

## [ A Dynamic Bio-Formulation For Lepidopteran Pests ]

Loopers and Caterpillars are the most damaging and destructive pests and in recent years its activities have alarmingly increased. Being voracious feeder of young leaves the damage to the plant is very fast. It has become endemic to many gardens where they thrive throughout the year.

Chemical pesticides have failed to control the pest mainly due to two reasons. In earlier application these pesticides eliminate the natural predators and parasites that feed on the eggs of caterpillars and loopers. Later applications have developed resistant strains which has caused menace to the situation. Bio Rakshak has been formulated with a concept of eliminating the pest where chemical control has proved to be disaster.

Bio Rakshak can kill the pest by direct contact & stomach poison. It works as a strong anti feedant and inhibit the secretion of Ecdysone Hormone which is responsible for moulting. Thus the life cycle of the pest i.e. egg to larva to pupa to Adults is disturbed.

Active Ingredient: Bio Rakshak is based on botanical extract of Custard Apple.



"Toxicity & antifeedant activity of crude seed extracts of **Annona Squamosa (Custard Apple)** against **Lepidopteran Pests** upto fourth instar was significant."

Ref : International Journal of Topical Insect science 2004 CAMBRIDGE UNIVERSITY PRESS.



## **Target Pests:**















Catterpillars

Loopers

**Red Sluas** 

Grubs Heliothis

Diamondback Moth

**Advantages**: 1. Direct knock down effect, anti feeding and anti moulting activities control the pest amicably.

2. Do not leave any residue or taint in end-product. 3. Being secondary metabolites of plant origin, its efficacy is not affected by high temperature. 4. Pest can not develop resistance against it due to multistatic action.

5. Do not kill natural predators or parasites. 6. Compatiable with most conventional chemicals. 7. Do not mix with any foliar (nutrients/micronutrients) & copper. 8. Ecofreindly, economic and dynamic in action.

(Use protective eye-glass to avoid irritation)

Dosage:  $0.8 \, ml / l \, (320 \, ml / ha)$ 



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