



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

Stephen Maybaum  
Agriguard Company, LLC  
186 North Avenue East Centennial Plaza  
Suite 100, P.O. Box 630  
Cranford, New Jersey 07016

AUG 10 2011

Subject: Agriguard Multiguard Protect  
EPA Registration No. 75753-1  
Your Amendment dated December 10, 2010  
Decision Number 443412

Dear Mr. Maybaum:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. On page 5, last sentence in the "Agricultural Use Requirements" box, revise the last sentence to read "Notify workers of the application by warning them orally and posting warning signs at entrances to treated areas and at entrances to greenhouses."
2. On page 6, under the heading for "AIR-PURIFYING RESPIRATOR AVAILABILITY", delete the first sentence.
3. On page 17, within the table for the "SUMMARY of MULTIGUARD PROTECT EC APPLICATION RATES GOLF COURSE TEES AND GREENS AND PRACTICE GREENS", 5<sup>th</sup> column heading, delete the "/" symbol after the word "Timing".

One copy of the label stamped "Accepted with comments" is enclosed for your records. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096 or via email at [gibson.tamue@epa.gov](mailto:gibson.tamue@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Mary L. Waller".

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

Enclosure

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[08-05-2011]

### MULTIGUARD PROTECT® EC

For commercial greenhouse ornamental use and terrestrial (outdoor) non-food use on established turf on golf course tees and greens, practice greens and turf/sod farms; when used as directed, MULTIGUARD PROTECT® EC controls root infesting plant parasitic nematodes, and fungal plant diseases such as species of *Pythium*, *Phytophthora*, *Fusarium* and *Rhizoctonia*.

Active Ingredient	(by weight)
Furfural.....	90.0%
Other Ingredients.....	10.0%
TOTAL.....	100.0%

1 gallon of MULTIGUARD PROTECT® EC contains 8.68 lbs furfural  
1 gallon of MULTIGUARD PROTECT® EC weighs 9.65 lbs at 68°F

### KEEP OUT OF REACH OF CHILDREN WARNING – AVISO

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If on Skin or Clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If in Eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If Swallowed	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If Inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>HOTLINE NUMBER:</b> CHEMTREC 1-800-424-9300 (24 hours)	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured for Agriguard Company, LLC

Centennial Plaza, Suite 100, 186 North Avenue East, Cranford, NJ 07016

EPA Establishment No. 75753

EPA Registration No. 75753-1

Producing establishment No. 484-50-TX-01

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:**

Net Contents: \_\_ gal.

8/10/11

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

75753-1

**PRECAUTIONARY STATEMENTS  
HAZARD TO HUMANS AND DOMESTIC ANIMALS  
WARNING/AVISO**

May be fatal if swallowed or absorbed through the skin. Harmful if inhaled. Causes substantial but temporary eye injury. Do not breathe vapors. Do not get in eyes, or skin, or on clothing. Irritating to skin and respiratory tract. Inhalation may cause headache, nausea and central nervous system depression.

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are nitrile rubber, butyl rubber, neoprene rubber, and/or barrier laminate. If you want more options, follow the instructions for category C on an EPA chemical-resistant category section chart.

Applicators and other handlers must wear coveralls worn over short-sleeved shirt and short pants, chemical-resistant footwear and socks, chemical-resistant gloves such as nitrile, butyl, or neoprene rubber, and/or barrier laminate, and protective eyewear (goggles or face shield). When mixing/loading or cleaning equipment, use a chemical-resistant apron. For overhead exposure, wear chemical-resistant headgear.

For groundboom applications made to areas totaling 18 acres or greater in the same 24-hour period, all handlers (including mixers, loaders, and applicators) must wear a respirator with an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a respirator with a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G). (Golf course application handlers are excluded unless the acreage of tees, greens and practice greens treated totals 18 acres or greater in the same 24-hour period.)

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

**USER SAFETY RECOMMENDATIONS**

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing /PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the high water mark.

Do not apply when weather conditions favor drift from treated areas. Drift or runoff from treated areas may be harmful to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Furfural has certain properties and characteristics associated with chemicals detected in groundwater. Furfural residues may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow. Furfural may also impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This chemical is classified as having high potential for reaching surface water via runoff. Leaching and runoff of these chemicals will be reduced by avoiding applications when heavy rainfall is forecasted to occur within 48 hours.



**PHYSICAL AND CHEMICAL HAZARDS**

Combustible. Do not use or store near heat or open flame. Can be degraded by contact with acids or bases. Keep away from ignition sources. **DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

Do not apply this product in or on electrical equipment due to the possibility of shock hazard.

