



**BioWorks®**  
How You Grow Matters™



# Frequently Asked Questions

## 1. What is the Molt-X™ mode of action?

Molt-X is an Ecdysone Inhibitor designated by the Insecticide Resistance Action Committee (IRAC) as code 18B. It interferes with the key molting hormone, Ecdysone, preventing insects from progressing from one life stage to the next. As an insect growth regulator, Molt-X causes insects to fail to mature and reproduce, eliminating populations over time, or keeping populations at acceptable levels.

Additionally Molt-X controls pests in these ways:

- Acts as an anti-feedant: Insects will feed less or not at all on treated plant tissue. Foliage is not damaged and insects ultimately starve to death.
- Repellent action (highly dose-dependent)
- Reduces insect resistance by interference with insect enzyme metabolism
- Enhances susceptibility of pests to insecticides by reducing physical and physiological fitness
- Anti-ovipository and Repellent: The likelihood of insect infestation is decreased in treated plants. This also adds a preventive aspect to your control program.

## 2. Is Molt-X safe for beneficial insects?

Generally safe on beneficials

## 3. What is the formulation of Molt-X?

Emulsifiable concentrate with 3% azadirachtin active ingredient.

## 4. Isn't Molt-X just neem oil?

No, Molt-X is not neem oil and contains no neem oil. It is an emulsifiable concentrate formulation with azadirachtin as the active ingredient. Neem oil contains no azadirachtin. Conversely, there is no neem oil in azadirachtin or Molt-X. Both neem oil and azadirachtin come from the neem tree, but that is where the similarity ends.

## 5. Is Molt-X systemic?

It can be absorbed through plant roots and systemically move upward through xylem tissues.

## 6. What pests does Molt-X kill?

Whitefly	Mealybug	Scale
Thrips	Aphid	Psyllids
Leafhoppers	Flies	True bugs
Sawflies	Caterpillars	Beetles
Weevils	Borers	Mole crickets
Nematodes		



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**7. Can Molt-**X** be tank mixed?**

Yes, it is an excellent tank mix partner with other biopesticides including oils and traditional chemistries. Molt-**X**'s mode of action can enhance the effects of other insecticides.

**8. Are there any phytotoxicity issues with Molt-**X**?**

In general, Molt-**X** has been shown to be safe on most plant species when used as directed by the label. Some species have shown slight phytotoxicity on blooms and very tender species may be sensitive. It is recommended that a test spray on a small number of plants be done prior to application on the entire crop.

**9. What insect growth stage is most susceptible to Molt-**X**?**

Molt-**X** acts on and kills larval stages of insects.

**10. When should Molt-**X** applications be made?**

- First application should be made at the first sign of insect pests
- Tank mix with adulticide to kill both adults and larvae
- Spray directly on insect for maximum effectiveness
- Apply in early to mid-morning or late afternoon. This is especially important with whitefly adults which are typically sedentary on the undersides of leaves at this time.

**11. What is the rate range and recommended application interval for Molt-**X**?**

- Rate range is 8 to 10 oz for insect pests and 8 to 15 oz for nematodes.
- Recommended application interval is 2 applications 5 to 7 days apart

**12. Is there a pH limit for Molt-**X**?**

The recommended pH range is 5.5 – 6.5 with 7.0 the maximum before the product would breakdown in solution.

**13. What are the labeled Molt-**X** use sites?**

- For use on turfgrass, outdoor shrubs, trees and ornamentals
- For ornamental greenhouse, shadehouse, interiorscape and nursery use
- For use on outdoor food crops

**14. Are there any environmental concerns with Molt-**X**?**

Molt-**X** is toxic to fish and aquatic invertebrates.

**15. What PPE is required when applying Molt-**X**?**

- Long-sleeved shirt and long pants
- Chemical – resistant gloves (such as barrier laminate, butyl, nitrile, neoprene, polyvinyl chloride, or viton)
- Socks and shoes

**16. After mixing Molt-**X**, how long can it sit in the spray tank before use?**

After mixing with water, Molt-**X** must be used within 8 hours. Do not allow mixed Molt-**X** solutions to remain overnight in the spray tank.

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