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51036-269

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U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D. C. 20460

EPA Reg
Number

51036-
269

Date of Issuance

MAY 7 1996

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(under FIFRA, as amended)

Term of Issuance.

Conditional

Name of Pesticide Product

Micro Flo Blue Shield
50 DF

Name and Address of Registrant (include ZIP Code)

Micro-Flo Co.
P.O. Box 5948
Lakeland, FL 33807

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes listed below before you release the product for shipment:

a. Add the phrase, "EPA Reg. No. 51036-269".

b. By placing "Cabbage Only" directions for use in a separate paragraph, it is not clear that the following Precautionary Section also applies to the Broccoli, Brussels sprouts, cauliflower & collards. Clarify these directions.

Signature of Approving Official

[Signature]

Date

MAY 7 1996

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3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

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

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

Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosure

30400

MICRO FLO BLUE SHIELD 50DF

FUNGICIDE/BACTERICIDE

ACTIVE INGREDIENT

| | |
|-------------------|--------|
| *Cupric Hydroxide | 77 0% |
| INERT INGREDIENTS | 23 0% |
| TOTAL | 100 0% |

(*Metallic Copper Equivalent 50%)
*CAS No 20427-59 2

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

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

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES Hold eyelids open and flush with steady stream of water for 15 minutes Get Medical attention

IF INHALED Remove victim to fresh air If not breathing, give artificial respiration, preferably mouth-to-mouth Get medical attention

IF SWALLOWED Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are not available, large quantities of water Get medical attention

IF ON SKIN Rinse off material and wash with soap and water Get medical attention if irritation persists

NOTE TO PHYSICIAN Probable mucosal damage may contraindicate use of gastric lavage

SEE ADDITIONAL PRECAUTIONS ELSEWHERE ON LABEL

EPA Reg No 51036-~~app~~ *EAO*

EPA Est No 45002-MX-02

NET CONTENTS _____

Manufactured For
MICRO FLO COMPANY
P O. BOX 5948
LAKELAND, FLORIDA 33807

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAY 7 1986

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

51036-269

PRECAUTIONARY STATEMENTS

DANGER

Hazards To Humans And Domestic Animals

Corrosive. Causes irreversible eye damage May cause skin sensitization reactions in certain individuals Do not get in eyes or on clothing Harmful if swallowed or absorbed through the skin Avoid contact with skin

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear

- 1 Long-sleeved shirt and long pants
- 2 Waterproof gloves
- 3 Shoes plus socks
- 4 Protective eyewear

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

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet Remove personal protective equipment immediately after handling this product Wash the outside of gloves before removing As soon as possible, wash thoroughly and change into clean clothing

ENVIRONMENTAL HAZARDS

} This pesticide is toxic to fish and aquatic organisms Do not apply directly to waters, to areas where surface water is present or 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

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 intervals. 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 48 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:

- 1 Coveralls
- 2 Waterproof gloves
- 3 Shoes plus socks
- 4 Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until sprays have dried.

STORAGE AND DISPOSAL

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

STORAGE Store in a cool, secure, dry area in original containers.

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

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CONTAINER DISPOSAL Completely empty bag into application equipment 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

GENERAL INSTRUCTIONS

BLUE SHIELD 50DF may be applied by Aerial, or by Dilute or Concentrated Ground Sprayers, or Chemigation on crops and at rates given on this label unless specifically prohibited for that crop use. Sufficient spray volume and spray pressure is essential to thoroughly penetrate the plant canopy and give thorough spray coverage and at the times indicated On crops sensitive to copper fungicides use the higher volumes of spray water per acre Use the higher dosage of Blue Shield DF on mature trees, or when disease pressure is severe or weather conditions warrant

