

1812-251

9/12/2001

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Judy A. Smith, Ph.D.
Senior Registration Specialist, Non-Copper Fungicides
Griffin, LLC
P.O. Box 1847
Valdosta, GA 31603-1847

SEP 12 2001

Dear Dr. Smith:

SUBJECT: Manex Fungicide
EPA Registration Number 1812-251
Your Submission dated June 20, 2001

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, is acceptable providing you make the following change.

1. First Aid Statements:

If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further 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.

2. Precautionary Statements:

Replace the existing Precautionary Statements with the following:
Harmful if absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing.
Avoid breathing (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse.

3. Personal Protective Equipment (PPE):

Replace "Waterproof gloves" with "Chemical-resistant gloves made from any waterproof material".
Delete "Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them."

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4. Seed Treatment:

In the sentence beginning "Manex may be applied ..." reverse the order of the words "with thoroughly".

A stamped copy of the revised label is enclosed for your records. Please submit one copy of the final printed labeling before you release the product for shipment.

If you have any questions please contact Lisa Jones of my staff by phone at (703) 308-9424 or by e-mail at jones.lisa@epa.gov.

Sincerely,



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

Enclosure: Stamped Label

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	Lisa Jones							
DATE ▶	Sep 12, 2001							

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Manex[®]

Fungicide

ACCEPTED
with COMMENTS
In EPA Letter Dated:
SEP 12 2001

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

1812-251

Flowable with Zinc

ACTIVE INGREDIENT:

MANEB (Manganese Ethylenebisdithiocarbamate).....37%

(Total manganese as metallic.....7.6%)

INERT INGREDIENTS:.....63%

TOTAL 100%

4 Pounds of Maneb Per Gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT FIRST AID

IF SWALLOWED: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

IF INHALED: Remove victim to fresh air; if not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Remove by washing.

IF IN EYES: Flush with plenty of water. Call a physician.

For medical emergencies involving this product, call toll free 1-888-324-7598.

See Label for Additional Precautions and Directions for Use.

GRIFFIN L.L.C.
VALDOSTA, GEORGIA 31601

EPA REG. NO. 1812-251
EPA EST. NO. _____

NET CONTENTS _____ GALLONS

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)**

CAUTION

May cause irritation of eyes, nose, throat and skin. Avoid breathing spray mist. Do not rub eyes or mouth with hands. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- coveralls over long-sleeved shirt and long pants
- multiple pairs of gloves
- shoes plus socks

Mixers and Loaders must wear:

- coveralls over long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks
- protective eyewear
- chemical-resistant apron when mixing and loading

Discard clothing and 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 controls statements:

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

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

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

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ENVIRONMENTAL HAZARDS

This product is toxic to fish. Drift or 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 when disposing of equipment washwaters.

PHYSICAL AND CHEMICAL HAZARDS

Keep away from fire and sparks. Store in a cool dry place.

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 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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- coveralls over long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks

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.

Keep unprotected persons out of the treated areas until sprays have dried.

STORAGE AND DISPOSAL

Store in a cool dry place. Do not contaminate water, food or feed by storage or disposal.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities by burning. If burned, stay out of smoke.

APPLICATION DIRECTIONS

Apply Manex in sufficient water to provide thorough coverage with available equipment in either dilute sprays or in concentrated ground or aerial sprays, typically at least 100 gal/A for traditional airblast sprayers, 25-50 gal/A for low volume airblast sprayers, and 3-10 gal/A for application via aircraft. Rates listed are based on 100 gallons of dilute spray unless otherwise noted. Rates of product per acre should be same for dilute and concentrated sprays. If needed, adjuvants of the spreader, sticker or compatibility agent type and approved for use on growing crops may be used.

FOR GROUND APPLICATIONS use at the rate indicated in sufficient water for thorough coverage, minimum of 10 gallons. Increased volume of water may be necessary as foliage density increases.

FOR AERIAL APPLICATIONS use at the rate indicated in sufficient water for thorough coverage, a minimum of 3 gallons per acre for field crops and 10 gallons per acre for orchard crops. Apply with properly calibrated aerial equipment, arrange nozzles so that spray delivery is uniform over the entire spray swath.

