



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

NOV 15 2007

Mary Beth Endres
Nufarm Americas, Inc
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

SUBJECT: Label Amendment Per Agency Letter Dated July 27, 2007
Riverdale Resound 90DF
EPA Reg. No. 228-393
Your Submission Dated August 22, 2007

Dear Ms. Endres:

In a letter dated July 27, 2007 the Agency requested that you add use site restriction language to the label for Chlorothalonil. The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

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

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at kearns.rosemary@epa.gov or myself at 703-308-9443 or via email at kish.tony@epa.gov.

Sincerely,

Handwritten signature of Tony Kish

Tony Kish
Product Manager (22)
Fungicide Branch
Registration Division (7504P)

Enclosure

2 8 12

Riverdale® Resound™ 90DF

A 90% WATER DISPERSIBLE GRANULAR TURF AND ORNAMENTAL FUNGICIDE FOR THE CONTROL OF BROAD SPECTRUM PLANT DISEASES ON GOLF COURSES, ORNAMENTALS, SUCH AS TURF GRASS, HERBS, SHRUBS AND TREES.

ACCEPTED
NOV 15 2007
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 228-393

| | | |
|---|-------|--------|
| ACTIVE INGREDIENT: | | |
| Chlorothalonil (tetrachloroisophthalonitrile) | | 90.0% |
| OTHER INGREDIENTS: | | 10.0% |
| TOTAL: | | 100.0% |

KEEP OUT OF REACH OF CHILDREN
ANGER - PELIGRO

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.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-393
EPA EST. NO. 228-IL-1

MANUFACTURED BY
NUFARM AMERICAS INC.
BURR RIDGE, IL 60527



NET WEIGHT LBS.

228-393.20070817.Amendment

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER - PELIGRO**

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Avoid breathing dust or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions characterized by redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt, long pants, chemical resistant gloves, shoes, socks and protective eyewear. For exposures in enclosed areas, use a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow 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

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.

| USER SAFETY RECOMMENDATIONS | |
|--|--|
| Users should: | |
| <ul style="list-style-type: none"> • Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. | |

| FIRST AID | |
|-------------------------------|--|
| IF IN EYES | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice. |
| IF SWALLOWED | <ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person. |
| IF ON SKIN OR CLOTHING | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice. |
| IF INHALED | <ul style="list-style-type: none"> • 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. |

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN

Persons having an allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids. Probable mucosal damage may contraindicate the use of gastric lavage.

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ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates and wildlife. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. This product must not be applied within 150 feet (for aerial and air blast applications) or 25 feet (for ground applications) of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body. Do not contaminate water when disposing of equipment washwater or rinsate.

This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE is 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, chemical-resistant gloves, shoes plus socks and protective eyewear.

Special Eye Irritation Provisions:

This product is a severe eye irritant. Although the restricted entry interval (REI) expires after 12 hours, for the next 6-1/2 days entry is permitted only when the following safety measures are provided:

- 1) At least one container designed specifically for flushing eyes must be available in operating condition at the WPS required decontamination site intended for workers entering the treated area.
- 2) Workers must be informed, in a manner they can understand:
 - a) That residues in the treated area may be highly irritating to their eyes.
 - b) That they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes.
 - c) That if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site or using other readily available clean water.
 - d) How to operate the eyeflush container.

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.

Do not enter or allow others to enter treatment area until sprays have dried.

GENERAL INFORMATION

Resound™ 90DF is an excellent fungicide when used according to label directions for control for a broad spectrum of plant diseases. Resound™ 90DF can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control. Do not combine Resound™ 90DF in the spray tank with pesticides, surfactants or fertilizers, unless prior use has shown the combination physically compatible, effective and noninjurious under conditions of use. Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e. elementary, middle and high schools), campgrounds, churches and theme parks.

Dosage rates on this label indicate pounds of Resound™ 90DF per acre unless otherwise stated. Under conditions favoring disease development the high rate specified and shortest application interval should be used. Applications should be made in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume usually will range from 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions for ground application only are given for a crop. Application through sprinkler irrigation systems is recommended for some crops which are specified on the label below. Follow application and calibration instructions.

APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

Apply this product only through the following types of irrigation systems. Do not apply this product 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 Experiment Station 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.

- A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of this product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until Resound™ 90DF has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.
- B. Solid Set and Hand Move Irrigation Equipment: Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of Resound™ 90DF for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that Resound™ 90DF will remain in suspension during the injection cycle. Resound™ 90DF can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until Resound™ 90DF is cleared from last sprinkler head.

SAFETY DEVICES

1. The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. All pesticide injection pipelines 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 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.