Furfural is a volatile, combustible, yellow liquid that turns reddish-brown upon exposure to light and air, and possess a heavy almond-like odor. Vapors are heavier than air and may travel to a source of ignition and flash back. Hazardous polymerization may occur if heated or catalyzed

**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 in your State responsible for pesticide regulation.

**PRODUCT INFORMATION, PRECAUTIONS AND RESTRICTIONS****Product Information**

MULTIGUARD PROTECT<sup>®</sup> EC may only be used on established turf on golf course tees and greens, practice greens, turf/sod farms and on ornamentals grown in commercial greenhouses. The directions for turf/sod farms and greenhouse ornamental use are found in Section I and directions for golf course use are found in Section II. When used as directed, MULTIGUARD PROTECT<sup>®</sup> EC controls root infesting plant parasitic nematodes, and fungal plant diseases such as species of *Pythium*, *Phytophthora*, *Fusarium* and *Rhizoctonia*.

The volatile properties of this pesticide can pose a risk of temporary nasal irritation from inhalation exposure if present in the treatment area or buffer zone during an application or during the buffer zone entry restricted period.

The liquid MULTIGUARD PROTECT<sup>®</sup> EC formulation is supplied in 1 quart, 1 gallon, 2.5 gallon, 5 gallon containers or in 30 gallon drums. For 1 quart, 1 gallon, 2.5 gallon and 5 gallon containers an open pour system may be used. When using the 30 gallon drums, pump the formulation from the drum to the application equipment.

**Product Precautions**

- Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Regulatory Agencies if required.
- Handle this pesticide in the open, with the operator "upwind" from the container where there is good ventilation.
- Keep pets, livestock, and other domestic animals out of the treated area and buffer zone during application and entry restricted period.



### Product Use Restrictions

MULTIGUARD PROTECT EC applications require the use of a buffer zone. A buffer zone is the area adjacent and surrounding the treated area to which entry is restricted for a specified period of time. The applicator and owner/operator of the turf/sod farm are responsible for ensuring that unprotected workers and bystanders do not enter the buffer zone during the application and during the buffer zone entry restricted period. All structures within the buffer zone must be vacated during the buffer zone entry restricted period. Land utilized for the buffer zone must be under the control of the applicator and owner/operator of the sod farm being treated. Buffer zones may not extend onto public roads, sidewalks, or other public areas.

Applications must not be made within the following distance of facilities (hospitals, prisons, nursing homes, occupied licensed schools, licensed day care facilities, and licensed assisted living facilities) that cannot be easily evacuated. If the buffer zone is greater than or equal to 300 feet, the distance must be 1/4 mile; if the buffer zone is less than 300 feet, the distance must be 1/8 mile.

Apply MULTIGUARD PROTECT<sup>®</sup> EC between sunrise and sunset to avoid unfavorable meteorological conditions.

**OBSERVE ALL RESTRICTIONS FROM MANUFACTURERS' LABELS WHEN USING TANK MIXTURES WITH MULTIGUARD PROTECT<sup>®</sup> EC. FOLLOW MORE RESTRICTIVE LABELING OF ANY TANK MIX PARTNERS. DO NOT TANK MIX WITH ANY PRODUCT THAT CONTAINS A PROHIBITION ON TANK MIXING.**

**SECTION I: TURF/SOD FARMS AND COMMERCIAL GREENHOUSES****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, restricted-entry interval, and notification to workers.

**ENTRY RESTRICTIONS**

Do not enter or allow workers or others to enter into treated area during the restricted entry interval (REI). The REI for each crop is listed in the application directions associated with the crop.

PPE 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 worn over short-sleeved shirt and short pants

Chemical-resistant gloves such as nitrile, butyl, and neoprene rubber, and/or barrier laminate)

Chemical-resistant footwear.

AND

For early entry workers with previous exposure from other handler tasks, e.g., as a mixer, loader, applicator who has treated 18 acres or more in the same 24-hour period, wear an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a respirator with a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Notify workers of the application by warning them orally and posting warning signs at entrances to treated areas or to greenhouses.

**HANDLERS**

The following activities are prohibited from being performed in the application block (i.e., the field or portion of a field treated with MULTIGUARD PROTECT<sup>®</sup> EC in any 24-hour period) by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in the Worker Protection Standard (WPS)(40 CFR Part 170) from the start of the application until the entry restricted period ends. Those activities include those persons:

- Participating in the application as supervisors, loaders, drivers, or tractor co-pilots
- Handling or disposing of containers;
- Cleaning, handling, adjusting or repairing application equipment;
- Installing, repairing, operating or removing irrigation equipment;
- Performing any handling tasks as defined by the WPS.

**PROTECTION FOR HANDLERS****SUPERVISION OF HANDLERS**

- For handling activities that take place after the application, the applicator must have communicated in a manner that can be easily understood to the site owner/operator and handlers responsible for carrying out those activities the information necessary to comply with the label and procedures in the SMP.
- Communication activities must be captured in the Site Management Plan (SMP).

