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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAR 2 4 1994

Abraham J. Tobia, Ph.D.
BASF CORP
AGRICULTURAL PRODUCTS
BOX 13528
RESEARCH TRIANGLE PARK, N.C.

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Subject:

)

Label Amendment Submission of 11/17/93 in Response to PR Notice 93-7

EPA Reg. No. 7969-53 RONILAN FUNGICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

27709

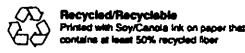
WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- **BEFORE** selling or distributing any product bearing the final printed labeling AND
- WITHIN one year from date of this acceptance.



Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,

Jim Tompkins, Deputy Chief Registration Support Branch Registration Division (7505W)

Attachment

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BASF CORP. 7969-53 11/17/93 RONILAN FUNGICIDE Original Submission

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

Correct the typographical errors circled on your proposed label.

Ronilan®WP

Fungicide in Water-Soluble Bags

A wettable powder containing:

EPA Reg. No. 7969-53

Active Ingredient

Vinclozolin: [3-(3,5-dichlorophenyl)-5-ethenyl-5-

EPA Est. No. 7969-WG01

TOTAL

with COMMENTS In EPA Letter Dated

KEEP OUT OF REACH OF CHILDREN.
CAUTION

MAK 2 4 1994

Under the Federal Insecticide, Fundicide, and Resenteide Act as amended, for the pasticide registeral under EPA Res. No.

Precautionary Statements

HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes or on clothing.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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 physician if irritation persists.

See the attached booklet for complete Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Net Contents 3 lbs. (6 x ½ lb water-soluble bags.)

Do not remove bags from carton except for immediate use.

BEST AVAILABLE CON

This box contains Ronilan® fungicide, a 50% wettable powder in water-soluble bags.

BASF Corporation

PO Box 13528 Research Triangle Park, North Carolina 27709-3528

Specimen Label

Precautionary Statements (continued)

Personal Protective Equipment: Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other landlers must wear:

- Coveralls overlong-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or vitron ≥ 14 mils
- 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 vaporremoving cartridge with a prefilter approved pesticides (MSHA/NIOSH approval number prefix TC-23C), or а canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) /
- For exposure outdoor, dust/mist filtering respirator (MSHA/NIOSH

approval number prefix TC-21C)

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

User 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.

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.

Inner bags dissolve in water and contents disperse. After opening outer box, open foil liner over mixing tank and immediately dump unopened inner bags into the mixing tank. Allow bags to dissolve naturally with agitation. Do not expose soluble bags to moisture since this may cause breakage. Handle only with dry-gloved hands.

For tank mixes, always add water-soluble bags first and allow to dissolve completely. Prior to the addition of other formulations, especially oil based or emulsified concentrates.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for protection agricultural workers farms, forests, nurseries, greenhouses, land agricultural handlers of pesticides. It contains requirements for training. decontamination, notification, and emergency assistance.

It-also contains specific emergency assistance. It contains specific also instructions a n d exceptions pertaining to the statements on this label about personal protective equipment (PPE) restricted-entry and 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.

Agriculturi Use Requirements Cont'd.

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 longsleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or vitron ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

Storage and Disposal

Storage: Do not store box under wet conditions. Handle hox carefully when stored at temperatures of less than 50°F to avoid breakage of soluble bags. 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 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.

In Case of Emergency
In case of large-scale spillage

regarding this product, call:

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

In case of medical emergency regarding this product, call:

- 1.Your local doctor for immediate treatment
- 2. Your local poison control center (hospital)
- 3. BASF Corp 800-832-HELP

All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the possession of the user at the time of application.

General Information

Ronilan is a contact fungicide for the control of *Botrytis* fruit rot (gray mold) of strawberries and raspberries, *Sclerotinia* 'drop' watery soft rot), and *Rhizoctonia* (bottom rot) of lettuce, brown rot blossom and twig blight, and fruit brown rot and shot hole on stone fruit, *Sclerotinia* watery soft rot, *Sclerotium* white rot *Botrytis* neck rots

and Botrytis leaf bligh:, and purple blotch of onions. A chemical barrier of Ronilan must be established and maintained to achieve effective disease control. For diseases which infect above ground plant parts (such as fruit rots and leaf blights caused by Botrytis), thorough spray coverage of the plant parts to be protected is essential.

For diseases which 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. Refer the to following sections for specific information. If other diseases are a problem an additional fungicide will be needed. The repeated exclusive use of Ronilan, as is the case with the exclusive use of other fungicides, may result in the buildup of resistant strains of Botrytis and loss of disease control. A spray program alternating other fungicides with Ronilan may delay the buildup of resistant strains. If treatment becomes ineffective due the to presence of a strain of Botrytis resistant to Ronilan, then prompt use of other fungicides is necessary to maintain disease control.

Ronilan WP is packaged in water-soluble bags, each containing ½ lbs of Ronilan WP. Three bags are equivalent to the standard

use rate of 1½ pounds product per acre.