When dosage ranges are given, use the higher rate and shorter intervals under severe disease pressure, but do not exceed the maximum rate or apply more frequently than the minimum interval given in the directions for that crop.

Our recommendations for use are based on tests believed reliable. Since the use is beyond our control, we can not guarantee the results if such use is not in accordance with directions. We disclaim any responsibility for damages resulting from careless or improper handling or use.

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FOLIAR APPLICATIONS

Where EBDC Products Used Allow the Same Maximum Poundage of Active Ingredients 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 Ingredients 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 of seed treatment may be made on crops which have registered seed treatment uses.

CHEMIGATION

Apply Manex only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move. Do not apply Manex 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

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

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone

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backflow preventor (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 of the overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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 the water fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

systems must use a metering pump, such as a positive displacement injections pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Good agitation is required in the injection tank. In moving systems, apply specified dosage of Manex as a continuous injection. In nonmoving systems inject Manex for 15 to 30 minutes at end of cycle. Use the least amount of water possible with uniform coverage.

Mix the amount of Manex needed for acreage to be treated into the quantity of water determined during prior calibration. For moving systems inject into the system continuously for one complete revolution of the field. For nonmoving systems inject into system for the time established during calibration.

Stop injection equipment after completing treatment; continue to operate irrigation equipment until all Manex is flushed from system.

Specific Instructions for Sprinkler Irrigation Systems

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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

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The irrigation line or water pump must include a functional pressure switch which will stop the water pump when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Good agitation is required in the injection tank. In moving systems, apply specified dosage of Manex as a continuous injection. In nonmoving systems inject Manex for 15 to 30 minutes at end of cycle. Use the least amount of water possible with uniform coverage.

Mix the amount of Manex needed for acreage to be treated into the quantity of water determined during prior calibration. For moving systems inject into the system continuously for one complete revolution of the field. For nonmoving systems inject into system for the time established during calibration.

Stop injection equipment after completing treatment; continue to operate irrigation equipment until all Manex is flushed from system.

INSTRUCTIONS FOR APPLICATION

FRUIT AND NUT CROPS

CROPS	DISEASES	QUARTS PER ACRE	MAXIMUM QUARTS PER ACRE PER SEASON	USE INSTRUCTIONS
Almond	Almond Leaf Rust, Anthracnose, Brown Rot, Blossom and Twig Blight, Fungus (Leaf Blight), Scab, Shothole	4.8 - 6.4 or (1.2 - 1.6 per 100 gal in a dilute spray)	25.6	Apply in popcorn, full bloom and petal fall or every 7 to 10 days if bloom is staggered. Omit petal fall spray if only brown rot is present. Do not apply later than 5 weeks after petal fall. Do not allow livestock to graze in almond orchards.
Apple				Use either the Pre-bloom or Extended Application schedules. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES.

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Rusts (including Cedar apple), Fabrea Leaf Spot, Flyspeck, Scab, Sooty Blotch	4.8 or (1.2 per 100 gal in dilute spray)	19.2 per year	<u>Pre-bloom:</u> Begin applications at ¼ to ½ inch green tip and continue on a 7 to 10 day application schedule through bloom. Do not graze livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management Program.
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2.4 or (0.6 per 100 gal in dilute spray)	16.8 per year	<u>Extended application or tank mix:</u> For implementation of IPM programs, applications based on tree- row volume or for use as a resistance management tool: begin applications at ¼ to ½ inch green tip and continue applications on a 7 to 10 day schedule through the second cover spray or to within 77 days of harvest. Do not apply within 77 days of harvest. Do not graze livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management Program.
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Add spreader/sticker to spray
mixture for cover sprays and tank
mix with an effective systemic
protectant/curative fungicide for
more effective control of diseases.

