharvest Interval (PHI) all other states: 66 days
Lettuce (Head, Leaf)	Anthracnose Downy Mildew	1.6 to 2.1 lbs/A (1.2 to 1.575 lbs ai/A)	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7 to 10-day intervals, if needed. Use higher specified rates when conditions favor disease.	Remove residues from head lettuce by stripping and trimming. In California, do not apply more than 8.5 lbs of product (6.4 lbs of active ingredient) per acre per crop. Maximum number of applications in California per season is 4 at the highest use rate; 5 at the lowest use rate  In states other than California, do not apply more than 12.8 lbs of product (9.6 lbs of active ingredient) per acre per crop. For all other states, the maximum number of applications per season is 6 at the highest use rate; 8 at the lowest use rate.  Minimum retreatment interval is 7 days. Do not apply this product with a U-boom device. Aerial application of Manzate Pro-Stick on lettuce (leaf and

		RATE OF MANZATE		1 Cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
				head), requires that occupational handlers performing mixing/loading operational handlers performing mixing/loading operations observe the additional mitigation measures of wearing a minimum of a NIOSH-approved particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A.  Preharvest Interval (PHI) in California: 14 days Preharvest Interval (PHI) in all other states: 10 days
Melon  Cantaloupe, Casaba, Crenshaw, Honeydew, Watermelon	Alternaria Leaf Spot, Anthracnose, Cercospora Leaf Spot Downy Mildew, Gummy Stem Blight,	2 to 3 lbs/A (1.50 to 2.25 lbs ai/A)	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces. Some varieties are sensitive to MANZATE PROSTICK fungicide. Consult State Cooperative Extension Service Specialist prior to use.	Do not apply more than 24 lbs of product (18 lbs of active ingredient) per acre per season. Maximum number of applications per season is 8 at the highest use rate; 12 at the lowest use rate. Preharvest Interval (PHI): 5 days
Onion (Dry Bulb), Garlic, Shallot	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch, Rust	3 lbs/A (2.25 lbs ai/A)	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 apply to exposed bulbs. Do not apply more than 30 lbs of product (22.5 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 10. Preharvest Interval (PHI): 7 days
	Damping Off Seed Rots, Seedling Blight, Smut (furrow drench)	3 lbs/A (2.25 lbs ai/A)	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 3 lbs of product (2.25 lbs of active ingredient) per acre (29,000 linear feet of furrow) with an 18 inch row spacing.

		RATE OF MANZATE		1 Cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
Papaya	Anthracnose (Colletotricum), Black Spot (Cercospora) Fruit Rot, Phytophthora	2.0 to 2.5 lbs/A (minimum 50 gals of water per acre) (1.50 to 1.875 lbs ai/A)	Begin at flowering; treat central column crown, blossom area and developing fruit. Repeat at 14 to 21 day intervals.	Do not use more than 37 lbs of product (28 lbs of active ingredient) per acre per year. Maximum number of applications per year is 14 at the highest use rate; 18 at the lowest use rate.
				Preharvest Interval (PHI): 0 days
Peanut	Ascochyta Web Blotch, Cercospora Leaf Spot, Rust	1 to 2 lbs/A (0.75 to 1.50 lbs ai/A)	Start application when disease first appears or is reported in the area. Repeat sprays at 7 to 14 day intervals. Reduce sprays to a 7 day interval during humid weather or under severe disease pressure.	Do not use more than 16 lbs of product (12 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 8 at the highest use rate; 16 at the lowest use rate. Do not feed treated vines to livestock. Preharvest Interval (PHI): 14 days
Pepper	Anthracnose Bacterial Spot (Xanthomonas axonopodis pv. vesicatoria) Cercospora Leaf Spot (Frogeye Spot) Phytophthora Blight Ripe Rot	West of the Mississippi: 1.6 to 2.1 lbs/A  (1.2 to 1.575 lbs ai/A)	Begin applications prior to disease development and when conditions are favorable for disease development.  Apply at 7 to 10-day intervals, if needed. Use higher specified rates when conditions favor disease.	Do not apply more than 12.8 lbs of product (9.6 lbs of active ingredient) per acre per season. Maximum number of applications per season is 6 at the highest use rate; 8 at the lowest use rate.  Minimum retreatment interval is 7 days.  Do not apply this product with a U-boom device. Aerial application of Manzate Pro-Stick on peppers, requires that occupational handlers performing mixing/loading operational handlers performing mixing/loading operational handlers observe the additional mitigation measures of wearing a minimum of a NIOSH-approved particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A.  Preharvest Interval (PHI): 7 days

CROP	DISEASES CONTROLLED	RATE OF MANZATE PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
		East of the Mississippi: 1.6 to 3.2 lbs/A  (1.2 to 2.4 lbs ai/A)	Begin applications prior to disease development and when conditions are favorable for disease development. Apply at 7 to 10-day intervals, if needed. Use higher specified rates when conditions favor disease.	Do not apply more than 19.2 lbs of product (14.4 lbs of active ingredient) per acre per season). Maximum number of applications per season is 6 at the highest use rate; 12 at the lowest use rate. Minimum retreatment interval is 7 days.  Do not apply this product with a U-boom device. Aerial application of Manzate Pro-Stick on peppers, requires that occupational handlers performing mixing/loading operational handlers performing mixing/loading observe the additional mitigation measures of wearing a minimum of a NIOSH-approved particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC 84-A. Preharvest Interval (PHI): 7 days
Pome Fruit Apple, Pear, Crabapple, Quince	Pear Psylla Nymphs (suppression)  Rusts, Scab, Fabrea Leaf Spot	6.0 lbs/A  (6.0 lbs ai/A)  6.0 lbs/A  (4.5 lbs ai/A)  Maximum per acre use rate based on thorough coverage dilute sprays. Use 50 gal minimum per acre.	Begin thorough coverage applications at early bloom (pink) or at first signs of psylla activity. Reapply as needed on a 7-10 day interval and discontinue after petal fall.  Pre-Bloom/Bloom Use: Begin application at 1/4 to 1/2 inch green tip and continue on a 7 to 10 day schedule through bloom. Use either	Do not apply after petal fall for these diseases. Do not apply more than 24 lbs of product (18 lbs of active ingredient) per acre per year.  Maximum number of applications per season is 3 when using to control Pear Psylla Nymphs or 4 applications when using the higher rates as a pre-bloom/bloom use. If Extended Application Schedule is used, maximum number of applications per season is 8.  Do not graze livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management
		Consult State Extension Service if necessary to adjust for variable tree size.  3.0 lbs/A	the "Pre-Bloom/Bloom" or "Extended Application" schedule.	Program. Preharvest Interval (PHI): 77 days  DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES.

