The University of Tennessee

UT Extension

West TN Research and Education Center
605 Airways Boulevard
Jackson, TN 38301

# IPM NEWSLETTER

## Update for Field Crops and Their Pests

*No. 15* *July 10,*

**Past newsletters and other information can be found at UTcrops.com**

**Bookmarks:** Cotton update Weed control Insect stuff Farm management Moth traps

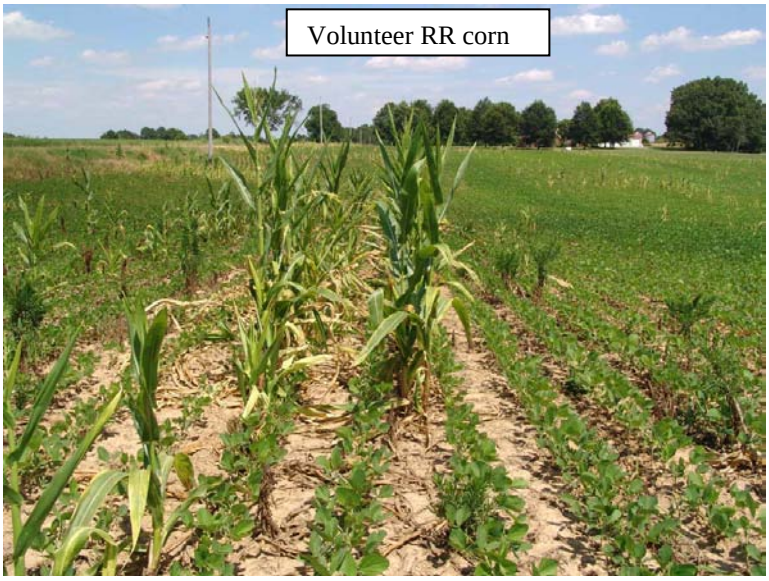
## Soybean Scout Schools in Middle Tennessee – Next Tuesday

- July 14th 9:00 AM Cannon Co. (9287 Woodbury Hwy, Marathon Market, Manchester, TN)
- July 14th 1:30 PM Lincoln Co. (63 Benson School Rd., Kelso, TN)

Click here for Directions to the Soybean Scout Schools. These are hands-on, field-side programs that provide training on crop development and pest management (including insects, diseases and weeds). The program will last 1.5 – 2.0 hours and all are welcome. The programs will go on, rain or shine.

## Weed Control (Larry Steckel, Weed Specialist)

**Volunteer Roundup Ready Corn**. There has been a lot more issues this year with volunteer RR corn in soybeans. Some of this has been caused by a partially failed RR corn stand from this year that was replanted to soybeans. Most of it though, is the result of corn harvested from last year. This will continue to be an issue as most of the corn planted in Tennessee now is Roundup Ready. The calls this week have been about controlling volunteer RR corn that is extremely large. I know we were under a time crunch in many cases and were harvesting wheat at a good time to spray small volunteer corn but folks we must control it before it tassels! Unless you are going to pull it there is no inexpensive herbicide treatment. Once volunteer RR corn reaches a height of 36" it takes a very expensive rate of a graminicide to try to control it and even then expect some inconsistent results. The most asked about treatment is Select Max which typically takes at least 12 to 16 oz/A to control 3 foot tall RR corn. The take home point from this year is unless we want to spend $12.00/acre or more just to control volunteer RR corn we must control it sooner rather than later.


Volunteer RR corn

**Hooded applications in wide row soybeans for GR Palmer.** There are a lot of 38" row soybeans in West Tennessee this year which replaced intended cotton acres. There is also GR Palmer in some of these fields which has led to the question "can I put together a hot mixture under a hood to control large GR Palmer". I do not have any firsthand experience on this topic so I went to the Butyrac 200

label. It has two interesting post directed treatments that look like they would provide some control of GR Palmer. The first is 0.8 pts/A of Butyrac + 1 pt of Lorox. The other is 0.9 pts/A of Butyrac + 0.33 to 0.66 lbs of Sencor DF. Both these treatments will be very hot on foliage and need to be directed so as not to be applied above 3" on the soybean plant. Soybeans must be at least 8" in height to apply one of these treatments. The idea would be to try to cut off those large GR Palmers with these applications. Of course any of the PPO herbicides we commonly use over the top of soybeans could be directed as well. Adding 2 oz/A of Butyrac would be a fairly economic way to aid those PPOs in controlling 4 to 6" tall Palmer. These treatments would not be as harmful as the above mixtures if the post direct application was a little sloppy. Again be realistic with your expectations in controlling >6" tall GR Palmer. The best I have seen to date is 70% control with any herbicide application.