Mixing instructions: Partially fill the spray tank with clean water and begin agitation. Add the required amount of Ronilan to the tank and fill tank to the total volume required. Maintain agitation to keep the material in suspension and apply with properly calibrated spray equipment.

Ronilan is physically compatible with most pesticides used in a tank mix. To assure dissolution of the water-soluble bags, always add bags first prior to the addition of any EC or oil-based formulations.

Strawberries

Time and Rate of Application for States Other Than California and Florida

Thorough spray coverage of the blossoms and developing fruit is essential. For full season control of *Botrytis* disease, the following spray program is recommended.

The first application should be made no later than 10% primary bloom at rates indicated (see table). The interval between subsequent applications will vary according to weather conditions and resultant disease pressure. A rate of 1½ pounds product per acre is generally recommended. A

one pound product per acre rate of Ronilan fungicide should be used only when low disease pressure can be predicted. A two pounds product per acre rate should be used when the foliage is and/or dense disease pressure is high. If a heavy rainfall occurs any time during this spray program or if a wet period (light rain, fog or dew) lasting more than 24 immediate hours occurs. re-treatment is necessary at a rate of 1½ to 2 pounds product per acre as soon as conditions will allow the spray to dry on the plants.

Time and Rate of Application for California

Thorough spray coverage of blossoms and developing fruit is essential for good disease control For full season control Botrytis disease. fungicides may need to be applied at 7- to 14-day intervals throughout the product cycle. When using Ronilan, the first application should be made no later than 10% primary bloom. conditions favorable for high disease pressure persist after the first application, a second application should be made 7 to 9 days later. To reduce the hazard o f resistance developing, further use of Ronilan should be reserved for periods of high disease highest pressure and/or economic return. A rate of 1½ pounds product per acre

Application Rates for Strawberries in States Other than California and Florida

	Spray*	Rate (Pounds Product/A)		
Moisture Conditions	nditions (Days)	1st Year Plants or Sparse Follage	Dense Foliage	
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1 ½ (3 bags)	1 ½-2 (3-4 bags)	
Limited natural moisture or infrequent sprinkler irrigation (low disease pressure)	10-14	1 (2 bags)	1 ½-2 (3-4 bags)	

\"Use spray interval throughout the bearing cycle.

Application Rates for Strawberries in California

	Spray* Interval (Days)	Rate (Pounds Product/A)	
Moisture Conditions		1st Year Plants or Sparse Foliage	Dense Foliage
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1 ½ (3 bags)	2 (4 bags;

*Make no more than four (4) applications per season.

Application Rates for Strawberries in Florida

Moisture Conditions	Spray Interval (Days)	Rate (Pounds Product/A)
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7	2 (4 bags)

is generally recommended. A 2 pounds product per acre rate should be used when foliage is dense and disease pressure is high. Make no more than a total of four applications of Ronilan per season.

Time and Rate of Application for Florida

Thorough spray coverage of the developing fruit is essential. For full season control of *Bo:rytis* disease, fungicides should be applied at 7-day intervals throughout the production cycle. If a frost protection irrigation is planned, an application of Ronilan must be made immediately before and after the irrigation.

If a heavy rainfall occurs anytime during the spray program or if a wet period (light rain, fog, or dew) lasting more than 24 hours occurs, immediate re-treatment is necessary as soon as conditions will allow the spray to dry on the plants.

Method of Application

Ground equipment: Application of Ronilan should be made in not less than 100 gallons of spray solution per acre to obtain thorough coverage of the developing fruit.

An operating pressure of 60-150 psi is recommended to obtain adequate penetration of the spray through the canopy. Cone-type nozzles are recommended. Spray booms with at least 3 nozzles per row (1 over row: 2 side drops) are recommended.

Air Equipment: Application of Ronilan should be made in not less than 20 gallons of spray solution per acre. Thorough spray coverage of the developing fruit is essential.

Restrictions and Limitations for Strawberries

Do not apply more than a total of 12 pounds of product per acre in one season. except in California where the total is restricted to 8 pounds in no more than four applications. Ronilan does not control Rhizopus rot of strawberries in the field or in storage. There may be a competitive relationship Jetween Botrytis and Rhizopus incidence such that control of Botrytis may result in an increase of Rhizopus rot in stored fruit. Rhizopus rot becomes a problem as a result of certain climatic conditions (such as prolonged warm, humid periods) and cultural practices (such as high nitrogen fertilization which may lead to the production of softer fruit). If conditions are conducive for hizopus development, including those described above, do not use Ronilan.

Do not use Ronilan as a plant dip, as injury will occur. Do not apply this product through any type of irrigation system.

Rotational Crop Restrictions for Strawberries in States Other than California Lettuce (all types) and dry bulb onions may be planted

after strawberries

Any rotational crops may be planted 20 days after treatment that does not exceed 3 pounds active ingredient per acre (6 pounds product per acre).

Leafy vegetables may be planted 6 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Cucurbits may be planted 2 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Corn may be planted 2 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre), provided only the corn grain is used for food and/or feed purposes.

