

**RESTRICTED USE PESTICIDE**

**DUE TO ACUTE ORAL, ACUTE DERMAL, ACUTE INHALATION, PRIMARY DERMAL AND PRIMARY EYE TOXICITY  
For retail sale to and use only by Certified Applicators or persons under the direct supervision of a  
Certified Applicator, and only for those uses covered by the Certified Applicator's certification.**



**Special Local Need Label**

**EPA REG. NO. 5481-9041  
EPA SLN NO. WA-130006**

**MOCAP® EC Nematicide-  
Insecticide**

**For use on Non-bearing Blueberries in WASHINGTON  
to Control Symphylans.**

**FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WASHINGTON**

This label and the federal label for this product must be in the possession of the user at the time of pesticide application. Follow all applicable directions, restrictions and precautions on this 24(c) label and the main EPA-registered label. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. *As with any crop-protection product, always read and follow label directions.*

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic organisms (fish and invertebrates) and wildlife and extremely toxic to birds. Mocap EC Nematicide-Insecticide should not be used under this SLN label where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program web site at <http://agr.wa.gov/PestFert/NatResources/EndangSpecies.aspx>, or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered. Consult the federal label for additional restrictions and precautions to protect aquatic organisms.

**SPRAY ZONE APPLICATION RESTRICTION**

To mitigate risks to fish and aquatic organisms, a 140 ft. buffer must be maintained around streams, ponds, lakes, river, springs, swamps, bogs, marshes, or irrigation canals containing water at the time of application.

Do not allow spray drift from the application site to contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands or animals.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

### Non-bearing Blueberries

Application timing	Pest controlled	Broadcast Rate Quarts/Acre	Ground Equipment Application Directions
Pre-plant	Symphylans	1.33	<p>Method 1 (Preferred) Mix Mocap EC Nematicide-Insecticide with sufficient water and apply broadcast to the soil immediately ahead of equipment, such as a double disc or rotary cultivator, to thoroughly incorporate Mocap EC solution into the top 2 to 4 inches of soil.</p> <p>Method 2 Mix Mocap EC Nematicide-Insecticide with sufficient water and broadcast or band apply solution. Immediately apply 1 to 2 inches of overhead irrigation water to incorporate Mocap EC into soil. If band applying, apply in a band at least 2 feet wide over row.</p> <p><b>Regardless of method used wait a minimum of 3 days before planting blueberries.</b></p>
Post-planting	Symphylans	1.33	<p>Mix Mocap EC Nematicide-Insecticide with sufficient water and broadcast or band apply solution to the soil. Immediately apply 1 to 2 inches of overhead irrigation water to incorporate Mocap EC into soil. If band applying, apply in a band at least 2 feet wide over the plant row.</p> <p>Chemigation Method: Apply Mocap EC Nematicide-Insecticide to prewetted fields through subsurface drip irrigation (SDI) systems with pressure compensating emitters only. The Emission Uniformity (EU) of the drip irrigation system must be at 85 percent or greater (refer to USDA-NRCS Practice Standard Code 441). Emitters below sawdust, mulch or weed mats are considered subsurface.</p> <p>Do not apply through any other type of irrigation system. Follow chemigation with enough irrigation to move Mocap EC into the top 2-4 inches of soil.</p>

**Chemigation Calibration:** Micro-Irrigation Systems (e.g., Drip, Subsurface Drip, Trickle, and Low-Volume Sprinkler) Calibrate the irrigation system and injector before applying MOCAP EC. Calibrate the injection pump while the system is running using the expected irrigation rate. The irrigation system used for application of MOCAP EC must provide for uniform distribution of MOCAP EC treated water. Non-uniform distribution can result in crop injury, lack of effectiveness or illegal pesticide residues in or on the blueberry crop being treated.

Calculation of application rate is based on the average wetted soil surface area (radius) around a micro-sprinkler or drip emitter. Soil surface wetted area is measured from the emitter or micro-sprinkler to the perimeter of the wetted area, which is the radius in the following calculation. To determine the application rate for Mocap EC for micro-irrigation systems, the following calculations must be used.