nana	Sigatoka	1.6 - 2.4	24	Apply when leaves first appear and repeat as needed on a 14 to 21 day interval. May be applied up to the day of harvest.
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Cranberry	Fruit Rot	2.4 - 4.8	14.4	Spray on a 7 to 10 day interval. Do not apply within 30 days of harvest.
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Grape	Black Rot, Bunch Rot, Downy Mildew, Phomopsis (AKA DEADARM)	1.2 - 3.2 or (0.3 - 0.8 per 100 gal in a dilute spray)	19.2	<u>East of the Rocky Mountains:</u> Apply in sufficient water to provide thorough coverage starting when new shoots are ½ to 1½ inches long and continue at 7- to 10 day intervals until fruit is set. Do not apply within 66 days of harvest.
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1.2 - 2.0 or 6.0
(0.3 - 0.5 per
100 gal in a
dilute spray)

West of the Rocky Mountains:
Apply when shoots are 1/2 to 1 1/2
inches long and continue at 7 to 10
day intervals. Do not apply within
66 days of harvest except in
California.

California: Do not apply after
bloom.

Kadota Fig
(Except CA)

Surface Mold
(Cladospor-
ium), Surface
Rot
(Alternaria)

0.6 per 100 gal 2.4

Apply when disease threatens in 100-
400 gallons of water per acre. Do
not apply within 10 days of harvest

paya

Anthrachnose,
Phytophthora,
Fruit Rot,
Cercospora
Black Rot

1.6 - 2.0 or 28
(0.4 - 0.5 per
100 gal in a
dilute spray)

Apply when disease first threatens
and repeat at 14 to 21 day intervals.
May be applied up to the day of
harvest.

FIELD AND VEGETABLE CROPS

CROPS	DISEASES	QUARTS PER ACRE	MAXIMUM QUARTS PER ACRE PER SEASON	USE INSTRUCTIONS
Bean (Dry)	Anthrachnose, Downy Mildew, Rust	1.2 - 1.6	9.6	Begin when plants are small. Spray on a 5 to 7 day interval. Do not apply within 30 days of harvest.
Broccoli, Brussels Sprout, Cauliflower	Alternaria Leaf Spot, Downy Mildew	1.2 - 1.6	9.6	Begin when diseases threaten. Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.
Cabbage, Kohlrabi, Chinese Cabbage (tight headed only)	Alternaria Leaf Spot, Downy Mildew	1.2 - 1.6	9.6	Plant beds and direct seeded fields: Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.

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Chinese Cabbage (loose head)	Alternaria Leaf Spot, Downy Mildew	0.8 - 1.2	7.2	Plant beds and direct seeded fields: Spray on a 7 to 10 day interval. <u>California:</u> Do not apply within 7 days of harvest. <u>Hawaii:</u> Do not apply within 10 days of harvest.
Collard	Alternaria Leaf Spot, Cercospora Leaf Spot, Downy Mildew	1.2 quarts	--	Begin when disease threatens and apply on a 14 day interval. Do not use more than 3.6 quarts (3.6 lbs a.i.) per cutting. Do not apply within 14 days of harvest. Note: For use on collards only in the states of Georgia and Tennessee.
Corn (sweet m, popcorn, sweet corn used for seed production)	Common Rust, Helmintho- sporium Blight	1.2	18	<u>East of the Mississippi including AR and LA:</u> Use sufficient water for thorough coverage. Start applications when disease first appears and repeat at 3 to 10 day intervals. Add a recommended surfactant or spreader/sticker if needed for better coverage. Do not apply within 7 days of harvest. Do not feed treated forage to livestock.
		1.2	6	<u>West of the Mississippi except AR and LA:</u> Use sufficient water for thorough coverage. Start applications when disease first appears at 3 to 10 day intervals. Add a recommended surfactant or spreader/sticker if needed for better coverage. Do not apply within 7 days of harvest. Do not feed treated forage to livestock.
Cucumber	Alternaria (Macrosporium) Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Pythium Fruit Rot	1.2 - 1.6	12.8	Begin when diseases threaten or plants begin to run. Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.

