

# Silverleaf Whitefly

## Scouting and Management in Cotton

### County Agent Webinar

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# Silverleaf Whiteflies in Cotton

- Adults: small white moth-like insects.
- All life stages typically found on the underside of the leaf.
- Eggs: yellow-orange and cigar shaped laid on underside of leaf.
- Crawler: first instar nymph which crawls short distances to find suitable place to feed (only mobile immature stage).
- Three non-mobile instars, oval and flattened in appearance, and color ranges from translucent to yellowish.
- Entire life cycle in heat of summer about 2 weeks.
- Females lay about 150 eggs.



UGA1316008

Scott Bauer, USDA Agricultural Research Service, Bugwood.org



UGA2511050

David Riley, University of Georgia, Bugwood.org



# SLWF Damage in Cotton

- Sucking mouthparts.
- Damage ranges from:
  - Reduced plant growth and vigor.
  - General leaf decline.
  - Honeydew deposits on lower leaves and open cotton.
  - “Sticky” cotton would be very very very BAD
  - Premature defoliation
  - Yield losses can be severe.



# Manage RISK: Silverleaf Whitefly

<b>Cotton</b>	<b>Low ← SLWF RISK → High</b>			
<b>Winter Weather</b>	<b>Very Cold</b>		<b>Mild</b>	
<b>Variety Selection</b>	<b>Smooth</b>	Semi-Smooth	Light Hairy	<b>Hairy</b>
<b>Planting Date</b>	<b>April</b>	early May	late May	<b>June</b>
<b>Location: (proximity to SLWF infested crops)</b>	<b>Isolated</b>		<b>Near</b>	
<b>Beneficial Insects</b>	<b>High</b>	Moderate		<b>None</b>
<b>Weather (in-season)</b>	<b>Rainy</b>		<b>Hot and Dry</b>	
<b>IPM</b>	<b>Scouting Threshold</b>		<b>Not Timely</b>	
<b>Irrigation</b>	<b>Irrigated</b>		<b>Drought Stress</b>	

# Silverleaf Whitefly

## Cultural Control

- Eliminate host crops and weeds by destroying and removing ALL crop residues as soon as possible after final harvest (spring vegetables and melons, timely defoliation and harvest of cotton).