1. Calculate soil surface wetted area (in square inches) of the emitter or micro-sprinkler, or A

$$A = 3.14 \times \text{radius} \times \text{radius}$$

Example: If the average wetted area on the soil surface as measured from the emitter or micro-sprinkler to the perimeter of the wetted area is 16 inches, then

$$A = 3.14 \times (16'' \times 16'')$$

$$A = 3.14 \times 256 \text{ square inches}$$

$$A = 804 \text{ square inches}$$

2. Calculate the soil surface wetted area (in square feet) per acre, or B.

$$B = \frac{A \times \text{Number of emitters per acre}}{144 \text{ square inches per square foot}}$$

Example: If there are 3,200 emitters per acre, then

$$B = \frac{804 \text{ square inches} \times 3,200 \text{ emitters per acre}}{144} = 17,867 \text{ square feet of wetted area per acre}$$

3. Calculate total surface area wetted by the micro-irrigation system, or C.

$$C = B \times \text{acres treated by the micro-irrigation system}$$

Example: If the size of the application block (or field) is 20 acres, then

$$C = 17,867 \text{ square feet of wetted surface area per acre} \times 20 \text{ acres}$$

$$C = 357,340 \text{ square feet of the application block is wetted by the micro-irrigation system.}$$

4. Calculate the amount of Mocap EC to inject, or Q.

From the rate table, determine the desired broadcast rate per acre of Mocap EC, or R.

$$Q = \frac{C \times R}{43,560 \text{ square feet per acre}} = \text{quarts of Mocap EC per acre}$$

Example: If the desired broadcast application rate of Mocap EC is 1.33 quarts per acre, then

$$Q = \frac{357,340 \times 1.33}{43,560 \text{ square feet per acre}} = 11 \text{ quarts of Mocap EC injected during the application.}$$

### Alternative Calculation Method – Strip or Bed Application

When emitter spacing or dual driplines result in a line source (strip or bed) wetting pattern rather than a point source wetting zone, the following formula may be used to determine a broadcast equivalent application rate.

To calculate the quantity of Mocap EC to be applied to the strip or bed (that is, the treated area), the treated area (i.e., length x width) comprising the strips or beds in the application block (field) must be determined. The amount of Mocap EC applied to the total treated area, adding together area in the strips or beds, is a ratio of the broadcast application rate, or the Broadcast Equivalent Rate.

From the rate table, determine the desired broadcast rate per acre of Mocap EC, or R.

$$\text{Broadcast Equivalent Rate} = \frac{\text{Strip or bed width, in inches}}{\text{Center to center row spacing, in inches}} \times R$$

Example: Two drip irrigation lines are installed, with a dripline placed on each side and eight inches away from the planting row. The soil surface wetting zone radius for each emitter is 16 inches. The driplines form a wetting zone that coalesces into a wetted strip that is 32 inches wide. Row spacing between plantings, center to center, is 10 feet (or 120 inches). Application block is 10 acres.

$$\text{Broadcast Equivalent Rate} = \frac{32 \text{ inches}}{120 \text{ inches}} \times 1.33 \text{ quarts of Mocap EC per acre}$$

| 120 inches |

Or, 0.35 quart of Mocap EC per treated acre, or 3.5 quarts to be injected during the application.

### Operation

Start the water pump and let the irrigation system achieve the desired pressure before starting the chemigation injection apparatus. Start the injection apparatus and calibrate the injection system. This procedure is necessary to deliver the desired application rate. When the application is finished, allow the entire irrigation system and chemigation injection equipment to be thoroughly flushed clean before stopping the system.

### Injection Into Chemigation Systems

Inject the proper amount of MOCAP EC into the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. Inject the solution containing MOCAP EC into the irrigation water line continually and uniformly throughout the irrigation cycle.

Apply MOCAP EC in sufficient water and of sufficient duration to ensure the recommended rate is applied evenly to the entire treated area. Apply by injecting the recommended rate of Mocap EC into the irrigation system using a metering device that will introduce a constant flow throughout the injection period. MOCAP EC must be applied in a manner that ensures the product is percolated into the root zone.