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Eggplant	Anthracnose, Septoria Leaf Spot, Cladosporium Leaf Mold, Early Blight, Late Blight, Gray Leaf Spot (Stemphylium)	1.2 - 1.6	11.2 (per crop)	Begin at first fruit cluster and repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.
Garlic	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch, Rust	1.6 - 2.4	24	Begin applications when diseases are first reported in the area at 7 day intervals. Do not apply within 7 days of harvest. Do not apply to exposed bulbs.
Kale (Except CA)	Alternaria Leaf Spot, Downy Mildew	1.2 - 1.6	3.2 (per cutting)	Begin when disease threatens and apply on a 7 to 10 day interval. Do not apply with 10 days of harvest.
Lettuce (Head and Leaf), Endive	Downy Mildew, Anthracnose	1.2 - 1.6	9.6	Apply when disease appears. Spray on a 7 to 10 day interval. Remove residues from head lettuce by stripping and trimming. Do not apply within 10 days of harvest.
			6.4	<u>California:</u> Spray on a 7 to 10 day interval. Do not apply within 14 days of harvest.
Melon (Cantaloupe, Casabas, Crenshaw, Honeydew, Watermelon)	Alternaria Leaf Spot, Anthracnose, Cercospora Leaf Spot, Downy Mildew, Gummy Stem Blight	1.2 - 1.6	12.8	Apply as soon as plants begin to run or when disease first appears. Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.
Mustard Greens	Alternaria Leaf Spot, Cercospora Leaf Spot, Downy Mildew	1.2 quarts	--	Begin when disease threatens and apply on a 14 day interval. Do not use more than 2.4 quarts (2.4 lbs a.i.) per cutting. Do not apply within 14 days of harvest. Note: For use on mustard greens only in the states of Georgia and Tennessee.

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Onion (Dry Bulb)	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch, Rust	1.6 - 2.4	24	Begin applications when diseases are first reported in the area at 7 day intervals. Do not apply within 7 days of harvest. Do not apply to exposed bulbs.
Onion (Green)	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch	1.6 - 2.4	16.8 11.2	Begin application when diseases are first reported in the area at 7 day intervals throughout the season. Do not apply within 7 days of harvest. Do not apply to exposed bulbs.
Onion (Furrow Drench)	Smut (except in California)	2.4	2.4 (per 29,000 linear feet of row - 18 inch spacing)	Apply as a furrow drench at time of planting onion seeds. Use 75 to 100 gallons of water/acre.
Pepper	Anthracnose, Cercospora Leaf Spot (Frogeye Spot), Phytophthora Blight, Ripe Rot	1.2 - 2.4	14.4	<u>East of the Mississippi:</u> Begin when disease threatens. Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.
		1.2 - 1.6	9.6	<u>West of the Mississippi:</u> Begin when disease threatens. Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.
tato	Early and Late Blights	0.8 - 1.6	11.2	Begin applications when plants are 2 to 6 inches high by applying 0.8 qts. per acre. As the vines increase in size, apply 1.2 to 1.6 qts. per acre. Apply on a 5 to 10 day interval. Do not apply within 14 days of harvest except for DE, FL, CT, ME, MA, MI, NH, NY, OH, PA, RI, VT and WI where the PHI is 3 days. It is recommended that this product be used with an Integrated Pest Management Program. Vine Kill should occur 14 days before harvest.
Pumpkin	Angular Leaf Spot, Downy Mildew	1.2 - 1.6	12.8	Begin when disease threatens. Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.

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Squash (Winter and Summer)	Anthracnose, Downy Mildew	1.2 - 1.6	12.8	Begin when plants start to run. Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.
Sugar Beet	Cercospora Leaf Spot	1.2 - 1.6	11.2	Apply when disease appears. Spray on a 7 to 10 day interval. Do not apply within 14 days of harvest.
Tomato (Greenhouse and Field)	Anthracnose, Cladosporium Leaf Mold, Early and Late Blights, Gray Leaf Spot (Stemphylium), Septoria Leaf Spot	1.2 - 2.4	16.8	<u>East of the Mississippi:</u> Begin at first fruit cluster and repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.
		1.2 - 1.6	6.4	<u>West of the Mississippi:</u> Begin at first fruit cluster and repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.
Turnip Tops	Alternaria Leaf Spot, Cercospora Leaf Spot, Downy Mildew	1.2 quarts	--	Begin when disease threatens and apply on a 14 day interval. Do not use more than 1.2 quarts (1.2 lbs a.i.) per cutting. Do not apply within 14 days of harvest. Note: For use on turnip tops only in the states of Georgia and Tennessee.

