70506-234 3/16/2011 1/22

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Rebecca A. Clemmer
Regulatory Manager
United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

MAR 16 2011

Product Name:	Manzate Pro-Stick Fungicide
EPA Reg. No.:	70506-234
Subject:	Your notification dated December 17, 2010: addition of alternate brand name
EPA Decision Number:	444669

Dear Ms Clemmer:

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

The Agency acknowledges your request for the alternate brand name "Manzate Pro-Stick T&O Fungicide". The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely,

Mary L. Waller

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7504P)

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Please read instructions on reverse before completing form

Form Approved, OMB No. 2070-0060, Approval expires 5-31-98

United States
Environmental Protection Agency
Washington, DC 20460

[ ] Registration
[ ] Amendment
[X] Other

OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
70506-234	M. Waller	[ ] None [ ] Restricted
4. Company/Product (Name)	PM #	
United Phosphorus, Inc/Manzate Pro-Stick fungicide	21	
5. Name and Address of Applicant (Include ZIP Code)	6. **Expedited Review**. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:	
United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406	EPA Reg No. _____	
[ ] *Check if this is a new address*	Product Name _____	

Section - II

[ ] Amendment – Explain below

[ ] Resubmission in response to Agency letter dated _____

[X] Notification – Explain below

[ ] Final printed labels in response to Agency letter dated _____

[ ] "Me Too" Application

[ ] Other – Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)
Notification of alternate brand name for subset of approved label directions.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section III

1. Material This Product Will be Packaged in:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
[ ] Yes [ ] No	[ ] Yes [ ] No		[ ] Yes [ ] No		[ ] Metal [ ] Plastic [ ] Glass
***Certification must be submitted**	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	[ ] Paper [ ] Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of label directions
[ ] Label [ ] Container		[ ] On Label [ ] On Label accompanying product

6. Manner in Which Label is Affixed to Product: [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other _____

Section IV

1. Contact Person (*Complete items directly below for identification of individual to be contacted, if necessary, to process this application.*)

Name	Title	Telephone No. (Include Area Code)
Rebecca A. Clemmer	Regulatory Manager	610-491-2828

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

6. Date Application Received (Stamped)

2. Signature	3. Title	
R.A. Clemmer	Regulatory Manager	
4. Typed Name	5. Date	
Rebecca A. Clemmer	Dec. 17, 2010	

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete. White – EPA File Copy (Original) Yellow – Applicant Copy

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D444669

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United Phosphorus, Inc.

630 Freedom Business Center
Suite 402
King of Prussia, PA 19406
(610) 491-2828 (phone)
(610) 491-2810 (fax)

Rebecca A. Clemmer
Regulatory Manager

Dec. 17, 2010

Mary Waller

Document Processing Desk (NOTIF)
Office of Pesticide Programs (H7504P)
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C., 20460

Re: Manzate Pro-Stick Fungicide (EPA Reg. No. 70506-234)
Manzate Flowable Fungicide (EPA Reg. No. 70506-236)
Notifications

To Whom It May Concern:

United Phosphorus is notifying the Agency of changes to this product as follows:

- Addition of alternate brand name for a subset of the label: Manzate Pro-Stick T&O fungicide; Manzate Flowable T&O fungicide.

In support, enclosed please find for each product:

- one copy of label, marked to show changes
- EPA form 8570-1

Please contact me if you have any questions.

Very truly yours,

R. A. Clemmer

Rebecca A. Clemmer
rebecca.clemmer@uniphos.com

RAC-2010-155

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Manzate® Pro-Stick™ T&O

fungicide

DISPERSIBLE GRANULES

ACTIVE INGREDIENTS	BY WEIGHT
A coordination product of zinc ion and manganese ethylenebisdithiocarbamate	75.0%
in which the ingredients are:	
Manganese++	15.0%
Zinc++	1.9%
Ethylenebisdithiocarbamate ion ($C_4H_6N_2S_4$)– –	58.1%
INERT INGREDIENTS	25.0%
TOTAL	100.0%

Contains 0.75 Pound of Mancozeb Per Pound of Product

EPA Reg. No. 70506-234 EPA Est. No. 352-COL-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF SWALLOWED: 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: 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.

