

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

275-110

**MAR 4 1996**

**NOTICE OF PESTICIDE:**  
  X   Registration  
       Reregistration

Term of Issuance:

Unconditional

Name of Pesticide Product:

ABG-9017 Biological  
Nematicide  
Emulsifiable  
Suspension

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Abbott Laboratories  
Chemical and Agricultural Products Division  
1401 Sheridan Road  
North Chicago, IL 60064

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

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

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

This product is unconditionally registered in accordance with FIFRA sec. 3(c)(5) provided that you:

1. Change the label by revising the EPA Registration Number to read, "EPA Reg. No. 275-110".
2. The following environmental hazard statements are to be placed on the end-use label:  
"Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters."

Signature of Registrant:

*[Handwritten Signature]*

Notary Public

Date:

MAR 4 1996

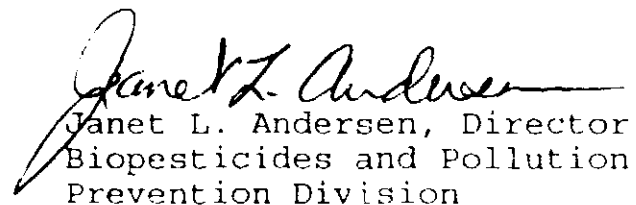
**CONCURRENCES**

SYMBOL	OFFICE	DATE	INITIALS	REMARKS

3. The application methods allowed on the product label are to be limited to soil incorporation at a depth of 3 - 6", chemigation by drip irrigation and soil surface spray application.
4. The re-entry statement may be changed to read:  
"Do not enter or allow worker entry into treated area during the restricted entry interval (REI) or 4 hours".
5. Demonstrate that *M. verrucaria* is non-viable confirmed by a lack of fungal growth after heat treatment.
6. Verify that the levels of Verrucarin A and Roridin A are kept below a combined total of 15 ppm with the agreement that if any production batch approaches a total mycotoxin level of 10 - 15 ppm, a rationale as to why the mycotoxin levels have escalated must be submitted to the Agency and the registrant must reevaluate the manufacturing process.
7. Submit two copies of the revised final printed label for the record.

Unconditional registration does not eliminate the need for continual reassessment of a pesticide. If EPA determines, at any time, that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under Section 3(c)(2)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

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

  
Janet L. Andersen, Director  
Biopesticides and Pollution  
Prevention Division

ABG-9017  
BIOLOGICAL NEMATICIDE  
EMULSIFIABLE SUSPENSION

Active Ingredient:

ABG-9008 Technical powder containing dried fermentation solids  
and solubles of *Myrothecium verrucaria*\* .....27.5% w/w  
Inert Ingredients.....62.5% w/w  
Total..... 100.0% w/w

Contains 2.34 lbs. active ingredient per gallon.

\*U.S. Patent No. 5,051,255

Potency:

18,200 RKU (Root-knot Units) per gram of product.

Potency units should not be used to adjust use rates.

KEEP OUT OF REACH OF CHILDREN

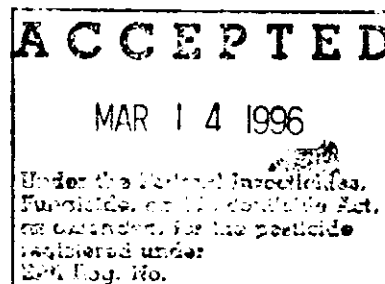
CAUTION

EPA Reg. No. 275-110

EPA Est. No.

Lot No.

Net Contents: 50 gallons



Abbott Laboratories  
Chemical and Agricultural Products Division  
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STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Immediately flush with plenty of water. Get medical attention if irritation persists.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS  
CAUTION**

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

**Personal Protective Equipment**

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, or nitrile rubber, or neoprene rubber or viton.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**User Safety Recommendations**

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

**DIRECTIONS FOR USE**

It is a violation 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 regulations.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry intervals. The requirements in the 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) or 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard under certain circumstances allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Chemical resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Shoes plus socks

#### **STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Keep containers tightly closed when not in use. Do not store at temperatures greater than 100 °F. Thoroughly shake/roll the container before dispensing.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water when disposing of equipment washwaters.

