

Managing Silverleaf Whiteflies in Cotton

Phillip Roberts and Mike Toews
University of Georgia



UNIVERSITY OF GEORGIA
EXTENSION

Following these guidelines, especially on a community basis, should result in better management of SLWF locally and areawide.

- Destroy host crops immediately after harvest; this includes vegetable and melon crops in the spring and cotton (timely defoliation and harvest) and other host crops in the fall.
- Scout cotton on a regular basis for SLWF adults and immatures.
- The presence of SLWF should influence insecticide selection and the decision to treat other pests.
- Conserve beneficial insects; do not apply insecticides for ANY pests unless thresholds are exceeded.
- Avoid use of insecticides for other pests which are prone to flare SLWF.
- Risk for SLWF problems:
 - Hairy leaf > smooth leaf cotton.
 - Late planted > early planted cotton.
 - Hot and dry > rainy conditions.
- All efforts should be made to minimize the need to treat SLWF with insecticide.

Insecticide Use:

The goal of SLWF management is to initiate control measures just prior to the period of most rapid SLWF population development. It is critically important that initial insecticide applications are well timed. If you are late with the initial application control will be very difficult and expensive in the long run. It is nearly impossible to regain control once the population reaches outbreak proportions!

- SLWF Threshold: Treat when 50 percent of sampled leaves (sample 5th expanded leaf below the terminal) are infested with multiple immatures (≥5 per leaf).
- Insect Growth Regulators (Knack and Courier): use of IGRs are the backbone of SLWF management programs in cotton. Effects on SLWF populations are generally slow due to the life stages targeted by IGRs, however these products have long residual activity and perform very well when applied on a timely basis.
- Use of other insecticide options which are active on all life stages have quicker effects on SLWF infestations but lack the residual of IGRs.
- SLWF is an areawide cross commodity problem. When all parties use sound SLWF management programs all will benefit.

Insecticides	Safety to Beneficials	Control Interval ¹	Life Stages Affected
<i>pyriproxyfen</i> Knack	Excellent	14-30 days	Eggs and mature nymphs
<i>buprofezin</i> Courier	Excellent	14-30 days	Nymphs
<i>acetamiprid</i> Assail, others	Moderate	14-21 days	All stages
<i>flupyradifurone</i> Sivanto	Good	14-21 days	All stages
<i>pyrifluquinazon</i> PQZ	Good	7-14 days	All stages
<i>dinotefuran</i> Venom	Moderate	7-14 days	All stages
<i>spiromesifin</i> Oberon	Good	14-21 days	Primarily nymphs

¹Control interval dependent on rate, timing of application, reinfestation rate and pest pressure, and beneficial insect populations.

Do not mix broad spectrum insecticides (bifenthrin) with selective insecticides (IGRs) for SLWF control unless a tank-mix is required to control multiple insect pests.