100-922



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

6/11/2013

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

JUN 1 1 2013

Patrick McCain Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419-8300

SUBJECT: Actigard 50 WDG EPA Reg. No. 100-922 Notification dated May 9, 2013 Decision Number 478945

Dear Mr. McCain:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10. The Registration Division (RD) has conducted a review of this request for applicability under 98-10 and finds that the label change(s) requested falls within the scope of PRN 98-10. The alternate brand name "Bion 50WG is accepted.

The label submitted with the application has been stamped "Notification" and will be placed in our files. If you have any questions, please call Rose Kearns at 703-305-5611 or you may call me at 703-308-9443.

Sincerely

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

100-922     Mr. Tony Kish     Image: Section 2000 Section 200	\$epa	Environmental	d States Protection Ag- on, DC 20460	ency	~ ~	istration Indment er	OPP Identifier Number NOTIFICATION
100-922     Mr. Tony Kish       4. Company/Product (Name)     X       Actigrant 5D/VG     22       5. Reparting Review. In accordance with FIFRA Section 3(c)(3) (b)().       Syngent Crop Protection, LLC       P O. Box 18300       Greensboro, NC 27419       Check if this is a new address       Product Name       Section - II       Amendment - Explain below.       Section - Section - Lip       X. Notification - Explain below.       Section - II       Contract of multiple Product Name       Yes       Section - III       Contract of multiple Product Name       Yes			pplication for				
Actigraf 50WG     22       S. Name and Address at Applicant (include ZIP Code)     6.       Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(0.       my product is similar or identical in composition and labeling to:       P. O. Box 18300       Greenestoro, NC 27419       Check if this is a new address       Product Name       Section - II       Amendment - Explain below.       Resubmission in response to Agency letter dated       Wit Tor Application:       Wastification - Explain below.       Check if this is a new address       Wastification - Explain below.       Resubmission in response to Agency letter dated       Wastification - Explain below.       Check if this is a new address at Address at AD CFR 152.48, and no other changes have hom made to the labeling or the comfordiate latence of the second of the se	1. Company/Product Nu 100-922	imber				3. F	Proposed Classification
		ame)				X	None Restricted
Section - II         Section - II         Amendment - Explain below.         Resubmission in response to Agency letter dated         ''Me Tee" Application         Notification - Explain below.         Childration: Use additional page(s) if necessary. (For Section 1 and Section 11).         Notification is consistent with the provision of PR Noice 98-10.         This additation is consistent with the provision of PR Noice 98-10 and 40 CPR 152.48, and no other changes have been made to the labeling or the condenderial statement of Frank of the product. Indexed not at 02.55.65. (100 to Willmake any black statement EPA - Hurter understand that if a condition of 12 USC 56.100 to Will make any false statement to EPA. If Unter understand that if a condition of 12 USC 56.100 to Will make any false statement to EPA. If Unter understand that if a condition of 12 USC 56.100 to Will make any false statement to EPA. If Unter understand that if a condition of 12 USC 56.100 to Will Packaging         Childressiant Packaging       Unil Packaging         Water Soluble Packaging       2. Type of Container         Metal       Plastic         Calibration of Net Contents Information       4. Size(s) Retail Container         Section - IV       1. Location of Label Directions         X       Label       Container         Manner in Which Label is Affixed to Product       Liftograph       5. Location of Label Directions         Section - IV       1. Container       Section - IV	5. Name and Address o Syngenta Cro P. O. Box 18	op Protection, LLC 300	e)	<ol> <li>Expedited my product is sin</li> </ol>			
Amendment - Explain below.	Check	if this is a new address		Product Name			
Agency letter dated			Se	ction - II			· · · · · · · · · · · · · · · · · · ·
This notification is consistent with the provisions of PR Noice 98-10 and EPA regulations at 40 CFR 152.48, and no other changes have been made to the labeling or the confidential statement of formula of this product. Understand that if is a violation of 150 LS. Cisc. 1001 to villuly make wightse statement to EPA. Inther understand that if a violation of 150 LS. Cisc. 1001 to villuly make wightse statement to EPA. Inther understand that if a violation of 150 LS. Cisc. 1001 to villuly make wightse statement to EPA. Inther understand that if this notification is not consistent with the terms of PR Noice 98-10 and 40 CFR 152.48, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.         1. Material This Product Will Be Packagging       Unit Packagging       Vest       Vest       Vest       Metal         1. Material This Product Will Be Packagging       Unit Packagging wgt. Container       If "Yes"       No. per       Metal         2. No       Yes       Yes       No. per       Metal       Plastic         3. Location of Net Contents Information       4. Size(s) Retail Container       Section - IV       Location of Label Directions         3. Label       Container       Lithograph       Other       Section - IV       No label         1. Contact Point (Complete items directly below for identification of individual to be contacted, it necessary, to process this application.)       Name         Patrick McCain       Senior Regulatory Product Manager       Senior Regulatory Product Manager       Sectio	Resubmission in	response to Agency letter da	ated		Agency lette "Me Too" Ap	dated alication.	e to