Other grain crops may be planted 9 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Rotational Crop Restrictions for Strawberries in California

Lettuce (all types) and dry bulb onions may be planted after strawberries. Any rotational crops may be planted 20 days after treatment that does not exceed 3 pounds active ingredient per acre (6 pounds product per acre).

Leafy vegetables may be planted 6 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Cucurbits may be planted 2 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Corn may be planted 2 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre), provided only the corn grain is used for food and/or feed purposes.

Other grain crops may be planted 9 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Lettuce (all types)

Time and rate of application

For control of Sclerotinia "drop" and Rhizoctonia "bottom rot," up to three applications may be made under certain conditions in one season as specified in

Application Rates for Lettuce (All Types)

			is Product/A)	
Application	Timing	*Low Disease Pressure	"High Disease Pressure	
First	Direct Seeded Lettuce Application should be made immediately (within 2 days) after thinning. Transplanted Lettuce Application should be made 7-10 days after transplanting.	1 (2 water-	1 ½-2 (3-4 water-	
) Second	Application should be made 14 days after first spray if cool, wet conditions (which favor disease) occur for periods lasting 48 hours or more.	soluble bags)	soluble bags)	
Third	Direct Seeded Lettuce Only Application should be made 14 days after second spray if conditions favoring disease occur.	·		

*Based on previous history of disease infestation in the field or adjacent fields.

the rate table. Thorough spray coverage of plant parts to be protected is essential for effective disease control. Do not disturb soil after application.

Method of Application

Application of Ronilan fungicide should be made in not less than 100 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage of the lower leaves, plant stem and bed surface. An operating pressure of 50-100 psi is recommended. Use cone or

flat fan nozzles. Flood type nozzles should not be used. To apply Ronilan to one-row beds, spray booms should have at least 2 nozzles per row. For two-row beds use three nozzles or more per bed.

Restrictions and Limitations for Lettuce

Do not apply Ronilan within 28 days of harvest.

Do not use Ronilan as a plant dip, as injury may occur. Do not apply this product through any type of irrigation system.

Do not apply more than 6 lbs of Ronilan per acre in one season on lettuce.

Stone Fruit

General Information

Ronilan fungicide is effective for the control of brown rot blossom and twig blight shot hole (Stigmina carpophila), and fruit brown rot of stone fruit including apricots. cherries. nectarines and peaches. Ronilan is a contact fungicide, therefore. thorough coverage of plant parts to be protected is essential for effective control.

Time and Rate of Application

Depending on conditions favor which disease development, one to three applications should be made during bloom for control of brown rot blossom and twig blight. Repeated applications of Ronilan during the bloom period will provide suppression of shot hole disease. One pre-harvest application should be made for control of fruit brown rot (see table).

A rate of 1½ pounds product per acre is generally recommended. A one pound product per acre rate of Ronilan should be used only

when low disease pressure can be predicted. Under high disease pressure or conditions very favorable for disease development, use the higher treatment specified, multiple applications and shorter application intervals. For large mature trees, use the higher treatment rates specified.

Consistency of disease) on trol with low recommended rates can be enhanced by 8-16 oz./100 gals. of a non-ionic surfactant in tank mix with Ronilan.

Method of Application

Rates of Ronilan per 100 gallons are based on an application of 400 gallons per acre of dilute spray. Refer to the Application Rates and Timing for Control of Brown to the than 400 gallons per acre is applied.

Apply Ronilan as a spray using sufficient water to obtain theorem.

Ground Equipment: Apply a minimum of 50 gallons per acre.

Air Equipment: Apply in a minimum of 15 gallons per acre. Aerial applications recommended for bloom and petal fall applications only.

Mixing Instructions: Maintain

agitation to keep the material in suspension and apply with properly calibrated spray equipment.

Ronilan is physically compatible with most pesticides used in a tank mix on stone fruit. To assure dissolution of the watersoluble bags, always add bags first prior to the addition of any EC or oil-based formulations.

Restrictions and Limitations for Stone Fruit

Do not apply Ronilan within 14 days of harvest.

Do not apply more than 2 pounds of Ronilan per acre per application.

Do not apply more than 8 pounds of Ronilan per acre per season (maximum of 6 pounds at bloom and 2 pounds pre-harvest).

Do not apply Ronilan during rain. Apply when conditions will permit spray to dry on the plants.

Do not apply this product through any type of irrigation system.

Do not graze or feed cover crops from treated orchards to livestock.

Stone Fruit

Application Rates and Timing for Control of Brown Rot (*Monilinia* spp.) and Shot Hole (*Stigminia carpophila*)

_	Pounds Pre	oduct* per	
Crop	100 Gallons	Acre	Timing
Apricots Cherries Nectarines Peaches	½ to ½ is based on 400 GPA (½-1 water- soluble bag)	1 to 2 (2-4 water- soluble bags)	Brown rot blossom & twig blight Apply at early bloom Apricots - Red Bud Peaches & Nectarines - Pink but Apply again at full bloom if conditions persist which favor disease development. Apply again at petal fall if conditions persist which favor disease development.
		ceed 2 lbs. duct per acre dication	Do not apply more than 3 bloom treatments. Fruit brown rot Apply when conditions favor disease development within 3 weeks of harvest. Do not apply more than 1 preharvest treatment. Do not apply within 14 days of harvest.