**IMPORTANT:** This requirement does not override the requirements in the WPS for Agricultural Pesticides for information exchange between owners/operators of agricultural establishments and commercial pesticide applicators.

**EXCLUSION OF NON-HANDLERS FROM APPLICATION BLOCK**

The applicator supervising the application and the owner/operator of the establishment where the application is taking place must make sure that all persons who are not trained and PPE-equipped and who are not performing one of the handling tasks as stated in this labeling are excluded from the application block during the entry-restricted period.

**PROVIDING, CLEANING AND MAINTAINING PPE**

The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the WPS for Agricultural Pesticides.

**AIR-PURIFYING RESPIRATOR AVAILABILITY**

For groundboom applications made to areas totaling 18 acres or greater in the same 24-hour period, all handlers (including mixers, loaders, and applicators) must wear a respirator

- At a minimum two handlers must have the appropriate air-purifying respirator and cartridges available and these handlers must be fit-tested, trained and medically examined. This must be documented in the SMP.
- The employer of any handler must confirm that an air-purifying respirator and appropriate cartridges of the type specified in the PPE section of this labeling are immediately available for each handler who will wear one.

**RESPIRATOR FIT TESTING, MEDICAL QUALIFICATION AND TRAINING**

Employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked using a program that conforms to OSHA's requirements (see 20 CFR part 110.134)
- Trained using a program that conforms to OSHA's requirements (see 20 CFR part 110.134)
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change. Upon request by local/state/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

**MANDATORY GOOD AGRICULTURAL PRACTICES (GAPS)**

The following GAPS must be followed.

**Turf/Sod Farm and Greenhouse Applications:**

**Weather Conditions**

Apply MULTIGUARD PROTECT® EC between sunrise and sunset to avoid unfavorable meteorological conditions. Prior to treatment, the National Weather Service weather forecast for the day of the application must be checked to determine if unfavorable weather conditions are predicted. Do not apply if an air stagnation advisory is in effect. Do not apply if there are light wind conditions observed (under 2 mph) or if wind speeds are forecast to remain below 5 mph during the application. Detailed local forecasts for weather conditions,



wind speed, and air stagnation advisories may be obtained on-line at <http://www.nws.noaa.gov>, and radio or by contacting your local National Weather Service Forecasting Office.

**Greenhouse applications only:**

- During the application keep doors, vents and windows to the outside open and fans or other mechanical ventilation systems running within the application block.
- Leaks through which gases could enter adjacent enclosed areas must be sealed.

APPLICATION INFORMATION FOR TURF/SOD FARMS

**Sod Farm Site Management Plan Requirements**

A Site Management Plan (SMP) must be developed for turf/sod farms applications and must contain the following elements:

- Applicator information (name, phone number, employer name, employer address)
- General site information
  - Application block location, address or global positioning system (GPS) coordinates
  - Name, address and phone number of owner/operator of the application block
  - Map, aerial photo or detailed sketch showing field location , dimensions, buffer zones, property lines, roads, rights-of-way, sidewalks, permanent walking paths, bus stops, water bodies, walls, nearby structures (occupied and non-occupied), locations of posted signs for buffers, and sites requiring 1/4 or 1/8 mile buffer zones (schools, state licensed day care centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons) with distances from the application site labeled.
- General application information (target product application date/window, EPA registration number; information about post-application irrigation with water, including the amount of water used, length of time irrigation equipment was run, amount of water/unit of area)
- Weather conditions (summary of forecasted conditions for the day of the application and the 48-hour period following the application)
  - Wind speed
  - Inversion conditions (e.g., shallow, compressed (low-level) temperature inversion)
  - Air stagnation advisory
- Respirators and other personal protective equipment (PPE) for handlers (handler task, protective clothing, respirator type, respirator cartridge type, respirator cartridge replacement schedule, eye protection, gloves, other PPE) (Note: respirators are only required for outdoor applications to more than 18 acres.
- Posting procedures, persons who will post signs, location of posting signs, procedures for sign removal
- State and tribal lead agency notification (if state and /or tribal lead agency requires notice, provide a list of contacts that were notified and date notified.)
- Authorized on-site personnel
  - Names and phone numbers of all handlers
  - Employer name, addresses, phone numbers for all handlers
  - Tasks that each handler is authorized and trained to perform

- Date of PPE training for each handler
- Good Agricultural Practices (GAPs)
  - Description of applicable mandatory GAPs
  - Measurements and documentation to ensure GAPs are achieved (e.g., weather conditions, wind speed, air stagnation advisories.)
- Description of hazard communication. (The buffer zone around the application block has been posted in accordance with the label. Pesticide product labels and material safety data sheets are on-site and readily available for employees to review.)