IF IN EYES: 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 ON SKIN OR CLOTHING: 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **Contact the Rocky Mountain Poison Center at 1-866-673-6671 for emergency medical treatment information.** See Label for Additional Precautions and Directions for Use.

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

See Inside for additional Precautionary Statements and complete Directions For Use.

Net Contents: ☐ 6 lbs. ☐ 30 lbs. ☐ 50 lbs.

UPI
United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071 • www.upi-usa.com

NOTIFICATION
MAR 16 2011

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

MAY IRRITATE EYES, NOSE, THROAT AND SKIN. MAY BE HARMFUL IF ABSORBED THROUGH SKIN, INHALED OR SWALLOWED. Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing. Keep away from fire or sparks.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber
- Shoes plus socks

Mixers and Loaders must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber
- Shoes plus socks
- Protective eyewear
- Chemical-resistant apron when mixing or loading

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

ENGINEERING CONTROL STATEMENTS:

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

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 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 fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or incorporate spilled treated seed. Do not contaminate water by disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves, such as nitrile rubber, natural rubber, or butyl rubber
- Shoes plus socks

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 are not within the scope of the Worker Protection Standard.

Do not enter treated areas until sprays have dried.

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

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

APPLICATION INSTRUCTIONS

AS A SPRAY (Ground or Aerial Equipment) - Apply MANZATE® 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 United Phosphorus, Inc. representative for specific recommendations.

RESTRICTIONS

Foliar Applications

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

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

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.

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~~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 Systems:

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, 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

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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.

CROP	DISEASES CONTROLLED	RATE OF MANZATE® PRO-STICK™ PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Apple	(See Pomefruit)			
Asparagus	Cercospora Leaf Spot, Rust	2	Start applications when rust first appears and repeat at 10 day intervals. Four applications are usually sufficient.	Apply only on asparagus ferns after spears have been harvested. Do not apply within 180 days of harvest in all states except CA and AZ (120 days). Do not apply more than 8 lbs (6 lbs active) per acre per season.
Asparagus Crown (Planting Stock)	Crown Rot	1.0 lb/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	2-3	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 (22.5 lbs active) per acre per growing cycle. Minimum preharvest interval 0 days.
Barley, Oat, Rye, Wheat (Including Triticale)	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. Do not apply more than 6 lbs (4.5 lbs active) per acre per crop. Do not apply within 26 days of harvest. Do not graze livestock in treated areas prior to harvest.
Caprifig (Non Food Use)	Endosepsis (Fusarium), Mold	4 lbs/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.
Corn (Sweet Corn for Fresh Use or Processing; Popcorn; and Sweet Corn for Seed Production, including Hybrid Seed)	Common Rust, Helminthosporium Leaf Blight, Gray Leaf Spot	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 apply more than 22.5 lbs (17 lbs active) per acre per crop east of the Mississippi and AR and LA. Do not apply more than 7.5 lbs (5.6 lbs active) per acre per crop west of the Mississippi except AR and LA. Do not feed treated forage to livestock.
(Field and Field Corn for Hybrid Seed Production)				Do not apply within 40 days of harvest. Do not apply more than 15 lbs (11.25 lbs active) per acre per crop. Do not feed treated forage to livestock.
Cranberry	Fruit Rot	3-6	Start applications at mid-bloom and repeat at 7 to 10 day intervals.	Do not apply within 30 days of harvest. Do not apply more than 18 lbs (13.5 lbs