	RATE OF MANZATE			1 cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
		(2.25 lbs ai/A) Maximum per acre use rate based on thorough coverage dilute sprays.  Use 50 gal minimum per acre.  Consult State Extension Service if necessary to adjust for variable tree size.	Application Schedule or for Use in Tank Mixtures: For implementation of IPM programs, applications based on tree-row volume, or for use as a resistance management tool: begin applications at 1/4 to 1/2 inch green tip and continue applications on a 7 to 10 day schedule through the second cover spray. Use either the "Pre- Bloom/Bloom" or "Extended Application" schedule.	
Potato	Black Dot Early Blight, Late Blight,  Disease Suppression: Botrytis	1 to 2 lbs/A (0.75 to 1.50 lbs ai/A)	Begin applications when plants are 4 to 6 inches high by applying 1 lb per acre. As the vines increase in size, apply 1.5 to 2 lbs per acre at intervals of 5 to 10 days or 1 lb per acre at 3 to 5 day intervals. It is recommended that this product be used in an Integrated Pest Management Program.	Do not apply more than 15 lbs of product (11.2 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 7 at the highest use rate; 15 at the lowest use rate. Vine-kill should occur 14 days before harvest. Preharvest Interval (PHI) in CT, DE, FL, MA, ME, MI, NH, NY, OH, PA, RI, VT, WI: 3 days. Preharvest Interval (PHI) in all other states: 14 days.
Potato (Seedpiece Treatment)	Fusarium Decay, Seedborne Common Scab	1.25 lbs per 50 gal (0.94 lbs ai/50 gal)	Dip whole or cut potato tubers in 1.25 lbs MANZATE PRO-STICK fungicide per 50 gallons of water. Place treated tubers in a clean container following treatment and plant as soon as possible. Spread	Do not use treated seed potatoes for food or feed purposes. When opening this bag or loading/pouring the treated seed-pieces, users must wear long-sleeved shirt, long pants, shoes, socks, chemical resistant gloves, and a minimum of a NIOSH-approved particulate filtering facepiece respirator with a an N, R, or P

		DATE OF MANIZATE		February, 09 2023
CROP	DISEASES CONTROLLED	RATE OF MANZATE PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
			treated seedpieces in a cool place if held before planting.	filter, NIOSH approved prefix TC 84-A.  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.  Exception: Once the seed pieces are planted in 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."  SEE ADDITIONAL SEED TREATMENT LANGUAGE FOR SEED BAG LABEL REQUIREMENTS.
Squash (Summer Squash, Including Edible Gourd)	Downy Mildew	2 to 3 lbs/A (1.50 to 2.25 lbs ai/A)	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 more than 24 lbs of product (18 lbs of active ingredient) per acre per crop.Maximum number of applications per season is 8 at the highest use rate; 12 at the lowest use rate.  Preharvest Interval (PHI): 5 days
Sugar Beet	Cercospora Leaf Spot	1.5 to 2 lbs/A (1.125 to 1.50 lbs ai/A)	Begin when disease first threatens. Repeat at 7 to 10 day intervals.	Do not apply more than 14 lbs of product (10.5 lbs of active ingredient) per acre per crop. Maximum number of applications per season is 7 at the highest use rate; 9 at the lowest use rate. Do not feed treated sugar beet tops to livestock. Preharvest Interval (PHI): 14 days

		RATE OF MANZATE		1 cordary, 07 2023
CROP	DISEASES CONTROLLED	PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICAITON DIRECTIONS	RESTRICTIONS
Tomato (East of the Mississippi River)	Anthracnose, Early Blight, Gray Leaf Mold, Gray Leaf Spot, Late Blight, Septoria Leaf Spot	0.75 to 3.0 lbs/A (0.56 to 2.25 lbs ai/A)	Start application when seedlings emerge or transplants are set. When using use rate of 0.75 – 1.5 lbs/A, repeat at 3 to 7 day intervals throughout the season.  When using use rate of 1.6-3.0 lbs/A, repeat at 7 to 10 day intervals throughout the season.	Do not apply more than 22.4 lbs of product (16.8 lbs of active ingredient) per acre per crop. Maximum number of applications is 7 at the highest use rate; 29 at the lowest use rate.  Preharvest Interval (PHI): 5 days
	Bacterial Speck and Spot	1.5 to 3 lbs/A (1.125 to 2.25 lbs ai/A)	Start application when seedlings emerge or transplants are set. Repeat at 7 to 10 day intervals throughout the season. For Bacterial Speck and Spot use a full rate of a fixed copper fungicide in a tank mix combination with a half to full rate of MANZATE PROSTICK. Follow the application interval on the copper fungicide label.	
Tomato (West of the Mississippi River)	Anthracnose, Early Blight, Gray Leaf Mold, Gray Leaf Spot, Late Blight, Septoria Leaf Spot	0.75 to 2.0 lbs/A (0.56 to 1.50 lbs ai/A)	Start application when seedlings emerge or transplants are set. When using use rate of 0.75 – 1.0 lbs/A, repeat at 3 to 7 day intervals throughout the season.  When using use rate of 1.5-2.0 lbs/A, repeat at 7 to 10 day intervals throughout the	Do not apply more than 8.5 lbs of product (6.4 lbs of active ingredient) per acre per crop. Maximum number of application is 4 at the highest use rate; 11 at the lowest use rate. Preharvest Interval (PHI): 5 days