Child-Resistant Packaging       Unit Packaging       Yes       Matal         Yes       No       Yes       No       Plastic         Certification must       If "Yes"       No. per       Unit Packaging wgl.       No. per       Other (Specify)         3.       Location of Net Contents Information       4.       Size(s) Retail Container       5.       Location of Label Directions         X       Label       Container       Lithograph       On Label       On Label         X       Label       Container       Lithograph       Other       On Labeling accompanying product         6.       Manner in Which Label is Affixed to Product       Lithograph       Other       Stenciled         Patrick McCain       Title       Senior Regulatory Product Manager       Telephone No. (Include Area Code)         Patrick McCain       3.       Title       Senior Regulatory Product Manager       6.       Dide Area Code)         A.       Signature       3.       Title       Senior Regulatory Product Manager       6.       Colie Area Code)         A.       Signature       3.       Title       Senior Regulatory Product Manager       6.       Colie Area Code)         A.       Typed Name       S.       Date       Section - IV       Secori	Notification of alternate brand r This notification is consistent w confidential statement of formu- this notification is not consister	name "Bion 50WG" per PR Notice vith the provisions of PR Notice 9 ala of this product. I understand th nt with the terms of PR Notice 98-	e 98-10. 8-10 and EPA regula hat it is a violation of 10 and 40 CFR 152.	tions at 40 CFR 152.4 18 U.S.C. Sec. 1001 t 46, this product may b	6, and no other o willfully make	any false statement	to EPA. I further understand that if
Yes* No       Yes No       Yes No       Yes No       Yes No       Yes No       Metal Plastic Glass Paper         *Certification must be submitted       If "Yes" Unit Packaging wgl.       No. per Unit Packaging wgl.       No. per Unit Packaging wgl.       No. per Unit Packaging wgl.       No. per Unit Packaging wgl.       No. per Other (Specify)         3.       Location of Net Contents Information       4.       Size(s) Retail Container       5.       Location of Label Directions On Label On Labeling accompanying product         6.       Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other         7       Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)       Telephone No. (Include Area Code)         Name       Title       Senior Regulatory Product Manager       6.       Didit's Application Reconverter         1       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 Mat 9, 2013       6.       Date Certification	1. Material This Produc						
be submitted       Unit Packaging wgt.       Container       Unit Packaging wgt.       Container         3.       Location of Net Contents Information       4.       Size(s) Retail Container       5.       Location of Label Directions         3.       Label       Container       6.       Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other       On Label On Labeling accompanying product         6.       Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other       Telephone No. (Include Area Code)         7.       Contact Point (Complete items directly below for identification of Individual to be contacted, if necessary, to process this application.)       Name         Patrick McCain       Trile       Telephone No. (Include Area Code)         1.       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         2.       Signature       3.       Title       6.       Certification Regulatory Product Manager         4.       Typed Name       5.       Date       Certification Regulatory Product Manager		Unit Packaging	·····	Water Soluble Pac	kaqing	2 Type of Co	ntainer
X       Label       Container       X       On Label On Labeling accompanying product         6.       Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other	Child-Resistant Packaging Yes* X No	Yes No		Yes No			Metal Plastic Glass
6. Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other         6. Manner in Which Label is Affixed to Product       Lithograph Paper glued Stenciled       Other         Section – IV         1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)         Name       Title       Telephone No. (Include Area Code)         Patrick McCain       Certification       Telephone No. (Include Area Code)         1. 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. [Daite Application Reculted Area Code)         2. Signature       3. Title       (Stencile Code)         Quick Welcan       Senior Regulatory Product Manager       (Code)         4. Typed Name       5. Date       (Code)         Patrick McCain       Mat 9, 2013       (Code)	Child-Resistant Packaging Yes* X No *Certification must	Yes No	No. per If "	Yes No Yes"	No. per		Metal Plastic Glass Paper
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)         Name       Title         Patrick McCain       Telephone No. (Include Area Code)         Senior Regulatory Product Manager       336-632-7317         Certification       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 (Stamped)         2. Signature       3. Title       Certification         A. Typed Name       5. Date       Mat 9, 2013	Child-Resistant Packaging Yes* X No *Certification must be submitted 3. Location of Net Conte	Yes No If "Yes" Unit Packaging wgt.	No. per If Container Ur	Yes No Yes" it Packaging wgt.	No. per container	Location of La	Metal Plastic Glass Paper Other (Specify) bel Directions el
Name       Title       Telephone No. (Include Area Code)         Patrick McCain       Senior Regulatory Product Manager       336-632-7317         Certification       Certification       Exclude Application         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         2.       Signature       3.       Title       (Stamped)         Quick MucCain       Senior Regulatory Product Manager       (Stamped)       (Control of the term)         4.       Typed Name       5.       Date       (Control of term)         Patrick McCain       Mat 9, 2013       (Control of term)       (Control of term)	Child-Resistant Packaging Yes* X No *Certification must be submitted 3. Location of Net Conte X Label	Yes No If "Yes" Unit Packaging wgt. ents Information	No. per If Container Ur 4. Size(s) Ret	Yes No Yes" it Packaging wgt. ail Container	No. per container	Location of La	Metal Plastic Glass Paper Other (Specify) bel Directions el
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Syngenta Crop Protection, LLC	5/16	č
P.O. Box 18300		
Greensboro, NC 27419-8300		