When using adjuvants or other pesticides in combination with this product, always observe the caution statements on the product's label and required days before harvest Sprays of Blue Shield DF may be applied up to day of harvest Before mixing with other products in spray tank, be sure that products are compatible If compatibility is in question, use the compatibility jar test before mixing a whole tank BLUE SHIELD 50DF should not be applied in spray water having a Ph of less than 6.5 as phytotoxicity may result Use a buffering agent to increase the Ph to 6.5-7.0 if your water source is below 6.5 Also avoid using water having a Ph of greater than 9.0 as effectiveness may be reduced

MIXING INSTRUCTIONS FOR SPRAY APPLICATION

Fill the spray tank one-fourth to one-third full with clean water Start agitation (NOTE Proper agitation creates a rippling or rolling action on the liquid surface) Add BLUE SHIELD 50DF at the recommended rate

Mix thoroughly and then add enough water to fill spray tank Maintain sufficient agitation during mixing and during application of sprays to ensure a uniform spray mixture When tank mixing with other products, follow the mixing sequence below (1) micronutrients and fertilizers, (2) wettable powders, dry flowables, and water dispersible granules, (3) liquid flowables, (4) emulsifiable concentrates, and (5) adjuvants Before adding the second pesticide, be sure that the prior product is well mixed and suspended before adding the next ingredient

MINIMUM RECOMMENDED SPRAY VOLUME IN GALLONS PER ACRE (GPA)

If a crop is sensitive to copper sprays, higher volumes of spray water will decrease potential injury A full dilute spray on tree crops means the maximum amount of spray when uniformly applied that

an acre of such trees will hold to the point that excess spray begins to drip off. Thus the dilute spray volume per acre will depend on tree size and leaf surface per acre. The following listed dilute spray volumes is the volume that will generally provide such coverage on average size of full leafed trees. A concentrate spray is a spray applied in less volumes than a dilute. The extent of the concentration varies by equipment used. Thus the following spray volumes for a concentrated spray are the minimum volumes recommended per acre.

Use BLUE SHIELD 50DF as noted below unless indicated otherwise in the specific crop directions. BLUE SHIELD 50DF is adaptable to spraying from aircraft and ground spraying equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. Refer to recommended volumes below.

| | Aerial | Ground | |
|----------------------------|--------|-----------|-------------|
| | | Dilute | Concentrate |
| Vegetables and Field Crops | 3 | 20 | -- |
| Small Fruits | 5 | 150 | 50 |
| Vines | 5 | 150 | 50 |
| Fruit and Nut Trees* | 10 | 300-400 | 50 |
| Citrus | 10 | 800-1,000 | 100 (50 FL) |

*On young fruit trees, use a minimum of 1 gallon spray per acre, for other tree crops depending on size, use up to 800 gallons per acre.

GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems. sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveling gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system.

PRECAUTION: Corrosion of aluminum and carbon steel irrigation sprinkler systems may be experienced with the use of copper based fungicides. The end-user assumes all responsibility for use of this product through such systems. If the user elects to apply this product through such systems, it is essential that all application equipment containing this product be thoroughly flushed with clean water after each day's use. Continue to operate system with clean water until all product has cleared the last sprinkler head.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the

pesticide safety device for public water systems is in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

A Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side Wheel Roll Irrigation Equipment. Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank or injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until the product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

B Solid Set and Hand Move Irrigation Equipment. Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that the product will remain in suspension during the injection cycle. This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

SAFETY DEVICES

(1) The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. (3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. (5) The irrigation line or water pump must

include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected (6) Systems must use a metering pump, such as a positive displacement injection pump (e g , diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock (7) Do not apply when wind speed favors drift beyond the area intended for treatment

SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water systems means a system for the provision to the public of piped water for human consumption if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction As an option to the RPZ, the water from the public water system should be discharged into the reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected

For additional instructions on safety precautions refer to statements (2), (3), (4), (6), and (7) in the section on SAFETY DEVICES

POSTING INSTRUCTIONS

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

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas This sign is in addition to any sign posted to comply with the Worker Protection Standard When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas The printed side of the sign should face away from the treated area

towards the sensitive area The signs shall be printed in English Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared Signs may remain in place indefinitely as long as they are composed of material to prevent deterioration and maintain legibility for the duration of the posting period