	DISEASES	RATE OF MANZATE PRO-STICK PER APPLICATION LBS	APPLICATION DIRECTIONS	10014413, 07 2020
CROP	CONTROLLED	PRODUCT/ACRE (LBS AI / A)	DIRECTIONS	RESTRICTIONS
			season.	
	Bacterial Speck and Spot	1.5 to 2 lbs/A (1.125 to 1.50 lbs ai/A)	Start application when seedlings emerge or transplants are set. For Bacterial Speck and Spot use a full rate of a fixed copper fungicide in a tank mix combination with a half to full rate of MANZATE PRO-STICK. Follow the application interval on the copper fungicide label.	
			day intervals throughout the season.	
Small Tropical Fruits Limited to: Sugar apple Cherimoya Atemoya Custard apple Sweetsop	Anthracnose	2 to 2.5 lbs/A (1.50 to 1.875 lbs ai/A)	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 gal/acre.	Do not apply more than 35 lbs. of product (26.25 lbs. of active ingredient) per acre per year.  Maximum number of applications per year is 14 at the highest use rate; 17 at the lowest use rate.  Preharvest Interval (PHI): 0 days
Large Tropical Fruits Limited to:  Mango Star apple (caimito) Canistel Mamey sapote Sapodilla White sapote	Anthracnose, Phytophthora Fruit Rot, Black Spot (Cercospora)	2 to 2.5 lbs/A (1.50 to 1.875 lbs ai/A)	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 37.3 lbs. of product (28 lbs. of active ingredient) per acre per year.  Maximum number of applications per year is 15 at the highest use rate; 18 at the lowest use rate.  Preharvest Interval (PHI): 0 days.

CROP	DISEASES CONTROLLED	RATE OF MANZATE PRO-STICK PER APPLICATION LBS PRODUCT/ACRE (LBS AI / A)	APPLICATION DIRECTIONS	RESTRICTIONS
Walnut	Walnut Blight (Xanthomonas xampestris pv. Juglandis)	2.4 lbs/A (1.80 lbs ai/A)	Apply by ground in a minimum of 100 gallons water per acre, or by air in a minimum of 10 gallons water per acre. Begin application at early pre-bloom prior to or when catkins are partially expanded.  Make additional application during bloom and early nutlet stage at 7 to 10 day intervals, or as needed if frequent rainfall occurs.	Do not apply through any irrigation system  Do not apply more than 24 lbs. of product (18 lbs of active ingredient) per acre per use season. Maximum number of applications per season is 10.  For aerial applications only: Mixer/loaders must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with an N,R, or P filter, NIOSH approval prefix TC-84A.  This product must be tank mixed with a fixed copper product (such as Cuprofix Ultra 40 Disperss, EPA Reg. No. 70506-201) or another bactericide which is registered for use on walnuts.  Preharvest Interval (PHI): 75 days

# FLOWERS, FOLIAGE PLANTS, AND ORNAMENTALS INTENDED FOR USE ONLY BY PROFESSIONAL APPLICATORS.

# TREATED PLANTS, FRUITS, NUTS OR SYRUP FROM MAPLE TREES MUST NOT BE USED FOR FOOD OR FEED PURPOSES.

Apply in the field, nursery or greenhouse as a thorough coverage spray, using 1 to 2 lbs. Manzate Pro-Stick per acre (1  $\frac{1}{2}$  to 3 tsp. per gal.). **Restriction:** Do not use in residential greenhouses.

Plant sensitivities to Manzate Pro-Stick have been found to be acceptable in specific genera and species listed on this label, however, phototoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test each one for sensitivity to Manzate Pro-Stick. Neither the manufacturer nor seller has determined whether or not Manzate Pro-Stick can be safely used on ornamental or nursery plants not listed on this label. The user should determine if Manzate Pro-Stick can be used safely prior to commercial use. In a small area, apply the specified rates to the plants in question, i.e. bedding plants, foliage, etc., and observe to for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Use Manzate Pro-Stick in commercial greenhouses and nurseries for control of fungal diseases of flowers, foliage and ornamentals. **Restriction:** Do not make more than 20 applications per year.

<u>Aerial application</u>: For aerial applications made to field-planted ornamentals, apply 1 to 2 lbs. per acre; Use a minimum rate of 5 gals of spray per acre during aerial applications.

<u>Application of dilute sprays</u>: Apply as a thorough coverage spray using 1 to 2 lbs. per acre or 1 to 2 lbs. per 100 gals of water. Begin application at first sign of disease and repeat at 7 to 10 day intervals or as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist. Manzate Pro-Stick may be used alone or in combination with other fungicides as maintenance spray. Use higher specified rate and shorter intervals during periods of excessive wetness and rapid growth.