Raspberries

Time and Rate of Application

For control of Botrytis fruit the following spray program is recommended. The first application should be made no later than 10% primary bloom. Timing of subsequent applications should be made as indicated (see table) and will vary according to weather conditions resultant and disease pressure.

Ronilan Apply at rates ranging from 1 to 2 pounds product/A. The 2 pounds rate will provide an added margin of control above lower rates and, therefore, should be whenever disease used predictably pressure is severe. Use the 11/2 pound rate when disease pressure is expected to be moderate. The 1 pound rate should only be used in newly established Ireas when disease pressure is expected to be low.

If a heavy rainfall occurs anytime during this spray program or if a wet period (light rain, fog or dew) lasting more than 24 hours occurs, immediate re-treatment is necessary at a rate of 2 pounds product per acre as soon as conditions allow the spray to dry on the plants.

Method of Application Ground Equipment:

Applications of Ronilan should be made with not less than 100 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage of the developing fruit. An operating pressure of 50-100 psi is recommended. Direct spray nozzles toward the fruit bearing area of the canes.

Restrictions and Limitations for Raspberries

Do not apply more than a total of 8 lbs. of Ronilan per acre in one crop season.

Do not apply Ronilan within 9 days of harvest.

Do not apply Ronilan during rain. Wait until conditions are such that the pray will dry on the plants.

Application Rate Table for Raspberries

Moisture Conditions	Spray Interval* (Days)	Rate (Pounds Product/A)
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1½-2 (3-4 water-soluble bags)
Limited natural moisture or infrequent sprinkler irrigation.	10-14	1-1½ (2-3 water-soluble bags)

Do not apply Ronilan through any type of irrigation system.

Onions (Dry Bulb Type) †

Time and Rate of Application

For control of Sclerotinia watery soft rot, Sclerotium white rot, and Botrytis neck rots, a combination of a soil treatment at planting (so drench or spray band over the row) and foliar treatments after crop emergence гi needed. Botrytis leaf blight and purple blotch (Alternaria porri) can be controlled only with foliar The following sprays. recommendations are made according to disease type (see tables).

Restrictions and Limitations for Onions (dry bulb type)

Do not apply more than a total of 10 pounds of Ronilan per acre in one crop season. Do not apply within 18 days of harvest.

Do not apply Ronilan during rain when controlling Botrytis leaf blight. Wait until conditions are such that the spray will dry on the plants. Do not apply Ronilan through any type of irrigation system.

t The use of Ronilan WP has not been approved in California.

Onions (dry bulb type)

Application rate table for Sclerotinia watery soft rot, Sclerotium white rot, and Botrytis neck rots

Application*	Timing	Rate, Volume and Site
First At planting		Soil drench - 2 lbs product/A (4 bags) in 400 gallons of water/A applied in a 4-6" band over the row or Spray band - 2 lbs. product/A (4 bags) in 100 gallons of water/A applied in 2-4" band over the row.
Second	4-6 weeks after crop emergence	Foliar - 2 lbs. product/A (4 bags) in a minimum of 100 gallons of water/A directed at the stem base.
Third and Subsequent	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.	Foliar - 2 lbs. product/A (4 bags) in a minimum of 100 gallons of water/A directed at the stem base. Drop nozzles should be used to ensure that spray reaches the stem and surrounding soil.

* A minimum program of 3 treatments is recommended.

** High disease pressure based on previous history of disease infestation in the field or adjacent fields.

Onions (dry bulb type)

Application rate table for *Botrytis* leaf blight and purple blotch (*Alternaria porri*)

'		Rate (Pounds Product/A)	
Application*	Timing	Low Disease Pressure	High Disease Pressure
First	4-6 weeks after crop emergence or as soon as disease starts to develop	1½ (3 water-soluble bags)	2 (4 water-soluble bags)
Second	2 weeks after first application	1 ½ (3 water-soluble bags)	2 (4 water-soluble bags)
Third and Subsequent	Up to 3 additional sprays should be applied if conditions occur which favor disease development (such as wet, humid, foggy conditions).**	1½ (3 water-soluble bags)	2 (4 water-soluble bags)

* A minimum of 2 foliar treatments is recommended. Purple blotch control is achieved when disease pressure is low to moderate.

** Applications should be made with not less than 20 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage. Use cone or flat fan nozzles. Flood-type nozzles should not be used.

Conditions of Sale and Warranty

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 manner in а inconsistent with its labeling all of which are beyond the

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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 ORMERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY IN NO CASE SHALL BASE OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES

RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT BASE 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 BASE.