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CROP	DISEASES CONTROLLED	RATE OF MANZATE® PRO STICK™ PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
				active) per acre per season.
Cucumber	Anthracnose, Cercospora Leaf Spot, Downy Mildew, Gummy Stem Blight, Scab	2-3	Start applications when plants are in the two leaf stage and repeat at 7 to 10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.	Do not apply within 5 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per crop.
Fennel	Early Blight, Late Blight	2	Begin in plant beds at emergence. Repeat at 7 to 10 day intervals.	Do not apply within 14 days of harvest. Do not apply more than 16 lbs (12 lbs active) per acre per crop. Do not graze livestock in treated areas.
Grape (East of the Rocky Mountains)	Black Rot, Bunch Rot, Deadarm, Downy Mildew	1.5-4	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 6 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 and recommended fungicides is suggested.	Do not apply within 66 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per season.
Grape (West of the Rocky Mountains)	Black Rot, Bunch Rot, Deadarm, Downy Mildew	1.5-2.5	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 6 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 and recommended fungicides is suggested.	Do not apply within 66 days of harvest except in CA where no application can be made after bloom. Do not apply more than 7.5 lbs (5.6 lbs active) per acre per season.
Melon Cantaloupe, Casaba, Crenshaw, Honeydew, Watermelon	Alternaria Leaf Spot, Anthracnose, Downy Mildew, Gummy Stem Blight, Cercospora Leaf Spot	2-3	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® PRO STICK™ fungicide. Consult State Cooperative Extension Service Specialist prior to use.	Do not apply within 5 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per season.
Oat	(See Barley)			
Onion (Dry Bulb), Garlic, Shallot (Furrow Drench)	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch	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 apply within 7 days of harvest. Do not apply to exposed bulbs. Do not apply more than 30 lbs (22.5 lbs active) per acre per crop.
	Smut	3	Apply 3 lbs per acre as a furrow drench at time of planting onion seeds. Use 75 to 125 gallons of water per acre.	Do not use more than 2.25 lbs active per acre (29,000 linear feet of furrow) with an 18 inch row spacing.
Papaya	Anthracnose (Colletotricum), Phytophthora Fruit Rot, Black Spot (Cercospora)	2.0-2.5 (minimum 50 gals per acre)	Begin at flowering; treat central column crown, blossom area and developing fruit. Repeat at 14 to 21 day intervals.	Do not use more than 35 lbs (26.25 lbs active) per acre per crop. Minimum pre-harvest interval 0 days.
Peanut	Ascochyta Web Blotch, Cercospora Leaf Spot, Rust	1-2	Start application 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 active) per acre per crop. Do not feed treated vines to livestock.
Pear	(See Pomefruit)			

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CROP	DISEASES CONTROLLED	RATE OF MANZATE® PRO-STICK™ PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
Pome Fruit Apple, Pear, Crabapple, Quince	Rusts, Scab, Fabrea Leaf Spot	6.0 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.	**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 the "Pre-Bloom/Bloom" or "Extended Application" schedule. **DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES**	Do not apply more than 6 lbs (4.5 lbs active) per acre per application. Do not apply after bloom. Do not apply more than 24 lbs (18 lbs active) per acre per year. Do not graze livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management Program.
		3.0 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.	**Extended 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. **DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES**	Do not apply more than 3 lbs (2.25 lbs active) per acre per application. Do not apply within 77 days of harvest. Do not apply more than 21 lbs (15.75 lbs active) per acre per year. Do not graze livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management Program.
Potato	Early Blight, Late Blight Black Dot **Disease Suppression:** Botrytis	1-2	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.	Do not apply more than 15 lbs (11.2 lbs active) per acre per crop. Do not use within 3 days of harvest in CT, DE, FL, MA, ME, MI, NH, NY, OH, PA, RI, VT, WI, and within 14 days elsewhere. Vine-kill should occur 14 days before harvest. It is recommended that this product be used in an Integrated Pest Management Program.
Potato (Seedpiece Treatment)	Fusarium Decay, Seedborne Common Scab	1.25 per 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 treated seedpieces in a cool place if held before planting.	Do not use treated seed potatoes for food or feed purposes.
Squash (Summer Squash, Including Edible Gourd)	Downy Mildew	2-3	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals. Use sufficient water and direct spray to provide thorough coverage of both upper and lower leaf surfaces.	Do not apply within 5 days of harvest. Do not apply more than 24 lbs (18 lbs active) per acre per crop.
Sugar Beet	Cercospera Leaf Spot	1.5-2	Begin when disease first threatens. Repeat at 7 to 10 day intervals.	Do not apply within 14 days of harvest. Do not apply more than 14 lbs (10.5 lbs active) per acre per crop. Do not feed treated sugar beet tops to livestock.
Tomato (East of the Mississippi River)	Anthracnose, Early Blight, Gray Leaf Spot, Late Blight, Leaf Mold, Septoria Leaf Spot	0.75-1.5	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. Do not apply more than 22.4 lbs (16.8 lbs active) per acre per crop.

