

PM 22

50534-188

2-26-99

1 of 21

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 05-31-98



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

254791

## Application for Pesticide - Section I

1. Company/Product Number 50534-188	2. EPA Product Manager Cynthia Giles-Parker	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) BRAVO 720 Agricultural Fungicide	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) GB Biosciences Corporation 1800 Conrod Pike P.O. Box 15458 Wilmington, DE 15458 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

## Section - II -

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

NOTIFICATION

FEB 26 1999

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION: Addition of a pest per PR Notice 98-10, II, B

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Fred J. Pearson	Title Regulatory Product Manager	Telephone No. (Include Area Code) (302) 886-1233
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped) 
2. Signature 	3. Title Regulatory Product MGR., Zeneca Agent for GB Biosciences, Corporation	
4. Typed Name Fred J. Pearson	5. Date February 19, 1999	

2921

**BRAVO® 720**  
**Agricultural Fungicide**

<b>Active Ingredient:</b> Chlorothalonil (tetrachloroisophthalonitrile) .....	54.0%
<b>Inert Ingredients</b> .....	46.0%
<b>TOTAL</b> .....	100.00%

Contains 6.0 Pounds Chlorothalonil Per Gallon  
(720 grams per liter)

EPA Reg. No. 50534-188  
EPA Est. No. 50534-TX-01

**Keep Out of Reach of Children**  
**WARNING - AVISO**

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

**GB Biosciences Corporation**  
1800 Concord Pike  
Wilmington, DE 19850-5458

**NOTIFICATION**  
**FEB 26 1999**



**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of GB Biosciences or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold GB Biosciences and Seller harmless for any claims relating to such factors.

GB Biosciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under *abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of* Seller or GB Biosciences, and Buyer and User assume the risk of any such use. GB BIOSCIENCES MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall GB Biosciences or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF GB BIOSCIENCES AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF GB BIOSCIENCES OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

GB Biosciences and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of GB Biosciences.

4021

**A Broad Spectrum Agricultural Fungicide**  
**Read entire label carefully and use only as directed**

### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans and Domestic Animals**

**WARNING:** Causes eye irritation. May cause skin irritation. May be a potential skin sensitizer.

DO NOT get in eyes. Avoid prolonged contact with skin. Avoid breathing spray mist. DO NOT take internally.

**Note to User:** This product may produce temporary allergic side effects characterized by redness of the eyes, mild bronchial irritation and redness or rash on exposed skin areas. Persons having allergic reaction should contact a physician.

#### **First Aid:**

In case of contact with eyes, immediately flush eyes with plenty of water and continue for 15 minutes. Seek medical attention for eyes immediately.

Wash exposed areas of skin with soap and warm water after handling or using.

**Note to Physician:** Persons having a temporary allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.**

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#### **Personal Protective Equipment (PPE):**

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eye wear, and a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### Environmental Hazards

This product is toxic to fish, aquatic invertebrates, and marine/estuarine organisms. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. 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. DO NOT apply when weather conditions favor drift from treated areas.

Apply only to areas specified on label.

### 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 applications. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

See attached booklet for Directions for Use.

### AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

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### STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Storage:** Store in a cool place. Protect from excessive heat.

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

**Container Disposal:** DO NOT reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Returnable Refillable Container:** If Bravo 720 is packaged in a returnable refillable container, then, after use, do not rinse container. Return container intact to point of purchase. This container must only be refilled with Bravo 720. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Before refilling, inspect thoroughly for damage such as cracks, punctures, abrasions, and damaged or worn threads on closure devices. Check for leaks after refilling and before transport.

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BRAVO 720 is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. BRAVO 720 is recommended for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

BRAVO 720 is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. BRAVO 720, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your federal or state Cooperative Extension Service representatives for guidance on the proper use of BRAVO 720 in programs which seek to minimize the occurrence of disease resistance to other fungicides.

BRAVO 720 can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

DO NOT use on greenhouse-grown crops.

DO NOT combine BRAVO 720 in spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. DO NOT combine BRAVO 720 with Dipel 4L, Foil, Triton AG-98, Triton B-1956 or Latron B-1956 as phytotoxicity may result from the combination when applied to the crops on this label.