### ADDITIONAL RESTRICTIONS FOR CHEMIGATION

- Mocap EC must not be applied through an irrigation system connected to a public water system.
- Do not allow irrigation water to collect or runoff the application block during chemigation.
- Inject MOCAP EC downstream from any water filtration system.
- MOCAP EC must not be applied at the same time that a drip/irrigation line clean out product is being used as performance may be reduced. The drip system must be properly designed, free of leaks, and operated in a manner that provides uniform application of water to the application block.
- The minimum injection period is the time that it takes water to move from the injection point to the furthest emitter in the irrigation zone (rinse time). If rinse time is not known, it can be calculated by measuring the time for a soluble dye to move from the injection point to the farthest emitter. A longer injection improves uniformity throughout the zone, but needs to allow for at least an equal period of water to flush the system and move the product through the soil.

### Cleaning the System

Thoroughly flush the injection system and the irrigation system with untreated water at the completion of the application.

### GROUND APPLICATION / BAND WIDTH CALCULATION

$$\left( \frac{\text{*Band Width (feet)}}{\text{Row Width (feet)}} \right) \times \text{Broadcast Acre Rate} = \text{Amount of Product Required per Acre}$$

\*For band width, be sure to include both sides of the plant row. E.g. if applying in a 3 ft. band on each side of the plant row, band width is 6 ft. (2 x 3 ft.). 6 ft. is the band width used in the calculation.

### RESTRICTIONS AND PRECAUTIONS

- Do not make more than one application per year.
- Do not exceed 1.33 quarts (2 lbs. ai) per acre per year.
- Do not harvest blueberries treated under this registration for at least 1 year (365 days) starting from the date the product was applied.
- Soil Conditions: Sufficient moisture should be present at application for symphyllans to be active in the top 4-6 inches of soil. Volatilization may happen in very dry soils; do not apply to dry soils. To minimize the potential for run-off and to increase efficacy, do not apply Mocap EC to saturated soils.
- Apply by ground equipment only. Do not apply by air or through irrigation systems, other than drip irrigation systems specified on this label.
- Do not apply by any method of application not stated on this label.

- To protect endangered avian species, do not use this product in areas of known species occurrence and during the breeding season in those areas.
- A 48 hour restricted entry interval is required.
- Do not graze livestock in treated areas. Do not feed treated crop to livestock.
- Wear Personal Protective Equipment (PPE) listed for applicators and other handlers when making adjustments or repairs to the chemigation system when Mocap EC is in the irrigation water.

#### **WSDA Chemigation Guidance**

- Application off-site is prohibited. The chemigation application must be continuously observed whenever sensitive areas as defined in WAC 16-202-1002(44) (including but not limited to schools, parks, dwellings, occupied buildings or structures, public roadways, and waters of the state) are at risk of being exposed to drift, runoff, or overspray.
- An inspection port or a direct access point is required, and it must be positioned immediately upstream of the irrigation mainline check valve and be of sufficient size to allow visual and manual inspection of the check valve and low pressure drain. The inspection port or access point must have a minimum diameter of four inches, unless an alternative access system is approved by WSDA (WAC 16-202-1012[1]).
- The chemigation application tank cannot be placed within 20 feet of the wellhead or other sensitive areas. Mixing or loading activities cannot occur within 20 feet of the wellhead or other sensitive areas (WAC 16-202-1008[1]).
- WSDA Chemigation Rules (WAC 16-202-1001 through WAC 16-202-1024), and information on USEPA Authorized Alternative Chemigation Safety Equipment, Distribution Uniformity and other chemigation topics are available on the WSDA website (<http://agr.wa.gov/PestFert/ChemFert/default.aspx>).

#### **WSDA Container Disposal Guidance:**

Pesticide containers must be properly cleaned prior to disposal. The best time to clean empty pesticide containers is during mixing and loading, because residue can be difficult to remove after it dries. Triple rinse (or pressure rinse) the pesticide container, empty all pesticide rinse water into the spray tank, and apply to a labeled crop or site. Recycling cleaned containers is the best method of container disposal. Information regarding the recycling of empty and cleaned plastic pesticide containers in Washington is available on the WSDA Waste Pesticide Program web site at <http://agr.wa.gov/PestFert/Pesticides/WastePesticide.aspx>. Cleaned containers may also be disposed of in a sanitary landfill, if permitted by the county. Burning is not a legal method of container disposal in Washington.

**This label for *Mocap EC Nematicide-Insecticide* expires and must not be distributed or used in accordance with this SLN registration after December 31, 2019.**

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