Ronilan is a registered trademark of BASF AG.

Made in Germany.

©1993 BASF Corporation

BASF Corporation
PO Box 13528
Research Triangle Park, NC 27709

BASF



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

MAR 2 4 1994

Abraham J. Tobia, Ph.D. BASF CORP AGRICULTURAL PRODUCTS **BOX 13528** RESEARCH TRIANGLE PARK, N.C.

OFFICE OF REVENTION, PESTICIDES AND TOXIC SUBSTANCES

Subject:

Label Amendment Submission of 11/17/93 in Response to PR Notice 93-7

EPA Reg. No. 7969-53 RONILAN FUNGICIDE

Dear Registrant:

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U.S. Environmental Protection Agency
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Washington, D.C. 20460-0001

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Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,

Jim Tompkins, Deputy Chief Registration Support Branch Registration Division (7505W)

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Correct the typographical errors circled on your proposed label.

BASF

Ronilan®WP

Fungicide in Water-Soluble Bags

A wettable powder containing:

Active Ingredient

Vinclozolin: [3-(3,5-dichlorophenyl)-5-ethenyl-5-

EPA Reg. No. 7969-53

EPA Est. No. 7969-WG01

ACCEPTED
with COMMENTS
in EPA Letter Dated

KEEP OUT OF REACH OF CHILDREN. CAUTION

MAR 2 4 1994

Under the Federal Insetticide, Fundade, and Redesticide Ast as assended, for the postelide registery under EPA Rog. No.

Precautionary Statements
HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Do not get on skin, in eyes or on clothing.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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 physician if irritation persists.

See the attached booklet for complete Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Net Contents 3 lbs. (6 x ½ lb water-soluble bags.)
Do not remove bags from carton except for immediate use.

This box contains Ronilan® fungicide, a 50% wettable powder in water-soluble bags.

BASF Corporation

PO Box 13528 Research Triangle Park, North Carolina 27709-3528

Specimen Label

Precautionary Statements (continued)

Equipment: Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls overlong-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or vitron ≥ 14 mils
- 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-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G)
- For exposure outdoor dust/mist filtering respirator (MSHA/NIOSH

approval number prefix TC-21C)

Engineering Controls
Statement: When handlers
use clcsed 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

User 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.

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.

Inner bags dissolve in water and contents disperse. After opening outer box, open foil liner over mixing tank and immediately dump unopened inner bags into the mixing tank. Allow bags to dissolve naturally with agitation. Do not expose soluble bags to moisture since this may cause breakage. Handle only with dry-gloved hands.

For tank mixes, always add water-soluble bags first and allow to dissolve completely. Prior to the addition of other formulations, especially oil based or emulsified concentrates.

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 o f agricultural workers on farms, forests, nurseries, and greenhouses, handlers of agricultural pesticides. It contains requirements for training. decontamination, notification. and emergency assistance.

It-also contains specific 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.

Agriculturi Use Requirements Cont'd.

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 longsleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or vitron ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

Storage and Disposal

Storage: Do not store box under wet conditions. Handle box carefully when stored at temperatures of less than 50°F to avoid breakage of soluble bags. 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 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.

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

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

In case of medical emergency regarding this product, call:

- 1.Your local doctor for immediate treatment
- 2. Your local poison control center (hospital)
- 3. BASF Corp 800-832-HELP

All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the possession of the user at the time of application.

General Information

Ronilan is a contact fungicide for the control of Botrytis fruit rot (gray mold) of strawberries and raspberries, Sclerotinia 'drop' watery soft rot), and Rhizoctonia (bottom rot) of lettuce, brown rot blossom and twig blight, and fruit brown rot and shot hole on stone fruit, Sclerotinia watery soft rot, Sclerotium white rot Botrytis neck rots

and Botrytis leaf blight, and purple blotch of onions. A chemical barrier of Ronilan must be established and maintained to achieve effective disease control. For diseases which infect above ground plant parts (such as fruit rots and leaf blights caused by Botrytis), thorough spray coverage of the plant parts to be protected is essential.

For diseases which 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. Refer to the following sections for specific information. If other diseases are a problem an additional fungicide will be needed. The repeated exclusive use of Ronilan, as is the case with the exclusive use of other fungicides, may result in the buildup of resistant strains of Botrytis and loss of disease control. A spray program alternating other fungicides with Ronilan may delay the buildup of resistant strains. If treatment becomes ineffective que to the presence of a strain of Botrytis resistant to Ronilan. then prompt use of other fungicides is necessary to maintain disease control.

Ronilan WP is packaged in water-soluble bags, each containing ½ lbs of Ronilan WP. Three bags are equivalent to the standard

use rate of 1½ pounds product per acre.

Mixing instructions: Partially fill the spray tank with clean water and begin agitation. Add the required amount of Ronilan to the tank and fill tank to the total volume required. Maintain agitation to keep the material in suspension and apply with properly calibrated spray equipment.