Dipel is a registered trademark of Abbott Laboratories; Foil is a registered trademark of Ecogen, Inc.

Latron B-1956 and B-1956 are trademarks of Rohm and Haas Company.

**Note:** Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate pints of BRAVO 720 per acre, unless otherwise stated. Under conditions favoring disease development the high rate specified and shortest application interval should be used.

The required amount of BRAVO 720 should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of BRAVO 720 in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

#### **Field and Row Crops:**

Apply BRAVO 720 in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume usually will range from 20 to 150 gallons per acre (200 to 1400 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions are given for a crop. Application through sprinkler irrigation systems is not recommended unless specific directions are given for a crop. See application and calibration instruction below.

#### **Application and Calibration Techniques for Sprinkler Irrigation**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move, side roll, end tow, or hand move) irrigation system(s). DO NOT apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from 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 apply this product through irrigation systems connected to a public water system. 'Public water system' - means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to

8 of 21

prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

**Always inject BRAVO 720 into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

BRAVO 720 may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

**A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of BRAVO 720 for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until BRAVO 720 has been cleared from last sprinkler head.



90/21

**B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

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 BRAVO 720 for acreage to be covered with water so that the total mixture of BRAVO 720 plus water in the injection tank is equal to the 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. No agitation should be required. BRAVO 720 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 BRAVO 720 has been cleared from last sprinkler head.

10 of 21

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Bean (Snap)	Rust  Botrytis blight (gray mold)	1-3/8 to 3 pts  3 pts	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat at weekly intervals or as necessary to maintain control. DO NOT apply within 7 days of harvest. DO NOT graze treated areas or feed treated plant parts to livestock.
Beans (Dry) Navy, Pinto, Kidney, Lima, Blackeye	Rust, Anthracnose, Downy mildew, Cercospora leaf spot (blackeye only), Ascochyta Blight	1-3/8 to 2 pts	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage and repeat at 7 to 10 day intervals. For use only on beans to be harvested dry with pods removed. DO NOT apply more than 4 times per growing season. DO NOT apply within 14 days before harvest. DO NOT allow livestock to graze in treated areas or feed treated plant parts to livestock.  BRAVO 720 may be applied through sprinkler irrigation equipment. See calibration directions which appear on the product label.
Cabbage, Chinese Cabbage (tight-headed varieties only) Cauliflower, Broccoli, Chinese Broccoli, Brussels Sprouts	Alternaria leaf spot, Downy mildew     Ring spot (California only)	1-1/2 pts     2 pts	Use in sufficient water to obtain adequate coverage. Begin applications after transplants are set in field, or shortly after emergence of field-seeded crop, or when conditions favor disease development. Repeat at 7 to 10 day intervals or as necessary to maintain control. DO NOT apply within 7 days of harvest to Chinese cabbage or Chinese broccoli.  For field-seeded brussels sprouts, begin applications at time of early sprout development or when conditions favor disease development. Repeat at 7 to 10 day intervals or as necessary to maintain control.
Carrot	Cercospora (Early) blight, Alternaria (Late) blight	1-1/2 pts to 2 pts	Use in sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7 to 10 day intervals or as necessary to maintain control.  BRAVO 720 may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only). See calibration directions preceding this section.