#### FedEx

May 9, 2013

Document Processing Desk (NOTIF) Office of Pesticide Programs (7504P) U.S. Environmental Protection Agency One Potomac Yard 2777 South Crystal Drive – Room S-4900 Arlington, VA 22202

Attention: Mr. Tony Kish, PM 22

#### Subject: Actigard 50WG (EPA Reg No. 100-922) Notification of Alternate Brand Name "Bion® 50WG"

Dear Mr. Kish:

Syngenta Crop Protection, LLC is submitting a notification for Actigard 50WG plant activator product (100-922) to propose the alternate brand name "Bion 50WG". This alternate brand name will be used to create the final printed label for sale to customers. A copy of the alternate brand name "Bion 50WG" final printed labelling will be submitted to the EPA before releasing the product for shipment.

To complete this notification, enclosed are:

- One copy of the label with the alternate brand name changes clearly marked
- One unmarked copy of the label
- A CD with pdf of the unmarked copy of the label for "Electronic Comparison and Review"
- Completed EPA Application for Pesticide Registration Form 8570-1.
- Certification with respect to Label Integrity Form

We trust that you will find this submission in order; however, should you have any questions or comments, please contact me at 336-632-7317 or via email at patrick.mccain@syngenta.com.

Sincerely,

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Patrick McCain Senior Regulatory Product Manager

Enclosures



MASTER

GROUP 21 FUNGICIDE

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# Bion® 50WG

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# **Plant Activator**

Active Ingredient:	
Acibenzolar-S-methyl: Benzo (1,2,3) thiadiazole-7-carbothioic acid-S-methyl ester*.	50.0%
Other Ingredients:	50.0%
Total:	100.0%

# \*CAS No. 135158-54-2

Bion 50WG is a water-dispersible granule.

# KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

Product of Formulated in

EPA Reg. No. 100-922

EPA Est.

SCP 922-MAS 0213 NOTIF ABN MAY2013

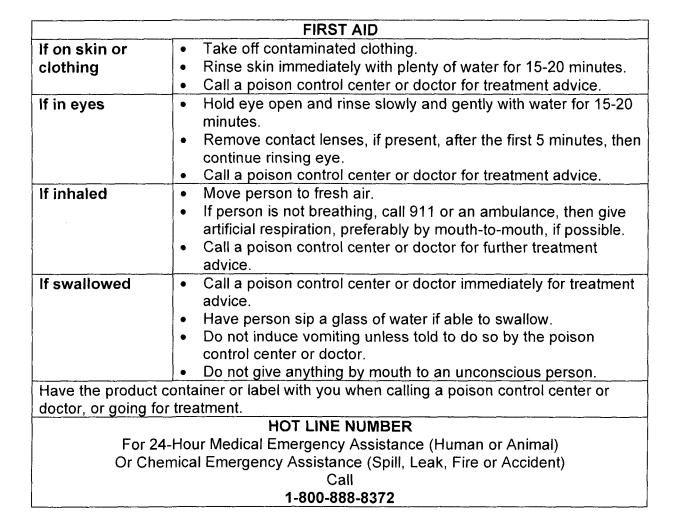
Net Weight

# NOTIFICATION

JUN 1 1 2013



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# PRECAUTIONARY STATEMENTS

1

# Hazards to Humans and Domestic Animals

# CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before the eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

# **Personal Protective Equipment (PPE)**

Some of the materials that are chemically resistant to this product are listed below.

2

resistance category selection chart.

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride

3

Shoes plus socks

J

The State of California believes prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

# **Engineering Control Statements**

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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **Environmental Hazards**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high  $c_{c}$  water mark. Do not contaminate water when cleaning equipment or disposing of  $c_{c}$  equipment wash water or rinsate.

# **Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

· 1

**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.

4

The Directions for Use of this product must 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 SYNGENTA CROP PROTECTION, LLC or Seller. To the extent consistent with applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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# DIRECTIONS FOR USE

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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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

Coveralls

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- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

# GENERAL INFORMATION

Bion 50WG is a selective, non-pesticidal systemic compound used for the control of several listed fungal, bacterial, and viral plant diseases. Bion 50WG is an inducer of host plant resistance. Bion 50WG exhibits a unique mode of action which mimics the natural systemic activated resistance (SAR) response found in most plant species. Bion 50WG has no direct activity against target pathogens.

# FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

# **GENERAL USE INSTRUCTIONS**

1.3

**Timing:** For best performance, Bion 50WG should be applied preventively, before disease is observed. A Bion 50WG application mimics the SAR response in plants. Maximum disease protection is normally obtained 4 days after an Bion 50WG application.

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**Application:** Bion 50WG moves systemically within the plant; however; when making foliar applications, uniform spray coverage is essential for best performance. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

**Adjuvants:** When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

**Efficacy:** Bion 50WG provides protection against certain diseases in the crops listed on this label. Bion 50WG provides sufficient protection to reduce disease levels but should be tank mixed with other registered products with curative activity if disease is present at the time of application, to ensure adequate disease control as well as to broaden the spectrum of disease control.