For situations where an initial SMP is developed and certain elements do not change for multiple sites (e.g., applicator information, authorized on-site personnel, record-keeping procedures, emergency procedures), only the elements that have changed need to be updated in the site-specific SMP provided the following:

- The applicator supervising the application has verified that those elements are current and applicable to the application block before it is treated and has documented the verification of the site-specific SMP.
- Recordkeeping requirements are followed for the entire SMP (including elements that do not change).

Once the application begins, the applicator must make a copy of the SMP available for viewing by handlers involved in the application. The applicator or the owner/operator of the application block must provide a copy of the SMP to any federal, state, tribal, or local enforcement personnel who request the SMP. In the case of an emergency, the SMP must be available when requested by federal/state/local emergency response and enforcement personnel.

A Post-Application Summary containing the following elements must be prepared by the applicator:

- Actual date of the application, application rate, and size of application block treated.
- Summary of weather conditions on the day of the application and during the 48-hour period following the application.
- Complaint details (if applicable)
  - Person filing complaint (e.g., on-site handler, person off-site)
  - If off-site person, name and address, and phone number of person filing complaint
  - Description of control measures or emergency procedures followed after complaint
- Buffer zones
  - Application rate from lookup table on label (lbs ai/acre)
  - Application block size from lookup table on label (acres)
  - Buffer zone distance
- Description of incidents, equipment failure, or other emergency and emergency procedures followed (if applicable)
- Date of sign removal

■ Any deviations from the SMP

The owner/operator of the turf/sod farm must keep a signed copy of the site-specific SMP and the post-application summary record for 2 years from the date of the application.

MIXING AND APPLICATION DIRECTIONS FOR TURF/SOD FARM USE

Field must be irrigated to at least 70% field capacity before application of MULTIGUARD PROTECT® EC.

Apply up to 6 applications of MULTIGUARD PROTECT® EC at 5.5 to 8.0 gallons of product/acre per year at 14-28 day intervals using only ground boom sprayers set to release spray at no more than two (2) feet above the ground. Use eight (8) gallons/acre at the start of the season and under high infestation and/or until acceptable control is achieved. Then use 5.5 to 8.0 gallons/acre as a maintenance application at 14-28 day intervals

Within 15 minutes of application, irrigate into the soil to a depth of approximately six (6) inches using overhead sprinkler irrigation. Refer to the note below for the amount of water to use depending upon soil type.

NOTE: In sands, loamy sands and sandy loam soils, apply 1/4 -1/2 inch of irrigation water (~ 6,800 - 13,600 gallons of water per acre) to move the MULTIGUARD PROTECT® EC down into the soil to a depth of six (6) inches. On finer textured soils and soils with high silt and organic matter components, use the maximum amount of irrigation water (1/2 inch) to move the MULTIGUARD PROTECT® EC down to a six (6) inch depth.

Apply in sufficient water to obtain wetting across the treated area to move the MULTIGUARD PROTECT® EC down into the soil to a depth of 6 inches. Apply at a concentration no greater than 10% MULTIGUARD PROTECT® EC in water. When pre-mixing before application, begin by adding water to the tank and then add the prescribed amount of MULTIGUARD PROTECT® EC to the tank. MULTIGUARD PROTECT® EC forms a stable emulsion at concentrations of 10% or less provided the tank mixture is agitated during the application process. Ensure that the mix tank has adequate mechanical and/or bypass agitation to keep the mixture in suspension. Use 1/4 -1/2 acre inch of water per treated acre depending on soil type (approximately 6,800 - 13,600 gallons of water per treated acre or 157-313 gallons of water per 1000 sq ft).

SUMMARY of MULTIGUARD PROTECT® EC APPLICATION RATES				
TURF/SOD FARMS				
Use	Product Applic. Rate/Acres	Product Application Rate/1,000 sq ft	Dilution and watering in instructions	Application/Timing
Established Turf on turf/sod farms	8 gal/acre initial application or for high infestation; 5.5 – 8.0 gal/acre for maintenance	0.184 gal/1000 sq ft initial application or for high infestation; 0.126 – 0.184 gal/1,000 sq ft for maintenance	Dilute product 1:9 with water. Within 15 minutes of application, irrigate product into the soil to a depth of 6 inches with overhead sprinklers. In sands, loamy sands and sandy loam soils apply 1/4 -1/2 acre-inch water. In	Apply up to 6 applications per year at 14– 28 day intervals



			finer texture soils and soils with high silt and organic materials, use the highest irrigation amount of 1/2 acre-inch of water to move the Multiguard Protect® EC into the soil.	
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**Turf/Sod Farm Restrictions:**

Do not treat more than 40 acres in a 24 hour period.

The restricted entry interval (REI) is 12 hours.

Entry into the buffer zone is prohibited for 8 hours following the end of application.