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

FROST INJURY PROTECTION

Bacterial Ice nucleation inhibitor - Application of Blue Shield DF made to all crops listed on this label at rates and stages of growth indicated on this label at least 24 hours and not more than 72 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) may thereby provide some protection against light frost The degree of frost protection will vary with weather conditions and other factors Not recommended for those geographical areas where weather conditions favor severe frost

ALFALFA

Cercospora & *Leptosphaerulina* Leaf Spots - Apply at 2 lbs per acre 10 to 14 days before each harvest or earlier if disease threatens Apply with ground or aerial equipment Spray injury may occur with sensitive varieties

ALMONDS

Coryneum Blight and Blossom Brown Rot - Apply a dormant application of 8-12 lbs per acre Apply before foliage buds begin to swell Use higher rates when rainfall is heavy and disease pressure is high Use 6-8 lbs per acre in early bloom popcorn application Apply before full bloom Use higher rates when rainfall is heavy and disease pressure is high.

NOTE To avoid plant injury, do not use above rate after full bloom

Bacterial blast (*Pseudomonas*) - Apply 12-16 lbs at dormant to early pink bud For control in sprinkler irrigated orchards or where disease is severe, apply 1 lb per acre at 2 week post-bloom intervals or just before sprinkling

NOTE Injury may occur from post-bloom sprays, especially on sensitive varieties

APPLES

Anthrachnose, Pseudomonas, European Canker - Apply 3 to 4 lbs before fall rains in 100 gallons of water, using 300 to 400 gallons of water per acre as a concentrate spray

NOTE Use on yellow varieties may cause discoloration

Fire Blight - Apply 2 to 4 lbs per 100 gallons of water as full cover spray or 8-16 lbs per acre as a concentrate at silver and green tip stages Do not apply after green tips reach 1/2 inch because phytotoxic problems may occur on later applications

Crown or Collar Rot - Apply 4 lbs per acre in 100 gallons of water Apply 4 gallons of suspension as a drench on the lower trunk area of each tree Apply either in early spring or in late fall after harvest

NOTE Do not use if soil Ph is below 5.5 since copper toxicity may result

APRICOTS

Coryneum Blight (Shot Hole) & Blossom Brown Rot - Apply at popcorn to full bloom using 8-12 lbs per acre Use higher rate when conditions favor disease Do not apply after bloom as crop injury may result

AVOCADOS

Scab - Apply when bloom buds begin to swell at 8-12 lbs per acre Continue applications at monthly intervals for 5 to 6 applications Use the higher rate when conditions favor disease

BANANAS

Sigatoka - Apply by air at 2 lbs per acre in 3 gals of water containing 0.5 gals agricultural oil Apply on a 14 day schedule throughout the wet season Apply at 21 day intervals during dry periods

Black Pitting - Apply at 4 lbs per 100 gallons directly to the fruit stem and include the basal portion of the leaf crown Apply during the first and second weeks after emergence

BEANS

Bacterial Blight (Halo, Brown spot & Common) - For protective sprays apply first application when plants are six inches high Apply on 7 to 14 day schedule depending on local conditions, Use 1 to 3 lbs per acre depending on disease severity

BLACKBERRIES (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems, & Thornless Evergreens)

Leaf & Cane Spot - Apply delayed dormant spray after training in spring at 4 lbs plus 1 quart superior-type oil per 100 gallons Apply again in late spring at 2 lbs plus 1 quart of superior-type

oil per 100 gallons Make fall spray applications after harvest using 4 lbs plus 1 quart crop oil per 100 gallons

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER & COLLARDS
Downy Mildew (Peronospora) - Apply 0.5 to 1 lb per acre at 7 day intervals

CABBAGE ONLY

Black Rot (Xanthomonas) & Black Leaf Spot (Alternaria) - Apply at 2 lbs per acre at 7-10 day intervals (Precaution A slight reddening of older leaves may occur on cabbage at the 2 lb rate) For control of disease of these crops begin application after transplants are set in the field, or shortly after emergence of field seeded crops or when conditions favor disease development