Manzate Pro-Stick is labeled for use on certain flower, foliage and ornamental plants listed in the table below for control of the following diseases and pathogens:

PLANT PATHOGEN CONTROLLED:

Abutilon Alternaria, Cercospora, Cladosporium, Colletotrichum, Puccinia

African violet Alternaria, Botrytis

Ageratum Alternaria, Puccinia, Rhizoctonia, Sclerotium

Aglaonema Alternaria

Almond, ornamental Botrytis, Cladosporium, Coryneum, Gloeosporium, Monilinia

Alyssum Microsphaera alni

Andromeda Exobasidium, Rhytisma, Venturia Anthurium Colletotrichum, Gloeosporium

Apple Alternaria, Cephalosporium, Colletotrichum, Coryneum, Elsinoe, Fusarium,

Gloeosporium, Gymnosporangium, Helminthosporium, Leptosphaeria,

Monilinia, Monochaetia, Mycosphaerella, Pestalotia, Venturia

Arborvitae Alternaria, Botrytis, Cercospora, Coryneum, Lophodermium, Mycosphaerella,

Pestalotia

Ash Cercospora, Cylindrosporium, Gloeosporium, Puccinia, Rhizoctonia,

Sphaeropsis

Ash, Mountain Gymnosporangium

Aster Alternaria, Ascochyta, Botrytis, Colletotrichum, Fusarium, Phomopsis,

Phyllosticta, Puccinia, Ramularia, Rhizoctonia, Septoria, Uromyces

Aucuba japonica Alternaria, Cercospora, Gloeosporium, Phomopsis, Phyllosticta

Azalea Alternaria, Botrytis, Cladosporium, Colletotrichum, Cylindrocladium, Ovulinia

Baby's Breath Botrytis, Rhizoctonia

Basswood Cercospora, Phyllosticta

Begonia Botrytis, Cercospora, Gloeosporium, Rhizoctonia

Birch Cylindrosporium, Gloeosporium, Glomerella, Melampsoridium, Taphrina

Bougainvillea Colletotrichum
Boxwood Fusarium, Volutella

Buckeye Cercospora, Glomerella, Guignardia, Monchaetia, Phyllosticta, Septoria,

Taphrina

Buffalo berry Cylindrosporium, Puccinia, Rhizoctonia, Septoria

Catalpa Alternaria, Cercospora, Gloeosporium, Phomopsis, Rhizoctonia
Camellia Botrytis, Cercospora, Elsinoe, Exobasidium, Glomerella, Pestalotia,

Phomopsis, Phyllosticta

Carnation Alternaria, Botrytis, Cladosporium, Colletotrichum, Fusarium,

Helminthosporium, Septoria, Stemphylium, Uromyces

Cedar Lophodermium, Gymnosporangium

Cherry, ornamental Alternaria, Cercospora, Cladosporium, Coccomyces, Coryneum, Fusicladium,

Monilinia, Phomopsis, Phyllosticta, Taphrina

Chinese evergreen Colletotrichum, Gloeosporium

Christmas cactus Alternaria, Cercospora, Colletotrichum, Fusarium, Phomopsis

Chrysanthemum Alternaria, Ascochyta, Bipolaris, Botrytis, Cercospora, Cylindrosporium,

Helminthosporium, Phyllosticta, Septoria, Stemphylium

Cockscomb (Celosia) Alternaria, Cercospora

Coleus Alternaria, Botrytis, Phyllosticta

Columbine Ascochyta, Botrytis, Cercospora, Puccinia, Rhizoctonia, Septoria

Coryline Cercospora

Cotoneaster Cercospora, Phyllosticta, Venturia

Crabapple Gymnosporangium, Marssonina, Phyllosticta, Septoria, Venturia

Crape myrtle Cercospora, Phomopsis, Phyllosticta

Croton Gloeosporium

Cuphea (Mexican heather) Gloeosporium, Rhizoctonia

Cyclamen Botrytis, Cladosporium, Fusarium, Glomerella, Phyllosticta, Ramularia Cypress Coryneum, Fusarium, Gymnosporangium, Lophodermium, Monchaetia,

Pestalotia, Phomopsis

Dahlia Alternaria, Botrytis, Fusarium, Rhizoctonia

Daisy Botrytis, Cercospora, Whetzelia
Daisy, Shasta Cylindrosporium, Septoria, Fusarium
Daisy, Transvall Alternaria, Botrytis, Gloeosporium

Daylily Alternaria, Botrytis, Cercospora, Colletotrichum, Phomopsis, Phyllosticta,

Puccinia

Delphinium Ascochyta, Botrytis, Cercospora, Diaporthe, Fusarium, Phyllosticta, Puccinia,

Ramularia, Septoria, Volutella

Dieffenbachia Cephalosporium, Colletotrichum, Gloeosporium, Glomerella, Leptosphaeria Dogwood Ascochyta, Botrytis, Cercospora, Colletotrichum, Elsinoe, Phyllosticta, Septoria

Dracaena Alternaria, Cercospora, Colletotrichum, Fusarium, Phyllosticta

Dusty Miller Fusarium, Puccinia

Elm Botryosphaeria, Cephalosporium, Cercospora, Coryneum, Cylindrosporium,

Fusarium, Gloeosporium, Monochaetia, Mycosphaerella, Phomopsis,

Phyllosticta, Rhizoctonia, Sphaeropsis, Taphrina

Euonymus Cercospora, Colletotrichum, Gloeosporium, Marssonina, Ramularia, Septoria,

Whetzelinia

Fatsia Alternaria, Cercospora, Colletotrichum, Phyllosticta

Fern Botrytis, Cercospora, Curvularia, Cylindrosporium, Glomerella, Phyllosticta,

Taphrina

Ficus Alternaria, Ascochyta, Cephalosporium, Cercospora, Cladosporium,

Colletotrichum, Fusarium, Gloeosporium, Glomerella, Mycosphaerella,

Phomopsis, Stemphylium

Fir (Abies) Cephalosporium, Lophodermium, Melampsora, Phomopsis, Sphaeropsis

Fir, Douglas Phaeocryptopus Fir, Frasier Phaeocryptopus

Firethorn Fusarium, Fusicladium, Rhizoctonia

Fittonia Rhizoctonia

Four-o'clock Cercospora, Rhizoctonia
Fuchsia Botrytis, Phomopsis, Septoria
Garden Balsam Alternaria, Botrytis, Cercospora

Gardenia Alternaria, Botrytis, Diaporthe, Mycosphaerella, Pestalotia, Phomopsis,

Phyllosticta, Rhizoctonia

Geranium Alternaria, Ascochyta, Bipolaris, Botrytis, Cercospora, Cylindrosporium,