Buffer zone signs must be placed at all usual points of entry and along likely routes of approach from areas where people who are not under the land owner/operator's control may approach the buffer zone. Signs must meet the general standards outlined in the Worker Protection Standard (WPS) for text size and legibility (see 40 CFR §170.120) and include the following information:

-- "Keep Out" symbol (as shown below)



- "WARNING/AVISO. DO NOT ENTER/NO ENTRE, Pesticide treated area.
- contact information for the applicator in charge of the application

Turf /sod farm buffer zones:

Area Treated (acres) at Maximum Application Rate of 69.5 lbs ai/A	Buffer Zone Distance (feet)**
0.5	15
1	30
5	150
10	250
20	360
40	550

**\*\* Buffer zones cannot be reduced if lower application rates are used. For treated areas falling in between acreage sizes listed in the table above, use the larger buffer zone. For instance, if 25 acres is treated, use the buffer zone listed for 40 acres.**

## MIXING AND APPLICATION DIRECTIONS FOR GREENHOUSE ORNAMENTAL USE

Dripper lines must be clean and free of any fertilizer or other pesticide residue. Flush dripper lines with water for 10 minutes prior to and after application with MULTIGUARD PROTECT® EC. MULTIGUARD PROTECT® EC is not compatible with fiberglass, PVC, rubber, and soft elastomers (elastic synthetic rubber components).

For Drip Irrigation applications, transfer the product to the blending tank, pre-mix the MULTIGUARD PROTECT® EC in water and apply through tubes directly into pots or through drip tapes installed either on the flat soil surface or on pre-formed bed tops. Applications may be made with or without plastic mulch. Apply in sufficient water to obtain wetting across the treated area and to move the MULTIGUARD PROTECT® EC down throughout the growing media where root growth is present.

For spray boom and sprinkler applications, apply at a concentration no greater than 10% MULTIGUARD PROTECT® EC in water. When pre-mixing before application, begin by adding water to the mixing tank and add the prescribed amount of MULTIGUARD PROTECT® EC. MULTIGUARD PROTECT® EC forms an emulsion at concentrations of 10% or less provided the tank mixture is agitated during the application process. By-pass or mechanical agitation is required for MULTIGUARD PROTECT® EC use.

### POST-PLANT APPLICATIONS TO PLANTS GROWN IN PROPAGATION BEDS

Water in the MULTIGUARD PROTECT® EC through tubes or drip tapes at 3.0 to 5.2 gallons of product per treated acre (0.069 to 0.103 gal of product/1000 sq ft, or 22.3 to 45 lb ai/a). This application method moves the MULTIGUARD PROTECT® EC into the plant root zone. Use sufficient drip lines to give complete coverage of the planting bed. Prior to application, dilute MULTIGUARD PROTECT® EC at least 1:9 with water. Dilution at less than 1:9 may be made if the mix tank has adequate mechanical and/or bypass agitation to keep the mixture in suspension. The minimum dilution rate is 5 gallons of the product in 45 gallons of water. Apply 4-8 applications per growing season on a 14-28 day retreatment schedule. Post-plant applications control plant parasitic nematodes and certain fungal diseases.

### DRENCH APPLICATIONS

MULTIGUARD PROTECT® EC may be used as a pre-plant or post-plant drench in water for the control of stem and root diseases in potted plants. Begin applications before the plants become infested. Apply as a full pot drench at 2.5 to 5.0 fl oz. of product in 100 gallons of water, on a 7-28 day schedule throughout the growing season. Use 5.0 fl oz product/100 gallons of water when high infestation levels are expected. Normally the 14 to 28 day application schedule is acceptable, however follow the 7 day application schedule if high levels of infestations are expected or if there has been a history of high levels of infestation. Apply the solution until it begins to drip through the bottom of the pots. For most potting media apply at least 1 pint of drench solution to each square foot of plants grown in 4 inch deep pots. This volume of drench is equivalent to 125 gallons of water/1000 ft<sup>2</sup>. For deeper pots increase the amount of drenching solution to maintain this ratio of drench solution to potting media volume in order to obtain complete movement through the potting media.

### DRIP IRRIGATION WATER OR FERTILIZER SOLUTION APPLICATIONS

MULTIGUARD PROTECT® EC can be watered into the growing media through drip irrigation systems. Prepare a stock solution of 1 gallon of product in 99 gallons of water or liquid fertilizer and inject it into the irrigation stream at a 1:200 ratio during one irrigation cycle per day. This dilution gives a final concentration of 50 ppm of MULTIGUARD PROTECT® EC in the irrigation water and if 125 gallons of water is applied/1000ft<sup>2</sup> of surface area the use rate of MULTIGUARD PROTECT® EC is 0.75 fl oz product/1000 ft<sup>2</sup> for each irrigation. If another injection ratio is used, adjust the concentration of MULTIGUARD PROTECT® EC in the stock solution appropriately. This use controls the nematodes and fungal diseases listed on this label.

Do not inject MULTIGUARD PROTECT® EC into the drip irrigation system for the first and last hour of the irrigation session.