**Integrated Pest Management (IPM):** Bion 50WG should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area.

GROUP 21 FUNGICIDE

#### **Resistance Management**

Bion 50WG exhibits a mode of action uniquely different from currently available fungicides and bactericides. Since Bion 50WG has no direct activity on plant pathogens, the likelihood that resistance (insensitivity) will develop in the pathogens is low. However, plant pathogens are known to develop tolerance to host plant resistance and to products used repeatedly for control. Because insensitivity development cannot, be fully predicted, the use of this product should conform to sensitivity management strategies established for the crop and use area. Such strategies may include rotating and/or tank mixing with products with different modes of action as well as the use of good cultural practices. Consult your local pest control advisor or extension office for details. If insensitivity to this product develops in your area, this product or other products with a similar mode of action may not provide adequate control. If you experience difficulty with control, and insensitivity is a likely cause, consult your local Syngenta Crop Protection representative, local agricultural extension office, or pest control advisor for the best alternative method of control. Syngenta encourages responsible product stewardship to ensure effective long-term disease control.

**Crop Tolerance:** Although plant tolerance has been found to be acceptable for all crops on the label, not all possible tank-mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application.

# **ROTATIONAL (PLANTBACK) RESTRICTIONS**

Сгор	Days to Plantback after last Bion 50WG application
Fruiting Vegetables	
Tomatoes	
Peppers (all types)	
Eggplant	
Groundcherry	0 day
Pepino	
Brassica (cole) crops	
Cucurbits	
Tobacco	
Lettuce (all types)	
Spinach	
Onion, dry bulb group	
Shallot	
All other crops for food or feed	30 days

# MIXING AND APPLICATION METHODS

# **Spray Equipment**

Thorough coverage is necessary to provide maximum disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury or illegal residues may occur.

# Nozzles

1.

- · Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles: from clogging.

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- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at nozzles.
- Check nozzle manufacturer's recommendations.

### Pump

• Use a pump with capacity to:

(1) maintain adequate psi at nozzles

- (2) provide sufficient agitation in the tank to keep mixture in suspension – this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturers' and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

## **MIXING PROCEDURES**

## **Mixing Instructions**

- Bion 50WG is a wettable granular (WG) formulation.
- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Vigorous agitation is necessary for proper dispersal of the product.
- Maintain maximum agitation throughout the spraying operation.
- Do not let the spray mixture stand overnight in the spray tank.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of
  pesticide rinsate by application to an already treated area.

# Bion 50WG Alone (no tank mix)

- Add 1/2 of the required amount of water to the spray or mixing tank.
- With the agitator running, add the Bion 50WG to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after Bion 50WG has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

**Bion 50WG + Tank Mixtures:** Bion 50WG is compatible with most insecticide and fungicide products. However, the physical compatibility of Bion 50WG with tank mix for the physical compatibility of Bion 50WG with other products, use a jar test described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been demonstrated, use the same procedure for adding required ingredients to the spray tank.

# Mixing in the Spray Tank

- Add 1/2 of the required amount of water to the mix tank.
- Start the agitator running before adding any tank mix partners.
- In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Bion 50WG, liquid flowables, liquids and emulsifiable concentrates.
- Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water.
- Maintain agitation until all the mixture has been applied.

**Note:** When using Bion 50WG in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Bion 50WG. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Bion 50WG in a tank mixture, observe all directions for use which appear on the tank mix product label. Do not exceed any label rate, and the most restrictive label precautions and limitations must be followed. Do not mix this product with any other product which prohibits such mixing.

# Mixing instructions for use with a Mechanical Drip System

When using a mechanical drip system to apply Bion 50WG to transplant tray cells follow the directions of the drip system manufacturer for loading and mixing in addition to the instructions above.

# **APPLICATION INSTRUCTIONS**

Bion 50WG may be applied with all types of spray equipment commonly used for several making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage are essential for good disease control.

**Ground Application** 

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- Apply in a minimum of 10 GPA, unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

# **Aerial Application**

- Use only on crops where aerial applications are indicated.
- Thorough coverage is necessary to provide good disease protection.
- Apply in a minimum of 10 GPA unless specified otherwise.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- Do not apply directly to humans or animals.
- Do not apply through any ultra-low volume (ULV) spray system.
- Avoiding spray drift at the application site is the responsibility of the applicator.
  - The interaction of many equipment and weather related factors determine the potential for spray drift.
  - The applicator and the grower are responsible for considering all these factors when making decisions.

# **Application through Irrigation Systems (Chemigation)**

• Apply this product only through center pivot, solid set, hand move, moving wheel, micro-sprinkler, or drip irrigation systems. Do not apply this product through any other type of irrigation system.

# Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Applications via Drip Irrigation the amount of product needed is based on the rate per acre. The rate per 1000 linear feet will vary depending on the row spacing but the rate per acre will be the same. The following table is general guide for the amount of product per 1000 linear feet.

	oz Bion 50	WG/1000	row feet b	ased on ra	ate/Acre	
{		Rate (oz Bion 50WG)/Acre				
centers	linear feet/A	0.33	0.5	0.75	1	2
24"	21780	0.015	0.023	0.034	0.046	0.092
36"	14520	0.023	0.034	0.052	0.069	0.138
48"	10890	0.03	0.046	0.069	0.092	0.183

- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- Bion 50WG must be applied on the schedule specified in the specific crop use directions, not according to the irrigation schedule.

