

2024-1009

2024-09-05

This label has been updated according to the re-evaluation decision for *Bacillus amyloliquefaciens* strain MBI 600 and *Bacillus subtilis* strain QST 713, RVD2024-02. While users are encouraged to follow this updated label immediately, the previously approved label is valid until 01-29-2026 in accordance with the phase out period set out in the re-evaluation decision for *Bacillus amyloliquefaciens* strain MBI 600 and *Bacillus subtilis* strain QST 713, RVD2024-02. This previously approved label will be provided upon request by emailing hc.pmra.info-arla.sc@canada.ca. In your email please include the product name and Registration number of the label you are requesting.

BIOTAK®

Fungicide
WETTABLE POWDER

COMMERCIAL

ACTIVE INGREDIENT: *Bacillus amyloliquefaciens* strain MBI 600 – not less than 5.5×10^{10} viable spores per gram

POTENTIAL SENSITIZER

REGISTRATION NUMBER: 33351 *PEST CONTROL PRODUCTS ACT*

READ THE LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT
1-800-454-2673

Date of Manufacture:

Net Contents: 50g - 10 kg

BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, ON L4W 0B6
Telephone No.: 1-877-371-2273

BIOTAK is a registered trade-mark of BASF Corporation, used under license by BASF Canada Inc.

BIOTAK®

Fungicide

GENERAL INFORMATION

BIOTAK® is an agricultural biological fungicide product formulated as a wettable powder for the suppression or partial suppression of various fungal diseases.

The active ingredient in **BIOTAK** is *Bacillus amyloliquefaciens* strain MBI 600. **BIOTAK** can be applied as a foliar spray for labelled greenhouse crops or can be mixed in plant growing media such as potting soil, peat moss or peat based mixtures for greenhouse fruiting vegetables, greenhouse cucurbits and greenhouse ornamentals. To maximize disease efficacy, apply **BIOTAK** in a regularly scheduled protective spray program and use in a rotation program with other fungicides. For best results, **BIOTAK** should be applied preventatively in low to medium disease pressure situations. For improved performance or under higher disease pressure situations, use **BIOTAK** in rotation with other registered fungicide products.

Integrated Pest Management

BIOTAK should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or BASF representative for additional IPM strategies established for your area.

DIRECTIONS FOR USE

Application Instructions

Apply rates of **BIOTAK** as instructed with ground equipment or by incorporation into planting media. Equipment should be checked frequently for calibration. Avoid heavy irrigation shortly after application of **BIOTAK**. If heavy irrigation occurs shortly after application, reapplication of **BIOTAK** may be necessary.

Under low-level disease conditions, the minimum application rates can be used while maximum application rates and shortened spray schedules are recommended for severe or threatening disease conditions.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT apply by air.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wash water.

DO NOT apply greenhouse processing water containing this product to field crops.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

DO NOT apply by any type of irrigation system.

Planting Media Incorporation for greenhouse

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

DO NOT store mixed slurries of **BIOTAK** overnight.

Foliar Ground Applications

Apply **BIOTAK** in sufficient water to ensure thorough coverage of foliage, bloom, and fruit. Thorough coverage is required for optimum disease control. Maintain agitation of the product during the application process. The product mixture should be applied shortly after mixing. DO NOT store mixed suspensions of **BIOTAK** overnight.

Application Rate

Planting Media Incorporation

Apply rates of **BIOTAK** as instructed in the table below.

Crop	Target Diseases	Product Use Rate	Application Directions
Greenhouse fruiting vegetables Greenhouse cucurbits Greenhouse ornamentals	Damping-off and root diseases caused by <i>Fusarium</i> spp., <i>Rhizoctonia solani</i> and <i>Pythium</i> spp.	50 g / 21.9 m ³ of plant growing media	Mix 50 g of BIOTAK ® in 12.5 L of water and while in suspension, apply as a spray onto 21.9 m ³ of plant growing media such as potting soil, peat moss or peat based mixtures prior to planting. DO NOT store BIOTAK suspension overnight. Mix BIOTAK suspension thoroughly with the growing media to ensure adequate distribution of the product.

Foliar Application

Lettuce

Crop	Suppression of Target Diseases	Product Use Rate per Application	Application Directions
Lettuce	Botrytis grey mould (<i>Botrytis cinerea</i>)	0.25-1.0 kg/ha	For Botrytis grey mould and white mould begin applications prior to infection and continue on 7- to 10-day intervals if conditions are favourable for disease development.
	Partial suppression of white mould (<i>Sclerotinia sclerotiorum</i>)	0.3-1.0 kg/ha	Use the highest rate and the shortest interval when conditions favour high disease pressure. For greenhouse use, a minimum application volume of 4 L/100m ² is recommended.

