



# TECHNICAL BULLETIN: MOLT-X®

## USE IN LOW VOLUME APPLICATORS

Molt-X is a broad spectrum bioinsecticide that contains the active ingredient Azadirachtin, the most potent active compound found in Neem trees. Approved for organic production, Molt-X disrupts a juvenile insect from molting and prevents it from maturing to an adult and reproducing.

Molt-X is ideally suited for integrated pest management programs as it can be tank-mixed or rotated with products like SuffOil-X®. Additionally, interference with insect enzyme metabolism as well as the physical mode of action from the formulation significantly reduces the likelihood of insect resistance development.

### KEY FEATURES:

- + As an insect growth regulator, Molt-X prevents juvenile insects from maturing to adults by interfering with enzyme metabolism
- + Makes pests more susceptible to insecticides by reducing physical and physiological fitness
- + Leaves no residue on plant foliage, fruits, vegetables, or flowers
- + Compatible with other insecticides, fungicides, and fertilizers
- + Generally safe on beneficial insects
- + Good crop safety profile
- + Multiple modes of action make it an excellent tool for resistance management

### WHEN USING ULTRA LOW VOLUME APPLICATORS (FOGGERS),

#### OBSERVE THE FOLLOWING:

- + Low volume sprayers have a high degree of efficiency in coverage of leaf and stem surfaces. Thoroughly cover the plant surfaces but note that spray deposition may not be visible after application
- + When using a low volume sprayer, first determine the proper application volume by spraying the material in a small area. Test the application on a few plants to assure proper coverage
- + Follow equipment manufacturer instructions carefully
- + Properly calibrate equipment regularly
- + Ensure that nozzles are clean and not worn so that correct droplet size is applied. Smaller droplets are more desirable in a fogging situation
- + Ensure that all the material is well mixed so application will be uniform throughout
- + Use the maximum amount of water that a given machine allows to help ensure material is completely mixed with water
- + Consider using a carrier solution appropriate to the type of fogger equipment. This will improve atomization and cause fewer large droplets to fall out in front of the fogger providing more uniform coverage. For Dramm
- + BIO PulsFOG® equipment it is suggested to use NutriFog™ as a carrier for Molt-X



**MOLT-X®**  
BioWorks®

**ACTIVE INGREDIENT:** Azadirachtin 1.00%  
**OTHER INGREDIENTS:** 99.00%  
**TOTAL:** 100.00%  
\*Contains 0.288 (28) grams of azadirachtin per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**First Aid:** If swallowed, Wash out mouth immediately with water and drink plenty of water. Do not induce vomiting. If inhaled, Remove person to fresh air. If on skin, Wash with plenty of water. If in eyes, Flush eyes with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue flushing. Seek medical advice if irritation persists. If irritation persists, call your physician or poison control center for more information. If swallowed, Call your physician or poison control center for more information.

**STORAGE AND DISPOSAL**

**GENERAL:** Do not store in open containers. Seal tightly after each use. **STORAGE:** Store in cool, dry place. Do not store the product above 100 degrees Fahrenheit. Do not store in areas where children or pets can access. Do not store in areas where food, feed, or other products are stored. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied.

**CONTAINER DISPOSAL:** Do not reuse containers. Do not store in open containers. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied. Do not store in areas where the product may be applied.

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### WHEN USING ULTRA LOW VOLUME APPLICATORS (FOGGERS), OBSERVE THE FOLLOWING: (CONTINUED)

- + With most LVM equipment, keep nozzle output from directly contacting the plants. Nozzles should not be aimed directly at crop
- + Unlike hydraulic or low volume mist spraying, there should be no visible evidence (leaf wetness) of the application on the plant foliage

### PLANT SAFETY:

Test the application on a few plants to ensure proper coverage and assess within 24-48 hours. Use caution when making Molt-X applications to open blooms, especially on varieties known to be sensitive. It is recommended that a small group of plants be tested for effects on open blooms before making applications to the whole crop.

### MOLT-X LOW VOLUME APPLICATOR RATES: COLDFOGGER™, AUTO-FOG™, BIO PULSFOG®

PROGRAMS <sup>1</sup>	HYDRAULIC RATE/100 GAL <sup>1</sup>	RATE/10,000 SQ FT (DRAMM LOW 20%) <sup>2</sup>	RATE/10,000 SQ FT (DRAMM LOW 35%) <sup>2</sup>	MINIMUM AMT. OF SOLUTION <sup>3</sup> OF SOLUTION AUTO-FOG, TRACFOG, BIO PULSFOG	MINIMUM AMT. OF SOLUTION COLDFOGGER
Tank Mix Rate	4 fl oz	0.8 fl oz	1.4 fl oz	2 liters	10 liters
Low Label Rate	8 fl oz	1.6 fl oz	2.8 fl oz	2 liters	10 liters
High Label Rate	10 fl oz	2.0 fl oz	3.5 fl oz	4 liters	10 liters

<sup>1</sup> Hydraulic sprayer rate per 100 gallons (per acre)

<sup>2</sup> Dramm rate adjustments: Low (20%) is used for plugs and other propagation or small plants. High (35%) is used for normal finished or dense crops. These are used to bring the per acre rate down to a rate per 10,000 sq ft.

<sup>3</sup> More solution may be used. Solution includes carrier + water. The Dramm owner's manual states that you should never use less than 2 liters of water in their foggers no matter how small an area is being fogged to ensure optimum performance of their machines. We do not recommend going below the amounts stated above. Please refer to Dramm User's Manuals for complete equipment operating instructions.

### Some Additional Comments:

- + Dramm recommends NutriFOG™ as a carrier for Molt-X.
- + Maintain pH of the tank solution between pH 5.5 – 7.0.
- + Pre-mix Molt-X well in a separate container to ensure full suspension of the active ingredient. Pour into partially filled tank with agitator running.

Refer to product labels for complete application details. Additional technical information is available at [bioworksinc.com](http://bioworksinc.com) or from your BioWorks technical sales representative. BotryStop® WP is a trademark of BioWorks, Inc. Always read and follow label directions.



**BioWorks®**  
A MEMBER OF BIOBEST GROUP

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