

PM

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7969-85

9/4/98

SEP 4 1998

PS 1831

Dr. Abraham J. Tobia
BASF Corporation
Product Registration
P.O. Box 13528
Research Triangle Park, NC 27709-3528

Dear Dr. Tobia:

Subject: Ronilan FL; Curalan
EPA Reg. No. 7969-62
Ronilan DF; Curalan DF;
Ronilan EG; Curalan EG
EPA Reg. No. 7969-85
Your Submissions of August 4, 1998

The amendments referred to above, submitted in connection with registration under FIFRA sec. 3(c)(7)(A), are acceptable provided that you make the following label revision:

All of the diseases of ornamentals listed on the label must be associated with the plants on which they occur and for which control is intended. On the Curalan, Curalan DF and Curalan EG labels, reinstate the section of the label which named specific plants for *Cibornia*, *Monolinia*, *Ovulinia*, *Sclerotinia* and *Stromatinia*.

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

If these conditions are not complied with, the registrations will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Stamped copies of the labels are enclosed for your records.

Sincerely yours,



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

Enclosures

7505C:CGrable:cg:8/25/98

BASF

Not for use in Florida

2/31

Ronilan[®] EG

fungicide

Active ingredient	
Vinclozolin: [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione]	...50.0%
Inert ingredients50.0%
Total100.0%

EPA Reg. No. 7969-85

EPA Est. No. 67545-AZ-01

KEEP OUT OF REACH OF CHILDREN.
CAUTION

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

SEP 4 1998

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

7969-85

See inside booklet for complete **Precautionary Statements, Statement of Practical Treatment, Directions For Use, and Conditions of Sale and Warranty.**

Net contents: 5 pounds (five 1-pound water soluble bags)

Made in Germany

BASF Corporation
P.O. Box 13528, Research Triangle Park, NC 27709

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist. Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

Statement of Practical Treatment

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23-C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G)
- For exposures outdoors, dust/mist filtering respirator (MSHA/NIOSH) approval number prefix TC-21C)

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

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:

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

Environmental Hazards

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

Directions For Use

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

This product is not permitted for residential use. 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.

All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

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

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

Nonagricultural 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, nurseries, or greenhouses.

Storage and Disposal

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

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

Container Disposal: This package contains water-soluble bags inside a foil liner (outer bag). The water-soluble bags dissolve in water and the contents will disperse. If all the water-soluble bags are not used, carefully reseal the foil bag. Each foil bag contains five water-soluble bags. Do not remove the water-soluble bags from the overwrap bags except for immediate use. If exposed to moisture, the water-soluble bags may break. The outer box and inner overwrap packaging of the water-soluble bags should be incinerated or disposed of in a sanitary landfill, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not re-use the empty packaging.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300
BASF Corporation 800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water.

I. General Information

Ronilan® EG fungicide is a contact fungicide for the control of *Botrytis* fruit rot (gray mold) of raspberries, *Sclerotinia* 'drop' (watery soft rot) and *Rhizoctonia* (bottom rot) of lettuce, *Sclerotinia* watery soft rot, *Sclerotium* white rot, *Botrytis* neck rots, *Botrytis* leaf blight, and purple blotch of onions.

Coverage

A chemical barrier of **Ronilan EG** must be established and maintained to achieve effective disease control. For diseases that infect above-ground plant parts (such as fruit rots and leaf blights), thorough spray coverage of the plant parts to be protected is essential. For diseases that infect plant parts at the soil surface or below ground (such as white rot on onions), thorough spray coverage of the soil and stem base is essential. If other diseases are a problem, an additional fungicide will be needed.

Fungicide Resistance

Ronilan EG is a dicarboximide fungicide. Resistance development to other dicarboximides, such as **Rovral®**, may result in resistance to **Ronilan EG**. Therefore, do not extend the total number of applications per crop on this label with **Rovral®**. Do not tank mix **Ronilan EG** with **Rovral®**.

Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

II. Application Instructions

Apply 1-2 pounds of **Ronilan EG** unless instructed differently by section VII. **Crop-Specific Information**. The applicator is responsible for any loss or damage that results from spraying **Ronilan EG** in a manner other than recommended in this label.

Air Application

Water Volume: Use 5-20 gallons of water per acre.

Spray Pressure: Use a maximum of 40 psi.

Application Equipment:

- **Nozzles:** Use nozzles that develop a sheet or spray through a sheet or straight stream discharge, such as CP, Lund, and flat fans with angles of 25°-65°. Narrow fan angles provide better droplet size control than wider angle versions. Nozzles should be positioned no more than 15 feet above the crop and pointed toward the rear of the aircraft. The downward angle of the nozzles should not be greater than 20°.
- **Screens:** If used, do not use screens greater than 50 mesh size as nozzle plugging is possible.

Special Directions for Aerial Application

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances. Do not apply by aircraft when wind is blowing more than 10 mph.

- **On fixed wing aircraft:** The nozzles should be positioned so that the spray being emitted is rearward, slightly downward, and so that the stream or sheet is parallel to the surrounding airstream around the nozzle. The nozzle outlet should also be positioned below any turbulence layer such as those created by the wing and boom. A good rule of thumb is for the nozzle outlet to be at least 2 inches below the boom when booms are mounted in a drop boom configuration.
- **On helicopters:** The nozzles should be positioned so that the stream or sheet is parallel to the surrounding airstream around the nozzle.

Ground Application (Broadcast)

Water Volume: Use a minimum of 50 gallons of spray solution per acre.

Spray Pressure: Use 60-150 psi.

Application Equipment: Thorough spray coverage may be achieved by using the proper nozzle spacing, type and ground speed. Consult manufacturer for specific equipment calibration information.

46 31

III. Additives

BASF does not recommend the use of a spray additive or adjuvant with Ronilan® EG fungicide.

IV. Mixing Order

- 1) **Water:** Begin by agitating a thoroughly clean spray tank three-quarters full of clean water.
- 2) **Agitation:** Maintain constant agitation throughout mixing and application.
- 3) **Products in PVA bags:** (such as **Ronilan EG fungicide**) Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4) **Water-dispersible products** (such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions): If an inductor is used, rinse it thoroughly after the component has been added.
- 5) **Water-soluble products:** If an inductor is used, rinse it thoroughly after the component has been added.
- 6) **Emulsifiable concentrates:** If an inductor is used, rinse it thoroughly after the component has been added.
- 7) **Water-soluble additives** (such as AMS or UAN when applicable): If an inductor is used, rinse it thoroughly after the component has been added.
- 8) Remaining quantity water

Maintain constant agitation during application. Do not use products that contain boron because boron will prevent the water-soluble bags from dissolving. If boron-containing products have been used in previous applications, thoroughly wash the spray tank. For more information, refer to section V.

General Tank Mixing Information.

V. General Tank Mixing Information

No tank mixes are specifically recommended with this product. Consult your local BASF representative or agricultural advisor for assistance.