SYSTEMS CONNECTED TO PUBLIC WATER SOURCES

Public water system means a system for the provision of 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 preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet and of the fill pipe and the top of overflow rim of the reservoir tank of at least twice the inside diameter of fill pipe. 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.

For additional instructions on safety precautions, refer to statements 2, 3, 4, 6 and 7 in the section of Safety Devices.

POSTING INSTRUCTIONS

Posting of areas to be chemigated is required when any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or when chemigated area is open for the public, such as golf courses or retail greenhouses. This sign is in addition to any sign posted to comply with Worker Protection Standard.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soils surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the [Aerial Drift Reduction Advisory Information](#).

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

[This section is advisory in nature and does not supersede the mandatory label requirements.]

Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this table).

Controlling Droplet Size

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy protection. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- Boom Length - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction patterns and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

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Temperature And Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

TURF AND ORNAMENTALS

Resound™ 90DF is formulated for use on golf course tees, greens and fairways, ornamental turfgrass, including Sod farms; and ornamental herbs, shrubs and trees. It is highly effective for the control of a broad spectrum of turf and ornamental plant diseases when it is used according to the directions on this product label. Thorough, uniform coverage of plant surfaces is essential for good disease control.

Mixing Procedures: Be sure sprayer is clean and not contaminated with any other materials, or sprayer clogging or crop injury may result. Fill tank 1/4 full with clean water; start agitation. Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. Pour product directly from container into tank. Let it set and settle into water. Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. Finish filling tank. Maintain agitation during operation. Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent of this label.

TURF: Do not mow or water after treatment until spray deposit on turfgrass is thoroughly dry; Resound™ 90DF should always be used in conjunction with good turf management practices.

Sodfarm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled and harvested. Do not apply more than the following totals of chlorothalonil active ingredient from all registered product sources to the indicated types of turfgrass.

| TYPES OF TURFGRASS | TOTAL CHLOROTHALONIL ACTIVE INGREDIENT PER ACRE PER YEAR |
|------------------------|--|
| Golf Course - Greens | 73 pounds |
| Golf Course - Tees | 52 pounds |
| Golf Course - Fairways | 26 pounds |
| Sod Farms | 13 pounds |
| Other Turf | 26 pounds |

Golf Course Tees and Greens and Ornamental Turfgrass: Apply in an adequate amount of water to provide complete coverage. This amount may vary from 2 to 10 gallons per 1,000 square feet. See below for suggested rates and timing. Under severe disease conditions, use the curative rates and spray on a 7 day schedule.

Do not use Resound™ 90DF through sprinkler irrigation equipment on golf courses.

| DISEASE | APPLICATION INTERVAL | APPLICATION RATES PER ACRE |
|--------------------------------------|-------------------------------|--|
| <i>Sclerotinia</i> Dollar spot | 7 to 10 days 14 to 21 days | 2-1/4 to 4-1/2 pounds 4-1/2 to 8 pounds |
| <i>Helminthosporium</i> Leaf spot | 7 to 10 days 14 to 21 days | 4-1/2 pounds 4-1/2 to 8 pounds |
| <i>Rhizoctonia</i> Brown patch | 7 to 14 days | 4-1/2 to 8 pounds |
| Anthracnose | 7 to 14 days | 7 to 14 pounds |

| DISEASE | APPLICATION INTERVAL | APPLICATION RATE (Ounces per 1,000 Square Feet) | |
|--|----------------------|--|----------------|
| | | Preventative* | Curative** |
| Anthracnose | 7 to 14 days | 2-1/2 to 5 | - |
| Copper Spot | 7 to 10 days | 3-1/2 to 5 | 5 to 6-1/2 |
| <i>Curvularia</i> Leaf Spot | 7 to 10 days | 1-3/4 to 3-1/2 | 3-1/2 to 6-1/2 |
| Dollar Spot | 7 to 14 days | 1-3/4 to 3-1/2 | 3-1/2 to 6-1/2 |
| Gray Leaf spot | 7 to 10 days | 1-3/4 to 3-1/2 | 3-1/2 to 6-1/2 |
| <i>Helminthosporium</i> Leaf spot and Melting-Out | 7 to 10 days | 1-3/4 to 3-1/2 | 3-1/2 to 6-1/2 |
| Large Brown Patch | 7 to 10 days | 1-3/4 to 3-1/2 | 3-1/2 to 6-1/2 |
| Red Thread | 7 to 10 days | 1-3/4 to 5 | 5 to 6-1/2 |
| Stem Rust of Bluegrass | 7 to 14 days | 3-1/2 to 5 | 5 to 6-1/2 |
| Dichondra: <i>Alternaria</i> Leaf spot (California Only) | 7 to 14 days | 3-1/2 to 5 | 5 to 6-1/2 |
| * Recommended rates for preventing disease establishment; use lower rate when disease conditions are light to moderate, higher indicated rates when conditions are severe. | | | |
| ** Rates for use on a 7 day schedule when disease is present. Higher indicated rate should be applied under severe conditions. | | | |

