



**Molt-X®**

## Botanical Insecticide/Nematicide

Molt-X® is an emulsifiable concentrate formulation containing 3% of the active ingredient azadirachtin – the most potent of the insect-active compounds from the neem tree. While it is derived from neem seed, Molt-X is not a neem oil. Molt-X has multiple modes of action, making it an ideal material for an Integrated Pest Management (IPM) program.

Molt-X works primarily as an Insect Growth Regulator (IGR) that disrupts the molting process in insects. Insects treated with Molt-X become sluggish, stop feeding, and fail to mature and reproduce. Molt-X also acts as an insect repellent, antifeedant, and ovipositional deterrent; these multiple modes of action make it a highly effective tool for use in a resistance management program.

Molt-X should be applied early in the pest cycle to prevent the rapid build-up of pest populations. Apply Molt-X when pests are first observed or when conditions are favorable for pest build-up. Like all BioWorks products, Molt-X is safe for plants, workers, and the environment.

### **Molt-X Features:**

- Leaves no residue on plant foliage, fruits, vegetables or flowers
- 4-hour REI and a zero-day pre-harvest interval mean little interruption
- OMRI Listed
- Compatible for tank mixing/rotation with other registered inputs
- Compatible with most commonly used insecticides, fungicides and fertilizers
- No phytotoxicity issues on most plants
- Generally safe on beneficial insects

### **Molt-X provides broad-spectrum control, including pests such as:**

- Aphids
- Whiteflies
- Thrips
- Fungus gnats
- Leafhoppers
- Leafminers
- Leafrollers
- Sawflies
- Webworms
- Mealybugs
- Scales
- Plant-parasitic nematodes
- Cutworms



Sizes: 1pt and 1qt

### **Crop Use:**

- For use on a broad range of turfgrass, outdoor shrubs, trees and ornamentals
- For a broad range of ornamental greenhouse, shadehouse, vegetables, interiorscape and nursery use
- For use on a broad range of outdoor food crops

To find out more about the BioWorks family of products, please contact us at 800-877-9443 or visit [www.bioworksinc.com](http://www.bioworksinc.com).



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How You Grow Matters™

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## **Molt-X and BotaniGard® - a combination insects can't resist**

Use Molt-X® in combination with BotaniGard® for an effective defense against resistant insect populations. BotaniGard controls insects with a high concentration of living spores of the powerful fungus *Beauveria bassiana* GHA strain. Molt-X allows BotaniGard more time to work by disrupting the molting process. Molt-X has been tested and shown to be an effective tank-mix and rotational partner with BotaniGard. Together they provide added efficacy in controlling insects while still providing plant, human and environmental safety.



## **Molt-X and SuffOil-X - a perfect one-two punch!**

A tank-mix of SuffOil-X® and Molt-X provides a great combination to give the target pests a devastating one-two punch. The suffocating power of SuffOil-X will provide a quick knock-down of adult pests, while Molt-X works to disrupt the insect's lifecycle, feeding, and oviposition activity. This combination is effective in controlling insect pests when populations are on the increase.



## **Tank-mixes and Rotations Using Molt-X, BotaniGard, and SuffOil-X**

Molt-X is compatible with many common chemical insecticides and fungicides. By combining or rotating Molt-X with BotaniGard or SuffOil-X you can design a pest management program that's right for you. Each has a different mode of action, and when used together or in sequence, you can control resistant insects and reduce the likelihood of resistance development. Use the full to one half rate of Molt-X when tank-mixing with BotaniGard. When tank-mixing with SuffOil-X use the full rate of Molt-X and do not exceed a rate of 1% with SuffOil-X.

## **Application Recommendations**

### **Foliar Treatments**

When used as a stand-alone material and for optimal results, make 2 to 3 applications of Molt-X, 7 to 10 days apart. The best results will be achieved with full coverage of all leaf surfaces. Applications can be made using standard application equipment, including, but not restricted to: high volume (hydraulic) sprayers, low and ultra low-volume, electrostatic, cold or thermal fogging, and chemigation. A surfactant may be added to improve product performance.

### **Soil Treatments**

Molt-X can be applied as a drench to soil or soil-less media to control insects and nematodes. When applying as a drench, avoid excessive leaching.

### **Rates**

For outdoor crops, vegetables and ornamentals use Molt-X at a rate of 8 to 10 ounces/acre and 15 ounces/acre for nematode control. The rate may be increased up to 22.5 oz/acre if pest pressure is extremely high or if plant canopies are very dense. For greenhouse, shadehouse, interiorscape and nursery crops use Molt-X at a rate of 8 to 10 ounces/100 gallons.



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Please refer to product labels for complete application details. Additional technical information is available from either our website: [www.bioworksinc.com](http://www.bioworksinc.com), or your BioWorks sales representative. Always read and follow label directions.

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