

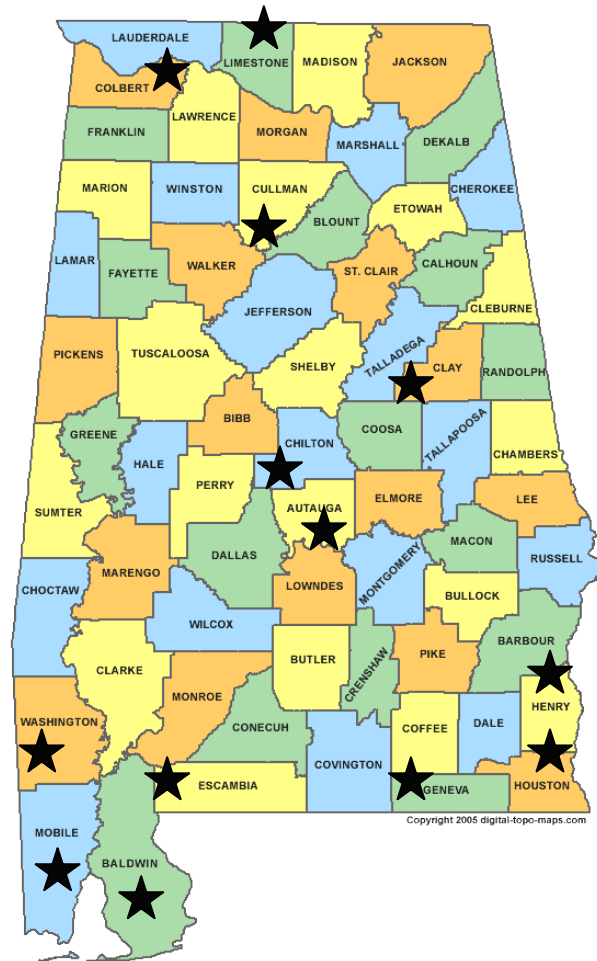
TIMELY INFORMATION

Agriculture & Natural Resources

October 9, 2009

AU Insect Advisory: Seasonal Dynamics of Insect Pests of Peanuts & Vegetables in Alabama: A Preliminary Report

By Dr. Ayanava Majumdar (Ext. Entomologist) & ACES IPM team members



★ Counties with insect pheromone traps in 2009 for monitoring 14 pest species

2009 IPM scouts (in alphabetical order): Ayanava Majumdar, Brandon Dillard, Christopher Becker, Gary Gray, James Miles, Leonard Kuykendall, Lloyd Chapman, Michael Reeves, Neil Kelly, William East, and Timothy Reed.
All insect pheromone trap counts reported herein were taken at 15 day intervals. A final report on insect activity will be available in late October. For a complete listing of ACES Extension IPM resources for crop producers, please go to page 5.

ALABAMA A&M AND AUBURN UNIVERSITIES, AND TUSKEGEE UNIVERSITY, COUNTY GOVERNING BODIES AND USDA COOPERATING

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1. Beet armyworm (BAW), *Spodoptera exigua*:

Counties monitored with traps = 12

Statewide total number of moths captured in traps = 1250

Highest average trap catch = Houston Co. (55 moths/trap)

Lowest average trap catch = Limestone Co. (4 moths/trap)

Peak moth activity period:

Northern AL = low activity in July with no change later in season

Central AL = peak activity in late-August to early Sep.

Southern AL = moth activity high in mid-July to August. Crop producers reported crop damage in various crops (peanuts, soybean, forage, and cotton) and treated their crop with insecticide.

Picture source: Bugwood.org



2. Fall armyworm (FAW), *Spodoptera frugiperda*:

Counties monitored with traps = 13

Statewide total number of moths captured in traps = 1259

Highest average trap catch = Baldwin Co. (48 moths/trap)

Lowest average trap catch = Geneva Co. (12 moths/trap)

Peak moth activity period:

Northern AL = low activity in June & July then sudden rise in August

Central AL = similar to above, consistently high nos. in August & September

Southern AL = Numbers high in early July then increased over 3 times till

September. FAW and BAW populations occurred together in most surveyed crop fields; crop producers in Alabama experienced unusually high populations of the armyworms in 2009 that required chemical intervention.

Picture source: Bugwood.org



3. Southern armyworm (SAW), *Spodoptera eridania*:

Counties monitored with traps = 10

Statewide total number of moths captured in traps = 304

Highest average trap catch = Mobile Co. (10 moths/trap)

Lowest average trap catch = Limestone Co. (0 moths/trap)

Peak moth activity period:

Northern AL = none detected at trapping sites

Central AL = late season (August/September) increase in moth activity

Southern AL = highly fluctuating moth activity with slow buildup of population. SAW moth numbers were smallest compared to all other armyworm species.

4. Corn earworm (CEW), *Helicoverpa zea*:

Counties monitored with traps = 14

Statewide total number of moths captured in traps = 537

Highest average trap catch = Chilton Co. (25 moths/trap)

Lowest average trap catch = Colbert Co. (3 moths/trap)

Peak moth activity period:

Northern AL = CEW moths were more active than TBW moths.

Central AL = moth numbers in traps were very high in early July.

Southern AL = moth activity peaked in late July & August. CEW and TBW populations were mixed in southern counties.