OVER THE TOP APPLICATIONS WITH SPRAY BOOM OR OVERHEAD IRRIGATION SYSTEM.

MULTIGUARD PROTECT® EC may be applied over the top of the plant canopy with either a spray boom or irrigation system. Begin applications prior to plants becoming infested. Apply MULTIGUARD PROTECT® EC at 8 to 16 fl oz of product/ 1000 ft<sup>2</sup> of plant/potting media surface in a minimum of 20 gallons solution per 1000 ft<sup>2</sup> on a 7-28 day schedule throughout the growing season. Use the 16 fl oz of product/1000ft<sup>2</sup> rate when high infestation levels are expected. Normally the 14 to 28 day application schedule is acceptable, however use the 7 day application schedule if high levels of infestations are expected or if there has been a history of high levels of infestation. Immediately after the application, apply additional irrigation water that does not contain MULTIGUARD PROTECT® EC over the plant canopy to water in the MULTIGUARD PROTECT® EC, giving a total of at least 125 gallons of water/1000 ft<sup>2</sup> of plant canopy/potting media surface. For the MULTIGUARD PROTECT® EC to be effective at controlling the soil pathogens/nematodes, it must be moved into the plant root zone.

SPOT TREATMENTS WITH LOW PRESSURE BACK PACK SPRAYER

MULTIGUARD PROTECT® EC may be applied over the top of the plant canopy with a low pressure back pack type sprayer. Begin applications prior to plants becoming infested. Apply MULTIGUARD PROTECT® EC at 8 to 16 fl oz of product/1000 ft<sup>2</sup> of plant/potting media surface in a minimum of 20 gallons solution per 1000 ft<sup>2</sup> on a 7-28 day schedule throughout the growing season. Use the 16 fl oz of product/1000ft<sup>2</sup> rate when high infestation levels are expected. Normally the 14 to 28 day application schedule is acceptable, however use the 7 day application schedule if high levels of infestations are expected or if there has been a history of high levels of infestation. Immediately after the MULTIGUARD PROTECT® EC application apply additional irrigation water that does not contain MULTIGUARD PROTECT® EC over the plant canopy to water in the MULTIGUARD PROTECT® EC, giving a total of at least 125 gallons of water/1000 ft<sup>2</sup> of plant canopy/potting media surface. For the MULTIGUARD PROTECT® EC to be effective at controlling the soil diseases/nematodes, it must be moved into the plant root zone

A single applicator must not apply spot treatments to an area of more than 2,000 ft<sup>2</sup> per day using hand-held methods for application of MULTIGUARD PROTECT® EC.

Ornamentals that have been shown to be tolerant of MULTIGUARD PROTECT® EC post-plant drench applications at 5 fl oz of product/100 gal are:

Chrysanthemums	Poinsettia	Fusia
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This product may cause injury to the following ornamentals.

- Celosia
- Coleus
- New Guinea Impatiens
- Lisanthus
- Petunia

**Do not use on Leather leaf fern**

NOTICE TO USER REGARDING DRENCH, DRIP, AND OVER THE TOP TREATMENTS: Plant tolerance to MULTIGUARD® PROTECT EC has been found to be acceptable for the crops listed on this label, except where noted above. Due to the large number of species and cultivars of ornamentals and nursery plants, it is impractical to evaluate the safety of all species and cultivars to MULTIGUARD® PROTECT EC. Neither the



manufacturer nor the Seller has determined if MULTIGUARD<sup>®</sup> PROTECT EC can be used safely on ornamental plants not listed on this label. The applicator must determine if MULTIGUARD<sup>®</sup> PROTECT EC can be used safely on ornamental plants not listed on this label prior to commercial use. Test the labeled rates on a small number of plants to determine crop safety prior to widespread use.

<b>SUMMARY of MULTIGUARD PROTECT<sup>®</sup> EC APPLICATION RATES NONFOOD INDOOR GREENHOUSE USE - PLANTS AND ORNAMENTALS</b>				
Use	Product Application Rate/acre	Product Application Rate/ 1,000 sq ft	See dilution and watering in instructions	Application/Timing
Post-planting in propagation beds – tubes/tapes	3.0 -5.2 gal/acre	0.069 - 0.103 gal/1000 ft <sup>2</sup>	1:9 (5 gal product in 45 gal water)	4-8 applications on a 14-28 day retreatment schedule
Drench for pots (Post-planting)	See dilution instructions	-----	Use 2.5 -5.0 fl oz product/ 100 gal. Completely wet the growing media. Allow to drip through bottom of pots.	Begin treatment before plants become infected. Repeat every 7-28 days.
Pre/post planting: Irrigation Water/ Fertilizer Solution Application	-----	0.75 fl oz/1000 ft <sup>2</sup> for each irrigation. (125 gal of water with 50 ppm product/ 1000 ft <sup>2</sup> )	Mix stock solution of 1 gal product in 99 gal water or liquid fertilizer solution. Inject stock solution into irrigation water at 1:200 ratio.	Apply during one irrigation cycle per day.
Post-planting: • Spray boom or overhead irrigation systems • Spot treatment-low pressure backpack sprayer	-----	8.0 – 16.0 fl oz/ 1000 ft <sup>2</sup>	Minimum 20 gal solution per 1000 ft <sup>2</sup> . Immediately water-in over plant canopy with minimum of 125 gal water/1000 ft <sup>2</sup>	Every 7-28 days throughout the growing season. Use the higher application rate and shorter retreatment interval when high infestations are expected.