CACAO

Black Pod - Begin applications at the start of the rainy season and continue while infection conditions persist Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 2 to 4.5 lbs per acre depending on disease severity For drier areas where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 6.5 to 8.5 lbs per acre, according to disease incidence and planting density

CANTALOUPE, HONEYDEWS, MUSKMELONS

Downy Mildew - Apply weekly at 2 lbs per acre before disease appears

CARROTS

Carrot Blight (Cercospora) - When disease threatens, apply 2 lbs per acre at 7 to 14 day intervals depending on disease severity

CELERY

Early, Late & Bacterial Blights - Apply as soon as plants are first established in the field at 1-2 lbs per acre, then every 3-7 days depending on severity and weather

CHERRIES.

Dead Bud (Pseudomonas syringae) & Coryneum Blight - Apply 8-12 lbs per acre before heavy rains fall and again in late dormant In orchards where the disease is severe a spray should also be applied in August

Brown Rot Blossom Blight - Apply 2-3 lbs per 100 gallons water as a full cover spray, applied as popcorn and full bloom

CITRUS

Melanose, Scab, Pink Pitting - Apply 4-12 lbs per acre, depending on disease severity, as a pre-bloom and post-bloom spray

Greasy Spot - Apply 2-6 lbs per acre using higher rates when conditions favor disease

Brown Rot - Apply 4-8 lbs per acre beginning in fall and continuing as needed. Apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease.

NOTE In California, in areas subject to copper injury, add 1/3 to 1 lb of high quality lime per pound of BLUE SHIELD 50DF.

Citrus Canker (suppression only) - Apply 12 lbs per acre, spraying flushes 7-14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed.

Phytophthora - Mix 1 lb of BLUE SHIELD 50DF with 1 gallon of water and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to one year, but does not cure existing infections.

COFFEE

Iron Spot (*Cercospora coffeicola*) and Pink Disease (*Corticium salmonicolor*) - Apply at 2 lbs per acre. Begin treatment at start of wet season and continue at monthly intervals for three applications.

Coffee berry disease (*Collectotrichum coffeanum*) - Apply 6-8 lbs per acre. Make first spray after flowering and before onset of long rains and repeat at 21-28 day intervals until picking. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.

Bacterial blight (*Pseudomonas syringae*) - Apply 6-8 lbs per acre. Begin spray program before onset of the long rains and continue throughout the rainy season at 14-21 day intervals. The critical time of spraying to control this disease is just before, during and after flowering(s), especially when coinciding with wet weather. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.

Leaf Rust (*Hemileia vastatrix*) - Apply at 3.5 to 5.5 lbs per acre for average density plantings. Make first application before the onset of rains and then continue at 21 day intervals while the rains continue and disease conditions continue. Use the higher rates when rainfall is heavy and disease pressure is high.

CRANBERRY

Fruit Rot - Apply at 8 lbs per acre beginning late bloom (mid-July), followed by two additional applications at 10 to 14 day intervals.

CUCUMBERS

Angular Leaf Spot, Downy Mildew - Apply weekly once the plants begin to vine Use 1.5 to 2 lbs per acre

CURRENTS & GOOSEBERRY.

Leaf Spot - Make three applications of BLUE SHIELD 50DF at 10 lbs per acre, starting after harvest, before bloom and after petal fall

EGGPLANT

Alternaria Blight, Anthracnose, Phomopsis - Use 2 lbs BLUE SHIELD DF per acre before disease appears Repeat at 7 to 10 day intervals

FILBERT

Bacterial Blight - Use 16-24 lbs per 100 gallons in late August or early September In seasons of heavy rainfall, apply another spray when three-quarters of the leaves have dropped

For Eastern filbert blight - Apply as a dilute spray in sufficient water for thorough coverage Make initial application after harvest in October before heavy winter rains begin Repeat application in late February to early March and again 4 weeks later

