

# BioVECTOR® 25

Biological Larvicide

## SPECIMEN LABEL

For the control of weevils, girdlers and borers in cranberry and mint.

ACTIVE INGREDIENT	
<i>Steinernema carpocapsae</i> .....	20%
INERT INGREDIENTS .....	80%
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TOTAL .....	100%

Net Contents: 25 lbs (4 billion nematodes)

**CAUTION**  
**KEEP OUT OF REACH OF CHILDREN**  
**FOR AGRICULTURAL USE ONLY**  
STORE AT 40° - 75° F  
DO NOT FREEZE

### PRECAUTIONARY STATEMENTS

Dust may be harmful if inhaled. Avoid breathing spray mist. Avoid contact with skin or eyes. If contact occurs, immediately flush eyes or skin with water.

**BioVector® 25** is exempt from the United States Environmental Protection Agency (EPA) Requirements of Registration (FIFRA, Section 25 (b)(1)).

### GENERAL INFORMATION

**Cranberries:** **BioVector® 25** controls the immature stages of black vine weevil (*Otiornychus sulcatus*), strawberry root weevil (*O. ovatus*), strawberry girdler (*Chrysoteuchia topiaria*) in cranberry bogs.

**Mint:** **BioVector® 25** controls the immature stages of mint root borer (*Fumibotys fumalis*), black vine weevil (*O. sulcatus*), strawberry root weevil (*O. ovatus*), and mint flea beetle (*Longitarsus ferrugineus*) in peppermint and spearmint fields. The active ingredient in **BioVector® 25** is a naturally occurring insect-parasitic nematode (*Steinernema carpocapsae*) that searches out, enters and kills the target insect pests. This nematode has not been modified in any way. **BioVector® 25** will not harm plants, people, pets or beneficial organisms when used according to label directions.

The nematodes are formulated in water dispersible granules. Follow dilution, application and irrigation recommendations carefully to achieve optimum results.

### DIRECTIONS FOR USE

Read all instructions thoroughly before applying **BioVector® 25 for Cranberries and Mint Biological Larvicide**.

### RECOMMENDED RATES

Each case of BioVector contains 4 billion nematodes.

**Cranberry Girdler:** 2 Billion nematodes per acre. Container treats 2 acres.

**Mint Root Borer:** 1-1.5 Billion nematodes per acre. One case treats 2 2/3 acres in moderate to heavy soils. In light, sandy soils of eastern Washington and Montana one case treats 4 acres.

**Root Weevils, Mint Flea Beetle:** 3 Billion nematodes per acre. Container treats 1 1/3 acres.

### APPLICATION RECOMMENDATIONS

1. For maximum control of cranberry girdler, apply **BioVector® 25** 2 weeks after peak adult flight. For maximum control of root weevils, mint root borer and mint flea beetle, apply **BioVector® 25** in August and September when soil temperatures are optimal for nematode performance.
2. Because of the clustered infestation patterns exhibited by these pests, it is necessary to thoroughly sample production areas for insect populations in areas to receive spot-treatments of **BioVector® 25**. If thorough sampling is not feasible, it is recommended that **BioVector® 25** be broadcast over the entire production area thought to be infested.
3. Irrigate for 15-30 minutes immediately prior to **BioVector® 25** application to cool irrigation equipment and surrounding soil surface.
4. Apply **BioVector® 25** when soil temperatures are between 55°-95° F.
5. Water for mixing and spray application or injection should be between 50°-80° F.
6. **BioVector® 25** may be used with most fertilizers and registered pesticides. Nematicides should not be applied within 14 days before or after application of **BioVector® 25**. Refer to the following **BioVector® 25** compatibility Table for specific instructions.
7. Keep **BioVector® 25** suspension agitated throughout application by mechanical or bypass system.

- Agitate **BioVector® 25** in feeder or spray tank during mixing and injection. **BioVector® 25** should be applied within 24 hours after mixing. Do not store diluted product for future use.
- Prepare spraying systems by removing or replacing any screen that is not U.S. mesh size 50 or coarser.

### MIXING AND DILUTION

- Carefully pour **BioVector® 25** granules into tank water under active agitation.
- Water temperatures should be between 50°-80° F.
- Tank agitation must be active during filling and application to ensure complete dispersion of the product.
- Pump pressures should not exceed 300 psi.
- The **BioVector® 25** suspension may be held in the agitated tank for up to 24 hours. Keep tank water temperatures cool (under 80° F).

