PM21 1812-251 10f16

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Mr. L. Vernon White
Griffin Corporation
Agricultural Chemicals Group
P.O. Box 1847
Valdosta, GA 31603-1847

APR 15 1992

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Dear Mr. White:

Subject: Amended Labeling
Manex
EPA Registration No. 1812-251
Your Submissions Dated March 3 and 26, 1992

The amendments referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. For papaya, previous disease claims for maneb products have been limited to control of anthracnose and black spot (Cercospora). Assume that you wish to claim control of Phytophthora fruit rot. If this claim is retained, delete the comma following Phytophthora.

b. Under chinese cabbage (loose head), the maximum rate/application must be reduced to 1.2 qts./acre.

c. For melons, the maximum rate/application must be reduced to 1.6 qts./acre.

d. For pumpkins, the maximum rate/application should be 1.6 qts./acre to agree with the 12.8 qts./acre maximum per year.

e. Under tomatoes, use instructions for east of the Mississippi has two sentences indicating when to begin application and the section for west of the Mississippi has none. Make appropriate correction.

f. Under Commercial Ornamental Crop Uses, clarify the intended sites to be treated for "grasses". If you intend that the

H7505C:J.Fairfax:1812-251:4/14/92 CONCURRENCES

SYMBOL								
SURNAME								
DATE								

EPA Form 1320-1 (12-70)

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product be used for commercial treatment of home lawns or on golf courses, the 24 hour reentry interval would not be practical or necessary. The reentry interval may be revised to allow entry without protective clothing "after sprays have dried" for these specific uses.

Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Susan T. Lewis
Product Manager (21)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

PM 21 1812-251 3-5-16

ACCEPTED
with COMMENTS
In [illegible] Dated:
APR 15 [illegible]
Under the Federal Insecticide, [illegible] Act as amended for the pesticide registered under EPA Reg. No.
1812-251

Manex™

Flowable with Zinc Added

ACTIVE INGREDIENT:
MANEB (MANGANESE ETHYLENEBISDITHIOCARBAMATE).....37%
(Total manganese as metallic.....7.6%)
INERT INGREDIENTS:.....63%

100%

4 Pounds of Maneb Per Gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

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.

GRIFFIN CORPORATION
VALDOSTA, GEORGIA 31601

EPA REG. NO. 1812-251
EPA EST. NO. 1812-GA-3
NET CONTENTS 2½ GALLONS

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION

May cause irritation of eyes, nose, throat and skin. Avoid breathing spray mist. After sprays have dried, do not enter or allow entry into treated areas where there is danger of drift until the 24-hour re-entry interval has expired unless wearing the personal protective equipment listed on the label. Keep all unprotected persons, children, livestock, and pets away from treated area or where there is danger of drift. Do not rub eyes or mouth with hands.

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.

PERSONAL PROTECTIVE EQUIPMENT

Handlers (Mixers, Loaders and Applicators) and Early Re-entry Workers must wear the following protective clothing and equipment: coveralls over a long-sleeve shirt and long pants; shoes, socks and chemical-resistant gloves. During mixing and loading, a chemical-resistant apron and goggles or a face shield must also be worn. For agricultural workers, where completely enclosed cab with positive pressure filtration or an enclosed cockpit for aerial application are used, a long-sleeved shirt and long pants may be worn in place of the above protective clothing. Chemical resistant gloves must be available in the cab or cockpit and worn while exiting. The gloves must be kept in an enclosed container in the cab or cockpit to prevent contamination of the inside of the cab or cockpit.

IMPORTANT: Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before eating, smoking or drinking. Always wash hands and arms with soap and water before using the toilet.

After work take off all clothes and shoes. Shower using soap and water. Wear only clean clothes. Do not use contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Personal clothing worn during use must be laundered separately from household articles. Clothing and protective equipment drenched must be destroyed according to state and local regulations.

DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

During aerial application, human flaggers are prohibited unless in totally enclosed vehicles.

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

Do not enter treated area without protective clothing for at least 24 hours after treatment.

Because certain states may requite more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: CAUTION. Area treated with Manex (date of application). Do not enter without appropriate protective clothing for at least 24 hours after treatment. In case of accidental exposure see Statement of Practical Treatment.

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 incineration, or, if allowed by state and local authorities by burning. If burned, stay out of smoke.

DIRECTIONS FOR USE AS A SPRAY

Manex is approved for application in sufficient water to provide good coverage with available equipment in either dilute sprays or in concentrate ground or aerial sprays. Rates listed are based on 100 gallons of dilute

spray unless otherwise noted. Rates of product for concentrate and aerial applications should be equal to the rates for dilute sprays on a per acre basis.