GINSENG

Alternaria leaf & Stem blight - Apply 2 6 lbs. per acre in a tank mix with 2 lbs Rovral 50W used in 100 gallons of water Begin BLUE SHIELD 50DF - Rovral applications as soon as plants emerge in spring Applications should be repeated every 7 days until plants become dormant in fall If scheduled application is to be made before a rain shower, apply fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants Use of a spreader-sticker or sticker is advised

NOTE Alternaria leaf and Stem blight are most severe in humid conditions such as those found in the dense canopies of 2-4 year old ginseng It is very important that the stems be thoroughly covered with fungicide, therefore, use a spray apparatus which distributes the fungicide throughout the canopy

GRAPES

Black Rot, Powdery Mildew & Downy Mildew - Apply 2 lbs BLUE SHIELD 50DF plus 1-3 lbs hydrated lime per acre as a dilute or concentrate spray Use for the last one or two late summer applications following early season application of another fungicide Follow State schedule for exact timing (Precaution Slight to severe foliage injury may occur on copper-sensitive varieties)

HOPS

Downy Mildew - Apply 2 lbs as a fungicide crown treatment (after pruning, but before training) as needed After training, additional fungicide treatments are needed at about 10 day intervals Discontinue use 2 weeks before harvest

KIWI

Pseudomonas syringae, *Erwinia hervicola* & *Pseudomonas fluorescens* - Apply 8 lbs in 200 gallons of water per acre Make applications on a monthly basis A maximum of 3 applications may be made

MACADAMIA NUTS

Blossom blight & Raceme blight - Apply 3-6 lbs per acre depending on disease pressure in 50-300 gallons of water during peak raceme development and bloom period

LETTUCE, ENDIVE & ESCAROLE

Downy Mildew - Apply 1-2 lbs per acre in 5-20 gallons of water by ground, or 3-20 gallons of water by air Begin treatment when disease first appears and repeat every 3 to 7 days as needed to suppress disease

NOTE The application rates recommended may cause yellowing of leaf margins Sensitivity may vary due to varieties and weather conditions Increasing the volume of spray will frequently decrease phytotoxicity potential

MANGO (Florida only)

Anthracoise - Apply 8-10 lbs per acre monthly after fruit set until harvest

LIVE OAK

Ball Moss and Spanish Moss - Mix 6 lbs in 100 gallons of water Apply in spring after heavy rain Thoroughly wet tree and moss, applying about 1 5 gallons per foot of tree height A second application may be required after 12 months

OLIVES (California only)

Peacock Spot - Apply 8-12 lbs per acre before fall rains begin A second application in early spring should be made if disease is severe

ONIONS

Purple Blotch & Downy Mildew - Apply 2 lbs BLUE SHIELD 50DF per acre when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals Addition of a spreader-sticker at recommended rates may improve wetting of onion foliage

PAPAYA (except California)

Anthracoise - Mix 2 lbs per 100 gallons water on dilute spray basis Addition of a sticker may be desirable Begin treatment before rains when disease is expected Repeat at 10-14 day intervals during periods of heavy rainfall

PEACHES & NECTARINES

Leaf Curl & Coryneum Blight (Shot Hole) - Apply 8-20 lbs per acre at leaf fall Use the higher rates per acre when rainfall is heavy and disease pressure is high Addition of an agricultural spray oil may be desired

Brown rot blossom blight - Apply at 8-12 lbs per acre as a full cover spray at pink bud (Application at this time also affords some control of Leaf Curl and Coryneum Blight)

Bacterial spot - Apply 12-16 lbs per acre as a dormant application If bacterial spot infection is potentially heavy, two post bloom sprays applying 1/4 lb per 100 gallons at first and second cover sprays in full dilute spray may aid control Do not spray later than three weeks prior to harvest Do not use at rates above those recommended

(Precaution Slight defoliation and spotting of leaves may occur from use in cover sprays)

PEANUTS

Cercospora Leaf Spot - Begin spraying 25-40 days after planting or when disease symptoms appear Make ground or aerial application at 1 5 to 3 lbs per acre Continue applications at 10 to 14 day intervals Use in sufficient water to get adequate coverage

PEARS

Fire Blight (Western U S) Apply at 1 lb per acre at 5 day intervals throughout bloom period.