11/21

Page 10 of 20  
 Bravo 720  
 BRAVO188.RSA - 1/28/99

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Celery	Cercospora (Early) blight, Septoria (Late) blight, Basal stalk rot ( <i>Rhizoctonia solani</i> )	1 to 1-1/2 pts or 2 to 3 pts	Use 1 to 1-1/2 pints per acre on a 3 to 5 day spray schedule or 2 to 3 pints per acre on a 7 day schedule. Start applications when transplants are set in the field. Apply in sufficient water to obtain adequate coverage.
	Pink rot (Suppression - 7 day schedule)	3 pts	BRAVO 720 may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only). See calibration directions preceding this section. DO NOT apply within 7 days of harvest.
	Early blight, Late blight	1-1/2 to 2 pts per 100 gal.	For celery seedbeds, apply 125 gallons per acre twice weekly or as needed to maintain control. Start applications shortly after crop emergence. Use the higher rate under severe disease conditions.
Corn (Sweet), Corn grown for seed	Helminthosporium leaf blights, Rust	3/4 to 2 pts	Use in sufficient water to obtain adequate coverage. Begin applications when conditions favor disease development and repeat at 4 to 7 day intervals or as required to maintain control. Under severe disease conditions, use 1-1/2 to 2 pints per acre. DO NOT apply within 14 days of harvest. DO NOT apply to sweet corn to be processed. DO NOT allow livestock to graze in treated fields. DO NOT ensile treated corn or use as livestock forage.
Cranberry	Fruit rots, Lophodermium leaf/twig blight	4 to 7 pts	Apply at early bloom and repeat at 10 to 14 day intervals. Under severe disease conditions use the 7 pts/acre rate on a 10 day schedule. DO NOT apply BRAVO 720 more than 3 times per season, or within 50 days before harvest. DO NOT apply to bogs when flooded or allow release of irrigation water from bogs for at least 3 days following application.  BRAVO 720 may be applied through sprinkler irrigation equipment. Use 300 gallons of water per acre through solid set systems only. See calibration directions preceding this section.

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Cucurbits: Cucumber, Cantaloupe, Muskmelon, Honeydew melon, Watermelon, Squash, Pumpkin	Anthrachnose, Downy mildew, Target spot	1-1/2 to 2 pts	<p>Use in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals. Under severe disease conditions, shorten spray interval.</p> <p>BRAVO 720 may be applied through sprinkler irrigation equipment (solid set, portable wheel move or center pivot systems only). See calibration directions preceding this section.</p> <p><b>Note:</b> Spraying mature watermelons may result in sunburn of the upper surface of the fruit. DO NOT apply BRAVO 720 to watermelons when any of the following conditions are present:</p> <ol style="list-style-type: none"> <li>1. Intense heat and sunlight;</li> <li>2. Drought conditions;</li> <li>3. Poor vine canopy;</li> <li>4. Other crop and environmental conditions which may be conducive to increased natural sunburn.</li> </ol> <p>DO NOT combine BRAVO 720 with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use.</p> <p>Use BRAVO 720 in sufficient water to obtain runoff to soil surface. Make a single application when vines begin to form. BRAVO 720 may be applied through sprinkler irrigation equipment as directed above.</p>
	Cercospora leaf spot, Gummy stem blight (black rot), Alternaria leaf blight, Scab, Powdery mildew (Sphaerotheca only)	2 to 3 pts	
	Cucumber belly rot ( <i>Rhizoctonia solani</i> )	8-1/4 pts	
Grasses Grown for Seed	Stem rust, Leaf rust, Stripe rust, Septoria leaf spot, Glume blotch, Bipolaris and Drechslera leaf spots	1 to 1-1/2 pts	<p>Use in sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat applications at 14 day intervals. DO NOT apply within 14 days of harvest. DO NOT allow livestock to graze in treated areas or feed treated plant parts to livestock.</p>
	Selenophoma (eyespot)	1 to 2 pts	

