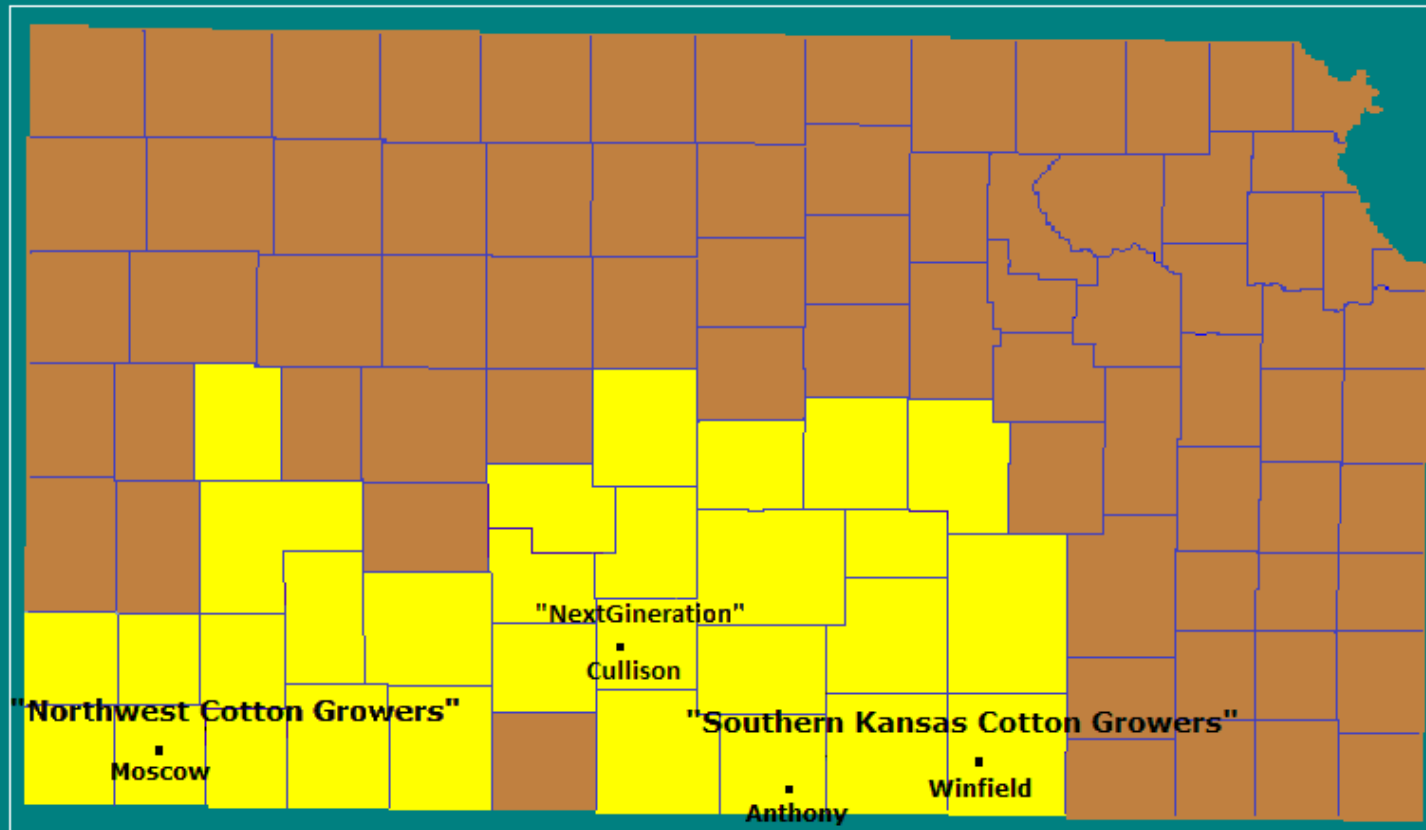


Kansas Boll Weevil Trapping Program Update

Rex Friesen, Ph.D.