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CROP	DISEASES CONTROLLED	RATE OF MANZATE® PRO-STICK™ PER APPLICATION LBS/ACRE	TIMING/INTERVALS (Also refer to Directions for Use)	RESTRICTIONS/COMMENTS
	Bacterial Speck and Spot	1.5-3	Start application when seedlings emerge or transplants are set. Repeat at 7 to 10 day intervals throughout the season.	Do not apply within 5 days of harvest. Do not apply more than 22.4 lbs (16.8 lbs active) per acre per crop. Use a full rate of a fixed copper fungicide in tank mix combination with a half to full rate of MANZATE® PRO-STICK™. Follow the application interval recommended on the copper fungicide label.
Tomato (West of the Mississippi River)	Anthracnose, Early Blight, Gray Leaf Spot, Late Blight, Leaf Mold, Septoria Leaf Spot	0.75-1.0	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. Do not apply more than 8.5 lbs (6.4 lbs active) per acre per crop.
	Bacterial Speck and Spot	1.5-2	Start application when seedlings emerge or transplants are set. Repeat at 7 to 10 day intervals throughout the season.	Do not apply within 5 days of harvest. Do not apply more than 8.5 lbs (6.4 lbs active) per acre per crop. Use a full rate of a fixed copper fungicide in tank mix combination with a half to full rate of MANZATE® PRO-STICK™. Follow the application interval recommended on the copper fungicide label.
Watermelon	(See Melon)			
Wheat (Including Triticale)	(See Barley)			

FLOWERS, FOLIAGE PLANTS, AND ORNAMENTALS

NOT INTENDED FOR USE ON FRUIT TREES BY HOMEOWNDERS.

TREATED PLANTS 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 ½ to 3 tsp. per gal.).

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 recommended rates to the plants in question, i.e. bedding plants, foliage, etc., and observe to f 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.

Aerial application: For aerial applications made to field-planted ornamentals, apply 1 to 2 lbs. per acre; a minimum rate of 5 gals of spray per acre should be used during aerial applications.

Application of dilute sprays: 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 wit other fungicides as maintenance spray. Use higher rate and shorter intervals during periods of excessive wetness and rapid growth.

Manzate Pro-Stick is recommended for use on certain flower, foliage and ornamental plants listed in the

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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

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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
Ivy	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

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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

*Do not exceed 0.75 lb per 100 gallons on flower spikes.

**Do not exceed 1.5 lbs per 100 gallons.

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

GRASSES: SODFARMS (AGRICULTURAL CROP USE)

Applications restricted to lawn grasses by professional applicators. Not for homeowner use. For sodfarm applications, follow provisions within the Agricultural Use Requirements box.

CROP	DISEASE/PEST	RATE	TIMING/INTERVAL	COMMENTS

GRASSES: SODFARMS (AGRICULTURAL CROP USE)

Applications restricted to lawn grasses by professional applicators. Not for homeowner use. For sodfarm applications, follow provisions within the Agricultural Use Requirements box.