Helminthosporium, Puccinia, Ramularia, Rhizoctonia, Septoria, Uromyces,

Venturia

Gladiolus\* Alternaria, Botrytis, Cladosporium, Curvularia, Rhizoctonia, Septoria,

Stemphylium

Gloxinia Botrytis, Colletotrichum

Gold Dust Tree Gloeosporium, Glomerella, Pestalotia, Phyllosticta

Gomphrena Cercospora

Gypsophila Botrytis, Rhizoctonia

Hawthorn Cercospora, Cylindrosporium, Gloeosporium, Gymnosporangium, Monilinia,

Mycosphaerella, Phyllosticta, Septoria, Venturia

Hemlock, Eastern (Tsuga) Botrytis, Cylindrosporium, Melampsora, Rhizoctonia Hibiscus Alternaria, Cercospora, Colletotrichum, Fusarium, Phyllosticta

Hickory Cercospora, Cladosporium, Elsinoe, Fusarium, Gnomonia, Mycosphaerella,

Pestalotia, Phyllosticta, Septoria

Holly Phyllosticta

Hollyhock Alternaria, Ascochyta, Cercospora, Colletotrichum, Puccinia, Septoria Honeysuckle Alternaria, Cercospora, Gloeosporium, Herpobasidium, Phyllosticta

Horse Chestnut See Buckeye

Hydrangea Ascochyta, Botrytis, Cercospora, Colletotrichum, Phyllosticta, Rhizoctonia,

Septoria

Impatiens Cercospora, Phyllosticta, Rhizoctonia, Septoria

Indian Hawthorn Entomosporium

Iris Ascochyta, Botrytis, Cladosporium, Fusarium, Kabatiella, Phyllosticta, Puccinia,

Rhizoctonia

lvy Cladosporium, Colletotrichum, Glomerella, Phyllosticta, Ramularia,

Rhizoctonia, Sphaeropsis

Jade plant Gloeosporium, Phomopsis

Juniper Cercospora, Coryneum, Gymnosporangium, Lophodermium, Pestalotia,

Phomopsis, Stigmina

Kalanchoe Cercospora, Stemphylium

Larkspur See Delphinium

Laurel, Cherry Alternaria, Cercospora, Coccomyces, Monilinia, Phyllosticta, Septoria
Laurel, Mountain Cercospora, Mycosphaerella, Pestalotia, Phomopsis, Rhytisma, Septoria

Lavender, Cotton Septoria

Lilac Botrytis, Cercospora, Cladosporium, Cylindrocladium, Gloeosporium

Lily Botrytis, Cercospora, Cladosporium, Colletotrichum, Fusarium, Puccinia,

Ramularia, Rhizoctonia

Lirope Alternaria, Cercospora, Colletotrichum, Leptothyrium Lobelia Botrytis, Cercospora, Puccinia, Rhizoctonia, Septoria

Loquat Colletotrichum, Fusicladium, Pestalotia, Phyllosticta, Septoria

Magnolia Alternaria, Cercospora, Cladosporium, Colletotrichum, Glomerella, Rhizoctonia Mahonia Cercospora, Cylindrocladium, Gloeosporium, Leptosphaeria, Phomopsis.

Phyllosticta, Puccinia

Maple Alternaria, Cercospora, Ciborinia, Fusarium, Marssonina, Monochaetia,

Phomopsis, Phyllosticta, Rhizoctonia, Rhytisma, Septoria, Sphaeropsis,

Taphrina, Venturia

Myrtle Cercospora, Glomerella, Pestalotia

Narcissus Botrytis, Sclerotinia

Nasturtium Botrytis, Cercospora, Puccinia

Nannyberry Botrytis, Cercospora, Cladosporium, Helminthosporium, Monochaetia,

Phomopsis, Phyllosticta, Ramularia

Nephathytis Cephalosporium

Nicotiana Alternaria Nierembergia Botrytis

Oak Cephalosporium, Cercospora, Cladosporium, Cronartium, Elsinoe, Fusarium,

Gloeosporium, Gnomonia, Marssonina, Phyllosticta, Septoria, Taphrina,

Venturia

Orchid Cercospora, Fusicladium, Mycosphaerella, Phyllosticta, Puccinia, Septoria

Osmanthus Alternaria, Cercospora, Colletotrichum, Phyllosticta

Palm, Areca Alternaria, Cercospora, Colletotrichum, Phomopsis, Phyllosticta, Septoria Palm, Arenga Cercospora, Colletotrichum, Cylindrocladium, Pestalotia, Phoma, Stigmina

Palm, Cabbage Fusarium, Gloeosporium, Pestalotia, Stigmina

Palm, Coconut Pestalotia

Palm, Date Alternaria, Fusarium, Helminthosporium, Pestalotia

Palm, King Alternaria, Fusarium, Helminthosporium, Pestalotia, Phomopsis

Palm, Phoenix Alternaria, Cercospora, Fusarium, Gloeosporium, Pestalotia, Phomopsis,

Stigmina

Palm, Queen Glomerella, Septoria

Palm, Royal Alternaria, Cercospora, Colletotrichum, Helminthosporium

Palm, Washington Cercospora, Colletotrichum, Cylindrocladium, Pestalotia, Phoma, Stigmina

Pansy Alternaria, Botrytis, Cercospora, Colletotrichum, Peronospora, Phyllosticta,

Ramularia, Rhizoctonia

Peach Cercospora, Cladosporium, Coryneum, Fusarium, Glomerella, Monilinia,

Mycosphaerella, Phomopsis, Phyllosticta, Taphrina

Pear Alternaria, Botrytis, Cercospora, Cladosporium, Coryneum, Elsinoe, Fusarium,

Glomerella, Gymnosporangium, Helminthosporium, Monilinia, Mycosphaerella,

Phomopsis, Phyllosticta, Venturia

Peony Alternaria, Botrytis, Cercospora, Cladosporium, Gloeosporium, Phyllosticta,