**Container Disposal:** Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

### GENERAL INFORMATION

ABG-9017 has been shown to suppress populations of plant nematodes parasitizing food, fiber and ornamental crops including: *Meloidogyne* spp. (root-knot nematode), *Heterodera/Globodera* (cyst nematode), *Pratylenchus* spp. (lesion nematode), *Tylenchulus semipenetrans* (citrus nematode), *Trichodorus* spp. (stubby-root nematode), *Paratylenchus* spp. (pin nematode), *Rotylenchulus* spp. (reniform nematode), *Xiphinema* spp. (dagger nematode), and other plant parasitic nematodes.

### APPLICATION DIRECTIONS

ABG-9017 may be applied to the soil as a pre-plant or post-plant treatment on annual and perennial crops. Pre-plant applications should preferably be close to the actual planting time; use adequate water to allow the product to cover the area around the germinating seed or the newly-formed roots.

The optimal application time for perennial crops should be determined based on the cultural practices and the nematode population dynamics. Generally, for perennial crops, apply materials just prior to the root flush in order to protect the young roots from nematode pests. Multiple applications, up to 6 per year, may be required for crops with multiple root flushes. On annuals, the treatment can be prior to planting, at the time of seeding, and during the crop cycle.

ABG-9017 may be applied using ground equipment, or low pressure drip (trickle) irrigation, with quantities of water sufficient to provide coverage of the root area of the plants. The amount of water needed per acre will depend on the plant species, biology of the nematode species to be controlled, stage of crop, weather, soil moisture conditions, degree of nematode infestation of the soil, etc.

Foliar applications of ABG-9017 at a ratio less than 1 part of product to 4 parts of water, may be phytotoxic. Do not apply by mist sprayer or aerial spray equipment

### GENERAL INSTRUCTIONS

Because of the nature of the active ingredient and the distribution of nematodes in agricultural soils, in row or band application is suitable for adequate nematode

suppression on annual crops. The rates provided here are for broadcast applications. If banding or side-dressing is done, corresponding rates need to be calculated based on the actual area of soil to be treated. (See accompanying Rate Conversion Table)

**For pre-plant or pre-seeding applications**, apply ABG-9017, suspended in water, as a row or band treatment at the rate of 5-40 gallons of product per acre. Use 2 parts of water to 1 part of ABG-9017. Further dilution could result in enhanced leaching and reduced efficacy. After application, the product may be incorporated into the soil by mixing, or with water.

**For post-planting applications** on established crops, apply ABG-9017 evenly as a band treatment at the rate of 5-40 gallons per acre on the surface of soil. For trees and vines, apply the material to the outer perimeter of the drip line. Apply with enough water to enable penetration of product to the root-zone of the plant.

Higher rates and/or multiple applications may be required in coarse (light) soils with less than 1% organic matter. In fields with very high infestations, efficacy may be impaired. Do not use in agricultural fields with high amounts of organic matter, especially those containing non-decomposed plant materials including infected roots from a previous crop.

#### **MIXING RECOMMENDATIONS**

**Important** - ABG-9017 mixes easily with water. It is not necessary to add an agricultural surfactant to the ABG-9017 tank mix. Add ABG-9017 to the mix tank after introducing the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding ABG-9017. Add the desired volume of ABG-9017 to the mix tank and continue circulation. Include rinse water from the container. Maintain agitation while applying the product. It is recommended that the product be used immediately after mixing. Do not mix more ABG-9017 than can be used in a 24 hour period.

Rinse and flush application equipment thoroughly following each use. Use a strainer, no finer than 50-mesh, in conventional spray systems.

#### **COMPATIBILITY**

The ABG-9017 application directions refer to the use of the product alone. Data concerning the compatibility of ABG-9017 with other agricultural products are not available. Abbott Laboratories does not assume responsibility for unexpected, adverse results due to the tank mixing or simultaneous applications of ABG-9017 with other agricultural products including fertilizers.