### APPLICATION PROCEDURES

#### Chemigation

(Injection through Irrigation Equipment):

- Product can be applied through wheel-line, in-line, fixed-line or other sprinkler type irrigation systems.
- Add water dispersible granules to a clean feeder tank. Suspension must be continuously agitated during injection to prevent product from settling. Calibrate the injection pump to deliver the concentrate over a one-hour period or longer for uniform coverage.
- Irrigate for 15-30 minutes immediately prior to starting **BioVector® 25** injection to cool irrigation equipment.
- After injection, rinse feeder tank with clean water and inject into system.
- Follow post-application irrigation instructions (see Irrigation Requirements).

#### Subsurface Application (Mint Only)

- Product can be soil-applied using shank, cultivator or spoke-wheel applicator.
- Apply product in 30-100 gallons of water per acre.
- Shank:** Apply as a trickle behind each shank at a 2-4 inch depth followed by a press wheel to cover opening. Double shanks should be placed at 6-8 inches apart, and centered on the hill.
- Cultivator:** Apply as a spray immediately in front of a rolling cultivator. Incorporate to a 2-4 inch depth.
- Spoke-wheel:** Double spoke-wheels should be placed 6-8 inches apart and centered on the hill. Inject at a 2-4 inch depth.
- Follow post-application irrigation instructions (see Irrigation Requirements).

#### Ground Spraying — All Surface Spraying Equipment

- Apply **BioVector® 25** at a minimum of 200 gallons of water per acre.
- Follow post-application irrigation instructions (see Irrigation Requirements).

#### Aerial Application (Cranberries Only)

- Minimum water volume rate is 12 gallons per acre.
- Apply product close to the crop surface to reduce drift.
- Sprinkler systems must be operating during aerial application to irrigate product into the soil.
- Follow post-application irrigation instructions (see Irrigation Requirements).

### IRRIGATION REQUIREMENTS

- Prior to application, ensure that soil is thoroughly moistened to the depth at which insects are feeding on the root zone.
- Surface Applications.**  
**Pre-Harvest Mint:** Following pre-harvest application, immediately irrigate with 1/2 inch of water.  
**Post-Harvest Mint:** Following post-harvest application, immediately irrigate with 1/4 inch of water.  
**Cranberries:** Following application, immediately irrigate with 1/4 inch of water.
- Subsurface Application:** Irrigate field no later than 3 days following application.
- For maximum **BioVector® 25** performance, maintain adequate soil moisture for 15 days following application.

### BIOVECTOR® 25 FOR CRANBERRIES AND MINT COMPATIBILITY TABLE

**BioVector® 25 for Cranberries and Mint** may be used simultaneously with registered pesticides and fertilizers, except for the following:

SCHEDULE	CHEMICAL NAME	TRADE NAME(S)
<b>INSECTICIDES</b>		
Do not tank mix or use within one week before/after BioVector® 25	chlorpyrifos	Lorsban® (non-encapsulated)
	methomyl	Lannate®
<b>NEMATICIDES</b>		
Do not tank mix or use within two weeks before/after BioVector® 25	oxamyl ethoprop	Vydate® Mocap®

Lorsban® trademark of DowElanco; Lannate®, Vydate® trademarks of DuPont Agricultural Company; Mocap® trademark of Rhone-Poulenc Ag Company

### STORAGE AND HANDLING

**Storage:** Store **BioVector® 25** in a cool, dry location out of direct sunlight. **BioVector® 25** may be stored at room temperature (40°-75° F) for up to 3 months. **DO NOT FREEZE.** Do not open until ready to use. Do not store diluted, agitated product beyond 24 hours. Handle **BioVector® 25** as to minimize the risk of spillage. If spills should occur, sweep material into a pile for proper disposal.

### DISPOSAL

Product and container waste resulting from the use of this product, or unused, outdated product may be disposed of on site or at any approved waste disposal facility in accordance with federal and local regulation.

### CONDITIONS OF SALE AND WARRANTY

Thermo Trilogy Corp. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**

**BioVector® 25** is a registered trademark of Thermo Trilogy Corp.