Southern Kansas Cotton Growers Cooperative

KANSAS COUNTIES WITH CERTIFIED COTTON ACRES IN 2020



■ = Cotton Gin

Trapping Program-2020

- **Assessment from 2019 Kansas bales totaled \$139K**
- **Hired Director (permanent) and 1 trapper (seasonal)**
- **Purchased pickup**
- **Purchased trapping supplies, e.g., traps, pheromones, kill strips, poles, etc.**
- **Purchased Samsung I-pads (6) and trapping data management software (designed by OU for their program)**
- **Hired technical support (Oklahoma University)**
- **Placed and serviced traps (305 total) from early August through November**
- **No boll weevils captured.**

Trapping Plans-2021

- **Working towards meeting “National Boll Weevil Minimum Standards” trapping protocol, e.g., 1 trap per section with cotton being grown on it**
- **Increase # of traps**
- **Locate fields from last year**

"Kansas Boll Weevil Prevention Organization"

- **Key proposal objectives:**
 - Authority to trap on private property, treat weevil popl'ns
 - Obtain FSA field location information (spreadsheet format)

Kansas Boll Weevil Prevention Association—Status Report

- **Legislation is needed to create an officially recognized organization**
- **Kansas Cotton Association has been working with Kansas legislators, Kansas Department of Agriculture, and the Kansas Cooperative Council to prepare a legislative proposal for creation of official entity to carry out the program**
- **Document has been presented to Kansas State Representatives Ken Rahjes and Kyle Hoffman to introduce proposal to legislature**

Recognizing the Boll Weevil: Stages of Development

Egg Punctures



Larva (Grub)