## RECOMMENDED APPLICATION RATES FOR MISCELLANEOUS CROPS

Crop	Nematode	Broadcast* Rate (gallons/acre per application)	Remarks
Citrus fruits	Root-knot, citrus	5-40	BAND: Center the treatment on the tree row using a band spacing to cover the feeder roots. LOW PRESSURE IRRIGATION: Apply 1-3 applications in root flushes. The product should be applied at the end of the irrigation cycle.
Cucurbit vegetables such as Cucumber, Melon, Squash	Root-knot, reniform	5-40	BAND: Apply as a 12-inch band over the row prior to planting. In-season applications may be by a split-band to the edge of the row. Avoid direct contact with foliage. LOW PRESSURE IRRIGATION: Apply soon after planting at the end of the irrigation cycle.
Field crops such as Peanut, Cotton, Soybean	Cyst, root-knot lesion	5-40	BAND: Apply as a 12-inch band over the row prior to planting. In-season applications may be by a split-band to the edge of the row. Avoid direct contact with foliage.
Flowers, Bedding plants, Turf, Ornamentals such as Bulbs	Root-knot, lesion, sting	5-40	Apply as a 12-inch band over the row on row crops prior to planting; as a broadcast application to the edge of the row on container-grown plants; as a broadcast application to the edge of the row on turf parts of water.
Fruiting vegetables such as Eggplant, Pepper, Tomato	Root-knot, reniform	5-40	BAND: Apply as a 12-inch band over the row prior to planting. In-season applications may be by a split-band to the edge of the row. Avoid direct contact with foliage. LOW PRESSURE IRRIGATION: Apply soon after planting at the end of the irrigation cycle.
Greenhouse shade house and outdoor nursery crops	Root-knot, lesion	5-40	Apply as a 12-inch band over the row to row crops. For container-grown plants, apply ABG-9017 to 2 parts of water.

\*Refer to accompanying table for Band application rates



## RECOMMENDED APPLICATION RATES FOR MISCELLANEOUS CROPS

Crop	Nematode	Broadcast* Rate (gallons/acre per application)	Remarks
Leafy vegetables and cole crops such as Lettuce, Broccoli, Cabbage, Cauliflower	Cyst, root-knot	5-40	BAND: Apply as a 12-inch band over the row prior to transplanting or at the time of seeding. In-season applications may be by a split-band to the edges of the bed or by side-dressing. Avoid direct contact with foliage. LOW PRESSURE IRRIGATION: Apply soon after planting or seeding and prior to germination at the end of the irrigation cycle.
Pome fruits such as Apple and Pear	Lesion, root-knot, ring	5-40	BAND: Apply as a 30-60 inch band when centered on the tree row. LOW PRESSURE IRRIGATION: Apply 1-3 applications in spring and summer to coincide with new root flushes. The product should be applied at the end of the irrigation cycle.
Root and tuber crops such as Beet, Carrot, Potato and Sugar beet	Root-knot, lesion, stunt, cyst, sting	5-40	Apply as a 12-24 inch band to the bed prior to planting or prior to germination.
Small fruit & berries such as Grape, Strawberry	Root-knot, citrus, lesion	5-40	BAND: Apply as a 12-18 inch band over the row on row crops prior to planting. For vines, center the treatment on the vine row using a band width of up to 50% of the row spacing to cover the feeder roots. Avoid direct contact with foliage on established crops. LOW PRESSURE IRRIGATION: Apply 1-3 applications in spring and fall to coincide with new root flushes. The product should be applied at the end of the irrigation cycle.
Stone fruits such as Cherry, Nectarine, Peach, Plum	Lesion, root-knot, ring	5-40	BAND: Apply as a 30-60 inch band when centered on the tree row LOW PRESSURE IRRIGATION: Apply 1-3 applications in spring and summer to coincide with new root flushes. The product should be applied at the end of the irrigation cycle
Special crops such as Banana, Hops, Kiwi fruits, Pineapple, Tobacco	Cyst, root-knot, reniform, burrowing, lesion, spiral, stunt	5-40	BAND: Apply as a 30-60 inch band (12 inch for Tobacco) when centered on the plant row. Avoid direct contact with foliage. LOW PRESSURE IRRIGATION: (except Tobacco) Apply 1-3 applications, twice during the crop cycle, coinciding with the new root flush. Apply during the end of the irrigation cycle

\* Refer to accompanying table for Band application rates.

12	0.9	1.8	3.7	7.4
18	1.4	2.7	5.5	11.0
24	1.8	3.7	7.4	14.8
30	2.3	4.6	9.2	18.4
36	2.8	5.5	11.0	22.0
48	3.7	7.4	14.8	29.6
60	4.6	9.2	18.4	36.7

### **CHEMIGATION**

ABG-9017 may also be mixed with water and the thoroughly mixed suspension applied through low pressure drip (trickle) irrigation systems, so as to treat the soil around the crop root-zone. It is recommended that the material be used immediately after mixing in order to avoid settling in the tanks.

Do not apply this product through any type of irrigation system unless labeling on chemigation is followed.

#### **Chemigation Use Directions**

Apply this product only through the following types of systems: low pressure drip (trickle) 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 local state extension personnel, equipment manufacturers or other experts.

Do not connect irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label 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.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

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.

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

#### **NOTICE TO USER**

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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