

Insect Identification and Treatment Guide

for Greenhouse and Nursery Growers

A successful integrated pest management (IPM) program is a multifaceted plan involving the combination of cultural, biological, and conventional control methods. Fundamental tactics are an important step to the overall approach and include training on pest and life-stage identification, regular monitoring, a focus on sanitation, and thorough record keeping. Best practices ensure proper timing, environmental conditions, and application procedures before implementation.



Solutions for Difficult-to-Control Pests

Pests Controlled	BASF Solution	Active Ingredient	IRAC	Description
Aphid Whitefly Mealybug Scale	Ventigra® Insecticide	Afidopyropen	9D	Effective, long-lasting control of piercing-sucking insect pests, including those that have developed resistance to other insecticides
Spider Mites*	Sultan® Miticide	Cyflumetofen	25	Fast, powerful control and lasting protection against all life stages of spider mites in greenhouse and nursery crops
Thrips Mites Fungus Gnat	Pylon® Miticide/Insecticide	Chlorfenapyr	13	Effective control of Western flower thrips, chilli thrips and mites. Also available in total release formula for fogging in enclosed areas.
Aphid Thrips Spider Mites Whitefly Mealybug	Velifer® Fungal Contact Insecticide/Miticide	<i>Beauveria bassiana</i> strain PPRI 5339	NC	Biological insecticide affects all life stages of the pest from egg to adult with no known resistance
Shorefly	Millenium® Beneficial Nematodes	<i>Steinernema carpocapsae</i>	NC	Biological control of shore fly
Thrips Fungus Gnat	Nemasys® Beneficial Nematodes	<i>Steinernema feltiae</i>	NC	Biological control of fungus gnats and Western flower thrips
Aphid Thrips Spider Mites Whitefly Mealybug Scale	Ultra-Pure Oil Horticultural Insecticide, Miticide and Fungicide	Mineral oil	NC	Flexible, year-round, 99% pure mineral oil for broad spectrum pest management

* Tetranychid mites only

IPM Rotation Options by Pest

Pest	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Aphid	Ventigra® Insecticide	Velifer® Fungal Contact Insecticide/ Miticide	Altus® Insecticide	Mainspring® GNL Insecticide	Azatin® 0 Biological Insecticide	Aria® Insecticide
Mealybug	Ultra Pure Oil Horticultural Insecticide, Miticide and Fungicide	Ventigra Insecticide	Velifer Fungal Contact Insecticide/ Miticide	Altus Insecticide	Ventigra Insecticide	Talus Insect Growth Regulator
Scale	Ultra Pure Oil Horticultural Insecticide, Miticide and Fungicide	Ventigra Insecticide	Velifer Fungal Contact Insecticide/ Miticide	Altus Insecticide	Ventigra Insecticide	Talus Insect Growth Regulator
Spider Mites	Sultan® Miticide	TetraSan® 5 WDG Miticide/Ovicide	Sultan Miticide	Kontos® Insecticide/ Miticide	Sanmite® Miticide	Hexygon® Insecticide
Thrips	Pylon® Miticide/ Insecticide	Aria Insecticide	Conserve® SC Turf and Ornamental Insect Control	Velifer Fungal Contact Insecticide/ Miticide		
Whitefly	Ventigra Insecticide	Velifer Fungal Contact Insecticide/ Miticide	Savate® Miticide/ Insecticide	Altus Insecticide	Talus® Insect Growth Regulator	Azatin 0 Biological Insecticide
Fungus Gnat	Nemasys® Beneficial Nematodes	Nemasys Beneficial Nematodes	Distance® Insect Growth Regulator	Nemasys Beneficial Nematodes	Nemasys Beneficial Nematodes	
Shorefly	Millenium® Beneficial Nematodes	Azatin 0 Biological Insecticide	Decathlon® 20 WP Insecticide	Millenium Beneficial Nematodes	Millenium Beneficial Nematodes	

Always read and follow label directions.

Non-BASF products are included in this guide to provide a rotation of products with known efficacy, good plant safety, and different modes of action. Always evaluate products that are new to your operation for safety on the plant species and cultivars you grow, and under your specific growing conditions prior to large scale application. Timing and rotations may vary based on geography and conditions. Information may change without prior notice. Always read the product specimen label for complete information, directions and pest list. For biological controls, ensure that proper environmental conditions and application procedures are in place before application. All products may not be approved for use in all states. Consult your local university/extension specialist if needed.

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