ORNAMENTALS

Manex may be used on the following outdoor or greenhouse-grown ornamental plants. See Use Instructions for each crop. Unless instructed otherwise, apply Manex when conditions favor disease development or at first sign of disease; spray crop at 7 to 10 day intervals throughout the season. Do not use fruit or other plant parts for food or feed purposes.

CROP	DISEASES	RATE PER ACRE IN 100 GAL WATER	USE INSTRUCTIONS
African Violet	Botrytis Blight	1.2 quarts	

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Anthurium	Anthracnose, Spadix Rot	1.2 quarts	
Arborvitae	Cercospora Blight	1.2 quarts	
Ash, mountain	Entomosporium Leaf Spot, Guignardia Leaf Blotch	1.2 quarts	
Ash, white	Anthracnose, Cylindrosporium Leaf Spot	1.2 quarts	
Aster, perennial	Puccinia Rusts	1.2 quarts	
cuba, japonica	Alternaria Leaf Spot, Anthracnose	1.2 quarts	
Azalea	Cylindrocladium Rot, Petal Blight, Phytophthora Twig and Bud Blight	1.2 quarts	Apply in a full coverage spray, 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under bushes.
Begonia	Botrytis Blight	1.2 quarts	
Buffaloberry	Cylindrosporium Leaf Spot	1.2 quarts	
Camellia	Petal Blight	1.2 quarts	Apply in a full coverage spray, 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under bushes.
Carnation	Alternaria Leaf Spot, Anthracnose, Botrytis Blight, Rust, Septoria Leaf Spot	0.8 - 1.2 quarts	Begin when new growth starts. Repeat weekly.
Cedar, red (Juniper)	Cercospora Blight, Phomopsis Blight	1.2 quarts	

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Chrysanthemum	Asochyta Ray Blight, Botrytis Petal Spot, Rust, Septoria Leaf Spot	12.8 fl oz plus 3/4 pound Captan 50 W	Apply twice weekly during the blooming season for petal spot and ray blight. For Septoria leaf spot apply weekly throughout the season.
Conifer	Lophodermium Needle Cast, Pine Gall Rust, Scirrhia Brown Spot	1.2 quarts	Begin application in spring or early summer before infection occurs. Repeat after heavy rains and at two week intervals as long as needed.
Cordyline	Cercospora Leaf Spot	1.2 quarts	
Crabapple	Cedar-apple rust, Scab, Sphaeropsis Leaf Spot	1.2 quarts	
Cypress, Arizona	Cercospora Blight, Monochaetia Canker	1.2 quarts	
Dahlia	Alternaria Leaf Spot, Botrytis Blight	0.8 - 1.2 quarts	Begin when new growth starts. Repeat weekly.
Dieffenbachia	Leptosphaeria Brown Spot	1.2 quarts	
Dogwood	Anthracnose, Elsinoe Leaf Spot, Septoria Leaf Spot	0.8 - 1.2 quarts	Begin when buds open. Repeat when bracts fall 4 weeks later and in late summer.
Dracaena	Fusarium Leaf Spot	1.2 quarts	
Elm	Black Leaf Spot	1.2 quarts	
Euonymus	Anthracnose	1.2 quarts	
Fatsia	Anthracnose	1.2 quarts	
Fern	Rhizoctonia Blight	1.2 quarts	
Ficus	Cercospora Leaf Spot	1.2 quarts	
Fir, Douglas	Swiss Needle Cast	1.2 quarts	