# **Operating Instructions**

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- 1. The system 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. The pesticide injection pipeline must contain a functional, automatic, quickclosing 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.

# **Specific Instructions for Public Water Systems**

1. 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 out of the year.

- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet 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.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must 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.
- 5. 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.
- 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.

# **Mechnical Drip System for Transplant Production**

Application of Bion 50WG into seeded transplant trays:

Bion 50WG can be applied into individual transplant tray cells containing seed using a mechanical drip system (e.g., the PHYTO-DRIP® application system) with the appropriate dilution of Bion 50WG in water or water mixed with other products registered to be applied using this method.

Bion 50WG may be applied to the transplant tray cells before or after the seeds are covered with soil media but before the trays are watered.

The mechanical drip system must be calibrated so that each cell in the tray receives the prescribed dose rate of Bion 50WG. For calibration of the drip system consult with Syngenta or the equipment manufacturer.

# DIRECTIONS FOR USE IN THE FIELD

Crop	Pest	Rate per Application	Remarks
Cole (Brassica) Crops (Crop Group 5) And hybrids or cultivars of these and those listed below.	Downy Mildew (Peronospora parasitica) Suppression of Black Rot (Xanthomonas campestris)	0.5 - 1 oz/A	Apply preventively. Make up to four applications on a 7-day schedule. Begin applications 7-10 days after thinning.

**Complete list of brassica leafy vegetables:** Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard(gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If downy mildew is present in the production area, use another registered downy mildew fungicide at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Once activated, the supplemental applications of Bion 50WG may be applied alone.

#### **Precautions:**

(1) Bion 50WG should be applied to healthy, actively growing plants.

(2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.

### **Restrictions:**

- 1. Do not apply more than 4 oz (0.125 lb ai) of Bion 50WG per acre per season.
- 2. Do not apply Bion 50WG within 7 days of harvest (7-day PHI).

**Complete list of cucurbit crops:** Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

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**Notes:** Bion 50WG can be applied by ground, by drip irrigation or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If disease is present in the production area, another registered product labeled for that disease should be applied at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate.

#### **Precautions:**

- (1) Bion 50WG should be applied to healthy, actively growing plants.
- (2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, or herbicide injury, etc.

#### **Restrictions:**

- (1) Do not apply more than 8 oz (0.25 lb ai) of Bion 50WG per acre per season.
- (2) May be applied the day of harvest (0-day PHI).

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		Rate per	
Crop	Pest	Application	Remarks
Peppers (Sweet and other Fruiting Vegetables (excluding tomatoes) Eggplant Groundcherry Pepino Pepper (includes bell pepper, pimento, , lamuyo, cubanelle, and banana) (see Pepper (chili/hot) in section below)	Bacterial Spot (Xanthomonas spp.)	0.33 – 0.75 oz/A	To reduce crop tolerance effects and improve disease protection, apply 0.75 oz/A of Bion 50WG within one week of transplanting. Apply 0.5 oz/A seven (7) days after the first spray. Apply 0.33 oz/A every 7 days until plants begin to bloom. PRECAUTION: Do not apply Bion 50WG once plants begin to bloom or when plants are stressed.

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation, or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If disease is present in the production area, another registered product for that disease should be applied at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate.

#### Precautions:

- (1) Bion 50WG should be applied to healthy, actively growing plants.
- (2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.

#### **Restrictions:**

- 1) Do not apply more than 8 times per crop per season.
- 2) Do not apply on less than 7-day interval.
- 3) Do not apply more than 6 oz (0.1875 lb ai) of Bion 50WG per acre per season.
- 4) Do not apply within 14 days of harvest (14-day PHI).

Precautions: Under certain conditions, this product, when used on fruiting vegetables, may lead to reductions in yield. Syngenta recommends that the user and/or grower test this product in order to determine its suitability for its intended use in fruiting vegetables. Syngenta makes this product available to the user, and/or grower solely to the extent that the benefit and utility, in the sole opinion of the user and/or grower, outweigh the extent of potential reductions in yield of fruiting vegetables following use of Bion 50WG. The decision to use or not use Bion 50WG in fruiting vegetables must be made by each individual user and/or grower on the basis of possible reductions in yield, the severity of disease incidence, the cost of alternate disease control options, if any, and other factors.

The Bion 50WG application solution should be applied at an application volume of not less than 0.1 mL per cell and not greater than 1 mL per cell.

The application pressure should be low enough to prevent the application solution from splashing out of the cell to which it is applied during the application process.

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Crop	Pest	Rate per Application	Remarks
Peppers (non- bell/Chili/Hot)	Bacterial Spot (Xanthomonas spp.)	0.33 – 0.75 oz/A	<ul> <li>Begin applications within one week of transplanting or emergence. Make up to 8 weekly sequential applications.</li> <li>0.75 oz per 100 gallons of water (minimum of 0.33 oz./A in early season and maximum of 0.75 oz/A by end of season). See table below.</li> </ul>

**For Ground Applications:** Begin season with low water volumes. As plant canopy increases, the Bion 50WG rate should increase to ensure activity. The table below provides guidance on increasing the rate through the season (a dilute carrier volume of 100 GPA is assumed for fully grown tomato plants). Use the higher rate over time, even if water volume does not increase. If gallonage at any particular application is higher than in this example, increase Bion 50WG accordingly, i.e., keep the concentration the same but do not apply an amount of water per application delivering more than 0.75 oz product/A.