Physical incompatibility, reduced control, or crop injury may result from mixing **Ronilan EG** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. BASF does not recommend using tank mixes other than those listed on BASF labeling. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

5/31

VI. General Restrictions and Limitations - All Crops

- **Maximum seasonal use rate:** See Table 1 for crop-specific maximum seasonal use rates.
- **Preharvest Interval (PHI):** See Table 1 for crop-specific preharvest intervals.
- **Restricted Entry Interval (REI):** 12 hours.
- **Sequential applications:** Refer to section VII. **Crop-Specific Information.**
- **Rainfast period:** Do not apply during rain. Apply when conditions will permit spray to dry on the plants.
- This product cannot be used to **formulate** or reformulate any other pesticide product.

6/31

Table 1. Restrictions and Limitations

Crop	Minimum Time from Application to Harvest (PHI)	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Lettuce	28 days	2 pounds	6 pounds	No	Yes
Onions	18 days	2 pounds	10 pounds	No	Yes
Raspberries	9 days	2 pounds	8 pounds	No	Yes

VII. Crop-Specific Information

Lettuce

Apply **Ronilan® EG** fungicide for control of *Sclerotinia* "drop" and *Rhizoctonia* "bottom rot." Up to 3 applications may be made under certain conditions in one season.

Rate:

For low disease pressure, apply 1 pound of **Ronilan EG** per acre. For high disease pressure, apply 1.5-2 pounds of **Ronilan EG** per acre.

Timing:

- **Direct seeded lettuce:** Apply the first application immediately after thinning (within 2 days). If cool, wet conditions which favor disease occur for more than 48 hours, make sequential applications 14 days after each application.
- **Transplanted lettuce:** Make the first application 7-10 days after transplanting. If cool, wet conditions which favor disease occur for more than 48 hours, make a second application 14 days after initial application.

Application Equipment: To apply **Ronilan EG** to one-row beds, spray booms should have at least 2 nozzles per row. For two-row beds, use 3 nozzles or more per bed.

Crop-Specific Restrictions and Limitations

Do not use as a plant dip, as injury may occur.
Do not disturb soil after application.

Onions

For control of *Sclerotinia* watery soft rot, *Sclerotium* white rot, and *Botrytis* neck rots, a combination of a soil treatment at planting (soil drench or spray band over the row) and foliar treatments after crop emergence is needed. *Botrytis* leaf blight and purple blotch (*Alternaria porri*) can be controlled only with foliar sprays. Apply lower rates during periods of low disease pressure. Apply higher rates when disease pressure is high. A minimum program of 2 foliar treatments is recommended.

Sclerotinia watery soft rot, sclerotium white rot, and Botrytis neck rot:

• **First application:**

Soil Drench: Apply 2 pounds per acre in 400 gallons of water in a 4-6" band over the row at planting.

Spray Band: Apply 2 pounds per acre at planting in 50 gallons of water applied in a 2-4" band above the row.

Foliar Spray: Apply 2 pounds per acre in 50 gallons of water directed at the stem base. Drop nozzles should be used to ensure that spray reaches the stem and surrounding soil.

- **Sequential application:** Up to 3 additional sprays should be applied if disease pressure is high. If a minimum spray program of 3 sprays is followed, the third application should be made 4-6 weeks before harvest.

Botrytis leaf blight and Alternaria porri purple blotch:

Rate: Apply 1.5-2 pounds of **Ronilan EG** per acre.

Timing: Make first application 4-6 weeks after crop emergence or as soon as disease starts to develop. Make a second application 2 weeks after the initial application. Reapply if conditions occur which favor disease (rain, humidity, or fog).

Crop-Specific Restrictions and Limitations

Do not apply **Ronilan EG** to direct-seeded onions until 4 weeks after emergence.

Raspberries

Apply **Ronilan EG** for control of *Botrytis* fruit rot. The first application should be made no later than 10% primary bloom. Timing of subsequent applications should be made as indicated and will vary according to weather conditions and resultant disease pressure. Apply lower rates during periods of low disease pressure. Apply higher rates when disease pressure is high. 7/31

During periods of frequent natural moisture or when using sprinkler irrigation (high disease pressure):

Rate: Apply 1.5-2 pounds of **Ronilan EG** per acre.

Timing: Apply at 7-9 day intervals (throughout the bearing cycle).

During periods of limited natural moisture or infrequent sprinkler irrigation (low disease pressure):

Rate: Apply 1-1.5 pounds of **Ronilan EG** per acre.

Timing: Apply at 10-14 day intervals (throughout the bearing cycle).

Crops:

This product can be used on the following crops:

Lettuce
Onions
Raspberries

Look inside for complete Restrictions and Limitations and Application Instructions.

Pests listed in this label:

Common Name	Scientific Name
Bottom Rot	<i>Rhizoctonia</i>
Purple Blotch	<i>Alternaria Porri</i>
Leaf Blight	<i>Botrytis spp.</i>
Neck Rot	<i>Botrytis spp.</i>
Watery Soft Rot	<i>Sclerotinia</i>
White Rot	<i>Sclerotium</i>

Additional Information

For additional information, call BASF's **COMMSERV**® at 1-800-874-0081.

Conditions of Sale and Warranty

8/31

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Ronilan is a registered trademark of BASF AG.

CommServ is a registered trademark of BASF Corporation.

Rovral is a registered trademark of Rhone-Poulenc AG Company.

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NVA 98-4-34-0064

BASF

9/31

Curalan[®] EG

fungicide

Active Ingredient:

Vinclozolin [3-(3, 5-dichlorophenyl)-5-ethenyl-5-methyl-2, 4-oxazolidinedione] 41.3%

Inert Ingredients: 58.7%

Total 100.0%

EPA Reg. No. 7969-85

EPA Establishment No. 39578-TX-01

**KEEP OUT OF REACH OF CHILDREN.
CAUTION**

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

SEP 4 1988

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

7969-85

See inside booklet for complete **Precautionary Statements, Statement of Practical Treatment, Directions For Use, and Conditions of Sale and Warranty.**

Net contents:

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist. Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

Statement of Practical Treatment

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- For exposure in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC 23-C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G)
- For exposure outdoors, dust/mist filtering respirator (MSHA/NIOSH) approval number prefix TC-21C)

Wash thoroughly with soap and water after handling. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

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:

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

Environmental Hazards

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment washwaters.

10/31

Directions For Use

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

This product is not permitted for residential use.

This product may only be used as follows:

Commercial: lawn and landscape areas at business and office complex sites, and turf at professional sports complexes or arenas; ornamental/bedding plants.

Industrial: lawn and landscape areas at manufacturing sites; ornamental/bedding plants

Golf Course: tee boxes, greens and turf mowed at 1" or less.

Greenhouse and Nursery: greenhouses and nurseries associated with the production of plants for commercial purposes

Sod Farms: mechanically harvested turf only.