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Firethorn (Pyracantha)	Fusicladium Scab	1.2 quarts	
Fuchsia	Botrytis Blight, Rust	1.2 quarts	
Geranium	Rust	1.2 quarts	
Gladiolus	Botrytis Blight, Curvularia and Stemphylium Leaf Spots	1.2 quarts	Begin when flower spikes are developing. Repeat 2 to 3 times at weekly intervals.
Hawthorn	Cedar-apple rust, Fabraea Leaf Spot, Frogeye Leaf Spot, Hawthorn Rust, Scab	1.2 quarts	
Holly	Purple Spot	1.2 quarts	
Hollyhock	Anthrachnose, Cercospora Leaf Spot, Puccinia Rusts	1.2 quarts	
Honeysuckle	Herpobasidium Blight	1.2 quarts	
Horsechestnut, ckeye	Alternaria Leaf Spot, Guignardia Leaf Blotch	1.2 quarts	
Hydrangea	Botrytis Blight, Cercospora Leaf Spot	1.2 quarts	
Iris	Didymellina Leaf Spot, Mystrosporium Ink Spot	1.2 quarts	
Juniper	Phomopsis Blight	1.2 quarts	
Laurel, mountain	Cercospora Leaf Spot, Petal Blight	1.2 quarts	Apply in a full coverage spray, 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under

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bushes.

Ligustrum	Cercospora Leaf Spot	1.2 quarts	
Lilies	Botrytis Blight	0.8 - 1.2 quarts	Begin with new growth. Repeat weekly.
Magnolia	Gloeosporium Leaf Spot	1.2 quarts	
Maple	Alternaria Leaf Spot, Phyllosticta Leaf Spot	1.2 quarts	
Marigold	Botrytis Blossom Blight	1.2 quarts	Do not use on French dwarf double or signet-type marigold seedlings.
Narcissus	Botrytis Blight (fire), Smoulder	1.2 quarts	
Oak	Actinopelte Leaf Spot, Taphrina Leaf Blister	1.2 quarts	
Orchid (Dendrobium)	Botrytis Blossom Blight	1.2 quarts	
.chysandra	Volutella Blight	1.6 qts per 50 gal. of water per 5000 sq. ft. of bed	Use a drenching spray. Start application at first sign of disease and apply at least 5 applications at 10 to 14 day intervals.
Pansy	Anthracnose	0.8 - 1.2 quarts	Begin with new growth. Repeat weekly.
Peony	Alternaria Leaf Spot, Botrytis Blight, Phytophthora Blight	0.8 - 1.2 quarts	Apply to foliage and soil in early spring and early fall and 7 to 10 day intervals during the growing season.
Peperomia	Cercospora Leaf Spot	1.2 quarts	

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Philodendron	Dactylaria Leaf Spot, Phytophthora Leaf Spot	1.2 quarts	
Photinia	Entomosporium Leaf Spot	1.2 quarts	
Pleomele	Fusarium Leaf Spot	1.2 quarts	
Poinsettia	Sphaceloma Scab	1.2 quarts	
Rhododendron	Cercospora Leaf Spot, Discosia Leaf Spot, Petal Blight	1.2 quarts	Apply in a full coverage spray, 2 to 3 times a week, while flowers are opening. Direct spray into flowers and thoroughly spray ground under bushes.
Rose	Black Spot, Cercospora Leaf Spot (Texas), Rust (California)	0.8 - 1.2 quarts	Begin when first leaves unfold. Repeat at 7 to 10 day intervals.
Schefflera	Alternaria Blight	1.2 quarts	
Skunkbush, Sumac	Cylindrosporium Leaf Spot	1.2 quarts	
Snapdragon	Rust	0.8 - 1.2 quarts	Begin with emergence. Repeat weekly.
Statice	Cercospora Frogeye	1.2 quarts	
Syngonium	Cephalosporium Leaf Spot	1.2 quarts	
Tulip	Botrytis Blight (fire)	1.2 quarts	
Venus, flytrap	Anthrachnose	1.2 quarts	
Viburnum	Downy Mildew, Ramularia Leaf Spot	1.2 quarts	

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Walnut	Anthracnose	1.2 quarts	
Zinnia	Alternaria Blight, Leaf Spot. Botrytis Blight	0.8 - 1.2 quarts	Begin with emergence. Repeat weekly.

SEED TREATMENT

Seeds to be treated should be cleaned and well cured prior to treatment. Manex may be applied to dry seed with conventional slurry or mist seed treating equipment or as a planter-box application. For planter box application, add seed, followed by Manex, then stir mixture to assure seeds are coated with thoroughly fungicide prior to planting. For best results, the seed must be completely and uniformly covered with fungicide. For commercial seed treatment, a dye must be added to Manex which will impart an unnatural color to the seed.