Pupa



Adults



Other Weevils

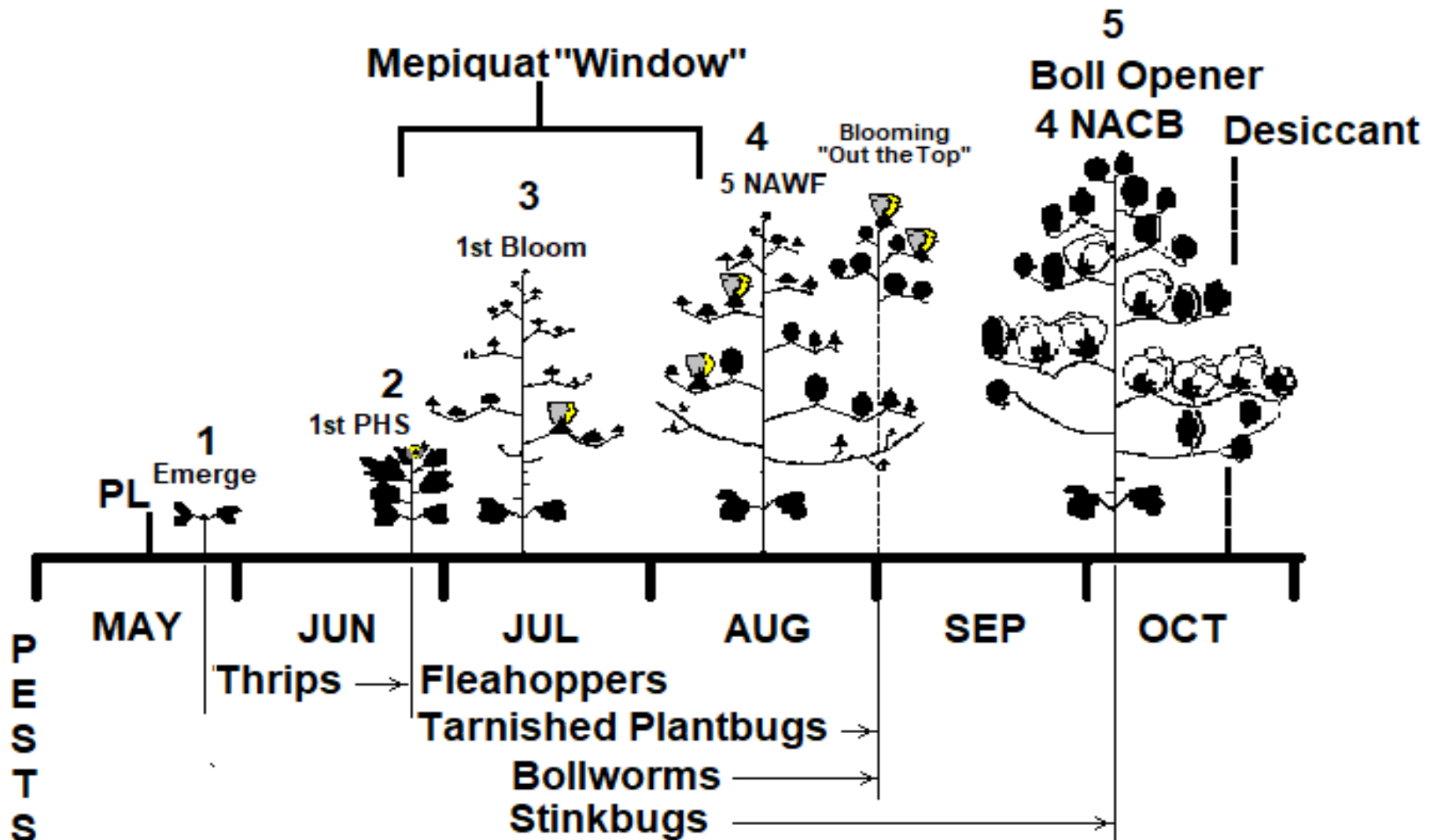


Insect Pest Management for Kansas Cotton

Rex Friesen, Ph.D.