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

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headwear for overhead exposure

Nonagricultural 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, nurseries, or greenhouses.

Storage and Disposal

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

Pesticide Storage: Do not store below 32° F or above 100° F. Store in a dry place away from heat or open flame.

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

Container Disposal:

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

• **Water-soluble packaging:** This package contains water-soluble bags inside a foil liner (outer bag). The bags will dissolve in water and the contents will disperse. If all the water-soluble bags are not used, carefully reseal the full bag. Do not remove the water-soluble bags from the overwrap bags except for immediate use. If exposed to moisture, the water-soluble bags may break.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300
BASF Corporation 800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

Steps to be taken in case material is released or spilled:

Keep the spilled product dry to reduce volume. Scoop up the recaptured dry product and return it to the original container. Apply product according to normal label directions. If the spilled product gets wet, add a drying agent to contain the spill and dispose of as directed.

I. General Information

Curalan® EG fungicide is effective on all turfgrasses and ornamentals listed in **Tables 1 and 2**. Refer to the appendix for a list of diseases controlled.

Mode of Action

Curalan EG is a contact fungicide. It should be applied preventatively to protect susceptible plant tissues from infection. **Curalan EG** inhibits spore germination. If spores have already germinated, **Curalan EG** will prevent any further growth of the germ tube.

Crop Tolerance

All listed plants are tolerant to **Curalan EG** at listed stages of growth. Consult your local representative or agricultural advisor for assistance. 4/3/31

Notice to user: Due to variability within species, and in application techniques and equipment, and the number of possible tank mix combinations, neither the manufacturer nor the seller has determined whether or not **Curalan EG** can safely be used on all varieties and species of nonbearing food crops, trees, shrubs, ornamentals, bedding plants, ground covers, nursery, turf and other non-food crops under all conditions. It is recommended, therefore, that the professional user determine if **Curalan EG** can be used safely before broad use by applying the recommended use rate of **Curalan EG** on a nonlabeled species or variety under the conditions expected to be encountered on a small test area. Any adverse effects should be visible within 14 days.

Irrigation

Allow foliage to dry after application and before irrigation.

Coverage

Thorough coverage of all foliage is important, therefore enough spray volume and pressure must be used to achieve desired disease control.

Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

II. Application Instructions

Apply **Curalan EG** as instructed by section VII. **Crop-Specific Information**.

III. Additives

To achieve consistent disease control, an additive, such as a wetting agent, may be needed. Refer to section VII. **Crop-Specific Information** for more details. Consult your local BASF representative for recommendations for your area.

Compatibility Test for Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

- 1) **Water:** — For 20 gallons per acre spray volume, use 3.3 cups (807 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- 2) **Products in PVA bags:** — Cap the jar and invert 10 cycles.
- 3) **Water-dispersible products:** — (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) Cap the jar and invert 10 cycles.
- 4) **Water-soluble products:** — Cap the jar and invert 10 cycles.
- 5) **Emulsifiable concentrates:** — (oil concentrate or methylated seed oil when applicable) Cap the jar and invert 10 cycles.
- 6) **Water-soluble additives:** — Cap the jar and invert 10 cycles.
- 7) Let the solution stand for 15 minutes.
- 8) **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. Do not use any spray solution that could clog spray nozzles.

IV. Mixing Order

- 12/31
- 1) **Water:** Begin by agitating a thoroughly clean sprayer tank half full of clean water.
 - 2) **Products in PVA bags:** Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing. To prepare spray solution for aerial application, use a mixing tank or mixing vat first to get product into suspension before transferring suspension to air application equipment.
 - 3) **Water-dispersible products:** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
 - 4) **Water-soluble products:**
 - 5) **Emulsifiable concentrates** (oil concentrate or methylated seed oil when applicable)
 - 6) **Water-soluble additives** (AMS or UAN when applicable)
 - 7) Remaining quantity water

Maintain constant agitation during application. For more information, refer to section V. **Tank Mixing Application.**

V. General Tank Mixing Information

See section VII. **Crop-Specific Information** for more details. Read and follow the applicable **Restrictions and Limitations** and **Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Tank Mix Partners/Components

The following products may be tank mixed with **Curalan EG** according to the specific tank mixing instructions in this label and respective product labels

- **Spotrete® fungicide**

BASF does not recommend using tank mixes other than those listed on BASF labeling. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Curalan EG** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

VI. General Restrictions and Limitations - All Crops

13/3

- **Maximum seasonal use rate:** Do not apply more than a total of 8 pounds of Curalan® EG per acre (4.40 ounces per 1,000 square feet), per season.
- **Preharvest Interval (PHI):** not applicable.
- **Restricted Entry Interval (REI): 12 hours.**
- Refer to section VII. **Crop-Specific Information** for **sequential application** intervals for **Curalan EG**.
- Do not apply to areas likely to be grazed by livestock and do not feed clippings to livestock or poultry.
- Do not apply through any type of **irrigation** equipment.
- This product cannot be used to **formulate** or reformulate any other pesticide product.

Table 1. Crop-Specific Restrictions and Limitations

Crop ¹	Minimum Time from Application to Harvest (PHI)	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Herbaceous Ornamentals*	n/a	8 pounds	No	Yes
Woody Ornamentals*	n/a	8 pounds	No	Yes
Turfgrasses	n/a	8 pounds	No	No

¹ Refer to **Table 3. Application Rates for Control of Gray Mold in Ornamentals.**

² Field grown flowers only

* Do not exceed Maximum Seasonal Use Rate

VII. Crop-Specific Information

Ornamentals

Curalan® EG fungicide controls of *Botrytis* spp. on all plant types listed in Table 2. Refer to the appendix for a list of diseases controlled.

Rate: For the ornamental plants listed in Table 2, apply 0.5-1 pound of **Curalan EG** per 100 gallons of water as a foliar spray. Reapply every 10-14 days as needed. Use only on nonbearing plants.

Foliar Spray:

Refer to section IV. **Mixing Order** for mixing instructions. Normally 2-6 gallons of spray make-up will cover 1,000 square feet of foliage. Apply until leaves glisten, but not to point of runoff.

Preventative: Apply 0.5-0.75 pound of **Curalan® EG** per 100 gallons of water. Refer to Table 4. **Dilution Table for Curalan EG** spray solutions for mixing instructions.

Curative: Apply 0.75-1 pound of **Curalan EG** per 100 gallons of water for medium to high disease

pressure.

Notes to user: Ensure that plants dry off quickly after treatment. Do not drench growth media. Do not spray seedlings until formation of three true leaves.

Ornamental Specific Application Instructions:

Thermal Fogger in Greenhouses: When using a thermal fogger, apply 3-6 ounces of **Curalan EG** to the volume of fogging solution specified in Table 4. Thermal foggers with a built-in agitator may be used to apply **Curalan EG**. In a separate container prepare fogging solution of 19 fluid ounces of VK-11 carrier solution and 51 fluid ounces of water. Then add the appropriate amount of **Curalan EG** (see Table 3. **Application Rates for Ornamental Uses**). This solution will cover 10,000 square feet of greenhouse area.