All treated seed should be labeled, "Seed treated with MANEX fungicide containing the active ingredient maneb, must be used for food, feed or oil purposes."

CROP	DISEASES	USE RATE (Fl. Oz./ Bushel Seed)	USE RATE (Fl. Oz./100 Lbs. Seed)	REMARKS (Also Refer to Directions for Use)
Barley	Covered smut Damping off False loose smut Seed rots Seedling blights	2 to 3.2	4.3 to 6.7	
Corn (field)	Damping-off Seed rots Seedling blights	2.4 to 4.8	4.3 to 8.6	
Cotton (acid delinted)	Damping off Seedling blights	--	4.8	
(reginned)	Damping off Seedling blights	--	9.6	
Flax	Damping-off Seed rots Seedling blights	3.2 to 6.4	5.7 to 11.3	
Oats	Damping-off Seed rots Seedling blights Smuts	2 to 3.2	6.4 to 10	

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Peanuts (shelled)	Damping-off Seed rots Seedling blights	3.2 to 6.4	12.8 to 25.6	
Potatoes (Seed Pieces)	Fusarium Seed Piece Decay, Seedborne common scab			Dip whole or cut tubers in 0.8 quart Manex /10 gallons. Spread in cool place if held before planting. Seed piece treatment only. Note: Do not use treated seed pieces for food, feed or oil purposes.
Rice	Damping-off Seed rots Seedling blights	--	3.2 to 6.4	Apply before, during or after soaking in water.
Rye	Damping-off Seed rots Seedling blights	2 to 3.2	3.6 to 5.7	
Safflower	Seedborne rust (<i>Puccinia carthami</i>)	--	3.2	
Sorghum	Covered kernel smut Damping-off Seed rots Seedling blights	2.4 to 4.0	4.3 to 7.2	
Tomatoes	Damping-off Seed rots Seedling blights	--	12.8	
Wheat	Bunt Damping-off Seed rots Seedling blights	2 to 3.2	3.5 to 5.2	

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GRASSES: SODFARM and TURF

For use on grasses on sodfarms and non-residential turf sites.

Sodfarms: Follow requirements in the Agricultural Use Requirements box.

Turf: Sites include golf courses (fairways and greens), industrial or municipal turf areas. For these use sites and professional applications to non-residential, non-agricultural turf grasses grown in public and private areas, follow requirements in the Non-Agricultural Use Requirements box.

Begin application at first sign of disease. Repeat at 7 to 14 day intervals. Do not use on residential, pasture or range grasses. Do not graze or feed clippings to livestock. Do not use if grass is grown for seed.

CROP	DISEASES	USE RATE	USE INSTRUCTIONS
Grasses	Brown Patch	4.8 fl. oz. in sufficient water/1000 square feet	
	Dollar Spot	9.6 - 12.8 fl. oz. in sufficient water/1000 square feet	
	Melting-Out	4.8 - 6.4 fl. oz. in sufficient water/1000 square feet	
	Leaf, Stem and Stripe Rusts	2.4 quarts per acre in 100 gal water	Begin when rust pustules are first seen.
	Copper Spot, Fusarium Blight, Red Thread, Slime Mold	6.4 - 12.8 fl. oz. in sufficient water/1000 square feet	Apply in spring or when first signs of disease appear. Repeat at 7 to 14 day intervals until disease threat is past.
	Algae	9.6 fl. oz. in sufficient water/1000 square feet	Apply in spring or when first signs of disease appear. Repeat at 7 to 14 day intervals until disease threat is past.
	Pythium Blight	12.8 fl. oz. in sufficient water/1000 square feet	Apply at 5 day intervals, or more frequently, if conditions are especially favorable for disease development.
	Fusarium Snow Mold	9.6 - 12.8 fl. oz. in sufficient water/1000 square feet	Apply at 2 to 6 week intervals during winter.

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Grey leaf spot 12.8 fl. oz. in sufficient
water/1000 square feet

Apply at 14 day intervals if
conditions are favorable for disease
development.

ATTENTION: This product contains maneb 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.

WARRANTY STATEMENT

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or, at Griffin's election, the replacement of this product. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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