Picture source: Bugwood.org



5. Tobacco budworm (TBW), *Heliothis virescens*:

Counties monitored with traps = 14
Statewide total number of moths captured in traps = 324
Highest average trap catch = Henry Co. (20 moths/trap)
Lowest average trap catch = Limestone Co. (0 moth/trap)
Peak moth activity period:

Northern AL = some counties had no detectable levels of TBW moth activity.

Central AL = trap catches of TBW were generally low.

Southern AL = peak activity of moths was observed in late July to early August. In many counties, a 50:50 mixed population of TBW and CEW occurred in early August.

Picture source: Bugwood.org



6. Lesser cornstalk borer (LCB), *Elasmopalpus lignosellus*:

Counties monitored with traps = 6 (only around peanut fields)
Statewide total number of moths captured in traps = 2568
Highest average trap catch = Henry Co. (119 moths/trap)
Lowest average trap catch = Escambia Co. (56 moths/trap)
Peak moth activity period:

Northern AL = no data

Central AL = trap catches peaked in late July. Some peanut growers in drier areas did notice LCB feeding injury to pods and applied control measures.

Southern AL = moth numbers remained extremely high (>110 per trap) throughout the season; however, wet conditions prevented peanut pod feeding injury in 2009. In a dry year, the southern counties of AL will be at a high risk of crop injury and crop scouting should be initiated at the first detection of these moths (late June).

Picture source: University of Florida



7. Cabbage looper (CL), *Trichoplusia ni*:

Counties monitored with traps = 8
Statewide total number of moths captured in traps = 212
Highest average trap catch = Baldwin Co. (12 moths/trap)
Lowest average trap catch = Clay, Washington, and Autauga Counties (3 moths/trap)
Peak moth activity period:

Northern AL & Central AL = moth activity peaked in late August, although very low level of activity (<5 moths/trap) were detectable in early July.

Southern AL = moth activity reached peak in early July and August. Populations remained high in September (>17 moths/trap). A mix of CL and soybean looper (see below) was detected in the surveyed field of southern AL.

Picture source: Bugwood.org



8. Soybean looper (SL), *Pseudoplusia includens*:

Counties monitored with traps = 7 (around peanut fields)
Statewide total number of moths captured in traps = 128
Highest average trap catch = Baldwin Co. (15 moths/trap)
Lowest average trap catch = Washington Co. (1 moth/trap)
Peak moth activity period:

Northern AL & Central AL = no data

Southern AL = populations of SL lagged behind CL; moth activity was highest in late July.

Picture source: Bugwood.org



9. Black cutworm (BCW), *Agrotis ipsilon*:

Counties monitored with traps = 13

Statewide total number of moths captured in traps = 119

Highest average trap catch = Washington Co., Mobile Co. (19 moths/trap)

Lowest average trap catch = Colbert Co. (1 moth/trap)

Peak moth activity period:

Northern & Central AL = Detected in low numbers (typically <5 moths/trap) in late July. Moth catches were highest in late August in northern most counties of AL.

Southern AL = highly fluctuating populations observed in early August with inconsistent trends. Late-season (September) spikes in moth activity in Henry Co. lead to high trap catches, about 9 moths/trap.

Picture source: Bugwood.org



10. European corn borer (ECB), *Ostrinia nubilalis*:

Counties monitored with traps = 7

Statewide total number of moths captured in traps = 0

Peak moth activity period: None detected in traps. Monitoring for this insect will continue next year with modified lure and trap type to improve detection.

Picture source: Iowa State University



11. Tomato pinworm (TPW), *Keiferia lycopersicella*:

Counties monitored with traps = 6

Statewide total number of moths captured in traps = 4

Highest average trap catch = Clay Co. (1 moths/trap)

Lowest average trap catch = many counties

Peak moth activity period: Mobile and Clay counties were the only locations where TPW was detected in very low numbers.

Picture source: Bugwood.org



12. Corn rootworm (CRW):

Counties monitored with traps = 12

Statewide total number of moths captured in traps = 256

Highest average trap catch = Cullman Co. (28 beetles/trap)

Lowest average trap catch = Baldwin Co. (1 beetle/trap)

Peak moth activity period:

Northern AL = highest number of southern CRW beetles were captured throughout July in Cullman Co. A small population of western CRW beetles was observed in late July.

Central AL = Significant presence of western CRW was noticed together with southern CRW in late July trap catches.

Southern AL = Beetle activity was generally low around peanut fields. An initial spike in activity in Baldwin was detected in late June (22 beetles). All beetles were the southern CRW.

Picture source: Bugwood.org



13. **Stink bug** traps had no catches in them; the ideal way to monitor stink bug is probably using a sweep net to capture nymphs and adults directly from plant foliage.

Relevance of pheromone trap based observations:

1. It provides us information about early season insect activity.
2. For growers/consultants pheromone traps allows automatic identification of insect species (lures are species specific).
3. It provides us answer to the question: "What should I scout for?" at any given time in a season.
4. It gives us an idea when the population is going to be at peak so that actual crop scouting can be intensified during critical crop times.
5. Knowledge of population dynamics over several years could provide some predictive power to farmers regarding future pest incidence.

For queries, please call Dr. A at 2513318416 or email bugdoctor@auburn.edu. If you love cell phone, the call the toll free IPM hotline 1-800-446-0375. For the online digital archive of past reports, click https://sites.aces.edu/group/commhort/vegetable/Vegetable/alabama_IPM_trap_network.aspx. Have a happy harvest season.