Preventative: Add 0.2 pound of **Curalan® EG** to the volume of fogging solution specified. Repeat every 10-14 days as needed.

Curative: Apply 0.4 pound of **Curalan EG** to the volume of fogging solution. Repeat every 10-14 days as long as disease conditions prevail.

14/31

Table 2. Plant Types Tolerant to Curalan EG

Herbaceous	African Violet	Coral Bells	Geranium	Marigold	Saintpaulia
	Ajuga	Crossandra	Gerbera	Mathiola	Salvia
	Alyssum	Croton	Gladiolus	Monarda	Saxifraga
	Anthurium	Cyclamen	Gynura	Narcissus	Scindapsus
	Artemisia	Daffodil	Gypsophila	Orchid (<i>Dendrobium</i>)	Senecio
	Aster	Delphinium	Hoya	Pelargonium	Shasta Daisy
	Begonia	Dianthus	Hyacinth	Peperomia	Sinningia
	Bleeding Heart	Dieffenbachia	Impatiens	Petunia	Snapdragon
	Calceolaria	Dracaena	Iris	Philodendron	Statice
	Camation	Easter Lily	Ivy	Phlox	Tulip
	Chrysanthemum	Episcia	Kalanchoe	Poppy, Oriental	Violet
	Cineraria	Euphorbia	Liatris	Pilea	Zinnia
	Coleus	Fuchsia	Lily	Primrose	
Columbine	Gazania	Lupine	Primula		
Woody	Almond, Flowering	Grape Myrtle	Ivy	Plum	Schefflera
	Azalea	Elm	Juniper	Poinsettia ¹	Spruce
	Camellia	Euonymous	Oregon Grape	Polyscias	Vinca
	Cedar	Ficus	Pachysandra	Protea spp.	
	Cherry, Ornamental	Fir	Palm, Areca	Redwood	
	Chokecherry	Hydrangea	Pine	Rhododendron	

¹ Do not spray poinsettias in color or after November 1. Some cultivars may be sensitive to leaf spotting. Do not use on poinsettia cultivar V-14 Glory.

Table 3. Application Rates for Control of Gray Mold in Ornamentals

Plant	Preventative Treatments		Curative Treatments
	Dip Rate per 100 gallons of water	Spray Rate per 100 gallons of water	Spray Rate per Acre
Bulb and Corm	1-2 pounds	—	—
Cut Flowers	1.5-3 pounds	1.5-3 pounds	—
Field Grown	—	—	1.5-2* pounds
Rose Budwood	1.5 pounds	1.5 pounds	—
Bareroot Nursery Stock	1.5 pounds	1.5 pounds	—

* For aerial applications, use 1.5 pounds in 20-25 gallons of water per acre. For ground applications, use 1.5-2 pounds in 100 gallons of water.

Table 4. Dilution Table for Curalan EG Spray Solution

water volume	Rate of Curalan EG					
	8 ounces	12 ounces	16 ounces	24 ounces	32 ounces	48 ounces
100 gallons	8 ounces	12 ounces	16 ounces	24 ounces	32 ounces	48 ounces
50 gallons	4 ounces	6 ounces	8 ounces	12 ounces	16 ounces	24 ounces
25 gallons	2 ounces	3 ounces	4 ounces	6 ounces	8 ounces	12 ounces

15/31

BULB AND CORM

Rate: As a dip, apply 1-2 pounds per 100 gallons of water.
Timing: Apply after harvest and prior to storage.
 Refer to Table 2. Plants Types Tolerant to Curalan EG for a complete list of plants.

CUT FLOWERS (gladiolus and rose):

Apply Curalan EG fungicide to prevent gray mold (*Botrytis gladiorum*) on gladiolus spikes as well as *Botrytis cinerea* on roses in cold storage or transit.
Rate: As a postharvest dip, dip flower buds 3-4 seconds in solution of 1.5-3 pounds per 100 gallons of water.
Timing: Apply after grading and prior to cold storage. Addition of a wetting agent will enhance spreadability. Maintain suspension by agitation.

FIELD GROWN FLOWERS:

Apply Curalan EG fungicide to field grown flowers to control gray mold (*Botrytis spp.*). Repeat every 10-14 days.
Air Application
Rate: Apply 1.5 pounds of Curalan EG per acre in 20-25 gallons of water.
Timing: Apply during production.
Ground Application
Rate: Apply 1.5-2 pounds of Curalan EG per acre in 100 gallons of water.
Timing: Apply during production.

ROSE BUDWOOD AND BARERoot NURSERY

STOCK:

Rate: When applying as a spray or dip to rose budwood and bareroot nursery stock, use 1.5 pounds per 100 gallons of water.
Timing: Apply after harvest and prior to storage to control gray mold (*Botrytis cinerea*).

Turfgrass

Rate: Apply Curalan® EG at the rates indicated in Table 5 in 1-4 gallons of water per 1,000 square feet (40-160 gallons per acre) after mowing. The preventive rate of Curalan EG should be applied before the disease is expected to appear. Apply subsequent treatments at the preventative rate once control has been achieved.

Table 5. Application Rates and Timing for Turfgrasses

Disease	Application Intervals*	Preventative Treatment	
		rate per acre	rate per 1,000 square feet
Dollar Spot	21-28 days	2.7 pounds	1 ounce
Leaf Spots and Melting Out	14-28 days	2.7 pounds	1 ounce
Red Thread and Pink Patch	14-28 days	2.7 pounds	1 ounce
Brown Patch	14-28 days	2.7 pounds	1 ounce
Gray Snow Mold**	10-21 days	2.7 pounds	1 ounce
Fusarium Patch & Pink Snow Mold**	10-21 days	2.7 pounds	1 ounce

* Re-treat at shorter intervals or use higher rates if conditions favorable to disease exist.

** Tank mix with Fungo® or Spotrete® for improved control.

Crops:

This product can be used on the following crops:

Ornamentals (Herbaceous, Woody)
Turfgrasses

Look inside for complete **Restrictions and Limitations and Application Instructions.**

Diseases listed in this label:

Common Name	Scientific Name
Anthracnose	<i>Colletotrichum graminicola</i>
Blossom Blight	<i>Monolinia laxa</i>
Brown Patch	<i>Rhizoctonia solani</i>
Brown Rot	<i>Monolinia fructicola</i>
Corm Rot	<i>Stromatinia</i>
Dollar Spot	<i>Sclerotinia homoeocarpa</i> ; <i>Lanzia sp.</i> ; <i>Moellerodiscus sp.</i>
Flower Blight	<i>Ovulinia</i>
Fusarium Patch	<i>Fusarium nivale</i>
Black Snow Mold	<i>Microdochium</i>
Gray Mold	<i>Botrytis cinerea</i>
Gray Snow Mold	<i>Typhula incarnata</i>
Helminthosporium	<i>Helminthosporium</i>
Leaf Spots	<i>Drechslera spp.</i>
Melting Out	<i>Bipolaris sp.</i>
Pink Patch	<i>Limonomyces roseipellis</i>
Red Thread	<i>Laetisaria fuciformis</i> <i>Ciborinia</i>

Additional Information

For additional information, call BASF's **COMM-SERV™** at 1-800-878-8060.