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. Human flaggers are prohibited unless in totally enclosed vehicles.

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.

If this product is used on a crop, no other product containing a different EBDC active ingredient may be used on the same crop during the same growing season.

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 nonuniform 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 devised 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 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, quickcheck 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.

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 treatment is completed and continue to operate irrigation equipment until all Manex is flushed from system.

APPLICATION INSTRUCTIONS

AGRICULTURAL FRUIT AND NUT CROPS

CROPS	DISEASES	QUARTS PER ACRE	MAXIMUM QUARTS PER ACRE PER SEASON	USE INSTRUCTIONS
Apples				Use either the Pre-bloom or Extended Application schedules. DO NOT COMBINE OR INTEGRATE THE TWO TREATMENT SCHEDULES.
	Rusts (including Cedar apple), Fabrea Leaf	4.8 or (1.2 per 100 gal in dilute spray)	19.2 per year	Pre-bloom: Begin applications at ¼ to ½ inch green tip and continue on a 7 to 10 day application schedule through bloom. Do not graze

	Spot, Flyspeck, Scab, Sooty Blotch			livestock in treated areas. It is recommended that this product be used in an Integrated Pest Management Program.
		2.4 or (0.6 per 100 gal in dilute spray)	16.8 per year	Extended application or tank mix: 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. 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.
Almonds	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 or within 145 days of harvest. Do not allow livestock to graze in almond orchards.
Bananas	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
Cranberries	Fruit Rot	3.8 - 4.8	14.4	Spray on a 7 to 10 day interval. Do not apply within 30 days of harvest.
Grapes	Black Rot, Bunch Rot, Deadarm,	1.2 - 3.2 or (0.3 - 0.8 per 100 gal in a	19.2	East of the Rocky Mountains: Apply in sufficient water to provide thorough coverage starting when new

	Downy Mildew	dilute spray)		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.
		1.2 - 2.0 or (0.3 - 0.5 per 100 gal in a dilute spray)	6.0	West of the Rocky Mountains: Apply when shoots are ½ to 1½ inches long and continue at 7 to 10 day intervals. Do not apply with 66 days of harvest except in California. California: Do not apply after bloom.
Kadota Figs	Surface Mold (Cladosporium), 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 with in 10 days of harvest.
Papayas	Anthracnose, Phytophthora, Fruit Rot	1.6 - 2.0 or (0.4 - 0.5 per 100 gal in a dilute spray)	28	Apply when disease first threatens and repeat at 14 to 21 day intervals. May be applied up to the day of harvest.

AGRICULTURAL FIELD AND VEGETABLE CROPS

CROPS	DISEASES	QUARTS PER ACRE	MAXIMUM QUARTS PER ACRE PER SEASON	USE INSTRUCTIONS
Beans (Dry)	Anthracnose, 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,	Alternaria	1.2 - 1.6	9.6	Plant beds and direct seeded fields:

Kohlrabi, Chinese Cabbage (tight headed only)	Leaf Spot, Downy Mildew			Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.
Chinese Cabbage (loose head)	Alternaria Leaf Spot, Downy Mildew	0.8 - 1.6	7.2	Plant beds and direct seeded fields: Spray on a 7 to 10 day interval. California: Do not apply within 7 days of harvest. Hawaii: Do not apply within 10 days of harvest.
Corn (sweet corn, popcorn, sweet corn used for seed production)	Common Rust, Helminthosporium Blight	1.2	18	East of the Mississippi including AR and LA: 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	West of the Mississippi except AR and LA: 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.
Cucumbers	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.
Eggplant	Anthracnose,	1.2 - 1.6	11.2 (per	Begin at first fruit cluster and repeat

	Septoria Leaf Spot, Cladosporium Leaf Mold, Early Blight, Late Blight, Gray Leaf Spot (Stemphylium)		crop)	at 7 to 10 day intervals. Do not apply within 5 days of harvest.
Kale	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	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	California: Spray on a 7 to 10 day interval. Do not apply within 14 days of harvest.
Melons (Cantaloupe, Casabas, Crenshaws, Honeydew, Watermelons)	Alternaria Leaf Spot, Anthracnose, Cercospora Leaf Spot, Downy Mildew, Gummy Stem Blight	1.6 - 2.4	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.
Onions (Dry Bulb)	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch	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.
Onions (Green)	Botrytis Leaf Blight, Downy Mildew, Neck Rot, Purple Blotch	1.6 - 2.4	16.8	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.