CROP	DISEASE/PEST	RATE	TIMING/INTERVAL	COMMENTS
Sod Farm	Algae	6 oz. in 3 to 5 gal/1000 sq. ft: 16 lbs in 130-220 gals/ac	Begin when algae begins to appear. Repeat at 7-day intervals as long as condition persists.	Do not use on grasses grown for seed. Do not use on grasses intended for grazing, such as range or pasture grasses. Do not graze treated areas of feed clippings to livestock. 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.
	Copper Spot Fusarium Blight (F. roseum), Red Thread Slime Molds	4 to 8. oz. in 3 to 5 gal/1000 sq. ft.: 11-22 lb in 130-220 gal/A.	Begin when disease appears. Repeat at 7-day intervals as long as condition persists.	
	Gray Leaf Spot (*Pyricularia grisea*)	8 oz. in 3 to 5 gal/1000 sq. ft.: 22 lb 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 lb in 130-220 gal/A.	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 lb in 130-220 gal/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 7-day intervals as long as condition persists.	
	Pythium Blight	8 oz. in 3 to 5 gal/1000 sq. ft.: 22 lb 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 7 to 10-day intervals as long as disease persists.	

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SEED TREATMENTS

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. Prior to seed treatment, a dye must be added to the treating slurry so that an unnatural color will distinguish the seed as treated.

MANZATE PRO-STICK may 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.

LABEL TREATED SEED: "Do not use for food, feed or oil purposes. This seed treated with MANZATE PRO-STICK fungicide."

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

MISCELLANEOUS USES:
Manzate Pro-Stick may be used as a source of mancozeb and mixed with carrier materials or other non-mancozeb-containing seed treatments. Typical carrier materials include, but are not limited to: talk, fir bark, and alder bark. LABEL TREATED SEED: "Do not use for food, feed or oil purposes. This seed treated with Manzate Pro-Stick Fungicide."

~~Manzate Pro-Stick may be used for formulating commercial mancozeb-containing seed treatment products. Prior to commercial formulation utilizing Manzate Pro-Stick, parties are responsible for obtaining federal and state registrations to support their seed treatment product. DO NOT USE TREATED SEED FOR FOOD, FEED, OR OIL PURPOSES. LABEL TREATED SEED: "Do not use for food, feed or oil purposes. This seed treated with Manzate Pro-Stick Fungicide."~~

GRASSES: TURF USES (NON-AGRICULTURAL USE)

Applications restricted to lawn grasses by professional applicators. Not for homeowner use. Follow provisions within the Agricultural Use Requirements box.

Lawn grasses
Golf courses, professional application to industrial (office park), municipal, and residential lawns

DISEASE/PEST	RATE	TIMING/INTERVAL	COMMENTS
Algae	6 oz. in 3 to 5 gal/1000 sq. ft: 16 lbs in 130-220 gals/ac	Begin when algae begins to appear. Repeat at 7-day intervals as long as condition persists.	Do not use on grasses grown for seed. Do not use on grasses intended for grazing, such as range or pasture grasses. Do not graze treated areas of feed clippings to livestock. 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.
Copper Spot Fusarium Blight (F. roseum) Red Thread Slime Molds	4 to 8. oz. in 3 to 5 gal/1000 sq. ft.: 11-22 lb in 130-220 gal/A.	Begin when disease appears. Repeat at 7-day intervals as long as condition persists.	
Gray Leaf Spot (*Pyricularia grisea*)	8 oz. in 3 to 5 gal/1000 sq. ft.: 22 lb 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 lb in 130-220 gal/A.	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 lb in 130-220 gal/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 7-day intervals as long as condition persists.	
Pythium Blight	8 oz. in 3 to 5 gal/1000 sq. ft.: 22 lb 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 7 to 10-day intervals as long as disease persists.	

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, including fir, spruce, pine	Ascochyta, Alternaria, Botrytis, Cephalosporium, Cladosporium, Cronartium, Fusarium, Lophodermium, Melampsora, Monchaetia, Phomopsis, Rhizoctonia, Septoria, Sirococcus, Sphaeropsis	1 to 2 lbs/A or 1 to 2 lb per 100 gallons, make applications at 7 to 10 day intervals.

STORAGE AND 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.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container Completely empty bag into application equipment. Then offer for recycling if available, or ~~Then~~ dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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