**Southern Kansas Cotton Growers Co-Op, Inc.
Anthony, KS, and Winfield, KS**

Pests by Cotton Developmental Stage



Cutworms / Grasshoppers*

Black Cutworm larva



Cutworm Damaged seedlings

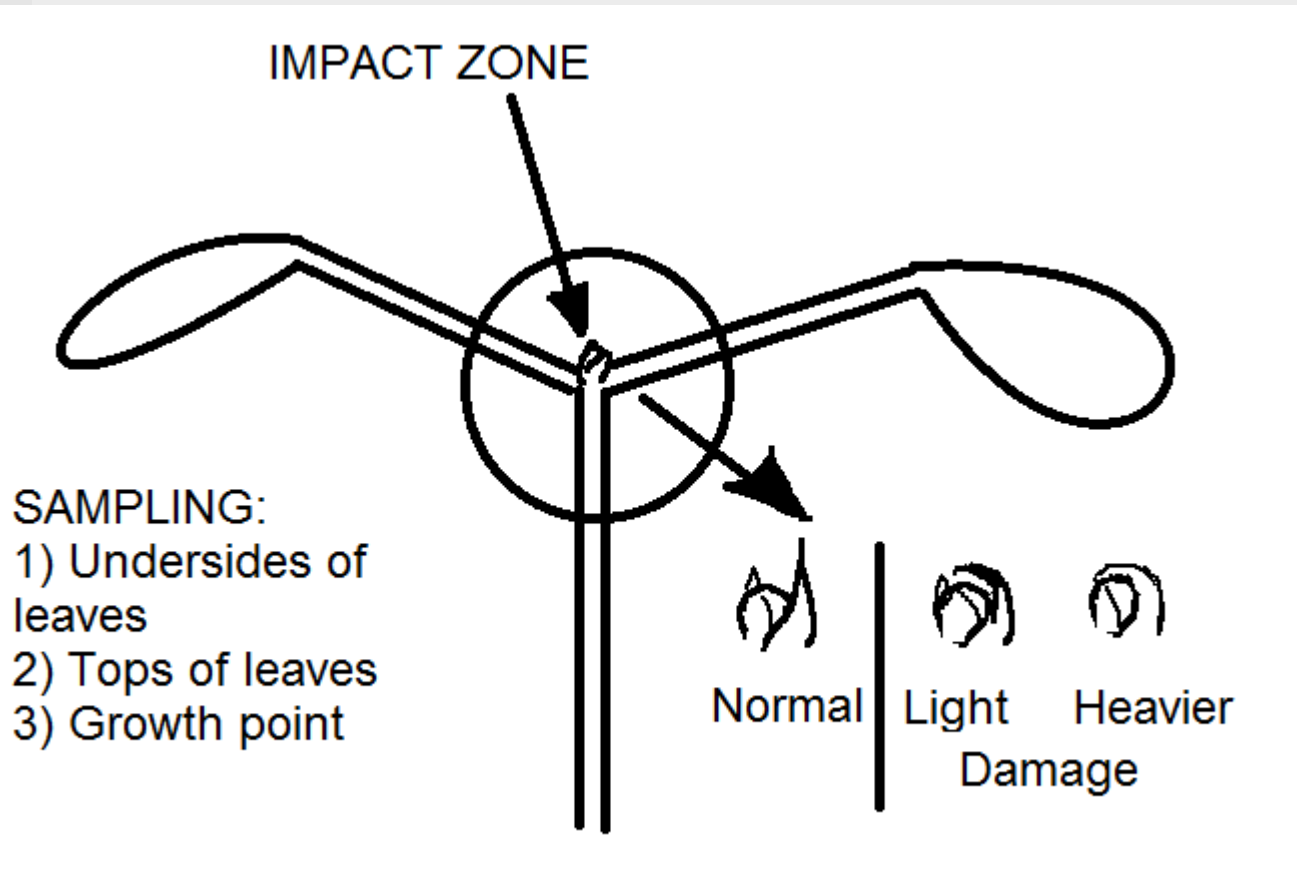
Adult Thrips on Seedling



Thrips Damage



Scouting for Thrips



Growth Stage-1st Pinhead Square



Sweep-Net sampling



Plantbug Sampling and Action Thresholds

- **OBJECTIVE: PROTECT THOSE EARLY SQUARES! THERE IS NO TIME TO REPLACE THEM** (although the plants will try to)
- Combine sweep net samples and plant square retention to evaluate fields for treatment of plant bugs
- Square retention should be 95+% at beginning, then slowly drop over next 3 weeks, or so
- If early square retention drops quickly, or drops to around 80% or less, **FIND OUT WHY!** (early square loss nearly always due to insects)
- If have low square retention and FH and/or TPB present, need to treat
- If square retention is “ok” but find FH @ 4-6 per 25 sweeps, or TPB @ 1-2 per 25 sweeps, need to treat; if both FH and TPB present, need to treat

Fleahopper Adult and Nymph and Damage



Tarnished Plant Bugs



Tarnished plant bug adult and nymph



Fruiting Position with Scar of Missing Square



Sweepnet signs of Fleahopper / TPB feeding



"Flared Square"="Investigate"
could be signs of plant bugs, bollworms, or something else



Stinkbugs (var. spp.)



**Southern Green SB
Nymph**



©MARLIN
**Southern Green SB
Adult**



©MARLIN C. RICE
**Brown SB
Adult**

Sampling for Stinkbugs

- **Early-season**

- Sweep net: to find any is a “yellow flag”
- Square retention ok? If not...

- **Mid-season:**

- Casual observation: on cool mornings, they often sit on top leaves to warm themselves
- Sweep net samples
- Sample large, but still soft green bolls for “feeding warts”. Action Threshold = 15+% sampled bolls with warts and/or lint staining

Adult Stinkbug and damaged small boll



Stinkbug Feeding "Warts"



Stinkbug damage (old)



Bollworm (=Corn earworm)

Moth, Egg, and New Hatch Larva



Bollworm Larvae



Bollworm (=Corn earworm)

Moth, Egg, and New Hatch Larva



Bollworm Larvae



Bollworm damage



Bollworm Sampling and Action Thresholds

- **B2/W2 varieties:**
 - 20% plants with eggs observed
- **B3/W3 varieties:**
 - Overspray is rare, but not “zero”
 - Treat at 6% squares with damage *or live larvae observed*

Cotton Aphids



Key Beneficial Arthropods



Questions?

- If you have questions on agronomy, pest management, harvest prep decision-making, or other topics, you can contact me at

Tel: (620) 222-4818, or

e-mail: southern.kansas.2@pcca.com

(I like to text ;-)