Ronilan is physically compatible with most pesticides used in a tank mix. To assure dissolution of the water-soluble bags, always add bags first prior to the addition of any EC or oil-based formulations.

Strawberries

Time and Rate of Application for States Other Than California and Florida

Thorough spray coverage of the blossoms and developing fruit is essential. For full season control of *Botrytis* disease, the following spray program is recommended.

The first application should be made no later than 10% bloom primary at rates indicated (see table). The interval between subsequent applications will varv accordina to weather conditions and resultant disease pressure. A rate of 1½ pounds product per acre is generally recommended. A

one pound product per acre rate of Ronilan fungicide should be used only when low disease pressure can be predicted. A two pounds product per acre rate should be used when the foliage is dense and/or disease pressure is high. If a heavy rainfall occurs any time during this spray program or if a wet period (light rain, fog or dew) lasting more than 24 occurs. immediate re-treatment is necessary at a rate of 1½ to 2 pounds product per acre as soon as conditions will allow the spray to dry on the plants.

Time and Rate of Application for California

Thorough spray coverage of blossoms and developing fruit is essential for good disease control For full season control of Botrytis disease, fungicides may need to be applied at 7- to 14-day intervals throughout the product cycle. When using Ronilan, the first application should be made no later than 10% primary bloom. conditions favorable for high disease pressure persist after the first application, a second application should be made 7 to 9 days later. To reduce the hazard of resistance developing, further use of Ronilan should be reserved for periods of high disease pressure and/or highest economic return. A rate of 1½ pounds product per acre

Application Rates for Strawberries in States Other than California and Florida

1	Spray*	Rate (Pounds Product/A)		
Moisture Conditions	(Days)	1st Year Plants er Sperse Follage	Dense Folloge	
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1 ½ (3 bags)	1 %-2 (3-4 bags)	
Limited natural moisture or infrequent sprinkler irrigation (low disease pressure)	10-14	1 (2 bags)	1 ½ -2 (3-4 bags)	

Application Rates for Strawberries in California

	Spray* Interval (Days)	Rate (Pounds Product/A)	
Moisture Conditions		1st Year Plants or Sparse Follage	Dense Foliage
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1 ½ (3 bags)	2 (4 bags)

Application Rates for Strawberries in Florida

Moisture Conditions	Spray Interval (Days)	Rate (Pounds Product/A)
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7	2 (4 bags)

is generally recommended. A 2 pounds product per acre rate should be used when foliage is dense and disease pressure is high. Make no more than a total of four applications of Ronilan per season.

Time and Rate of Application for Florida

Thorough spray coverage of the developing fruit is essential. For full season control of *Botrytis* disease, fungicides should be applied at 7-day intervals throughout the production cycle. If a frost protection irrigation is planned, an application of Ronilan must be made immediately before and after the irrigation.

If a heavy rainfall occurs anytime during the spray program or if a wet period (light rain, fog, or dew) lasting more than 24 hours occurs, immediate re-treatment is necessary as soon as conditions will allow the spray to dry on the plants.

Method of Application Ground equipment: Application of Ronilan should be made in not less than 100 gallons of spray solution per acre to obtain thorough coverage of the developing fruit.

An operating pressure of 60-150 psi is recommended to obtain adequate penetration of the spray through the canopy. Cone-type nozzles are recommended. Spray booms with at least 3 nozzles per row (1 over row: 2 side drops) are recommended.

Air Equipment: Application of Ronilan should be made in not less than 20 gallons of spray solution per acre. Thorough spray coverage of the developing fruit is essential.

Restrictions and Limitations for Strawberries

Do not apply more than a total of 12 pounds of product per acre in one season, except in California where the total is restricted to 8 pounds in no more than four applications. Ronilan does not control Rhizopus rot of strawberries in the field or in storage. There may be a competitive relationship between Botrytis and Rhizopus incidence such that control of Botrytis may result in an increase of Rhizopus rot in stored fruit. Rhizopus rot becomes a problem as a result of certain climatic conditions (such as prolonged warm, humid periods) and cultural practices (such as high nitrogen fertilization which may lead to the production of softer fruit). If conditions are conducive for Rhizopus development, including those described above, do not use Ronilan.

Do not use Ronilan as a plant dip, as injury will occur.
Do not apply this product through any type of irrigation system.

Rotational Crop
Restrictions for
Strawberries in States
Other than California
Lettuce (all types) and dry
bulb onions may be planted
after strawberries.

Any rotational crops may be planted 20 days after treatment that does not exceed 3 pounds active ingredient per acre (6 pounds product per acre).

Leafy vegetables may be planted 6 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Cucurbits may be planted 2 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Corn may be planted 2 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre), provided only the corn grain is used for food and/or feed purposes.

Other grain crops may be planted 9 months after treatment that does not exceed 6 pounds active ingredient per acre (12 pounds product per acre).

Rotational Crop Restrictions for Strawberries in California

Lettuce (all types) and dry bulb onions may be planted after strawberries. Any rotational crops may be planted 20 days after treatment that does not exceed 3 pounds active ingredient per acre (6 pounds product per acre).

