



Whitefly Control on Poinsettias

Background

Poinsettias are grown for their aesthetic value and commonly displayed indoors, requiring stricter insect and disease thresholds compared to other ornamental crops. Whiteflies are a primary cause of visible damage, including sooty mold, that reduces the marketability of plants. Because of their potential impact, whiteflies need to be controlled with a proactive integrated pest management program.

There are two main species of whiteflies that attack poinsettias in greenhouse production:

- Greenhouse Whitefly (*Trialeurodes vaporariorum*).
- Sweet Potato (or silverleaf) Whitefly (*Bemisia tabaci*), including MEAM1 (formerly B) biotype and MED (formerly Q) biotype.
- MED biotype is more resistant to certain insecticides, but less common than the MEAM1 biotype.
- Greenhouse and sweet potato whiteflies can be differentiated by their wings. Sweet potato whiteflies hold their wings parallel while greenhouse whiteflies' wings make a triangular shape.



Figure 1. Left: Sweet Potato Whitefly Right: Greenhouse Whitefly Photo: Lance Osborne, University of Florida.

Cultural Control Strategies

Best management practices play a critical role in starting clean and maintaining a healthy crop.

- **Remove alternate hosts:** Control weeds in the greenhouse and immediate surrounding area. Remove or carefully maintain stock plants to prevent carryover populations.
- **Inspect incoming plant materials:** Whether using rooted or unrooted cuttings, carefully inspect young plants for signs of infestation. Consider dipping cuttings prior to sticking or transplanting.
- **Regular scouting:** Monitor pest populations with a consistent scouting routine using yellow sticky cards.

Chemical Control Strategies

For best results, tailor chemical selection and application to match the crop stage.

- **Propagation/receiving cuttings:** Consider treating cuttings with a dip prior to sticking. Products containing *Beauveria bassiana* or insecticidal soaps have been shown to significantly decrease pest populations.
- **Transplanting:** Introduce biological controls before pest populations establish. Airaxo™ (flonicamid) and Devenir™ (pymetrozine) are both compatible with many beneficial insects. Insect growth regulators like Defiance™ (pyriproxyfen) will interrupt the life cycle and prevent populations from building.
- **Pruning:** Drench with a systemic insecticide two weeks after pruning to help protect the crop through shipping. Asteria™ (spirotetramat) and Travella™ (dinotefuran) both have a zero-hour reentry interval when applied as a drench and will provide several weeks of residual control.
- **Finishing:** Use targeted foliar applications to clean up any breakthrough or hot spots. Rycar® provides rapid knockdown control of whiteflies and is safe to use on poinsettias, even in color.