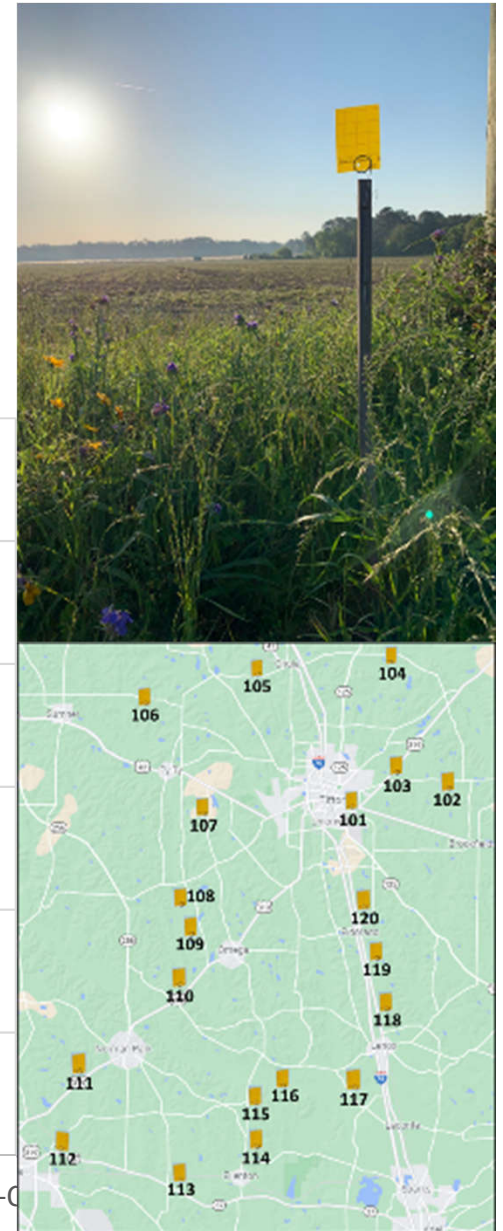
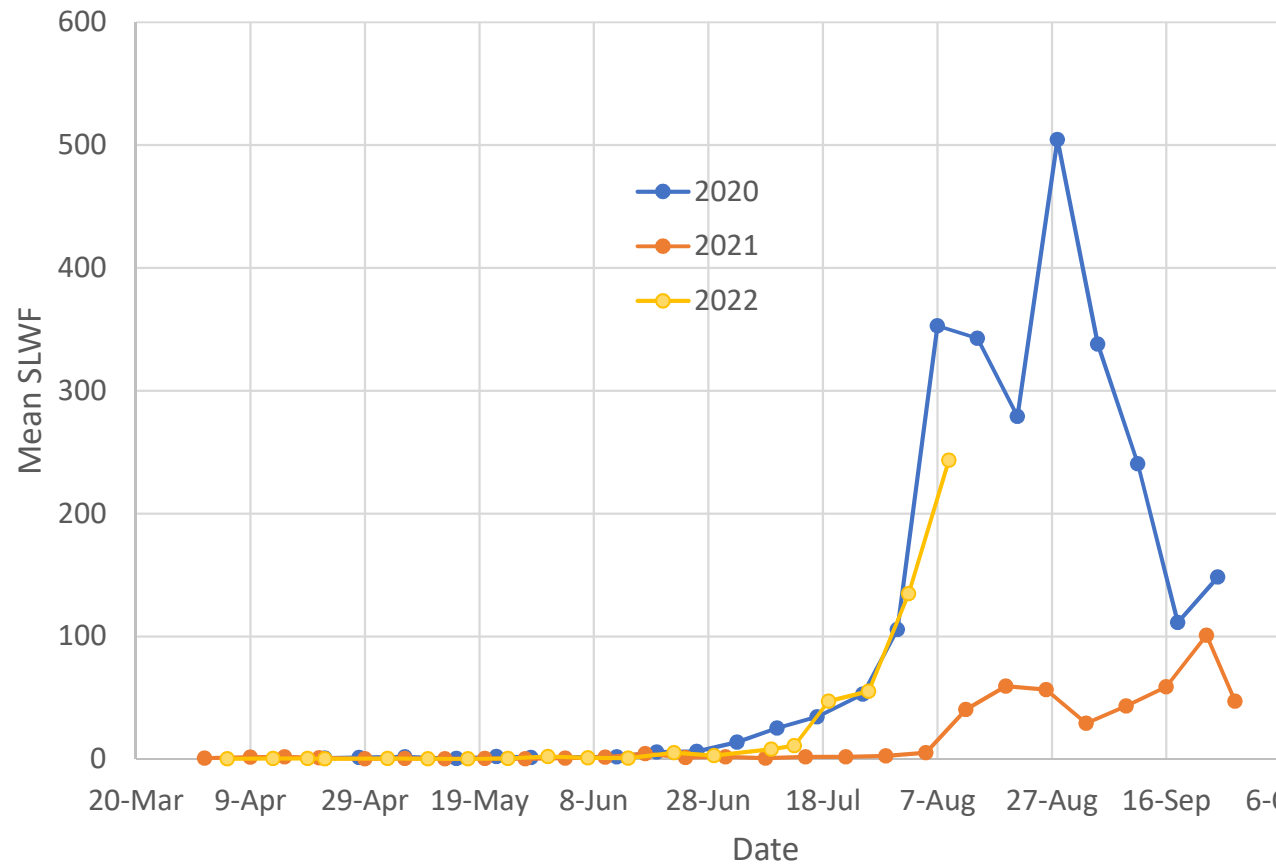
- Avoid late planting