Amount of Bion 50WG (Oz/A)	Gals./A	Weeks Following Transplanting
0.33	30-50	0-2
0.50	60-70	3-4
0.75	70-100	5-8

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If disease is present in the production area, another registered product for that disease should be applied at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate.

#### **Precautions:**

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- 1) Bion 50WG should be applied to healthy, actively growing plants.
- 2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.
- 3) If transplants treated with mechanical drip when seeded, it is recommended to not use another application of Bion 50WG until after transplanting to the field.

#### **Restrictions:**

- 1) Allow 14 days between the last application and harvest (14-day PHI).
- 2) Do not apply more than 8 times per crop per season.
- 3) Do not apply on less than 7-day interval.
- 4) Do not apply more than 6 oz (0.1875 lb ai) of Bion 50WG per acre per season.

Precaution: Under certain conditions, this product, when used on hot peppers, may lead to reductions in yield. Syngenta recommends that the user and/or grower test this product in order to determine its suitability for its intended use in hot peppers. Syngenta makes this product available to the user and/or grower solely to the extent that the benefit and utility, in the sole

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opinion of the user and/or grower, outweigh the extent of potential reductions in yield of hot peppers following use of Bion 50WG. The decision to use or not use Bion 50WG in hot peppers must be made by each individual user and/or grower on the basis of possible reductions in yield, the severity of disease incidence, the cost of alternate disease control options, if any, and other factors.

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Crop	Pest	Rate per Application	Remarks
Lettuce (Head and Leaf)	Downy Mildew (Bremia Iactucae)	0.75 – 1 oz/A	Apply preventively on a 7- to 10-day schedule. Begin applications after thinning. Do not make more than 4 applications per crop.

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If downy mildew is present in the production area, the first application should be made in tank mixture with another registered downy mildew fungicide. Once activated, the supplemental applications of Bion 50WG may be applied alone. Banded applications can be made early when plants are small (7-inch proportional band) as long as coverage is adequate.

#### **Precautions:**

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- 1) Bion 50WG should be applied to healthy, actively growing plants.
- Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc. Do not apply when extended cold or cold and cloudy conditions are expected.
- 3) Do not use more than one application of Bion 50WG on head lettuce intended for bag purposes (delayed harvest) due to potential fringe burn.
- 4) Do not apply prior to thinning or within 5 days of transplanting.

#### **Restrictions:**

- 1) Do not apply more than 4 oz (0.125 lb ai) of Bion 50WG per acre per season.
- 2) Do not apply within 7 days of harvest (7-day PHI).

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		Rate per	
Сгор	Pest	Application	Remarks
Onions	For suppression	0.75 – 1 oz/A	Apply preventively on a 7- to10-day
	of:		schedule. Begin applications after
Bulb, dry			thinning or after the 3-4 leaf stage.
	Downy Mildew		
Including all	(Peronospora		For best results for iris yellow spot virus,
cultivars and/or	destructor)		begin at 4 to 6 weeks pre-bulb initiation
hybrids of			and continue on a 7- to 10-day interval.
these.	Iris Yellow Spot		Use Bion 50WG in conjunction with a
	(Iris yellow spot		thrips control program.
Crop Group 3-	virus)		
07A	)		For Xanthomonas leaf blight, begin
See additional	Leaf Blight		applications 2-4 weeks pre-bulb initiation
crops below.	(Xanthomonas		and continue on a 7- to 10-day interval.
	axonopodis pv.		After the final Bion 50WG application,
	allii)		use a recommended copper-based
	L	L	bactericide program to finish the season.

Additional Crops in Bulb Onion Subgroup: bulb daylily, bulb fritillaria, bulb garlic, great-headed bulb garlic, serpent bulb garlic, bulb lily, Chinese bulb onion, pearl onion, potato bulb onion, and bulb shallot.

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation or by air. Apply in sufficient water to ensure adequate coverage. Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate. A minimum of 20 GPA should be used for ground applications and a minimum of 5 GPA should be used for aerial applications.

#### **Precautions:**

- 1) Do not apply Bion 50WG to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.
- 2) Bion 50 WG should be applied to healthy, actively growing plants. Do not apply prior to thinning or within 5 days of transplanting.
- 3) Avoid spray overlap as injury may occur.

#### **Restrictions:**

- 1) Do not apply more than 4 oz (0.125 lb ai) of Bion 50WG per acre per season.
- 2) Do not apply within 7 days of harvest (7-day PHI).

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Crop	Pest	Rate per Application	Remarks
Spinach	Downy Mildew (Peronospora effusa) White Rust (Albugo occidentalis)	0.5 – 0.75 oz/A	Apply preventively on a 7- to 10-day schedule. Begin applications at first to second true leaf or after thinning. Do not make more than 3 consecutive applications per crop.

**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If disease is present in the production area, use another registered fungicide at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Banded applications can be made early when plants are small (proportional band) as long as coverage is adequate.