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS												
Mint	Rust, Septoria leaf spot	1-3/8 pts	Use in sufficient water to obtain adequate coverage, normally 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground and aircraft applications. Begin applications when emerging plants are 4 - 8 inches high. Repeat applications at 7 to 10 day intervals or as necessary to maintain control. DO NOT apply more than 3 times per season. DO NOT apply within 80 days of harvest. DO NOT feed fresh or extracted mint hay from treated fields to livestock. Based on available residue data, use of BRAVO 720 on mint is restricted to Indiana, Michigan and Wisconsin.												
Onion (Dry bulb)	Botrytis leaf blight/blast, Botrytis neck rot (suppression), Purple blotch	1 to 2 pts	<p>Apply in sufficient water to obtain thorough coverage of tops. BRAVO 720 is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows:</p> <table> <tr> <th></th><th>Low Disease Hazard &amp; Prior to Infection</th><th>Low Disease Hazard &amp; Some Disease Present</th><th>High Disease Hazard</th></tr> <tr> <td>Rate per Acre:</td><td>1 pt</td><td>1-3/8 pts</td><td>2 pts</td></tr> <tr> <td>Frequency:</td><td>10 days</td><td>7 to 10 days</td><td>7 days</td></tr> </table> <p>For suppression of neck rot (Botrytis spp.) during storage, a minimum of three weekly applications prior to lifting, using 1-3/8 to 2 pints of BRAVO 720 per acre, is recommended. DO NOT apply within 7 days of harvest.</p>		Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard	Rate per Acre:	1 pt	1-3/8 pts	2 pts	Frequency:	10 days	7 to 10 days	7 days
	Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard												
Rate per Acre:	1 pt	1-3/8 pts	2 pts												
Frequency:	10 days	7 to 10 days	7 days												
Onion (Green bunching), Leek, Shallot, Garlic, Onion grown for seed	Botrytis leaf blight/ (blast), Purple blotch, Downy mildew (suppression)	1-1/2 to 3 pts	Use in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods, and repeat at 7 to 10 day intervals for as long as conditions favor disease. Use the high rate and a 7 day schedule of applications when heavy dew or rain persist. DO NOT apply within 7 days of harvest on garlic. DO NOT apply more than 3 times per season or within 14 days of harvest on green bunching onions, leeks or shallots. If additional disease control is needed before harvest, use another registered fungicide.												

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Papaya	Alternaria fruit spot, Anthracnose, Stem end rot	2 to 4 pts	Apply with ground equipment only, in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development. DO NOT graze livestock in treated area or feed processing by-products to livestock.
Parsnip	Alternaria leaf spot, Downy mildew, Anthracnose, Botrytis blight (gray mold), Bottom rot (Rhizoctonia)	1-1/2 to 2 pts	Apply in sufficient water to obtain adequate coverage. Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7 to 10 day schedule. DO NOT apply more than 4 times per season or within 10 days of harvest. DO NOT feed treated plant parts to livestock.
Passion Fruit (Hawaii only)	Alternaria fruit and leaf spot, (passion fruit brown spot)	2 pts	Apply with ground equipment in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when fruit spots appear (April to July) and continue treatments at 14 day intervals until weather conditions no longer favor disease development. DO NOT graze in treated area or feed vines or processing by-products to livestock used for food.
Peanut	Early leafspot (Cercospora), Late leafspot (Cercosporidium)  Rust, Web blotch	1 to 1-1/2 pts  1-1/2 pts  •	Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting; repeat at 10 to 14 day intervals. When conditions favor late leafspot or when rust or web blotch occur, apply 1-1/2 pints per acre at 10 day intervals for the remainder of the season. DO NOT apply within 14 days of harvest. DO NOT allow livestock to graze in treated areas. DO NOT feed hay or threshings from treated fields to livestock.  BRAVO 720 may be applied through sprinkler irrigation equipment. Use 1-1/2 pints per acre in solid set, portable wheel move, center pivot, motorized lateral move or traveling gun sprinkler irrigation equipment. See calibration directions preceding this section.

15 of 21

Page 14 of 20  
 Bravo 720  
 BRAVO188.RSA - 1/28/99

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Potato	Late blight, Early blight, Botrytis vine rot	3/4 pt  - then -  1 to 1-1/2 pts	<p>Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 7 to 10 day intervals.</p> <p>Begin applying the higher label rates at 5 to 10 day intervals when any one of the following events occur.</p> <ul style="list-style-type: none"> <li>• Vines close within the rows;</li> <li>• Late blight forecasting measures 18 disease severity values (DSV);</li> <li>• The crop reaches 300 P-days</li> </ul> <p>Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. DO NOT apply more than 16 pints of BRAVO 720 per acre during each growing season. DO NOT apply within 7 days of harvest.</p> <p>BRAVO 720 may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only). DO NOT exceed a 10 day interval between applications when using this technique. See calibration directions preceding this section.</p>