1. 1 female
2. 37.5 females
3. 1,406 females
4. 52,734
5. 1,977,539
6. 74,157,715
7. 2,780,914,307
8. 104,284,286,499

Assume 50% mortality and 150 eggs/female: one female may give rise to 200 billion whiteflies in eight generations. **LATE PLANTING is high risk for SLWF.**

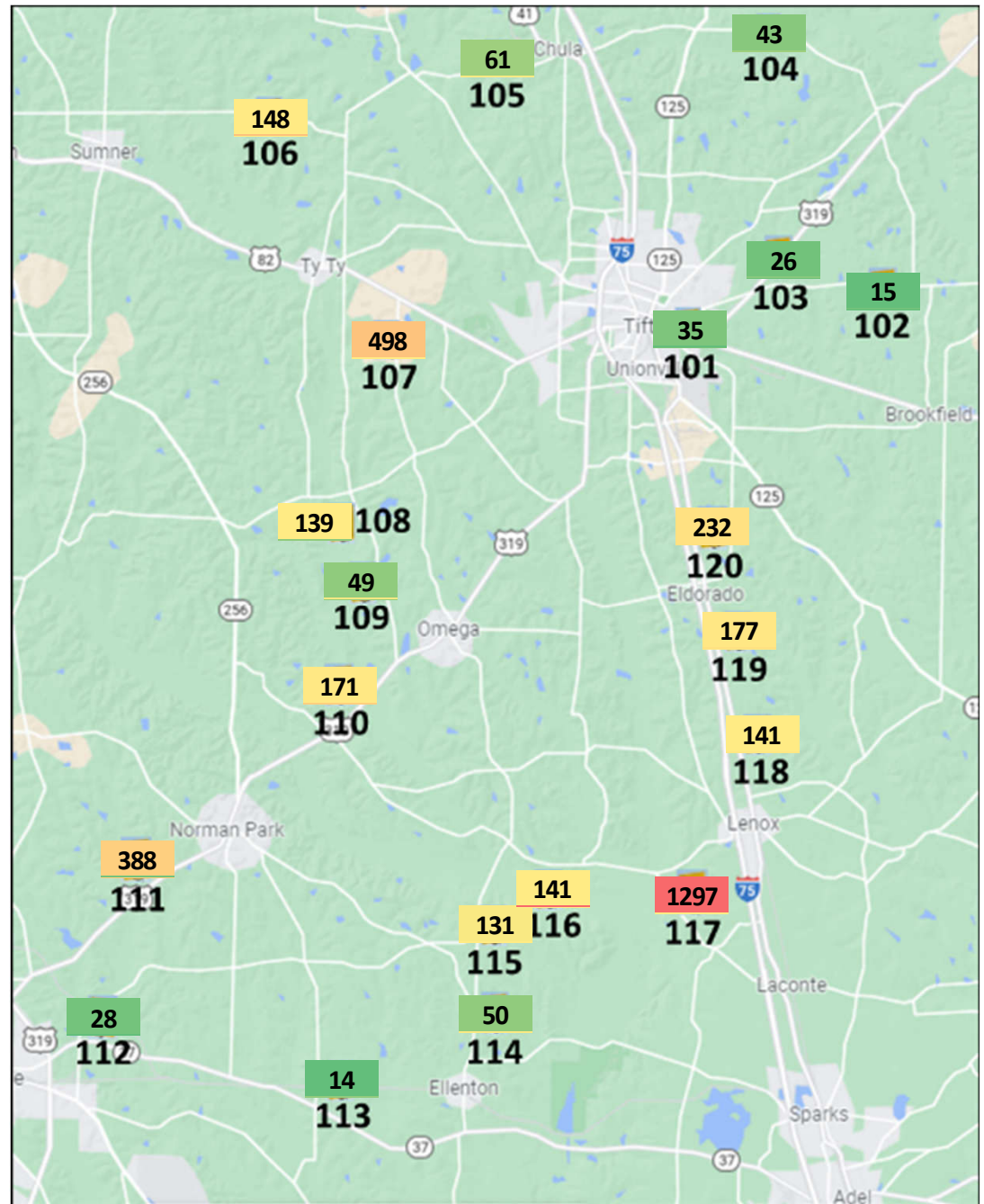
# SLWF Sticky Card Captures

Georgia 2020-2022





- SLWF Loop
- August means



# August UGA Cotton Team Newsletter

<http://www.ugacotton.com/>

- Sampling and Managing Whiteflies in Georgia  
Cotton:  
<https://extension.uga.edu/publications/detail.html?number=C1184>
- Cross-Commodity Management of Silverleaf  
Whitefly in Georgia:  
<https://extension.uga.edu/publications/detail.html?number=C1141>