Conditions of Sale and Warranty

16/31

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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NVA 98-4-12-0067

BASF Corporation
P.O. Box 13528
Research Triangle Park, NC 27709

Ronilan® DF

fungicide

Active ingredient

Vinclozolin: [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione]50.0%

Inert ingredients.....50.0%

Total100.0%

EPA Reg. No. 7969-85

EPA Est. No. 7969-WG-01

KEEP OUT OF REACH OF CHILDREN.

CAUTION

**ACCEPTED
with COMMENTS
In EPA Letter Dated
SEP 1 1992**

*Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
7969-85*

See inside booklet for complete **Precautionary Statements, Statement of Practical Treatment, Directions For Use, and Conditions of Sale and Warranty.**

Net contents: 55.1 pounds (25 kilograms)

Made in Germany

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist. Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

Statement of Practical Treatment

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC 23-C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G)
- For exposures outdoors, dust/mist filtering respirator (MSHA/NIOSH) approval number prefix TC-21C)

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

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:

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

Environmental Hazards

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Endangered Species Concerns

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

18/31

Directions For Use

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

This product is not permitted for residential use. 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.

All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

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

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headwear for overhead exposure

Nonagricultural 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, nurseries, or greenhouses.

Storage and Disposal

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

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

Container Disposal: Completely empty box into application equipment. Then dispose of empty box in a sanitary landfill or by incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300
BASF Corporation 800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water.

I. General Information

Fonilan® DF fungicide is a contact fungicide for the control of *Botrytis* fruit rot (gray mold) of raspberries, *Sclerotinia* 'drop' (watery soft rot) and *Rhizoctonia* (bottom rot) of lettuce, *Sclerotinia* watery soft rot, *Sclerotium* white rot, *Botrytis* neck rots, *Botrytis* leaf blight, and purple blotch of onions.

Coverage

A chemical barrier of **Ronilan DF** must be established and maintained to achieve effective disease control.

For diseases that infect above-ground plant parts (such as fruit rots and leaf blights), thorough spray coverage of the plant parts to be protected is essential.

For diseases that infect plant parts at the soil surface or below ground (such as white rot on onions), thorough spray coverage of the soil and stem base is essential. If other diseases are a problem, an additional fungicide will be needed.

Fungicide Resistance

Ronilan DF is a dicarboximide fungicide. Resistance development to other dicarboximides, such as **Rovral®**, may result in resistance to **Ronilan DF**.

Therefore, do not extend the total number of applications per crop on this label with **Rovral**. Do not tank mix **Ronilan DF** with **Rovral**.

Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

II. Application Instructions

Apply 1-2 pounds of **Ronilan DF** unless instructed differently by section **VII. Crop-Specific Information**. The applicator is responsible for any loss or damage that results from spraying **Ronilan DF** in a manner other than recommended in this label.

Air Application

Water Volume: Use 5-20 gallons of water per acre.

Spray Pressure: Use a maximum of 40 psi.

Application Equipment:

- **Nozzles:** Use nozzles that develop a sheet of spray through a sheet or straight stream discharge, such as CP, Lund, and flat fans with angles of 25°-65°. Narrow fan angles provide better droplet size control than wider angle versions. Nozzles should be positioned no more than 15 feet above the crop and pointed toward the rear of the aircraft. The downward angle of the nozzles should not be greater than 20°.
- **Screens:** If used, do not use screens greater than 50 mesh size as nozzle plugging is possible.

Special Directions for Aerial Application

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances. Do not apply by aircraft when wind is blowing more than 10 mph.

- **On fixed wing aircraft:** The nozzles should be positioned so that the spray being emitted is rearward, slightly downward, and so that the stream or sheet is parallel to the surrounding airstream around the nozzle. The nozzle outlet should also be positioned below any turbulence layer such as those created by the wing and boom. A good rule of thumb is for the nozzle outlet to be at least 2 inches below the boom when booms are mounted in a drop boom configuration.
- **On helicopters:** The nozzles should be positioned so that the stream or sheet is parallel to the surrounding airstream around the nozzle.

Ground Application (Broadcast)

Water Volume: Use a minimum of 50 gallons of spray solution per acre.

Spray Pressure: Use 60-150 psi.

Application Equipment: Thorough spray coverage may be achieved by using the proper nozzle spacing, type and ground speed. Consult manufacturer for specific equipment calibration information.

III. Additives

BASF does not recommend the use of a spray additive or adjuvant with Ronilan® DF fungicide.

IV. Mixing Order

- 1) **Water:** Begin by agitating a thoroughly clean spray tank three-quarters full of clean water.
- 2) **Agitation:** Maintain constant agitation throughout mixing and application.
- 3) **Products in PVA bags:** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4) **Water-dispersible products** (such as Ronilan DF fungicide, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions): If an inductor is used, rinse it thoroughly after the component has been added.
- 5) **Water-soluble products:** If an inductor is used, rinse it thoroughly after the component has been added.
- 6) **Emulsifiable concentrates:** If an inductor is used, rinse it thoroughly after the component has been added.
- 7) **Water-soluble additives** (such as AMS or UAN when applicable): If an inductor is used, rinse it thoroughly after the component has been added.
- 8) Remaining quantity water

Maintain constant agitation during application. For more information, refer to section V. General Tank Mixing Information.

V. General Tank Mixing Information

No tank mixes are specifically recommended with this product. Consult your local BASF representative or agricultural advisor for assistance.

Physical incompatibility, reduced control, or crop injury may result from mixing Ronilan DF with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. BASF does not recommend using tank mixes other than those listed on BASF labeling. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

20/31

VI. General Restrictions and Limitations - All Crops

2013

- **Maximum seasonal use rate:** See Table 1 for crop-specific maximum seasonal use rates.
- **Preharvest Interval (PHI):** See Table 1 for crop-specific preharvest intervals.
- **Restricted Entry Interval (REI):** 12 hours.
- **Sequential applications:** Refer to section VII. Crop-Specific Information.
- **Rainfast period:** Do not apply during rain. Apply when conditions will permit spray to dry on the plants.
- This product cannot be used to **formulate** or **reformulate** any other pesticide product.