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Soybean Determinate (Southern) Varieties	Anthracnose, Diaporthe pod and stem blight, Frogeye leaf spot ( <i>Cercospora sojina</i> ), Purple seed stain, Cercospora leaf blight ( <i>Cercospora kikuchii</i> ), Septoria brown spot	1-1/2 to 2-1/2 pts	Apply in sufficient water to obtain complete coverage, using at least five gallons of water per acre for aerial application. Use the three application program in areas having a history of moderate to severe disease intensity. BRAVO 720 may be applied through sprinkler irrigation equipment. Follow application and calibration directions preceding this section. DO NOT exceed total of 3 applications per season. DO NOT apply within 6 weeks of harvest. DO NOT feed treated parts to livestock or allow grazing in treated fields.  <b>Two application program</b> - Make the first application at early pod set (R3 stage, when majority of pods are 1/8 to 3/8 inch in length) and the second at beginning of seed formation (R5) which occurs about 14 days later.
		1 to 2 pts	<b>Three application program</b> - Make the first application at the beginning of flowering (R1), the second at early pod set (R3) and the third at beginning of seed formation (R5).
	Stem canker ( <i>Diaporthe phaseolorum</i> var. <i>caulivora</i> )	1 pt	Apply in 10 to 20 gallons of water per acre, as a band treatment directing spray to provide coverage of entire plant. Make the application at time of emergence of the second trifoliate leaves (V2). If conditions favor stem canker disease make a second and third application. Make all applications at 10 to 14 day intervals.



CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
<b>Soybean</b> Indeterminate (Northern) Varieties	Anthracnose, Diaporthe pod and stem blight, Frogeye leaf spot <i>(Cercospora sojina)</i> , Purple seed stain, Cercospora leaf blight <i>(Cercospora kikuchii)</i> , Septoria brown spot	<p>1-1/2 to 2-1/2 pts</p> <p>1 to 2 pts</p>	<p>Apply in sufficient water to obtain complete coverage, using at least five gallons of water per acre for aerial application. Use the three application program in areas having a history of moderate to severe disease intensity. BRAVO 720 may be applied through sprinkler irrigation equipment. Follow application and calibration directions preceding this section. DO NOT exceed total of 3 applications per season. DO NOT apply within 6 weeks of harvest. DO NOT feed soybean hay or threshings from treated fields to livestock.</p> <p><b>Two application program</b> - Make the first application when largest pods are 1 to 1-1/2 inches in length and make the second application 14 days later. BRAVO 720 may be co-applied with BENLATE® 50WP as a tank mix for disease control in indeterminate (northern) soybeans. Use 1 pint of BRAVO 720 plus 8 ounces of BENLATE 50WP per acre. Make the first application when pods near the top of plants are 1/2 to 1 inch in length and a second application 14 days later.</p> <p><b>Three application program</b> - Make the first application one week after first flowering and continue applications at 14 day intervals.</p> <p><i>®Benlate is a registered trademark of E.I. DuPont de Nemours and Company.</i></p>
<b>Tomato</b>	<p><b>FOLIAGE</b>            (apply every 7-10 days):            Early blight,            Late blight,            Gray leaf spot,            Gray leaf mold,            Septoria leaf spot,            Target spot</p> <p><b>FRUIT</b>            (apply every 7-14 days beginning at fruit set):            Anthracnose,            Alternaria fruit rot (black mold),            Botrytis gray mold,            Late blight fruit rot            Rhizoctonia fruit rot</p>	<p>1-3/8 to 2 pts</p> <p>2 to 3 pts</p>	<p>Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occur and disease threatens. Use the highest rate and shortest interval specified when disease conditions are severe. BRAVO 720 may be combined in the spray tank with EPA-registered pesticide products that claim copper as the active ingredient and are labeled for control of bacterial diseases of tomatoes. Check the copper manufacturer's label for specific instructions, precautions and limitations prior to mixing with BRAVO 720. DO NOT use with COPPER-COUNT N in concentrated spray suspensions. BRAVO 720 may be applied through sprinkler irrigation equipment (solid set or portable wheel move systems only). See calibration directions preceding this section.</p> <p><i>*COPPER-COUNT is a registered trademark of Mineral Research and Development Corporation.</i></p>

### Tree and Orchard Crops

Apply BRAVO 720 in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, BRAVO 720 may be applied with aircraft using at least 20 gallons of spray per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of BRAVO 720 listed may be used. DO NOT allow livestock to graze in treated areas. The following spray volumes are recommended as gallons of spray per acre:

CROP	SPRAY VOLUME (Gallons per Acre)	
Peach, Nectarine, Apricot, Tart Cherry Plum, Prune	20 (concentrate) to 300 (full dilute)	
Sweet Cherry	20 (concentrate) to 400 (full dilute)	
CONIFERS	DILUTE	CONCENTRATE
Forest stands	Not Used	10 to 20 (aircraft)
Christmas trees	100	10 to 50 (aircraft or ground equipment)
Nursery beds	100	5 to 10 (ground equipment only)

CROP	DISEASES	BRAVO 720 RATE PER		APPLICATION DIRECTIONS
		ACRE	100 GAL *	
Peach, Nectarine, Apricot, Cherry, Plum, Prune	Leaf curl, Coryneum blight (shothole)	3-1/8 to 4-1/8 pts	1 to 1-3/8 pts	For best control of both diseases apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is <i>not practical</i> , application of BRAVO 720 for control of leaf curl may be made at any time prior to budswell the following spring. Where Coryneum blight (shothole) occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections.
	Brown rot blossom blight Lacy (russet) scab (plum/prune)	3-1/8 to 5-1/2 pts	1 to 1-3/8 pts	Use 4-1/8 to 5-1/2 pints per acre on trees taller than 20 feet and 3-1/8 to 4-1/8 pints per acre on smaller trees. Make one application at popcorn (pink, red or early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.
	Cherry leaf spot; Peach, Nectarine, Apricot scab; Black knot (cherry, plum)	3-1/8 to 4-1/8 pts	1 to 1-3/8 pts	In addition to the bloom application listed above, make one application at shuck split. DO NOT apply BRAVO 720 after shuck split and before harvest. If additional disease control is needed before harvest, use another registered fungicide.  For control of cherry leaf spot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leaf spot incidence, make a second application 10-14 days later.

20 of 21

CROP	DISEASES	BRAVO 720 RATE PER		APPLICATION DIRECTIONS
		ACRE	100 GAL*	
Conifers (Pine, Spruce)	Swiss needlecast	2-3/4 to 5-1/2 pts	2-3/4 to 5-1/2 pts	Single application technique: In Christmas tree plantations or forest stands make one application in the spring when new shoot growth is 1/2 to 2 inches in length.
	Scleroderris canker (pines), Swiss needlecast	1-1/2 to 2-3/4 pts	1-1/2 to 2-3/4 pts	Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. For use in nursery beds, apply the highest rate specified on a 3 week schedule.
	Sirococcus tip blight	2 to 3-1/2 pts	2 to 3-1/2 pts	
	Rhizosphaera needlecast (spruces), Scirrhia brown spot (pines)	5-1/2 pts	5-1/2 pts	
	Cyclaneusma and Lophodermium needlecasts (pines)	2-3/4 pts to 5-1/2 pts	2-3/4 pts 5-1/2 pts	Apply in early spring prior to budbreak. Repeat applications at approximately 6 to 8 week intervals, until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness.
	Rhabdocline needlecast (Douglas-fir)	1-1/2 to 2-3/4 pts	1-1/2 to 2-3/4 pts	Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance, or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule.
	Botrytis seedling blight, Phoma twig blight	1-1/2 to 2-3/4 pts	1-1/2 to 2-3/4 pts	Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorably conditions persist.
	Autoecious needle rust (Weir's cushion) (spruce)	5-1/2 pts	5-1/2 pts	Begin applications when 10% of buds have broken and twice thereafter at 7-10 day intervals.

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.

**MUSHROOMS:** Verticillium brown spot and dry bubble - Apply 2.75 to 5.5 fl. oz. of Bravo 720 per 1,000 sq. ft. of mushroom bed. Apply as a drench to the mushroom bed surface in at least 12.5 gallons of water per 1,000 sq. ft. of mushroom bed. Make two applications. Apply the high rate (5.5 fl.oz.) of Bravo 720 in the first application and the low rate (2.75 fl.oz.) of Bravo 720 in the second application. The first application should be made within two days of top-dressing the spawn-colonized mushroom compost with a casing layer. The second application should be made at pinning. Do not apply within 5 days of first harvest. Make no more than two applications per cropping cycle. Do not apply more than 8.25 fl. oz. of Bravo 720 per cropping cycle.

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