Precautions:

- (1) Bion 50WG should be applied to healthy, actively growing plants.
- (2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, or when extended cold or cold and cloudy conditions are expected.
- (3) Do not apply Bion 50WG to young seedlings.

#### **Restrictions:**

- 1) Do not apply more than 2.25 oz (0.0703 lb ai) of Bion 50WG per acre per season.
- 2) Allow 7 days between the last application and harvest (7-day PHI).

Crop	Pest	Rate per Applicati on	Remarks
Low growing berry subgroup 13-07G, including strawberry Bearberry Bilberry Blueberry, Lowbush Cloudberry Cranberry Lingonberry Muntries Partridgeberry	For suppression of: Angular Leaf Spot (Xanthomonas fragariae)	0.5 - 0.75 oz/A	Scout fields regularly for angular leaf spot after plant establishment. Begin applications when disease appears, and continue on a 7- to 14- day interval.
Including all cultivars, varieties, and/or hybrids of these.			

**Notes:** Bion 50WG can be applied by ground or by air. Apply in sufficient water to ensure adequate coverage. Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate.

#### **Restrictions:**

(1) Bion 50WG should be applied to healthy, actively growing plants. Do not apply within 5 days of transplanting.

(2) Do not apply Bion 50WG to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.

(3) Avoid spray overlap as injury may occur.

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(4) Fruit may be harvested on the day of application (0-day PHI).

(5) Do not apply more than 6 oz (0.188 lb ai) of Bion 50WG per acre per season.

Pest	Rate per Application	Remarks
Blue Mold (Peronospora tabacina)	0.5 oz/A	Apply on a preventive schedule when blue mold threatens.
		[Burley and Binder:] Begin applications when plants are an average of 18 inches tall. Another registered blue mold product should be used prior to 18 inches for early season control and after the final

		tall. Another registered blue mold product should be used prior to 18 inches for early season control and after the final application if conditions are conducive for disease. Make up to 3 applications on a 10-day schedule.
Flue-Cured and Dark		[Flue-Cured and Dark:] Begin applications when plants are an average of 12 inches tall. Another registered blue mold product should be used prior to 12 inches for early season control and after the final application if conditions are conducive for disease. Make up to 3 applications on a 10-day schedule.

Notes: Bion 50WG can be applied by ground or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. Applications of Bion 50WG may result in leaf yellowing. This cosmetic yellowing normally disappears after the final application.

#### **Precautions:**

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**Burley and Binder** 

Tobacco

- 1) Apply Bion 50WG to healthy, actively growing plants.
- 2) Do not apply Bion 50WG to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.
- 3) Do not apply Bion 50WG to tobacco in plant beds or in greenhouses/plant houses.
- 4) Do not apply Bion 50WG with foliar fertilizers and crop oils.
- 5) Avoid spray overlap because injury may result.

#### **Restrictions:**

- 1) Do not apply more than 1.5 oz (0.0468 lb ai) of Bion 50WG per acre per season.
- 2) Do not apply Bion 50WG within 21 days of harvest (21-day PHI).

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Сгор	Pest	Rate per Application	Remarks
Tomatoes	Bacterial Spot ( <i>Xanthomonas</i> spp.)	0.33 – 0.75 oz/A	Begin applications within one week of transplanting or emergence. Make up to 8 weekly sequential applications.
	Bacterial Speck (Pseudomonas syringae pv. tomato)		0.75 oz per 100 gallons of water (minimum of 0.33 oz/A in early season and maximum of 0.75 oz/A by end of season). See table below.

**For Ground Applications:** Begin season with low water volumes. As plant canopy increases, the Bion 50WG rate should increase to ensure activity. Use the higher rate over time, even if water volume does not increase. If gallonage at any particular application is higher than in this example, increase Bion 50WG accordingly, i.e., keep the concentration the same but do not apply an amount of water per application delivering more than 0.75 oz product/A. The table below provides guidance on increasing the rate through the season (a dilute carrier volume of 100 GPA is assumed for fully grown tomato plants).

Amount of Bion 50WG (Oz/A)	<u>Gals./A</u>	Weeks Following Transplanting
0.33	30-50	0-2
0.50	60-70	3-4
0.75	70-100	5-8

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**Notes:** Bion 50WG can be applied by ground, by drip irrigation, by overhead irrigation, or by air. Apply in sufficient water to ensure adequate coverage. A minimum of 20 GPA should be used for ground applications and a minimum of 10 GPA should be used for aerial applications. If disease is present in the production area, another registered product for that disease should be applied at the same timing as the Bion 50WG application (can tank mix if applying Bion 50WG as a foliar spray). Banded applications can be made early when plants are small (7" proportional band) as long as coverage is adequate.

#### **Precautions:**

- (1) Bion 50WG should be applied to healthy, actively growing plants.
- (2) Bion 50WG should not be applied to plants that are stressed due to drought, excessive moisture, cold weather, or herbicide injury, etc.
- (3) Bion 50WG should not be applied more than 8 times per crop per season.