There have been several folks ask about the cutoff in height for PPO herbicides (Aim, Blazer, Cadet, ET, Flexstar and Resource) controlling GR Palmer amaranth. In my work as well as my colleagues in other states, Flexstar and Cobra typically will control Palmer up to 4 to 5" in height. Ultra Blazer and Resource are close seconds to those two herbicides as far as size of Palmer they will control. Aim, Cadet and ET will control a Palmer no larger than 2" tall.

## Insect Considerations (Scott Stewart, IPM Specialist)

**General Comments.** I have had very few calls about soybeans. In cotton, we are currently status quo with spotty plant bug infestations and even spottier mite spots in cotton. Though scattered, plant bug numbers are well above threshold in some fields, and two or more treatments have been required in these hot spots. This is a perfect example of why scouting can be so valuable. Insects are like fish – 90% of the fish are in 10% of the water. The trick is finding those hot spots and spending your time and money there. Doing drop cloths and keeping an eye out for stink bugs is necessary in our older cotton as bolls become more common. I will touch more on midseason sampling and thresholds for plant bugs and stink bugs in the next newsletters.

**Insect Prognostications.** Only a fool would make insect pest predictions, so here it goes.

- Expect a little late but relatively large and extended bollworm flight (a.k.a. corn earworm). We've had late bollworm flights the last two years because our corn was also late maturing. But in those years our cotton was relatively early. No so this year. Current moth catches are low but reports of large corn earworm numbers in corn suggest we will have a good sized flight towards the end of the month. This will affect many cotton acres and some soybean acres, particularly late planted soybean fields. Pay special attention for corn earworm infestation in wide row soybeans. Corn earworm moths prefer laying eggs in the open canopy offered by wider row spacings.
- Expect above average problems with the bug pests (particularly plant bugs). This is primarily due to the crop being relatively late, but wet springs have historically translated in to bad plant bug years. Also with lower than usual acreage, I think plant bugs are funneled into the remaining cotton acres. The July 25 - August 15 will be crunch time.

**Southwestern corn borer (SWCB)**. As expected, a big spike in moth catches is starting at several locations. As usual, this tends to be places north of I-40 in Gibson, Dyer, Obion, Lake, Henry and Weakly Counties. I am sure you can throw Carroll Counties into this group. This second generation should peak over the next two weeks, but I expect this to be a pretty sustained moth flight. Keep in mind that if you intend to make one insecticide application, it's generally better to treat for the first part of the second generation (because the corn is getting less susceptible as it matures). I will stand by

my recommendation last week that an insecticide application made during the next 7-14 days will be in order for many non-Bt fields. Two applications will be justified in some late maturing fields or where the moth flight is especially large. You can judge the risk level based on first generation moth catches. A 5-10 fold jump in peak moth catches is common from the first to second generation. So if you peaked at 30+ moths per week during the first generation, expect to catch at least 200+ moths per week during the second generation peak. You can look at past newsletters (issues 10-12) to see when and where the first generation peaked. There were several areas where we caught 50-150 moths/trap/week. *Tip:* if you have not been running moth traps, the stalk tunneling by first generation stalk borers can be easily found. If you are seeing holes in the stalk with much frequency, this is a clear indication of potential second generation problems in that same field or other fields in the area.

Some Generalizations: During the second generation, peak catches of < 100 moths/trap/week in an area are not very scary, but there can be serious infestations in specific circumstances such as late maturing fields. Catches of 100-200 moths per week indicate the potential for economic injury in at least some fields. Catches over 200 moths per week indicate a potential for bigger problems, etc. etc. The higher the moth counts the greater the risk. *Note*: We have several locations catching 250-600 moths per week and we are not even at the peak.

**Blister Beetles in Soybean.** A quick mention about three reports of blister beetles from scattered areas across West Tennessee. Specifically, large numbers of striped blister beetles (pictured right) are being found in a few soybean fields. Blister beetles are often aggregated in large numbers and can cause significant defoliation in at least portions of a field. Treatment is needed when 20-30% defoliation has (or is likely) occur. Remember: these beetles will occur in clumps, so you often have severe defoliation in isolated spots. It takes a little judgment to decide when treatment is justified. Recommended insecticides include several pyrethroids (e.g., Brigade, Baythroid XL, Prolex, Declare, Karate, Mustang Max), Sevin and Methyl parathion.