Turfgrasses - Gray snow mold caused by *Typha* spp.: Apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 12,000 square feet). Apply 4-1/2 to 9 ounces of Resound™ 90DF per 1,000 square feet of turf area. Application must be made before snow cover in autumn. Use the higher rate if turf layer remains frozen prior to snow cover. If snow cover is intermittent or lacking during the winter, reapply at 4-1/2 ounces per 1,000 square feet at monthly intervals until gray snow mold conditions no longer prevail. In areas where pink snow mold (*Gerlachia* or *Fusarium* patch) is likely to occur, apply at 4-1/2 ounces per 1,000 square feet in combination with Chipco 26019 50WP at 4 ounces per 1,000 square feet for turf area.

Fusarium (Gerlachia) Patch: For control of *Fusarium* patch only in areas where snow cover is intermittent or lacking during the winter, apply 4-1/2 to 8 ounces per 1,000 square feet of turf area. Begin applications in late autumn and re-apply at 21 to 28 day intervals until conditions favorable for *Fusarium* patch no longer prevail.

Ornamentals and Conifers: Apply Resound™ 90DF at a rate of 1-1/4 pounds per 100 gallons of water unless other directions are given in the tables below. Begin applications as directed for each species and disease condition cited and repeat on a 7 to 14 day schedule until conditions are no longer favorable for disease development. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, use the higher rate specified and the shortest indicated interval between applications.

Aerial application to conifers is permitted although ground applications generally give better coverage. If application with ground equipment is not feasible, Resound™ 90DF may be applied aurally to forest stands in 10 to 20 gallons of water and to Christmas trees in 10 to 50 gallons of water.

Do not apply more than a total of 36.4 pounds chlorothalonil active ingredient per acre per growing season on field-grown ornamentals. Do not apply more than 16.5 pounds chlorothalonil active ingredient per acre per growing season on conifers.

Resound™ 90DF may be used in greenhouses. Do not use mistblowers or high pressure spray equipment when making applications in greenhouses.

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ORNAMENTALS

| BROADLEAF SHRUBS AND TREES | | |
|--|---|--|
| SPECIES | DISEASES CONTROLLED | SUGGESTED FIRST APPLICATION |
| Ash (<i>Fraxinus</i>) | <i>Cercospora</i> <i>Cercosporidium</i> <i>Cylindrosporium</i> leaf spots | Spring Bud Break |
| Azalea* Rhododendron* Buckeye, Horsechestnut Cherry-Laurel Crabapple | <i>Phytophthora</i> die-back <i>Ovulinia</i> flower blight Leaf blotch Anthracnose <i>Cercospora</i> leaf spot Scab Cedar-apple rust <i>Sphaeropsis</i> leaf spot | New leaf emergence: Early bloom Spring bud break Petal fall Spring bud break |
| Dogwood Euonymus Firethorn | <i>Septoria</i> leaf spot Anthracnose Scab | Early bloom Spring bud break Spring bud break |
| Flowering Almond, Quince Sand Cherry Hawthorn Holly Mountain Laurel Oak (red group only) | <i>Monilinia</i> blossom/branch blight Rust <i>Fabraea</i> leaf spot <i>Rhizoctonia</i> web blight <i>Cercospora</i> leaf spot <i>Taphrina</i> leaf blister <i>Actinopelte</i> leaf spot Anthracnose | Early bloom Pre-bloom Warm, moist conditions Spring bud break Dormant budswell |
| Oregon-Grape (<i>Mahonia</i>) | Rust | Spring bud break |
| Photinia | <i>Fabraea</i> (<i>Entomosporium</i>) leaf spot | Spring bud break |
| Pieris (<i>Andromeda</i>) | <i>Phytophthora</i> die-back | New leaf emergence |
| Poplar | <i>Marssonina</i> leaf spot | Spring bud break |
| Privet | <i>Cercospora</i> leaf spot | Prolonged wet conditions |
| Sycamore, Planetree | Anthracnose | Spring bud break |
| Viburnum | Powdery mildew | Mid-summer |