Table 1. Restrictions and Limitations

Crop	Minimum Time from Application to Harvest (PHI)	Maximum Rate Per Acre Per Application	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Lettuce	28 days	2 pounds	6 pounds	No	Yes
Onions	18 days	2 pounds	10 pounds	No	Yes
Raspberries	9 days	2 pounds	8 pounds	No	Yes

VII. Crop-Specific Information

Lettuce

Apply **Ronilan® DF fungicide** for control of *Sclerotinia* "drop" and *Rhizoctonia* "bottom rot." Up to 3 applications may be made under certain conditions in one season.

Rate:

For low disease pressure, apply 1 pound of **Ronilan DF** per acre. For high disease pressure, apply 1.5-2 pounds of **Ronilan DF** per acre.

Timing:

- **Direct seeded lettuce:** Apply the first application immediately after thinning (within 2 days). If cool, wet conditions which favor disease occur for more than 48 hours, make sequential applications 14 days after each application.
- **Transplanted lettuce:** Make the first application 7-10 days after transplanting. If cool, wet conditions which favor disease occur for more than 48 hours, make a second application 14 days after initial application.

Application Equipment: To apply **Ronilan DF** to one-row beds, spray booms should have at least 2 nozzles per row. For two-row beds, use 3 nozzles or more per bed.

Crop-Specific Restrictions and Limitations

Do not use as a plant dic. as injury may occur. Do not disturb soil after application.

Onions

For control of *Sclerotinia* watery soft rot, *Sclerotium* white rot, and *Botrytis* neck rots, a combination of a soil treatment at planting (soil drench or spray band over the row) and foliar treatments after crop emergence is needed. *Botrytis* leaf blight and purple blotch (*Alternaria porri*) can be controlled only with foliar sprays. Apply lower rates during periods of low disease pressure. Apply higher rates when disease pressure is high. A minimum program of 2 foliar treatments is recommended.

Sclerotinia watery soft rot, sclerotium white rot, and Botrytis neck rot:

• First application:

Soil Drench: Apply 2 pounds per acre in 400 gallons of water in a 4-5" band over the row at planting.

Spray Band: Apply 2 pounds per acre at planting in 50 gallons of water applied in a 2-4" band above the row.

Foliar Spray: Apply 2 pounds per acre in 50 gallons of water directed at the stem base. Drop nozzles should be used to ensure that spray reaches the stem and surrounding soil.

- **Sequential application:** Up to 3 additional sprays should be applied if disease pressure is high. If a minimum spray program of 3 sprays is followed, the third application should be made 4-6 weeks before harvest.

Botrytis leaf blight and Alternaria porri purple blotch:

Rate: Apply 1.5-2 pounds of **Ronilan DF** per acre.

Timing: Make first application 4-6 weeks after crop emergence or as soon as disease starts to develop. Make a second application 2 weeks after the initial application. Reapply if conditions occur which favor disease (rain, humidity, or fog).

Crop-Specific Restrictions and Limitations

Do not apply **Ronilan DF** to direct-seeded onions until 4 weeks after emergence.

Raspberries

Apply **Ronilan DF fungicide** for control of *Botrytis* fruit rot. The first application should be made no later than 10% primary bloom. Timing of subsequent applications should be made as indicated and will vary according to weather conditions and resultant disease pressure. Apply lower rates during periods of low disease pressure. Apply higher rates when disease pressure is high. 22/31

During periods of frequent natural moisture or when using sprinkler irrigation (high disease pressure):

Rate: Apply 1.5-2 pounds of **Ronilan DF** per acre.

Timing: Apply at 7-9 day intervals (throughout the bearing cycle).

During periods of limited natural moisture or infrequent sprinkler irrigation (low disease pressure):

Rate: Apply 1-1.5 pounds of **Ronilan DF** per acre.

Timing: Apply at 10-14 day intervals (throughout the bearing cycle).

Crops:

This product can be used on the following crops:

Lettuce
Onions
Raspberries

Look inside for complete Restrictions and Limitations and Application Instructions.

Pests listed in this label:

Common Name	Scientific Name
Bottom Rot	<i>Rhizoctonia</i>
Purple Blotch	<i>Alternaria Porri</i>
Leaf Blight	<i>Botrytis</i> spp.
Neck Rot	<i>Botrytis</i> spp.
Watery Soft Rot	<i>Sclerotinia</i>
White Rot	<i>Sclerotium</i>

Additional Information

For additional information, call BASF's **COMMSERV**™ at 1-800-874-0081.

Conditions of Sale and Warranty

23731

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Ronilan is a registered trademark of BASF AG.

CommServ is a registered trademark of BASF Corporation.

Rovral is a registered trademark of Rhone-Poulenc AG Company.

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NVA 98-4-34-0065

BASF Corporation
P.O. Box 13528
Research Triangle Park, NC 27709

ASF

BASF

24/31

Curalan® DF

fungicide

Active Ingredient:

Vinclozolin [3-(3, 5-dichlorophenyl)-5-ethenyl-5-methyl-2, 4-oxazolidinedione]	.41.3%
Inert Ingredients:	.58.7%
Total	100.0%

EPA Reg. No. 7969-85

EPA Establishment No. 39578-TX-01

**KEEP OUT OF REACH OF CHILDREN.
CAUTION**

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

SEP 1 1998
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
7969-85

See inside booklet for complete **Precautionary Statements**, **Statement of Practical Treatment**, **Directions For Use**, and **Conditions of Sale and Warranty**.

Net contents:

BASF Corporation
P.O. Box 13528, Research Triangle Park, NC 27709

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist. Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

Statement of Practical Treatment

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- For exposure in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC 23-C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G)
- For exposure outdoors, dust/mist filtering respirator (MSHA/NIOSH) approval number prefix TC-21C)

Wash thoroughly with soap and water after handling. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

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:

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

Environmental Hazards

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment washwaters.

25/31

Directions For Use

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

This product is not permitted for residential use.

This product may only be used as follows:

Commercial: lawn and landscape areas at business and office complex sites, and turf at professional sports complexes or arenas; ornamental/bedding plants.

Industrial: lawn and landscape areas at manufacturing sites; ornamental/bedding plants

Golf Course: tee boxes, greens and turf mowed at 1" or less.

Greenhouse and Nursery: greenhouses and nurseries associated with the production of plants for commercial purposes

Sod Farms: mechanically harvested turf only.

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

- Coveralls over long-sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headwear for overhead exposure

Nonagricultural 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, nurseries, or greenhouses.

Storage and Disposal

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

Pesticide Storage: Do not store below 32° F or above 100° F. Store in a dry place away from heat or open flame.

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

Container Disposal:

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

• **Water-soluble packaging:** This package contains water-soluble bags inside a foil liner (outer bag). The bags will dissolve in water and the contents will disperse. If all the water-soluble bags are not used, carefully reseal the full bag. Do not remove the water-soluble bags from the overwrap bags except for immediate use. If exposed to moisture, the water-soluble bags may break.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

CHEMTREC 800-424-9300
BASF Corporation 800-832-HELP

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment.
- Your local poison control center (hospital).
- BASF Corporation (800-832-HELP)

Steps to be taken in case material is released or spilled:

Keep the spilled product dry to reduce volume. Scoop up the recaptured dry product and return it to the original container. Apply product according to normal label directions. If the spilled product gets wet, add a drying agent to contain the spill and dispose of as directed.