Septoria

Peperomia Colletotrichum, Gloeosporium, Rhizoctonia

Periwinkle Alternaria, Botrytis, Cladosporium, Colletotrichum, Phomopsis, Phyllosticta,

Puccinia, Rhizoctonia, Septoria

Petunia Cercospora, Puccinia, Rhizoctonia, Stemphylium

Philodendron Gloeosporium, Colletotrichum

Phlox Ascochyta, Botrytis, Cercospora, Colletotrichum, Phyllosticta, Puccinia,

Ramularia, Septoria, Stemphylium, Volutella

Photinia Cercospora, Gloeosporium, Gymnosporangium, Lophodermium, Pestalotia,

Phyllosticta, Septoria

Pieris Alternaria, Pestalotia, Phyllosticta, Rhytisma

Pilea Alternaria, Botrytis, Cercospora, Colletotrichum, Helminthosporium, Phyllosticta

Pine, Norfolk Island Botrytis, Colletotrichum, Cronartium, Cylindrocladium, Fusarium,

Lophodermium, Pestalotia, Rhizoctonia, Septoria, Sirococcus

Pine Alternaria, Botrytis, Cronartium, Fusarium, Lophodermium, Monochaetia,

Rhizoctonia, Septoria, Sirococcus

Pittosporium Alternaria, Cercospora, Gnomonia, Mycosphaerella, Phyllosticta, Rhizoctonia,

Septoria

Plane tree Cercospora, Gnomonia, Phyllosticta, Septoria

Plum, ornamental Botrytis, Cercospora, Cladosporium, Coccomyces, Coryneum, Monilinia,

Phyllosticta, Taphrina

Poinsettia\*\* Botrytis, Cercospora, Fusarium, Uromyces

Poplar Cercospora, Ciborinia, Colletotrichum, Cylindrocladium, Fusarium, Marssonina,

Melampsora, Mycosphaerella, Phyllosticta, Septoria, Stigmina, Taphrina,

Venturia

Portulaca Rhizoctonia Pothos Rhizoctonia

Prayer plant Alternaria, Drechslera, Glomerella, Puccinia

Primrose Alternaria, Botrytis, Colletotrichum, Mycosphaerella, Puccinia, Ramularia,

Uromyces

Privet Cercospora, Glomerella, Phomopsis, Phyllosticta, Ramularia

Protea Botrytis

Pyracantha Botrytis, Cercospora, Diplodia, Phomopsis, Phyllosticta, Sphaeropsis

Quince, flowering Cercospora, Fabraea, Gymnosporangium, Septobasidium

Red cedar, western (Thuja) Keithia (or Didymascella)

Red tip See Photinia

Redwood, Sequoia Botrytis, Cercospora, Mycosphaerella, Pestalotia, Phomopsis

Rhododendron Alternaria, Cercospora, Coryneum, Gloeosporium, Glomerella, Guignardia,

Lophodermium, Mycosphaerella, Pestalotia, Phomopsis, Rhizoctonia, Septoria,

Venturia

Rose Alternaria, Bipolaris, Botryosphaeria, Botrytis, Cercospora, Cladosporium,

Cylindrocladium, Diplocarpon, Elsinoe, Gloeosporium, Helminthosporium, Leptosphaeria, Monochaetia, Mycosphaerella, Peronospora, Phyllosticta,

Septoria

Rosemary Rhizoctonia

Russian olive Cercospora, Colletotrichum

Sage Cercospora, Peronospora, Puccinia, Ramularia, Rhizoctonia

Salvia Cercospora, Puccinia

Santolina Botrytis

Senecio Cercospora, Gloeosporium, Phyllosticta, Puccinia, Ramularia, Septoria

Schefflera Alternaria

Snakeplant Fusarium, Gloeosporium

Snapdragon Alternaria, Bipolaris, Botrytis, Cercospora, Colletotrichum, Drechslera,

Fusarium, Helminthosporium, Peronospora, Phyllosticta, Puccinia, Rhizoctonia

Spathiphyllum Alternaria
Spindletree See Euonymus

Spirea Cylindrosporium

Spruce Ascochyta, Botrytis, Cladosporium, Lophodermium, Rhizoctonia

Spurge Cercospora, Melampsora, Puccinia

Statice Alternaria, Ascochyta, Botrytis, Cercospora, Colletotrichum, Rhizoctonia,

Uromyces

Strawflower Fusarium

Sumac Cercospora, Cladosporium, Fusarium, Phyllosticta, Septoria, Taphrina

Sunflower, ornamental Alternaria, Puccinia

Syngonium Cephalosporium, Erwinia, Fusarium

Tulip Botrytis
Venus flytrap Colletotrichum

Verbena Alternaria, Ascochyta, Botrytis, Cercospora, Phyllosticta, Puccinia, Rhizoctonia,

Septoria, Stemphylium

Viburnum Botrytis, Cercospora, Cladosporium, Helminthosporium, Monochaetia,

Phomopsis, Ramularia

Walnut Cercospora, Cladosporium, Cylindrocladium, Cylindrosporium, Gnomonia

Willow Ascochyta, Cercospora, Ciborinia, Cylindrosporium, Fusicladium,

Gloeosporium, Marssonina, Melampsora, Phomopsis, Phyllosticta, Ramularia,

Rhytisma, Septoria, Taphrina, Venturia

Wisteria Alternaria, Cercospora, Colletotrichum, Gloeosporium, Pestalotia

Yucca Cercospora, Cylindrosporium, Gloeosporium, Puccinia

Zebra plant Alternaria, Cercospora, Colletotrichum Zinnia Alternaria, Botrytis, Cercospora, Rhizoctonia

#### **Restrictions:**

This product is not recommended for the treatment of marigolds due to highly variable plant responses.