| BULBS AND FLOWERING PLANTS | | |
|---|--|--|
| SPECIES | DISEASES CONTROLLED | SUGGESTED FIRST APPLICATION |
| Carnation | <i>Alternaria</i> leaf spot / branch rot <i>Botrytis</i> flower blight | Transplant of cuttings Cool, moist conditions |
| Chrysanthemum / Daisy | <i>Mycosphaerella</i> ray blight <i>Septoria</i> leaf spot <i>Botrytis</i> flower blight (gray mold) | Transplant of cuttings Pre-bloom |
| Geranium | <i>Botrytis</i> blight Rust | Cool, moist conditions |
| Gladiolus | <i>Curvularia</i> leaf/flower spot <i>Botrytis</i> leaf/flower spot | Early propagation |
| Hollyhock | Rust | Early seedling stage |
| Hydrangea* (foliage only) | <i>Cercospora</i> leaf spot <i>Septoria</i> leaf spot Rust | Early propagation |
| Iris | <i>Botrytis</i> blossom blight <i>Didymellina</i> leaf spot Ink spot | Cool, moist conditions |
| Lily, Crocus, Daffodil, Narcissus, Tulip | <i>Botrytis</i> blossom blight <i>Didymellina</i> leaf spot Ink spot | Cool, moist conditions |
| Petunia* | <i>Phytophthora</i> blight (foliar phase) <i>Botrytis</i> blight | Pre-bloom |
| Rose (use 7/8 lb. per 100 gals.) | Black spot <i>Botrytis</i> blight | Spring bud break |
| Statice | Anthracnose <i>Alternaria</i> <i>Cercospora</i> <i>Botrytis</i> leaf blights | Spring bud break |
| Zinnia | Powdery mildew | First sign of disease |

* Discoloration of blooms has been noted on certain varieties when applications are made during glowing.

| FOLIAGE PLANTS | | |
|---|--|-----------------------------|
| SPECIES | DISEASES CONTROLLED | SUGGESTED FIRST APPLICATION |
| Dracaena | <i>Fusarium</i> leaf spot | Pre-transplant |
| Pachysandra (use 2-1/4 lbs. per 100 gals.) | <i>Volutella</i> leaf blight | Spring bud break |
| Leatherleaf fern | <i>Ascochyta</i> blight <i>Cercospora</i> leaf spot <i>Cylindrocladium</i> leaf spot <i>Rhizoctonia</i> leaf spot | Spring bud break |
| Parlor palm | <i>Bipolaris (Helminthosporium)</i> leaf spot | Cool, moist conditions |
| Prayer plant (Maranta) | <i>Helminthosporium</i> leaf spot | Early propagation |
| Oyster plant (<i>Rhoeo</i>) | Tan leaf spot | Early propagation |
| Syngonium | <i>Cephalosporium</i> leaf spot | Warm, moist conditions |
| Philodendron | <i>Phytophthora</i> blight <i>Dactylaria</i> leaf spot | Moist conditions |

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| CONIFERS | | |
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| DISEASES CONTROLLED | Resound™ 90DF RATE PER ACRE | APPLICATION DIRECTIONS |
| Rhabdocline needle cast (Douglas fir) | 1-1/8 to 2-1/4 pounds | Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance, or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule. |
| Swiss needle cast | 2-1/4 to 4-1/2 pounds | Single application technique: In Christmas tree plantations or forest stands, make one application in the first spring when new shoot growth is 1/2 to 2 inches in length. |
| Scleroderris Canker (pines) Swiss needle cast (Douglas fir) | 1-1/8 to 2-1/4 pounds | Make first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. In nursery beds, apply the highest rate specified on a 3 week schedule. |
| Sirococcus Tip Blight | 1-3/4 to 3 pounds | |
| Rhizosphaera needle cast (spruces) Scirrhia brown spot (pines) | 4-1/2 pounds | |
| Cyclaneusma needle cast (pines) Lophodermium needle cast (pines) | 2-1/4 to 4-1/2 pounds | Apply in early spring prior to budbreak. Repeat applications at approximately 6 to 8 week intervals until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness. |
| Botrytis seedling blight Phoma twig blight | 1-1/8 to 2-1/4 pounds | Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as favorable disease conditions persist. |

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Always use original container to store pesticides in a secure warehouse or storage building. This product should be stored in a cool, dry location. Do not store near open containers of seeds, fertilizers, insecticides, or fungicides. Container should be opened in a well ventilated area. All containers should be kept tightly sealed when not in use.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixtures or rinsate is a violation of Federal law. If container is damaged or if pesticide has spilled, contain all spillage. Place in a closed, labeled container for proper disposal. 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 DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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