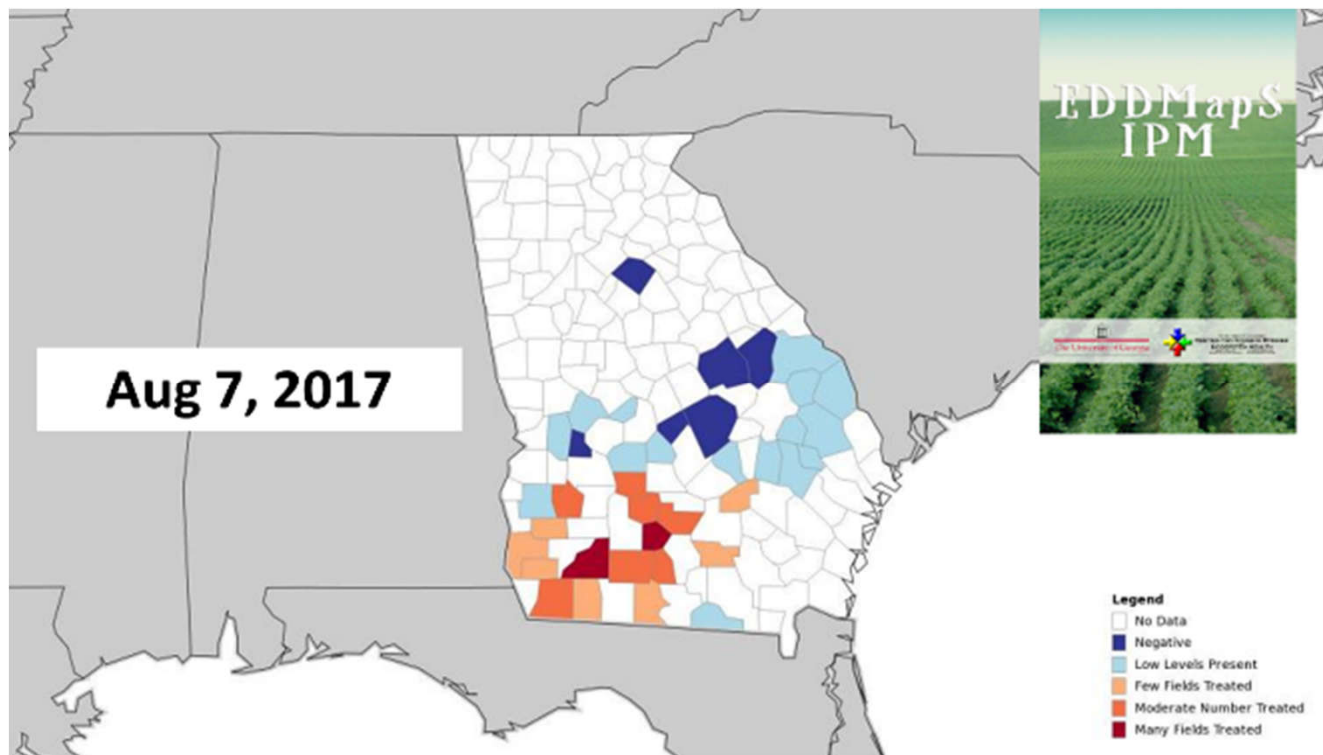


# Managing SLWF in Cotton

- Areawide management; all benefit.
- Destroy host crops immediately after harvest.
  - Spring vegetable and melon crops.
  - Cotton: timely defoliation and harvest.
- Early Detection (Scouting)
- Presence of SLWF should influence management decisions for other pests.
  - Conserve beneficial insects
  - Avoid use on insecticides prone to flare SLWF
    - i.e. organophosphates
- Understand Risk
  - Hairy leaf preferred over smooth leaf cottons.
  - Late planted at higher risk.
  - SLWF thrive in hot and dry conditions.

# SLWF in Cotton: Current Situation

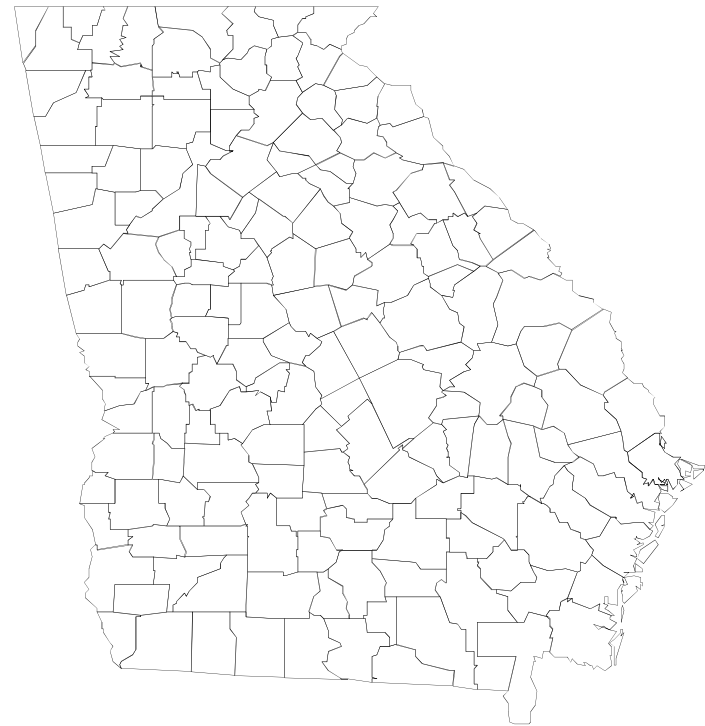
- EDDMapS IPM
  - We have some problems.



# SLWF in Cotton: Current Situation

## Plan B

- Email me ([proberts@uga.edu](mailto:proberts@uga.edu))  
SLWF situation in your county.
  - No SLWF
  - Low levels present
  - Few fields treated (<10%)
  - Moderate number fields treated (11-50%).
  - Many fields treated (>50%)
- We will update map and post on “County Agent” section of [ugacotton.com](http://ugacotton.com) on Friday mornings. Password “gaagent”



# SLWF Insecticides Rainfastness

Insecticide	Rainfast Time	On Label
Assail	Once spray solution dries	Yes
Sivanto Prime	1 hour after spray dries	Yes
Knack	1 hour	No, company rep
Courier	Soon as dry	No, company rep
PQZ	Soon as dry	No, company rep
Venom	2 hours	No, company rep



# SLWF Webinar Summary

- Whiteflies are a BIG deal!
- Georgia cotton does not need a reputation for SLWF problems! All producers must manage SLWF!
- Once observe whiteflies in a field expect big increase in 2 weeks. SCOUT.
- EDDMapS IPM or Plan B maps will help each of you track what is going on near you. I encourage everyone to enter data, this is why the system was developed. Early detection and timely management is a MUST!
- Many areas will encounter damaging SLWF infestations for the second time (2017 was not good).
- Extension and education will be critical for success.



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