**Greenhouse Restrictions:**

This product cannot be used in interiorscapes (e.g., malls, offices), hotels, theme parks, conservatories or arboretums where agricultural plants are present for aesthetic or climatic modifications.

The Restricted Entry Interval (REI) is 9 days for cut flowers and 12 hours for all other greenhouse uses.

Do not use MULTIGUARD PROTECT<sup>®</sup> EC on sterile soil.

A single applicator must not apply spot treatments to an area of more than 2,000 ft<sup>2</sup> per day using hand-held methods for application of MULTIGUARD PROTECT<sup>®</sup> EC.

A minimum greenhouse ventilation rate of at least 90 air changes per hour is required during mixing/loading and application and for at least 48 hours following application of MULTIGUARD PROTECT<sup>®</sup> EC.

Signs shall be posted no sooner than 24 hours before the scheduled application of the pesticide, remain posted throughout the application and any REI, be removed within 3 days after the end of the application and REI and before agricultural-worker entry is permitted, signs shall remain visible and legible during the time they are posted, and when several contiguous areas are to be treated with pesticides on a rotating or sequential basis, the entire area must be posted.

#### Greenhouse Entry Restrictions into the Buffer Zones:

- From the start of the application until 12 hours after the application has ended, the applicator shall prohibit persons and domestic animals from being present in the buffer zone.
- A buffer zone shall extend from the edge of the greenhouse in all directions, to a distance of 90 feet for greenhouses less than 5,000 square feet and 300 feet for greenhouses equal to or greater than 5,000 square feet.
- Any activity which results in a person being present within the buffer zone during the 12 hour period following application is prohibited unless the task is permitted under the WPS. Correctly trained handlers wearing appropriate PPE and performing a task that is permitted under the WPS may enter the buffer zone. See "Handlers" section for requirements regarding handler training.

Buffer zone signs must be placed at all usual points of entry and along likely routes of approach from areas where people who are not under the land owner/operator's control may approach the buffer zone.

Signs must meet the general standards outlined in the Worker Protection Standard (WPS) for text size and legibility (see 40 CFR §170.120) and include the following information:

-- "Keep Out" symbol (as shown below)



-- "WARNING/AVISO. DO NOT ENTER/NO ENTRE, Pesticide treated area.

-- contact information for the applicator in charge of the application

#### APPLICATION THROUGH IRRIGATION EQUIPMENT (Greenhouse use only)

1. Apply this product only through overhead sprinkler system or drip (trickle) irrigation. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. 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.
5. 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.

Connection of the irrigation system to a public water system is not recommended, however if the irrigation system is connected to the public system:

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, back flow 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 flow 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.
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.

#### For Overhead Sprinkler Chemigation

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 back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.



- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

For Drip (trickle) Irrigation:

- 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 back flow.
- 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 inter-locking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

**SECTION II: GOLF COURSE TEES AND GREENS AND PRACTICE GREENS**

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protections 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.

Applications to golf course greens and tees and practice greens are non-agricultural uses and are not subject to WPS.

Do not enter or allow others to enter buffer zone for 2 hours after the end of application and until treated area has dried – whichever is longer.

**MIXING AND APPLICATION DIRECTIONS FOR GOLF COURSE USE**

MULTIGUARD PROTECT® EC is for use on established turf on golf course tees, greens and practice greens to control root infesting plant parasitic nematodes and fungal plant diseases such as species of *Pythium*, *Phytophthora*, *Fusarium* and *Rhizoctonia*.

Greens and tees must be irrigated to at least 70% field capacity before application of MULTIGUARD PROTECT® EC.

Apply up to 6 applications of MULTIGUARD PROTECT® EC at 5.5 to 8.0 gallons of product/acre per year, at 14-28 day intervals using only ground boom sprayers set to release spray at no more than two (2) feet above the

ground. Use eight (8) gallons/acre at the start of the season and under high infestation and/or until acceptable control is achieved. Then use 5.5 to 8.0 gallons/acre as a maintenance application at 14-28 day intervals

Within 15 minutes of application, irrigate into the soil to a depth of approximately six (6) inches using overhead sprinkler irrigation. Refer to the note below for the amount of water to use depending upon soil type.