Leafy vegetables may be planted 6 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Cucurbits may be planted 2 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Corn may be planted 2 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre), provided only the corn grain is used for food and/or feed purposes.

Other grain crops may be planted 9 months after treatment that does not exceed 4 pounds active ingredient per acre (8 pounds product per acre).

Lettuce (all types)

Time and rate of application

For control of Sclerotinia "drop" and Rhizoctonia "bottom rot," up to three applications may be made under certain conditions in one season as specified in

Application Rates for Lettuce (All Types)

		Rate (Pound	Product/A)
Application Timing		*Low Disease Pressure	"High Disease Pressure
First	Direct Seeded Lettuce Application should be made immediately (within 2 days) after thinning. Transplanted Lettuce Application should be made 7-10 days after transplanting.	1 (2 water-	1½-2 (3-4 water-
Second	Application should be made 14 days after first spray if cool, wet conditions (which favor disease) occur for periods lasting 48 hours or more.	soluble bags)	soluble bags
Third	Direct Seeded Lettuce Only Application should be made 14 days after second spray if conditions favoring disease occur.		

the rate table. Thorough spray coverage of plant parts to be protected is essential for effective disease control. Do not disturb soil after application.

fields.

Method of Application Application of Ronilan fungicide should be made in not less than 100 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage of the lower leaves, plant stem and bed surface. An operating pressure of 50-100 psi is recommended. Use cone or

flat fan nozzles. Flood type nozzles should not be used. To apply Ronilan to one-row beds, spray booms should have at least 2 nozzles per row. For two-row beds use three nozzles or more per bed.

Restrictions and Limitations for Lettuce Do not apply Ronilan within 28 days of harvest.

Do not use Ronilan as a plant dip, as injury may occur. Do not apply this product through any type of irrigation system.

Do not apply more than 6 lbs of Ronilan per acre in one season on lettuce.

Stone Fruit

General Information

Ronilan fungicide is effective for the control of brown rot blossom and twig blight shot hole (Stigmine carpophila), and fruit brown rot of stone fruit including apricots, cherries, nectarines and peaches. Ronilan is a contact fungicide, therefore, thorough coverage of plant parts to be protected is essential for effective control.

Time and Rate of Application

Depending conditions on which favor disease development, one to three applications should be made during bloom for control of brown rot blossom and twig blight. Repeated applications of Ronilan during the bloom period will provide suppression of shot hole disease. One pre-harvest application should be made for control of fruit brown rot (see table).

A rate of 1½ pounds product per acre is generally recommended. A one pound product per acre rate of Ronllan should be used only when low disease pressure can be predicted. Under high disease pressure or in conditions very favorable for disease development, use the higher treatment rates specified. multiple applications and shorter application intervals. For large mature trees, use the higher treatment specified.

Consistency of disease control with low recommended rates can be enhanced by 8-16 oz./100 gals. of a non-ionic surfactant in tank mix with Ronilan.

Method of Application

Rates of Ronilan per 100 gallons are based on an application of 400 gallons per acre of dilute spray. Refer to the Application Rates and Timing for Control of Brown Rot if other than 400 gallons per acre is applied.

Apply Ronilan as a spray using sufficient water to obtain thorough coverage.

Ground Equipment: Apply a minimum of 50 gallons per acre.

Air Equipment: Apply in a minimum of 15 gallons per acre. Aerial applications recommended for bloom and petal fall applications only.

Mixing Instructions: Maintain

agitation to keep the material in suspension and apply with properly calibrated spray equipment.

Ronilan is physically compatible with most pesticides used in a tank mix on stone fruit. To assure dissolution of the water-soluble bags, always add bags first prior to the addition of any EC or oil-based formulations.

Restrictions and Limitations for Stone Fruit

Do not apply Ronilan within 14 days of harvest.

Do not apply more than 2 pounds of Ronian per acre per application.

Do not apply more than 8 pounds of Ronllan per acre per season (maximum of 6 pounds at bloom and 2 pounds pre-harvest).

Do not apply Ronllan during rain. Apply when conditions will permit spray to dry on the plants.

Do not apply this product through any type of irrigation system.

Do not graze or feed cover crops from treated orchards to livestock.

Stone Fruit

Application Rates and Timing for Control of Brown Rot (*Monilinia* spp.) and Shot Hole (*Stigminia carpophila*)

Crop	Pounds Product* per		<u>.</u> .	
	100 Gallons	Acre	Timing	
Apricots Cherries Nectarines Peaches	¼ to ½ is based on 400 GPA (½-1 water- soluble bag)	1 to 2 (2-4 water- soluble bags)	Brown rot blossom & twig blig Apply at early bloom Apricots - Red Bud Peaches & Nectarines - Pink be Apply again at full bloom if conditions persist which favor disease development. Apply again at petal fall if conditions persist which favor	
	Do not exceed 2 lbs. (4 bags) product per acre per application		disease development. Do not apply more than 3 bloom treatments. Fruit brown rot Apply when conditions favor disease development within 3 weeks of harvest. Do not apply more than 1 preharvest treatment. Do not apply within 14 days of harvest.	