I. General Information

Curalan® DF fungicide is effective on all turfgrasses and ornamentals listed in Tables 1 and 2. Refer to the appendix for a list of diseases controlled.

Mode of Action

Curalan DF is a contact fungicide. It should be applied preventatively to protect susceptible plant tissues from infection. Curalan DF inhibits spore germination. If spores have already germinated, Curalan DF will prevent any further growth of the germ tube.

Crop Tolerance

All listed plants are tolerant to Curalan DF at listed stages of growth. Consult your local representative or agricultural advisor for assistance.

Notice to user: Due to variability within species, and in application techniques and equipment, and the number of possible tank mix combinations, neither the manufacturer nor the seller has determined whether or not Curalan DF can safely be used on all varieties and species of nonbearing food crops, trees, shrubs, ornamentals, bedding plants, ground covers, nursery, turf and other non-food crops under all conditions. It is recommended, therefore, that the professional user determine if Curalan DF can be used safely before broad use by applying the recommended use rate of Curalan DF on a nonlabeled species or variety under the conditions expected to be encountered on a small test area. Any adverse effects should be visible within 14 days.

Irrigation

Allow foliage to dry after application and before irrigation.

Coverage

Thorough coverage of all foliage is important, therefore enough spray volume and pressure must be used to achieve desired disease control.

Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product.

II. Application Instructions

Apply Curalan DF as instructed by section VII. Crop-Specific Information.

III. Additives

To achieve consistent disease control, an additive, such as a wetting agent, may be needed. Refer to section VII. Crop-Specific Information for more details. Consult your local BASF representative for recommendations for your area.

Compatibility Test for Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

- 1) **Water:** — For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- 2) **Products in PVA bags:** — Cap the jar and invert 10 cycles.
- 3) **Water-dispersible products:** — (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) Cap the jar and invert 10 cycles.
- 4) **Water-soluble products:** — Cap the jar and invert 10 cycles.
- 5) **Emulsifiable concentrates:** — (oil concentrate or methylated seed oil when applicable) Cap the jar and invert 10 cycles.
- 6) **Water-soluble additives:** — Cap the jar and invert 10 cycles.
- 7) Let the solution stand for 15 minutes.
- 8) **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. Do not use any spray solution that could clog spray nozzles.

IV. Mixing Order

- 1) **Water:** Begin by agitating a thoroughly clean sprayer tank half full of clean water.
- 2) **Products in PVA bags:** Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing. To prepare spray solution for aerial application, use a mixing tank or mixing vat first to get product into suspension before transferring suspension to air application equipment.
- 3) **Water-dispersible products:** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
- 4) **Water-soluble products:**
- 5) **Emulsifiable concentrates** (oil concentrate or methylated seed oil when applicable)
- 6) **Water-soluble additives** (AMS or UAN when applicable)
- 7) Remaining quantity water

Maintain constant agitation during application. For more information, refer to section V. Tank Mixing Application.

V. General Tank Mixing Information

See section VII. Crop-Specific Information for more details. Read and follow the applicable **Restrictions and Limitations and Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Tank Mix Partners/Components

The following products may be tank mixed with **Curalan DF** according to the specific tank mixing instructions in this label and respective product labels.

- **Spotrete® fungicide**

BASF does not recommend using tank mixes other than those listed on BASF labeling. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Curalan DF** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Local agricultural authorities may be a source of information when using other than BASF recommended tank mixes.

27/31

VI. General Restrictions and Limitations - All Crops

2x/31

- **Maximum seasonal use rate:** Do not apply more than a total of 8 pounds of Curalan® DF per acre (4.40 ounces per 1,000 square feet), per season.
- **Preharvest Interval (PHI):** not applicable.
- **Restricted Entry Interval (REI):** 12 hours.
- Refer to section VII. **Crop-Specific Information** for sequential application intervals for Curalan DF
- Do not apply to areas likely to be grazed by livestock and do not feed clippings to livestock or poultry.
- Do not apply through any type of **irrigation** equipment.
- This product cannot be used to **formulate** or reformulate any other pesticide product.

Table 1. Crop-Specific Restrictions and Limitations

Crop ¹	Minimum Time from Application to Harvest (PHI)	Maximum Rate Per Acre Per Season	Livestock Grazing or Feeding	Aircraft Application
Herbaceous Ornamentals*	n/a	8 pounds	No	Yes ²
Woody Ornamentals*	n/a	8 pounds	No	Yes ²
Turfgrasses	n/a	8 pounds	No	No

¹ Refer to Table 3. Application Rates for Control of Gray Mold in Ornamentals.

² Field grown flowers only

- Do not exceed Maximum Seasonal Use Rate

VII. Crop-Specific Information

Ornamentals

Curalan® DF fungicide controls of *Botrytis* spp. on all plant types listed in Table 2. Refer to the appendix for a list of diseases controlled.

Rate: For the ornamental plants listed in Table 2, apply 0.5-1 pound of **Curalan DF** per 100 gallons of water as a foliar spray. Reapply every 10-14 days as needed. Use only on nonbearing plants.

Foliar Spray:

Refer to section IV. **Mixing Order** for mixing instructions. Normally 2-6 gallons of spray make-up will cover 1,000 square feet of foliage. Apply until leaves glisten, but not to point of runoff.

Preventative: Apply 0.5-0.75 pound of **Curalan® DF** per 100 gallons of water. Refer to Table 4. **Dilution Table for Curalan DF** spray solutions for mixing instructions.

Curative: Apply 0.75-1 pound of **Curalan DF** per 100 gallons of water for medium to high disease

pressure.

Notes to user: Ensure that plants dry off quickly after treatment. Do not drench growth media. Do not spray seedlings until formation of three true leaves.

Ornamental Specific Application Instructions:

Thermal Fogger in Greenhouses: When using a thermal fogger, apply 3-6 ounces of **Curalan DF** to the volume of fogging solution specified in Table 4. Thermal foggers with a built-in agitator may be used to apply **Curalan DF**. In a separate container prepare fogging solution of 19 fluid ounces of VK-11 carrier solution and 51 fluid ounces of water. Then add the appropriate amount of **Curalan DF** (see Table 3. **Application Rates for Ornamental Uses**). This solution will cover 10,000 square feet of greenhouse area.

Preventative: Add 0.2 pound of **Curalan® DF** to the volume of fogging solution specified. Repeat every 10-14 days as needed.

Curative: Apply 0.4 pound of **Curalan DF** to the volume of fogging solution. Repeat every 10-14 days as long as disease conditions prevail.