Pseudomonas blight - Apply 12-16 lbs. per acre before fall rains Make a second application during dormancy before spring growth begins The higher rate is required when increased disease pressure is present or when conditions favor development of the disease

(Precaution May cause fruit russet)

PEAS

Powdery Mildew - Begin spray treatment when disease symptoms first appear Use at 1 5 to 3 lbs per acre according to disease severity Repeat applications at weekly intervals

PECANS

Shuck and Kernel rot (Phytophthora cactorum) and Zonate leaf spot (Cristulariella pyramidalis) - For suppression, apply 2-4 lbs per acre in sufficient water for good coverage at 2-4 week intervals starting at kernel growth and continuing until shucks open Use the higher rate and shorter intervals if frequent rainfall occurs

Mosses, Algae, and Lichen - Mix 6 lbs. per 100 gallons spray plus Spreader-sticker on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses

PEPPERS

Bacterial Spot - When disease threatens, apply 2 to 3 lbs per acre at 7 to 14 day intervals depending on disease severity

PHILODENDRON

Bacterial Leaf Spot - Apply weekly before disease appears at 1 5 lbs of Blue Shield plus 1.5 lbs of a coordination product of Maneb and Zinc (80% active compound) per 100 gals of water (Only use this product if it is EPA registered for this crop)

PLUMS & PRUNES

Coryneum blight (Shot hole) - Apply 8-16 lbs per acre as a dormant spray Use the higher rate when rainfall is heavy and/or disease pressure is high

Brown rot blossom blight - Apply 8-12 lbs per acre full cover application at pink, red or early white bud stage Use the higher rate when disease pressure is heavy or conditions favor disease development

POTATOES

Early & Late Blight - Apply at 7 to 10 day intervals starting when plants are 4-6 inches high and continue until harvest Use 1 to 1 5 lbs per acre in those locations where disease is light and up to 3 to 4 lbs per acre where disease is more severe If late blight is a problem, apply prior to digging or in vine kill spray

PUMPKINS & SQUASH

Powdery Mildew - Begin applications when plants are 3 weeks old or when disease symptoms appear Use at weekly intervals at 1 5 to 3 lbs per acre depending on disease severity

RASPBERRY (Except California)

Leaf & Cane spot - Apply 4 lbs per acre as a delayed dormant spray after training in the spring Make fall application after harvest Add 1 qt of crop oil per acre

SPINACH

Anthrachnose, Cercospora leafspot, Downy mildew, & White rust - Apply 2-4 lbs per acre Begin treatment when disease first appears and repeat every 7-10 days as needed to suppress disease

STRAWBERRIES

Downey mildew, Leaf spot & Leaf blight - Use 2-3 lbs in 100 gallons water per acre. Begin spray when plants are established and continue on a weekly schedule throughout season Discontinue applications if signs of phytotoxicity appear May be used in nursery and field plantings

SUGAR BEETS

Cercospora Leaf Spot - Start spray when disease threatens and continue for 4 to 5 applications. Spray 10 to 14 days depending on weather conditions at 2 to 5 lbs per acre depending on disease severity. Addition of suitable agricultural spray oil is recommended.

SYCAMORE

Anthrachnose - Make two applications using 2 to 3 lbs per 100 gallons as a full cover spray. Make first application at bud crack and second application 7 to 14 days later at 10% leaf expansion.

TOMATOES

Early Blight, Anthracnose, Bacterial speck, Gray leaf spot - When disease threatens, apply 2 to 3 lbs per acre at 7 to 10 day intervals. Use more frequent application when disease pressure is high.