Raspberries

Time and Rate of Application

For control of Botrytis fruit the following spray program is recommended. The first application should be made no later than 10% primary bloom. Timing of subsequent applications should be made as indicated (see table) and will vary according to weather conditions resultant and disease pressure.

Ronilan **Apply** at rates ranging from 1 to 2 pounds product/A. The 2 pounds rate will provide an added margin of control above lower rates and, therefore, should be whenever used disease predictably pressure is severe. Use the 1½ pound rate when disease pressure is expected to be moderate. The 1 pound rate should only be used in newly established areas when disease pressure is expected to be low.

If a heavy rainfall occurs anytime during this spray program or if a wet period (light rain, fog or dew) lasting more than 24 hours occurs, immediate re-treatment is necessary at a rate of 2 pounds product per acre as soon as conditions allow the spray to dry on the plants.

Method of Application Ground Equipment:

Applications of Ronilan should be made with not less than 100 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage of the developing fruit. An operating pressure of 50-100 psi is recommended. Direct spray nozzles toward the fruit bearing area of the canes.

Restrictions and Limitations for Raspberries

Do not apply more than a total of 8 lbs. of Ronilan per acre in one crop season.

Do not apply Ronilan within 9 days of harvest.

Do not apply Ronilan during rain. Wait until conditions are such that the pray will dry on the plants.

Application Rate Table for Raspberries

Moisture Conditions	Spray Interval* (Days)	Rate (Pounds Product/A)	
Frequent natural moisture (intermittent rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1½-2 (3-4 water-solubic bags)	
Limited natural moisture or infrequent sprinkler irrigation.	10-14	1-1 ½ (2-3 water-soluble bags)	

Do not apply Ronlan through any type of irrigation system.

Onions (Dry Bulb Type):

Time and Rate of Application

For control of Sclerotinia watery soft rot, Sclerotium white rot, and Botrytis neck rots, a combination of a soil treatment at planting (so drench or spray band over the rowl and foliar treatments after Crop needed. emergence is Botrytis leaf blight and purple blotch (Alternaria porri) can be controlled only with foliar sprays. The following recommendations are made according to disease type (see tables).

Restrictions and Limitations for Onions (dry bulb type)

Do not apply more than a total of 10 pounds of Ronilan per acre in one crop season. Do not apply within 18 days of harvest.

Do not apply Ronilan during rain when controlling Botrytis leaf blight. Wait until conditions are such that the spray will dry on the plants. Do not apply Ronilan through any type of irrigation system.

¹ The use of Ronllan WP has not been approved in California.

Onions (dry bulb type)

Application rate table for *Scierotinia* watery soft rot, *Scierotium* white rot, and *Botrytis* neck rots

Application*	Timing	Rate, Volume and Site	
First	At planting	Soil drench - 2 lbs product/A (4 bags) in 400 gallons of water/A applied in a 4-6" band over the row or Spray band - 2 lbs. product/A (4 bags) in 100 gallons of water/A applied in 2-4" band over the row.	
Second	4-6 weeks after crop emergence	Foliar - 2 lbs. product/A (4 bags) in a minimum of 100 gallons of water/A directed at the stem base.	
Third and Subsequent 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.		Foliar - 2 lbs. product/A (4 bags) in a minimum of 100 gallons of water/A directed at the stem base. Drop nozzles should be used to ensure that spray reaches the stem and surrounding soil.	

- A minimum program of 3 treatments is recommended.
- High disease pressure based on previous history of disease infestation in the field or adjacent fields.

Onions (dry bulb type)

Application rate table for *Botrytis* leaf blight and purple blotch (*Alternaria porri*)

		Rate (Pounds Product/A)		
Application*	Timing	Low Disease Pressure	High Disease Pressure	
First	4-6 weeks after crop emergence or as soon as disease starts to develop	1 ½ (3 water-soluble bags)	2 (4 water-soluble bags)	
Second	2 weeks after first application	1 ½ (3 water-soluble bags)	2 (4 water-soluble bags)	
Third and Subsequent Up to 3 additional sprays should be applied if conditions occur which favor disease development (such as wet, humid, foggy conditions).**		1 ½ (3 water-soluble bags)	2 (4 water-soluble bags)	

- A minimum of 2 foliar treatments is recommended. Purple blotch control is achieved when disease pressure is low to moderate.
- Applications should be made with not less than 20 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage. Use cone or flat fan nozzles. Flood-type nozzles should not be used.

Conditions of Sale and Warranty

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 а manner inconsistent with its labeling all of which are beyond the

c o n t r o l o f B A S F 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 Directions for subject to the inherent risks referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS **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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BASF Corporation
PO Box 13528
Research Triangle Park, NC 27709