**NOTE:** In sands, loamy sands and sandy loam soils, apply ¼-½ inch of irrigation water (~ 6,800 - 13,600 gallons of water per acre) to move the MULTIGUARD PROTECT® EC down into the soil to a depth of six (6) inches. On finer textured soils and soils with high silt and organic matter components, use the maximum amount of irrigation water (1/2 inch) to move the MULTIGUARD PROTECT® EC down to a six (6) inch depth.

#### MIXING AND APPLICATION

Apply in sufficient water to obtain wetting across the treated area to move the MULTIGUARD PROTECT® EC down into the soil to a depth of 6 inches. Apply at a concentration no greater than 10% MULTIGUARD PROTECT® EC in water. When pre-mixing before application, begin by adding water to the tank and then add the prescribed amount of MULTIGUARD PROTECT® EC to the tank. MULTIGUARD PROTECT® EC forms a stable emulsion at concentrations of 10% or less provided the tank mixture is agitated during the application process. Ensure that the mix tank has adequate mechanical and/or bypass agitation to keep the mixture in suspension. Irrigate with ¼ - ½ acre inch of water per treated acre depending on soil type (approximately 6,800 - 13,600 gallons of water per treated acre or 157-313 gallons of water per 1000 sq ft).

<b>SUMMARY of MULTIGUARD PROTECT® EC APPLICATION RATES GOLF COURSE TEES AND GREENS AND PRACTICE GREENS</b>				
Use	Product Application Rate/Acre	Product Application Rate/1,000 sq ft	Dilution and watering in instructions	Application/Timing/
Golf course tees and greens and practice greens	8 gal /acre initial application or for high infestation; 5.5 – 8.0 gal/acre for maintenance	0.184 gal/1000 sq ft initial application or for high infestation; 0.126 – 0.184 gal/1,000 sq ft for maintenance	Dilute product 1:9 with water. Within 15 minutes of application, irrigate product into the soil to a depth of 6 inches with overhead sprinklers. In sands, loamy sands and sandy loam soils apply 1/4 -1/2 acre-inch water. In finer texture soils and soils with high silt and organic materials, use the highest irrigation amount of ½ acre-inch of water to move the Multiguard Protect® EC into the soil.	Apply up to 6 applications per year at 14– 28 day intervals.

#### **Golf Course Restrictions:**

The entire golf course must be closed during treatment of tees, greens or practice greens. Do not enter or allow others to enter buffer zones around treated areas for 2 hours after the end of the application and until the treated area has dried – whichever is longer.

Notify employees and golfers orally and by posting a sign in a central location that includes the location and description of the treated area, the name MULTIGUARD PROTECT® EC (Active Ingredient: Furfural; EPA Reg. No. 75753-1); the time and date the pesticide is to be applied, and the restricted-entry interval and the buffer zone duration.

Notify non-employees by placing buffer zone signs at all usual points of entry and along likely routes of approach to treated areas. Signs must remain in place from the start of the application to the treated area until a minimum of 2 hours after the end of application and the treated area has dried. The signs must meet the following criteria:

- Be at least 4 inches by 5 inches in size
- Be constructed of rigid, durable, waterproof material
- Have a background and lettering of contrasting colors
- State: "WARNING/AVISO. DO NOT ENTER/NO ENTRE, Pesticide treated area."

Applications must not be made within 1/8 mile of facilities (hospitals, prisons, nursing homes, occupied licensed schools, licensed day care facilities, and licensed assisted living facilities) that cannot be easily evacuated.

Do not treat more than one acre of contiguous tees and greens. Do not treat more than one acre of a practice green.

Golf course tees and greens buffer zones:

Area Treated (acres) at Maximum Application Rate of 69.5 lbs ai/A	Buffer Zone Distance (feet)**
0.5	15
1.0	30

\*\* Buffer zones cannot be reduced if lower application rates are used. For treated areas falling in between acreage sizes listed in the table above, use the larger buffer zone. For instance, if 0.75 acre is treated, use the buffer zone listed for 1 acre.



### STORAGE AND DISPOSAL

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

**Pesticide Storage:** The color of furfural turns to red-brown during storage. The substance affects many synthetic materials; store only in original packing. Do not store in plastic containers. Separate from oxidants, strong acids and strong bases. Store in cool, dark, secure and ventilated area away from ignition sources.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, application mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Containers  $\leq$  5 gallons triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Containers  $>$  5 gallons triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

### WARRANTY

**Seller warrants that the product conforms to its chemical description and when used according to label directions, it is reasonably fit for the purpose stated on the label. To the extent consistent with applicable law, seller makes no other warranty, either expressed or implied, of merchantability or of fitness for a particular purpose or otherwise, and to the extent consistent with applicable law, all risks are assumed by buyer.**