**Regional Report (Hayden E. "Gene" Miles, Area Extension Specialist, Northwest Tennessee).**
Some parts of the area the latter part of last week received rainfall while other areas did not. The most rainfall being reported this week was 2.5 inches. Growth stages of cotton fields being monitored by IPM scouts and private consultants range from the 10$^{th}$ node to 1$^{st}$ or early bloom. More mature cotton plants in the Delta area this week are averaging 29 inches in height, 15 nodes and have 94 percent 1$^{st}$ position fruit (squares, blooms and bolls) retention. Once cotton field have reached the 1$^{st}$ or early bloom stage of growth the 80 percent square retention rule no longer applies. Also, after the first bloom stage, clouded plant bugs should be counted as equivalent to 1.5 tarnished plant bugs when determining if populations are above the treatment level. The threshold for plant bugs after 1$^{st}$ bloom stage is considered to be 3 or more per drop cloth or 15 or more per 100 sweeps. Additionally, after 1$^{st}$ bloom, 3 tarnished plant bugs should be considered as equivalent to 1 stink bug and vice versa. Plant bug populations being reported from area IPM programs and private consultants this week range up to 23/100 sweeps and/or 0.6 per 6 row feet. Square retention counts from private consultants and IPM scouts range from 87-100 percent. Spider mites are being reported in the light to medium range and

the high stink bug count is 0.2 per 6 row feet. Beneficial counts from IPM scouts this week range up to 9.2 per 6 row feet. Blister beetles were treated in one field of small soybeans.

**Farm Management (Chuck Danehower, Area Specialist - Farm Management).** Producers who attended the UT Weed Tour outside of Millington this week came away with a strong awareness of glyphosate resistant Palmer amaranth and the problems that could occur. Dr. Larry Steckal and staff did an excellent job with the tour and are leading the charge on developing solutions to this problem. It is no doubt a weed problem of concern. It can affect farm finances from several points: 1) If left unchecked or recognized late, yields and income will certainly be reduced. It is also recurring, so effects will occur year after year, if not addressed correctly. 2) Control can be achieved, but a plan must be developed. 3) Producers will have to budget additional cost in their financial plan to combat this problem.

Hopefully not every acre will need the control measures to combat glyphosate resistant. As well as trying to take care of the problem this year, producers should make notes on its occurrence for next year. When developing crop budgets and cash flow plans for 2010, control measures should be factored in and accounted for. Look for the UT Budgets next year to list costs for control measures. This problem should be addressed proactively rather than reactively.

**Tennessee Pheromone Moth Trapping Summary** - Trapping efforts are funded in large part by the Tennessee Cotton Incorporated State Support Program. Thanks to the County Extension Agents who are also running southwestern corn borer traps.

**Numbers of Moths per Week (Week 10, Ending 7-8-09)**

| Trap Location | Tobacco Budworm | Corn Earworm (Bollworm) | Beet Armyworm |
|---|---|---|---|
| Hardeman (Bolivar) | 0 | 1 | 0 |
| Fayette (Whiteville) | 0 | 3 | --- |
| Fayette (Somerville) | 0 | 0 | 0 |
| Shelby (Millington) | 5 | 7 | 0 |
| Tipton (Covington) | 1 | 0 | --- |
| Tipton (North) | 3 | 8 | 0 |
| Lauderdale (Goldust) | 2 | 24 | 3 |
| Haywood (West) | 3 | 0 | 0 |
| Haywood (Brownsville) | 0 | 0 | --- |
| Madison (WTREC) | 1 | 3 | 12 |
| Madison (North) | 0 | 6 | 0 |
| Crockett (Alamo) | 0 | 4 | 3 |
| Crockett (Maury City) | 2 | 0 | 4 |
| Dyer (Dyersburg) | 1 | 3 | 0 |
| Dyer (Newbern) | 0 | 3 | 0 |
| Lake (Ridgley) | 0 | 0 | 0 |
| Gibson (Kenton) | 7 | 11 | 0 |
| Gibson (Milan REC) | 0 | 0 | 0 |
| Carroll (Coleman Farm) | 3 | 3 | 2 |

| Trap Location | Southwestern Corn Borer |
|---|---|
| Fayette (Whiteville) | 0 |
| Tipton (Covington) | 0 |
| Madison (WTREC) | 66 |
| Crockett (Maury C.) | 10 |
| Obion (Midway) | 92 |
| Obion (Crockett) | 94 |
| Obion (Union City) | 12 |
| Obion (Obion) | 31 |
| Lake (Owl Hoot) | 1 |
| Lake (Croanville) | 38 |
| Lake (New Markham) | 47 |
| Haywood (B'ville) | * |
| Haywood (Hwy 19) | * |
| Dyer (Newbern) | 164 |
| Dyer (Craig Rd) | 71 |
| Dyer (Hwy 104 E) | 92 |
| Dyer (Parker Rd) | 204 |
| Weakley (Ore Sprg.) | 1 |
| Weakley (Greenfield) | 18 |
| Weakley (Bean's S.) | 199 |
| Gibson (MREC) | 97 |
| Gibson (Rutherford) | 249 |
| Gibson (Strawberry) | 130 |
| Giles (Tarpley Shop) | * |
| Giles (Agnew) | * |
| Henry (Tosh Farms) | 592 |
| Lincoln (Molino) | 340 |
| Lincoln (Camargo) | 497 |
| Lincoln (Meridianvil.) | 29 |

An asterisk (*) indicates the trap was missing, knocked down, or no report was received.



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