#### **Restrictions:**

- 1) Do not apply on less than 7-day interval.
- 2) Do not apply more than 6 oz (0.1875 lb ai) of Bion 50WG per acre per season.
- 3) Do not apply Bion 50WG within 14 days of harvest (14-day PHI)

Precaution: Under certain conditions, this product, when used on tomatoes, may lead to reductions in yield. Syngenta recommends that the user and/or grower test this product in order to determine its suitability for its intended use in tomatoes. Syngenta makes this product available to the user and/or grower solely to the extent that the benefit and utility, in the sole opinion of the user and/or grower, outweigh the extent of potential reductions in yield of tomatoes following use of Bion 50WG. The decision to use or not use Bion 50WG in tomatoes must be made by each individual user and/or grower on the basis of possible reductions in yield, the severity of disease incidence, the cost of alternate disease control options, if any, and other factors.

# DIRECTIONS FOR USE FOR MECHANICAL DRIP SYSTEM FOR TRANSPLANT PRODUCTION

Crop	Pest	Active Ingredient Rate in Micrograms per Cell	Remarks
Tomatoes and Peppers	Bacterial Spot (Xanthomonas spp.) Bacterial Speck (Pseudomonas syringae pv. tomato)	12.5 - 50	Apply Bion 50WG using a mechanical drip system (e.g., the PHYTO-DRIP application system) specifically designed to apply a droplet of the correct Bion 50WG concentration directly to each cell in a tray. Bion 50WG must be applied at the time of sowing after the seed is placed in each cell. It may be applied before or after it is covered with soil media but must be applied before any water is applied for germination. The precise rate is determined based on crop, variety, disease pressure, and crop safety. Transplant trays must not be watered with an amount that results in water running out of the bottom of the tray.

Use the following table to determine the amount of Bion 50WG to put into 25, 50, 75, or 100 L of water.

L of water in tank	mL of solution per cell	Active Ingredient Rate in Micrograms per Cell	oz 50WG to add
25	0.3	12.5	0.073
50	0.3	12.5	0.147
75	0.3	12.5	0.220
100	0.3	12.5	0.294
25	0.3	50	0.294
50	0.3	50	0.587
75	0.3	50	0.881
100	0.3	50	1.175

#### PRECAUTIONS

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• Apply at recommended rates that are deemed efficacious and safe on pepper and tomatoes. It is highly recommended to use seed that is suited for transplant production. When treating new varieties, confirm safety by treating a few trays and evaluating growth and development of the transplants. Good seed quality is important.

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- Growth medium used for germinating-seed, fertilizer or nutrient added, water source and water properties, transplant material structures, prevailing conditions of temperature and humidity in transplant seedling production may impact the performance of Bion 50 WG.
   Prior to using Bion 50WG via a mechanical drip system make sure that these conditions and procedures are compatible.
- Local soil, greenhouse and environmental conditions can affect the degree and longevity of the effect of Bion 50WG.
- **Optional Language:** Syngenta recommends if a mechanical drip is used that no further Bion 50WG applications be made until the crop is in the field
- **Optional Language:** After application of Bion 50WG via a mechanical drip system at the time of sowing do not make another application of Bion 50WG or acibenzolar-S-methyl containing product until the plants have been transplanted to the field.

#### STORAGE AND DISPOSAL

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

### Pesticide Storage

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Store in a cool, dry place.

## **Pesticide Disposal**

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

# **Container Handling [Bags]**

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **Container Handling [Bottles]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

# CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

Bion®, Ridomil Gold®, the Syngenta logo and the CP FRAME are trademarks of a Syngenta Group Company

PHYTO-DRIP® is a registered trademark of Precision Drip B.V.

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For non-emergency (e.g., current product information) call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina 27419-8300

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Base Label

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GROUP	01	
GROUP	2	FUNGICIDE
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Bion® 50WG

# **Plant Activator**

Active Ingredient:

Acibenzolar-S-methyl: Benzo (1,2,3) thiadiazole-7-carbothioic acid- S-methyl ester*	50.0%
Other Ingredients:	50.0%
Total:	100.0%

\*CAS No. 135158-54-2

Bion 50WG is a water-dispersible granule.

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# KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See directions for use in attached booklet.

# 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.

EPA Reg. No. 100-922 EPA Est.

SCP 922-MAS 0213 NOTIF ABN MAY2013

Net Weight

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	FIRST AID		
If on skin or	Take off contaminated clothing.		
clothing	Rinse skin immediately with plenty of water for 15-20 minutes.		
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then</li> </ul>		
	continue rinsing eye.		
	Call a poison control center or doctor for treatment advice.		
If inhaled	Move person to fresh air.		
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>		
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>		
	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
	<ul> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>		
	• Do not give anything by mouth to an unconscious person.		
Have the product c	ontainer or label with you when calling a poison control center or		
doctor, or going for	treatment.		
	HOT LINE NUMBER		
For 24-	Hour Medical Emergency Assistance (Human or Animal)		
Or Cher	Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident)		
Call			
	1-800-888-8372		

# PRECAUTIONARY STATEMENTS

# Hazards to Humans and Domestic Animals

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# CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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Refer to Environmental Hazards, Physical and Chemical Hazards, and Storage and Disposal sections in attached booklet.

### **Pesticide Storage**

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Store in a cool, dry place.

### **Container Handling [Bags]**

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# CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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