# GRASSES: TURF USES (NON-AGRICULTURAL USES)

For use on golf courses, industrial and commercial lawns, and other nonresidential lawns. Not for use on residential lawns. Follow provisions within the Non-Agricultural Use Requirements Box.

#### RESTRICTIONS:

- Do not apply by chemigation.
- Golf Courses: for cool season grasses; greens, tees and aprons do not apply more than 5 applications per year at a maximum application rate of 17.4 lb ai/A per application.
- For cool season grasses; fairways do not apply more than 4 applications per year at a maximum application rate of 17.4 lb ai/A per application.
- For warm season grasses; greens, tees and aprons do not apply more than 4 applications per year at a maximum application rate of 17.4 lb ai/A per application.
- All Other Turf:
- do not apply more than 4 applications per year at a maximum application rate of 17.4 lb ai/A per application
- do not allow less than a 10-day interval between applications

CROP	DISEASE/PEST	RATE oz. or lbs. product	APPLICATION DIRECTIONS	RESTRICTIONS
Golf courses, industrial (office	Algae	6 oz. in 3 to 5 gal/1000 sq. ft: (16 lbs in 130- 220 gals/A)	Begin when algae begins to appear. Repeat at 10-day intervals as long as condition persists.	Do not use on grasses grown for seed.
park), and municipal lawns	Copper Spot Fusarium Blight (F. roseum), Red Thread Slime Molds (Mucilago, Physarum, Fuligo)	4 to 8. oz. in 3 to 5 gal/1000 sq. ft. (11-22 lbs in 130-220 gal/A). When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16-22 lbs/A).	Begin application when disease appears. Repeat at 10-day intervals as long as condition persists.	Do not use on grasses intended for grazing, such as range or pasture grasses.  Do not graze treated areas or feed clippings to

<sup>\*</sup>Do not exceed 0.75 lb per 100 gallons on flower spikes.

<sup>\*\*</sup>Do not exceed 1.5 lbs per 100 gallons.

Gray Leaf Spot ( <i>Pyricularia grisea</i> ) Pythium Blight ( <i>Pythium</i> sp.)	8 oz. in 3 to 5 gal/1000 sq. ft.(22 lbs in 130-220 gal/A).		livestock.
Dollar Spot (Sclerotina)	6 to 8 oz. in 3 to 5 gal/1000 sq. ft.( 16-22 lbs in 130-220 gal/A). When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16-22 lbs/A).		
Fusarium Snow Mold	6 to 8 oz. in 3 to 5 gal/1000 sq. ft. (16-22 lbs in 130-220 gal/A). When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16-22 lbs/A).	Apply at 2 to 6 week intervals during winter.	
Leaf Spot (Helminthosporium spp.) Rhizoctonia solani Brown Patch	4 oz. in 3 to 5 gals/1000 sq. ft.(11 lbs in 130-220 gals/A).	Begin when disease appears. Repeat at 10-day intervals as long as condition persists.	
Rapid blight (a putative chytridiomycete fungus)	8 oz. in 3 to 5 gal/1000 sq. ft. (22 lbs in 130- 220 gal/A).	Begin when disease appears. Repeat at 10-day intervals as long as condition persists	
Leaf Rust, Stem Rust, Stripe Rust	4 oz. in 3 to 5 gals/1000 sq. ft.(11 lbs in 130-220 gals/A).	Begin when disease threatens. Repeat at 10-day intervals as long as disease persists.	

## GRASSES: SODFARMS (AGRICULTURAL CROP USE)

For sodfarm applications, follow provisions within the Agricultural Use Requirements box. Harvesting of treated turf is prohibited until 120 hours following application.

- Do not apply more than 4 applications per year at a maximum application rate of 17.4 lb ai/A per application.
- Do not allow less than a 10-day interval between applications.

CROP	DISEASE/PEST	RATE oz. or lbs. product	APPLICATION DIRECTIONS	RESTRICTIONS
Sod Farm	Algae	6 oz. in 3 to 5 gal/1000 sq. ft (16 lbs in 130-220 gals/A)	Begin when algae begins to appear. Repeat at 10-day intervals as long as condition persists.	Do not use on grasses grown for seed.

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Copper Spot Fusarium Blight (F. roseum), Red Thread Slime Molds	4 to 8. oz. in 3 to 5 gal/1000 sq. ft.(11-22 lbs in 130-220 gal/A). When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16 to 22 lbs/A) and reduce intervals to 3 to 5 days.	Begin when disease appears. Repeat at 10-day intervals as long as condition persists.	Do not use on grasses intended for grazing, such as range or pasture grasses.  Do not graze treated areas or feed clippings to livestock.
Gray Leaf Spot ( <i>Pyricularia grisea</i> )	8 oz. in 3 to 5 gal/1000 sq. ft. (22 lbs in 130- 220 gal/A).	Begin at first sign of disease; apply at 10 day intervals or more often during favorable disease conditions.	
Dollar Spot (Sclerotina)	6 to 8 oz. in 3 to 5 gal/1000 sq. ft.: 16-22 lbs in 130-220 gal/A. When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16-22 lbs/A) and reduce intervals to 3-5 days.	Begin when grass greens up in spring/10-14 days.	
Pink (Fusarium) Snow Mold	6 to 8 oz. in 3 to 5 gal/1000 sq. ft.: 16-22 lbs in 130-220 gal/A. When conditions are unusually favorable for disease, use 6-8 oz./1000 sq. ft. (16-22 lbs/A) and reduce intervals to 3-5 days.	Apply at 2 to 6 week intervals during winter.	
Leaf Spot (Helminthosporium spp.) Rhizoctonia solani Brown Patch	4 oz. in 3 to 5 gals/1000 sq. ft.: 11 lbs in 130-220 gals/A.	Begin when disease appears. Repeat at 10-day intervals as long as condition persists.	
Pythium Blight	8 oz. in 3 to 5 gal/1000 sq. ft.: 22 lbs in 130- 220 gal/A.	Repeat at 5-day intervals, or more frequently if conditions are favorable for disease development.	
Leaf Rust, Stem Rust, Stripe Rust	4 oz. in 3 to 5 gals/1000 sq. ft.: 11 lbs in 130-220 gals/A.	Begin when disease threatens. Repeat at 10-day intervals as long as disease persists.	

