Lygus IPM... depends on 3 basic keys

Plant Dynamics

- Indeterminant growth habit
  - Susceptible plant parts at all times
- Redundancy
  - 50% final fruit retention
- Compensation

Plant-Pest Dynamics

- Plant provides fruiting structures of varying susceptibility
- Lygus show preferences towards floral and pre-floral structures

Pest-Pesticide Dynamics

- Sprays reach only a portion of a closed canopy
- Current materials have residuals of 10-14 days
- Plant increases in size by 2 – 2.5 nodes per week
UTC – 0.98 bales / A

Flonicamid (0.088) – 2.56 bales

Orthene97 (1.0) – 2.45 bales

Diamond (0.039) + O97 (0.50) – 2.50 bales

BAS320-02I (0.214) – 2.33 bales

Product Comparisons

BAS320

Orthene97

Flonicamid

UTC
Lygus Termination Studies

- Obj: Identify best timing (of 4 tested) for discontinuing Lygus chemical controls
- Compare 12 different production scenarios (3 x 2 x 2)
  - Variety (S, M, L)
  - Planting (Opt., Late)
  - Irrigation termination (Opt., Late)

2003 Experiment

- Two planting dates: April 30 & May 28
- Three varieties: SG215BR, DP449BR, DP555BR
- Two irrigation termination timings: Aug. & Sept.
- Four Lygus chemical control terminations

High heat stress & fruit shed July-August
Extremely productive “fall”, long, open and dry

Yield: Nymphs Relationship

Nymphs / 100 sweeps

Return ($/A, 0.50/lb)

50¢ Cotton Returns

High Populations Late Season

Return ($/A, 0.50/lb)

Don’t Spray 2 Sprays

2 0 0

Spray