Bacterial spot - When disease threatens, apply 2-4 lbs per acre at 7-10 day intervals, more frequently when disease is severe. May be tank mixed with 1.5 to 2 lbs per acre maneb or coordination product of maneb and zinc (80% active ingredient) if product is labeled for use on tomatoes. Follow all directions for use and days between last spray and harvest on those product labels. Do not use above named fungicides in the tank mix unless they are registered for use on tomatoes. Addition of a chlorthalonil like Bravo, controls target leaf spot and may enhance control of some of the other listed diseases on this label with a tank mix.

TURFGRASS

Algae - Apply 1/2 lb per 1,000 square feet in 5 gallons of water. May be used as a maintenance spray as needed. May be used alone or in combination with fungicides such as dithiocarbamates. Phytotoxicity may depend on varietal differences. Apply the recommended rate to a small area and observe 7-10 days for phytotoxicity. If phytotoxicity occurs, discontinue use.

WALNUTS

Walnut Blight - Apply 8-12.5 lbs per acre. Make first spray at early pre-bloom when catkins are partially expanded. Make additional applications during bloom and early nutlet stage or as needed if frequent rainfall occurs.

WATERMELON

Anthrachnose & Downy mildew - Apply as soon as plants become established and at weekly intervals thereafter.

Anthrachnose - Use at 2 lbs per acre.

Downy Mildew - Use at 1.5 to 3 lbs per acre, according to disease severity.

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WHEAT, OATS & BARLEY

Septoria leaf blotch, Helminthosporium spot blotch - Apply 1 5 to 2 lbs per acre Make first application at early heading and follow with second application 10 days later

ORNAMENTALS

Notice to User Plant sensitivities to BLUE SHIELD 50DF have been found to be acceptable in specific genera and species listed on this label, however, phytotoxicity may occur Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to BLUE SHIELD 50DF Neither the manufacturer nor seller has determined whether or not BLUE SHIELD 50DF can be safely used on ornamental or nursery plants not listed on this label The user should determine if BLUE SHIELD 50DF can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i e , bedding plants, foliage, etc , and observe for 7-10 days for symptoms of phytotoxicity prior to commercial use

Use BLUE SHIELD 50DF on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers and stems

Apply as a thorough coverage spray using 1 lb BLUE SHIELD 50DF per 100 gallons of water Begin application at first sign of disease and repeat at 7-14 day intervals as needed, use shorter interval during periods of frequent rains or when severe disease conditions persist

BLUE SHIELD 50DF may be used as a maintenance spray alone or in combination with other fungicides such as the dithiocarbamates

ORNAMENTAL/DISEASES

Aralia/Xanthomonas & Cercospora leaf spots, Alternaria
Azalea*/Cercospora leaf spot, Botrytis blight, Phytophthora dieback & Powdery mildew
Begonia/Xanthomonas leaf spot
Bulbs (Easter lily, Tulip, Gladiolus)/Anthracnose, Botrytis blight
Carnation*/Alternaria blight, Pseudomonas leaf spot, & Botrytis blight
Chrysanthemum*/Septoria leaf spot, & Botrytis blight
Cotoneaster/Botrytis blight
Euonymus/Botrytis blight & Anthracnose
India hawthorn (greenhouse)/**Entomosporium leaf spot
Ivy*/Xanthomonas leaf spot
Pachysandra/Volutella leaf blight

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Periwinkle/Phomopsis stem blight
Philodendron/Bacterial leaf spot
Pyracantha/Fireblight & Scab
Rose*/Powdery mildew, Black spot
Yucca (Adams Needle)/Cercospora & Septoria leaf spot

*Discoloration of foliage and/or blooms have been noted on some varieties To prevent residues on commercial plants, do not spray just before selling season

**For India hawthorn, use 2-4 lbs per 100 gallons

NOTICE Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on this label when used in accordance with directions under normal conditions of use, but neither warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions not reasonably foreseeable to seller, the buyer assumes the risk of any such use