Fruiting Vegetables

Crop	Suppression of Target Diseases	Product Use Rate per Application	Application Directions
Peppers	Botrytis grey mould (<i>Botrytis cinerea</i>)	0.25-0.5 kg/ha	For Botrytis grey mould , early blight and powdery mildew , begin application shortly after emergence or transplanting and continue on 7- to 10-day intervals if conditions are favourable for disease development. Use the highest rate and the shortest interval when conditions favour high disease pressure.
	Partial suppression of powdery mildew (<i>Leveillula taurica</i>)	0.25 kg/ha	
	Powdery mildew (<i>Leveillula taurica</i>)	0.5 kg/ha	
Tomato	Early blight (<i>Alternaria solani</i>)	0.25-0.5 kg/ha	For greenhouse use, a minimum application volume of 4 L/100m ² is recommended.
	Botrytis grey mould (<i>Botrytis cinerea</i>)	0.25-1.0 kg/ha	

Crop Group 9 Cucurbit Vegetables Group

Crop	Partial suppression of Target Diseases	Product Use Rate per Application	Application Directions
Cucumber	Downy mildew (<i>Pseudoperonospora cubensis</i>)	0.25-0.5 kg/ha	For downy mildew and powdery mildew , begin applications prior to infection and continue on 7- to 10-day intervals if conditions are favourable for disease development. Use the highest rate and the shortest interval when conditions favour high disease pressure. For greenhouse use, a minimum application volume of 4 L/100m ² is recommended.
Cucurbit vegetables crop group 9* Cucumber	Powdery mildew (<i>Sphaerotheca fuliginea</i> [syn. <i>Podosphaera xanthii</i>])	0.25-0.5 kg/ha	

* **Cucurbit vegetables** including cultivars, varieties and/or hybrids of: chayote, Chinese waxgourd, citron melon, cucumber, cherkin, edible gourd, (includes hyotan, cucuzza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumbers), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), pumpkin, summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), and watermelon.

Berries and Small Fruits

Crop	Suppression of Target Diseases	Product Use Rate per Application	Application Directions
Low growing berries (CSG 13-07G)*	Botrytis grey mould (<i>Botrytis cinerea</i>)	0.25-0.5 kg/ha	<p>For Botrytis grey mould, begin applications prior to infection and continue on 7- to 10-day intervals if conditions are favourable for disease development.</p> <p>Use the highest rate and the shortest interval when conditions favour high disease pressure.</p> <p>For greenhouse use, a minimum application volume of 4 L/100m² is recommended.</p>

***Low growing berries** including cultivars, varieties and/or hybrids of: bearberry, bilberry, blueberry (lowbush), cloudberry, cranberry, lingonberry, muntries, partridgeberry and strawberry.

Under low-level disease conditions, the minimum application rates can be used while maximum application rates and the shorter spray intervals are recommended for severe or threatening disease conditions.

Apply **BIOTAK** in sufficient water to ensure thorough coverage of foliage, bloom, and fruit. Thorough coverage is required for optimum disease control. Maintain agitation of product during the application process. The product mixture should be applied shortly after mixing. DO NOT store mixed suspensions of **BIOTAK** overnight.

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

BIOTAK DOES NOT require a buffer zone.

Additives and General Tank Mixing Information

Tank Mixing: This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact BASF Canada at 1-877-371-2273 for information before applying any tank mix that is not specifically recommended on this label.

Mixing Order

1. Water. Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water. The pH of the spray solution should be between 4 and 9. The product mixture should be applied shortly after mixing. DO NOT store mixed suspensions of **BIOTAK** overnight.
2. Agitation. Maintain constant agitation throughout mixing and application.
3. Inductor. If an inductor is used, rinse it thoroughly after each component has been added.
4. Products in PVA bags. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. Water-dispersible products (such as **BIOTAK**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
6. Water-soluble products.
7. Emulsifiable concentrates (such as oil concentrates when applicable).
8. Water-soluble additives (such as AMS or UAN when applicable).
9. Remaining quantity of water.

Make sure that each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during application.

General Restrictions and Limitations - All Crops

- Crop Rotation Restriction: There are no crop rotation or plant back restrictions for **BIOTAK**.
- Preharvest Interval (PHI): **BIOTAK** can be used up to and including the day of harvest. PHI=0 days.
- There are no livestock feeding restrictions for **BIOTAK** treated plants and produce.

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN. May cause sensitization. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Wear waterproof gloves, long-sleeved shirt, long pants, eye goggles, socks with shoes and use a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter when mixing/loading, applying and during all clean-up and repair activities. Wash thoroughly with soap and water after handling the product. Remove contaminated clothing and follow manufacturer's directions for cleaning/maintaining personal protective equipment (PPE) before reuse.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

When tank mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

RESTRICTED ENTRY INTERVAL (REI)

DO NOT enter or allow worker entry into treated areas for 4 hours or until sprays have dried unless wearing waterproof gloves, long-sleeved shirt, long pants, socks and shoes.

FIRST AID

If swallowed

Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes

Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

STORAGE

To prevent contamination, store this product away from food or feed. Store in a dry area for up to 16 months of Date of Manufacture.

DISPOSAL

For recyclable containers: Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the provincial regulatory agency or the manufacturer. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offense under the *Pest Control Products Act* to use a control product in a way that is inconsistent with the directions on the label.