	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.
Peppers	Anthracnose, Cercospora Leaf Spot (Frogeye Spot), Phytophthora Blight, Ripe Rot	1.2 - 2.4	14.4	East of the Mississippi: 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	West of the Mississippi: Begin when disease threatens. Spray on a 7 to 10 day interval. Do not apply within 7 days of harvest.
Potatoes	Early and Late Blights	1.2 - 1.6	11.2	Begin when plants are 2 to 6 inches high. Apply on a 5 to 10 day interval. Do not apply within 14 days of harvest except for FL, CT, ME, MA, NH, NY, PA, 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.
Potatoes (Seed Pieces)	Fusarium Seed Piece Decay	0.8 quart/10 gallons		Dip whole or cut tubers. Spread in cool place if held before planting. Seed piece treatment only. Do not use treated seed pieces for food, feed or oil purposes.
Pumpkins	Angular Leaf Spot, Downy Mildew	1.2 - 1.4	12.8	Begin when disease threatens. Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.
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 Beets	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.
Tomatoes (Greenhouse and Field)	Anthracnose, Cladosporium Leaf Mold, Early and Late Blights, Gray Leaf Spot (Stemphylium), Septoria Leaf Spot	1.2 - 2.4	16.8	East of the Mississippi: Begin at first fruit cluster and repeat at 7 to 10 day intervals Begin when first fruit forms. Repeat at 7 to 10 day intervals. Do not apply within 5 days of harvest.
		1.2 - 1.6	6.4	West of the Mississippi: Spray on a 7 to 10 day interval. Do not apply within 5 days of harvest.

COMMERCIAL ORNAMENTAL CROP USES (NOT FOR HOMEGARDEN USE)

CROP	DISEASES	RATE PER 100 GAL	USE INSTRUCTIONS
Carnations	Alternaria Leaf Spot, Anthracnose, Botrytis Blight	0.8 - 1.2 quarts	Begin when new growth starts. Repeat weekly.
Chrysanthemums	Asochyta Ray Blight, Botrytis Petal Spot, Septoria Leaf Spot	12.8 fl oz plus 3/4 pound Captan 50W	Apply twice weekly during the blooming season for petal spot and ray blight. For septoria leaf spot apply weekly throughout the season.
Dahlias	Alternaria Leaf Spot, Botrytis Blight	0.8 - 1.2 quarts	Begin when new growth starts. Repeat weekly.
Dogwood	Anthracnose	0.8 - 1.2 quarts	Begin when buds open. Repeat when bracts fail 4 weeks later and in late summer.
Gladiolus	Botrytis Blight, Curvularia and Stemphylium	1.2 quarts	Begin when flower spikes are developing. Repeat 2 to 3 times at weekly intervals.

	Leaf Spots		
Grasses	Brown Patch	4.8 fl oz in sufficient water/1000 square feet	Begin at first sign of disease. Repeat at 7 to 14 day intervals. Do not use on pasture or range grasses. Do not feed clippings to livestock. Do not use if grass is grown for seed.
	Dollar Spot	9.6 - 12.8 fl oz in sufficient water/1000 square feet	Begin at first sign of disease. Repeat at 7 to 14 day intervals. Do not use on pasture or range grasses. Do not feed clippings to livestock. Do not use if grass is grown for seed.
	Melting-Out	4.8 - 6.4 fl oz in sufficient water/1000 square feet	Begin at first sign of disease. Repeat at 7 to 14 day intervals. Do not use on pasture or range grasses. Do not feed clippings to livestock. Do not use if grass is grown for seed.
	Leaf, Stem and Stripe Rusts	2.4 quarts	Begin when rust pustules are first seen. Repeat at 7 to 14 day intervals. Do not graze treated areas or feed clippings to livestock.
Lilies	Botrytis Blight	0.8 - 1.2	Begin with new growth. Repeat weekly.
Pansies	Anthracnose	0.8 -1.2	Begin with new growth. Repeat weekly.
Peonies	Alternaria Leaf Spot, Botrytis Blight, Phytophthora Blight	0.8 - 1.2	Apply to foliage and soil in early spring and early fall and 7 to 10 day intervals during the growing season.
Roses	Black Spot, Cercospora Leaf Spot (Texas), Rust (California)	0.8 - 1.2	Begin when first leaves unfold. Repeat at 7 to 10 day intervals.

Snapdragons	Rust	0.8 - 1.2	Begin with emergence. Repeat weekly.	
Zinnias	Alternaria Blight, Leaf Spot, Botrytis Blight	0.8 - 1.2	Begin with emergence. Repeat weekly.	

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.

NOTICE OF WARRANTY

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. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

Manex™ is a trademark of Griffin Corporation

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 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.