Table 2. Plant Types Tolerant to Curalan DF

Herbaceous	African Violet	Coral Bells	Geranium	Marigold	Santpaulia
	Ajuga	Crossandra	Gerbera	Mathiola	Savia
	Alyssum	Croton	Gladiolus	Monarda	Saxifraga
	Anthurium	Cyclamen	Gynura	Narcissus	Scandapsus
	Artemisia	Daffodil	Gypsophila	Orchid (<i>Dendrobium</i>)	Senecio
	Aster	Delphinium	Hoya	Pelargonium	Shasta Cas.
	Begonia	Dianthus	Hyacinth	Peperomia	Sinningia
	Bleeding Heart	Dieffenbachia	Impatiens	Petunia	Snapdragon
	Calceolaria	Dracaena	Iris	Philodendron	Statice
	Carnation	Easter Lily	Ivy	Phlox	Tulip
	Chrysanthemum	Episcia	Kalanchoe	Poppy, Oriental	Violet
	Cineraria	Euphorbia	Liatris	Pilea	Zinnia
Coleus	Fuchsia	Lily	Primrose		
Columbine	Gazania	Lupine	Primula		
Woody	Almond, Flowering	Crape Myrtle	Ivy	Plum	Schefflera
	Azalea	Elm	Juniper	Poinsettia ¹	Spruce
	Camellia	Euonymous	Oregon Grape	Polyscias	Yucca
	Cedar	Ficus	Pachysandra	Protea spp.	
	Cherry, Ornamental	Fir	Palm, Areca	Redwood	
	Chokecherry	Hydrangea	Pine	Rhododendron	

¹ Do not spray poinsettias in color or after November 1. Some cultivars may be sensitive to leaf spotting. Do not use on poinsettia cultivar V-14 Glory.

Table 3. Application Rates for Control of Gray Mold in Ornamentals

Plant	Preventative Treatments		Curative Treatments
	Dip Rate per 100 gallons of water	Spray Rate per 100 gallons of water	Spray Rate per Acre
Bulb and Corm	1-2 pounds	—	—
Cut Flowers	1.5-3 pounds	1.5-3 pounds	—
Field Grown	—	—	1.5-2* pounds
Rose Budwood	1.5 pounds	1.5 pounds	—
Bareroot Nursery Stock	1.5 pounds	1.5 pounds	—

* For aerial applications, use 1.5 pounds in 20-25 gallons of water per acre. For ground applications, use 1.5-2 pounds in 100 gallons of water.

Table 4. Dilution Table for Curalan DF Spray Solution

water volume	Rate of Curalan DF					
	8 ounces	12 ounces	16 ounces	24 ounces	32 ounces	48 ounces
100 gallons	8 ounces	12 ounces	16 ounces	24 ounces	32 ounces	48 ounces
50 gallons	4 ounces	6 ounces	8 ounces	12 ounces	16 ounces	24 ounces
25 gallons	2 ounces	3 ounces	4 ounces	6 ounces	8 ounces	12 ounces

BULB AND CORM

Rate: As a dip, apply 1-2 pounds per 100 gallons of water.
Timing: Apply after harvest and prior to storage.
 Refer to Table 2. Plants Types Tolerant to Curalan DF for a complete list of plants.

CUT FLOWERS (gladiolus and rose):

Apply Curalan DF fungicide to prevent gray mold (*Botrytis gladiorum*) on gladiolus spikes as well as *Botrytis cinerea* on roses in cold storage or transit.
Rate: As a postharvest dip, dip flower buds 3-4 seconds in solution of 1.5-3 pounds per 100 gallons of water.
Timing: Apply after grading and prior to cold storage. Addition of a wetting agent will enhance spreadability. Maintain suspension by agitation.

FIELD GROWN FLOWERS:

Apply Curalan DF fungicide to field grown flowers to control gray mold (*Botrytis spp.*). Repeat every 10-14 days.
Air Application
Rate: Apply 1.5 pounds of Curalan DF per acre in 20-25 gallons of water.
Timing: Apply during production.
Ground Application
Rate: Apply 1.5-2 pounds of Curalan DF per acre in 100 gallons of water.
Timing: Apply during production.

ROSE BUDWOOD AND BAREROOT NURSERY STOCK:

Rate: When applying as a spray or dip to rose budwood and bareroot nursery stock, use 1.5 pounds per 100 gallons of water.
Timing: Apply after harvest and prior to storage to control gray mold (*Botrytis cinerea*).

Turfgrass

Rate: Apply Curalan® DF at the rates indicated in Table 5 in 1-4 gallons of water per 1,000 square feet (40-160 gallons per acre) after mowing. The preventative rate of Curalan DF should be applied before the disease is expected to appear. Apply subsequent treatments at the preventative rate once control has been achieved.

Table 5. Application Rates and Timing for Turfgrasses

Disease	Application Intervals*	Preventative Treatment	
		rate per acre	rate per 1,000 square feet
Dollar Spot	21-28 days	2.7 pounds	1 ounce
Leaf Spots and Melting Out	14-28 days	2.7 pounds	1 ounce
Red Thread and Pink Patch	14-28 days	2.7 pounds	1 ounce
Brown Patch	14-28 days	2.7 pounds	1 ounce
Gray Snow Mold**	10-21 days	2.7 pounds	1 ounce
Fusarium Patch & Pink Snow Mold**	10-21 days	2.7 pounds	1 ounce

* Re-treat at shorter intervals or use higher rates if conditions favorable to disease exist.

** Tank mix with Fungo® or Spotrete® for improved control.

Crops:

This product can be used on the following crops:

**Ornamentals (Herbaceous, Woody)
Turfgrasses**

Look inside for complete **Restrictions and Limitations and Application Instructions.**

Diseases listed in this label:

Common Name	Scientific Name
Anthracnose	<i>Coletotrichum graminicola</i>
Blossom Blight	<i>Monolinia lutea</i>
Brown Patch	<i>Rhizoctonia solani</i>
Brown Rot	<i>Monolinia fruticola</i>
Corn Rot	<i>Stromatinia</i>
Dollar Spot	<i>Scierotinia homoeocarpa;</i> <i>Larzia</i> sp.; <i>Moellerodiscus</i> sp.
Flower Blight	<i>Ovulinia</i>
Fusarium Patch	<i>Fusarium nivale</i>
Pink Snow Mold	<i>Microdochium</i>
Gray Mold	<i>Botrytis cinerea</i>
Gray Snow Mold	<i>Typhula incarnata</i>
Helminthosporium	<i>Helminthosporium</i>
Leaf Spots	<i>Drechslera</i> spp.
Melting Out	<i>Bipolaris</i> sp.
Pink Patch	<i>Lirionomyces roseipellis</i>
Red Thread	<i>Laetisaria furiformis</i> <i>Ciboria</i>

Additional Information

For additional information, call BASF's **COMM-SERV**™ at 1-800-878-8060.

Conditions Sale and Warranty

31831

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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