#### **SEED TREATMENTS**

For commercial treatment only. Do not treat seed at or immediately before planting. Users making commercial seed applications must follow provisions within the Non-Agricultural Use Requirements Box. Users conducting seed treatments on agricultural establishments must follow provisions within the Agricultural Use Requirements Box.

Seed to be treated must be clean and well-cured prior to treatment.

MANZATE PRO-STICK must be applied to dry seed with conventional slurry or mist seed treating equipment, or as a plant-box application. For best results, seed must be covered uniformly with fungicide.

#### **Seed Bag Label Requirements**

The Federal Seed Act requires that containers containing treated seeds shall be labeled with the following statements.

- This seed has been treated with Manzate ProStick, a fungicide containing Mancozeb.
- Do not use treated seed for feed, food, or oil purposes.

The US Environmental Protection Agency requires the following statements on containers containing seed treated with Mancozeb:

- Store treated seed away from food and feedstuffs.
- Do not allow children, pets, or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on the soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting (such as in row ends).
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Dispose of seed packaging or containers in accordance with local requirements.
- Excess treated seed may be used for ethanol product if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.

#### REQUIRED DYE STATEMENT

Seed treated with this product must be visually identifiable from untreated seed by the use of an approved colorant or dye to prevent accidental use of treated seed as food for humans or feed for animals. Refer to 21 CFR, Part 2.25. Any colorant or dye added to treated seed must be cleared for use in accordance with 40 CFR, Part 153.155 (c).

When opening this bag or loading/pouring the treated seed, wear long-sleeved shirt, long pants, shoes, socks, chemical resistant gloves, and a minimum of a NIOSH-approved particulate filtering facepiece respirator N, R, or P filter, NIOSH approved prefix TC 84A.

After the seeds have been planted, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Exception: Once the seeds are planted in 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. Excess treated seed may be used for ethanol production only if (1) byproducts are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol byproducts that are used in agronomic practice."

CROP	DISEASES	SEED TREATMENT RATE-APPLY AS A SLURRY OZ./BU.	OZ./100 LBS.
Barley	Bunt, Covered Smut, Damping-Off, Fake Loose Smut, Seed Decay, Seedling Blights	1.3 to 2.0	2.7 to 4.2
Corn	Damping-Off, Seed Rot, Seedling Blights	1.5 to 3.0	2.7 to 5.4
Cotton Acid Delinted	Damping-Off, Seedling Blights		3.0
Cotton Reginned	Damping-Off, Seedling Blights		6.0
Flax	Seed Decay, Seedling Blights, Damping-Off	2.0 to 4.0	3.6 to 7.1
Oat	Damping-Off, Seedling Blights, Seed Decay, Smuts	1.3 to 2.0	4.0 to 6.3
Peanut (Shelled)	Damping-Off, Seed Rots, Seedling Blights	2.0 to 4.0	8.0 to 16.0
Rice	Achyla, Other Soil and Seedborne Fungi Causing Seed Rot and Reduced Seedling Vigor		2.0 to 4.0 Apply before, during or after soaking in water
Rye	Bunt, Covered Smut, Damping-Off, Seed Decay, Seedling Blights	1.3 to 2.0	2.3 to 3.6
Safflower	Puccinia carthami (Which Causes Foot-and-Rot Disease and Foliage Rust Disease)		2.0
Sorghum	Covered Kernel Smut, Damping-Off, Seedling Blights, Seed Rots	1.5 to 2.5	2.7 to 4.5
Tomato	Damping-Off, Seedling Blights, Seed Rots		8.0
Wheat (including Triticale)	Bunt, Covered Smut, Damping-Off, Seed Decay, Seedling Blights	1.3 to 2.0	2.2 to 3.3

## **CHRISTMAS TREES: Plantations and Nurseries**

Aerial application: Apply 1 to 2 lb per acre using a minimum rate of 10 gallons of spray per acre during aerial applications.

Application of dilute sprays: Apply as thorough coverage spray using 1 to 2 lb per acre of 1 to 2 lbs per 100 gallons of water. Begin application at first sign of disease and repeat every 7 to 10 days. Use the shortest spray interval during periods of frequent rain, when severe disease conditions persist or during periods of rapid plant growth. This product may be used alone or in combination with other fungicides.

Use Site	Diseases Controlled	Application rate (lb/A or lb/100 gal)
Christmas trees,	Ascochyta, Alternaria, Botrytis,	1 to 2 lbs/A or 1 to 2 lb per 100

Manzate ProStick Fungicide Label Notification – marked copy February, 09 2023

including fir, spruce, pine	Cephalosporium, Cladosporium,	gallons, make applications at 7 to
	Cronartium, Fusarium,	10 day intervals.
	Lophodermium, Melampsora,	•
	Monchaetia, Phomopsis, Rhizoctonia,	
	Septoria, Sirococcus, Sphaeropsis	

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE: Important-**Never allow MANZATE PRO-STICK to become wet during storage. This may lead to certain chemical changes which will reduce the effectiveness of MANZATE PRO-STICK 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 in a secure dry area.

**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. Completely empty bag into application equipment. Then offer for recycling if available, or 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.

**ATTENTION:** This product contains mancozeb and ETU, chemicals known to the State of California to cause cancer in laboratory animals. ETU is also known to the State of California to cause birth defects or other reproductive harm in laboratory animals.

# IMPORTANT INFORMATION READ BEFORE USING PRODUCT

# CONDITIONS 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and 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 UPL NA Inc. and Seller harmless for any claims relating to such factors.

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To the extent consistent with applicable law, UPL NA Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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