



THE EXPERTS ON DISEASE & PEST CONTROL

WHITEFLY PROBLEM? CONTROL STRATEGIES

Importance

With the rise of chemical resistant Biotypes in Whiteflies it has become exceedingly important to diversify not only the chemicals used to control whiteflies but also the control methods. By utilizing a combination of conventional chemistries along with Bio-rationals and Biological Control Agents (BCAs) you can ensure that you greenhouse experiences minimal spikes of whitefly infestations.

Life Cycle

The greenhouse whitefly life cycle begins with adult females laying tiny, oval-shaped eggs on the undersides of plant leaves. After about 5-7 days, the eggs hatch into mobile nymphs, also called crawlers, which move around the plant to find feeding sites. As they feed and grow, they molt into non-mobile pupae, often referred to as "scales." After a developmental period of approximately 2 to 3 weeks, the pupae metamorphose into adult whiteflies with white, powdery wings. These adults are sexually mature and can reproduce, starting the cycle again. The life cycle is relatively short, especially in warm and humid conditions, allowing for rapid population growth and potential damage to infested plants.

Identification

Greenhouse Whitefly (*Trialeurodes vaporariorum*) are tiny, measuring about 1.5 to 2.5 millimeters in length. They have white or pale-yellow bodies, which are covered in a white, powdery wax-like substance that gives them a dusty appearance. When at rest, their wings are held in a tent-like manner over their body. The nymphs, or immature stages, are flat and oval-shaped, often pale yellow in color.



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Biological Controls

Amblyseius swirskii: Amblyseius swirskii is a predatory mite for control of Whitefly and Thrips. Establishment will be fastest on crops with ample pollen as the pollen acts as an alternative food source. Recommended for vegetable, ornamentals, fruit trees, citrus, and berries.

Eretmocerus Eremicus: Eretmocerus eremicus is a parasitic wasp that attacks Greenhouse Whitefly and Sweet Potato Whitefly. Compared to Encarsia formosa, Eretmocerus is better adapted to high temperatures and those that fluctuate from day to night and is likely to last all season. Available as blisters and cards.

Encarsia Formosa /Eretmocerus Eremicus: Encarsia and Eretmocerus mix control a wider variety of whitefly species than either alone. Packs are a 50/50 mix of the two species. The blister pack delivery system allows more complete hatching of the pupa.

Always read and follow label directions before applying any pesticide and follow state and local regulations.

Controls

Considering the shortness of the life cycle and the ever-increasing chemical resistance in whitefly it is important to maintain multiple control methods when dealing with this pest.



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EFFECTIVE SOLUTIONS FOR WHITEFLY



Altus



BYR84989509

(Flupyradifurone) MOA: 4D. Caution. 4 HR REI. RATE: Foliar 7-10.5oz/100gal, Drench 2.8-3.7oz/100gal. Translaminar & Systemic, broad spectrum activity. Soft on Beneficials.



LALGUARD M52 OD



LAL100212

(Metarhizium brunneum) MOA: UNF Unknown. Caution. 4 HR REI. RATE: Foliar 8-64oz/100gal, Drench 40-80oz/100gal. Contact. Will Harm Beneficials But Can Re-apply After Application. Vegetable label.



AzaGuard



BSF7000-32OZ BSFT070001

(Azadirachtin) MOA: UN unknown. 4 HR REI. OMRI RATE: 8-16oz/100gal. Prevents molting, anti-feedant. Insect growth regulator. Can be used on fruits & vegetables.



Pradia



OHP986300

(Cyclanilprole, Flonicamid) MOA: 28, 29. Caution. 12 HR REI. RATE: 10-17.5oz/100gal. Contact. Soft on Beneficials. Quick knockdown and lasting residual control.



BotaniGard 22WP



CERT141104

Beauveria bassiana) MOA: UN unknown. Caution. 4 HR REI. RATE: 8-16oz/100gal. A naturally occurring fungal spore that quickly infects the target insect. Spray must contact pest. Soft on beneficial insects, labeled for vegetables.



Rycar



SEPRO1056.128

(Pyrifluquinazon) MOA: 9B. Caution. 12 HR REI. RATE: 2.4-3.2oz /100gal. Next Generation, new class. Insects stop feeding immediately. Alternative to neonicotinoids. Gentle on pollinators. Contact, ingestion, translaminar. Greenhouse only. Vegetable label.



Endeavor



SYN62959

(Pymetrozine) MOA: 9B. Caution. 12 HR REI. RATE: Foliar 2.5-5oz/100gal, Drench 5oz/100gal. Contact & Systemic. Soft on Beneficials. Vegetable label.



SuffOil-X



BW1SX25A24 BW1SX25A38

(Mineral Oil) MOA: M Biopesticides. Caution. 4 HR REI. OMRI RATE: 1-2gal/100gal. Contact. Will Harm Beneficials But Can Re-apply After Application. Vegetable label.