The University of Tennessee

UT Extension

West TN Research and Education Center
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IPM NEWSLETTER

Update for Field Crops and Their Pests

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

Bookmarks: Insect stuff Weed control Cotton situation Farm management Moth traps

Insect Stuff (Scott Stewart, IPM Specialist)

Slugs, billbugs, etc. It is predictable that most the phone calls have been about corn because most cotton or soybean fields are either just emerging or not planted. Slugs are still causing problems in some corn, especially in wet spots of fields. Some slug damage has been cosmetic (leaf feeding), but the slugs will also feed on corn stems, partially cutting plants. I have seen parts of several fields that will require replanting. Watch any no-till cotton or soybeans closely for slug damage, especially following a previous corn or sorghum crop.

A local consultant found billbugs in corn (pictured right). This is a somewhat rare pest, but they can be very damaging when present in sufficient numbers. Billbugs are a weevil that feed at or just below the soil surface. Adult beetles are about 3/8 – 1/2 inch long, are brownish-gray and have a short snout. You will not find them unless you look closely. Adults insert their snout into the stem near the base of the plant. Emerging leaves will often have rows of regular holes. However, the real problem occurs if they kill the growing point of the plant. These plants will not die but they will not develop properly, making multiple sucker shoots (a common symptom anytime the growing point is killed). Billbugs will also lay eggs into the stems, and the larvae can do considerable feeding damage as well. There are no established treatment thresholds for billbugs. Treatment is justified for just about any corn pest if they threaten to reduce stands by more than 3-5%. Lorsban 4E (2-3 pts/acre) is probably the best treatment for billbug and actually lists this pest on the label. I suspect most of the pyrethroid insecticides applied at mid rates would also provide decent control, but good luck finding billbugs on their labels. Seed treatments, and particularly Poncho, should be fairly effective at preventing this problem. This is probably one reason we are seeing less and less of billbugs.

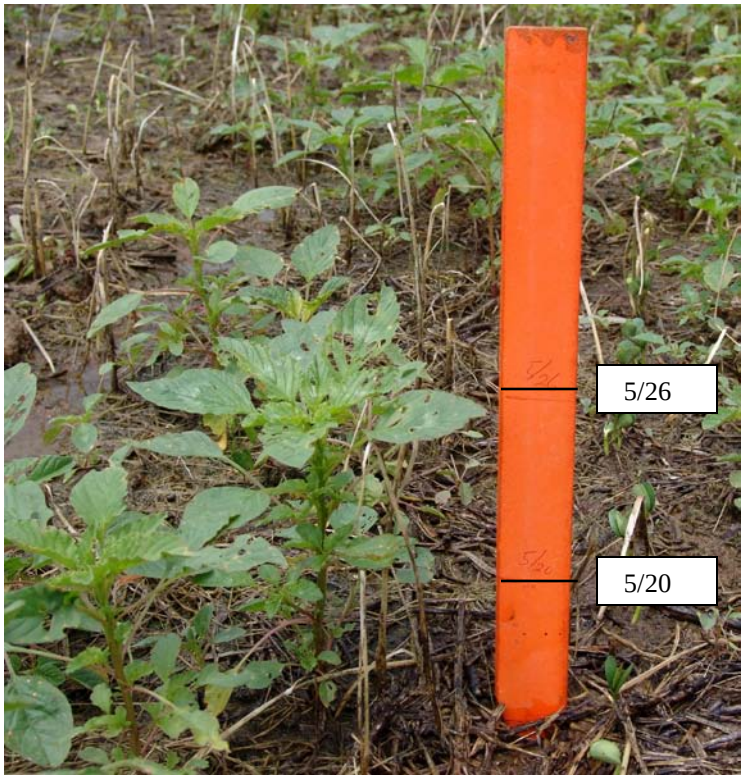
Southwestern corn borers (SWCB) moth catches jumped quite a bit last week in some spots (see appended report). This clearly indicates the start of the first generation. Keep in mind that the moths being caught now are from overwintering larvae in fields that were infested last year. You can catch moths in an area that doesn't even have corn because there was corn there last year.

What do SWCB moth traps tell us? Here is some spit balling. For the first generation, if you peak at 10-20 SWCB moths/week in a trap, you have plenty of potential for problems with SWCB in non-Bt corn. However, most the problems will be with the second generation occurring later in the season. A catch of 20^{+} or more moths per week should trigger more immediate concerns, and be on high alert if you are catching 50^{+} moths per week. At the very least, this indicates potential for isolated problems in whorl stage corn. Non-Bt corn fields in the vicinity should be monitored and treated for SWCB if larval counts reach or exceed 20-30% infested plants. All of this is an oversimplification. The first generation of SWCB will often seek out early planted corn. So if there is an overwintering source of moths next to an early planted non-Bt corn field, you can be heavily infested even if moth catches are not that high.

The good news – if you are catching < 5 moths per week during the first generation, you can feel confident you will not have a problem with first generation SWCB. In fact, it is unlikely the second generation will be large enough to cause much damage. *The moral* – you don't know the risks unless you are running these pheromone traps. You should have at least 2-3 traps per farm and run them weekly.

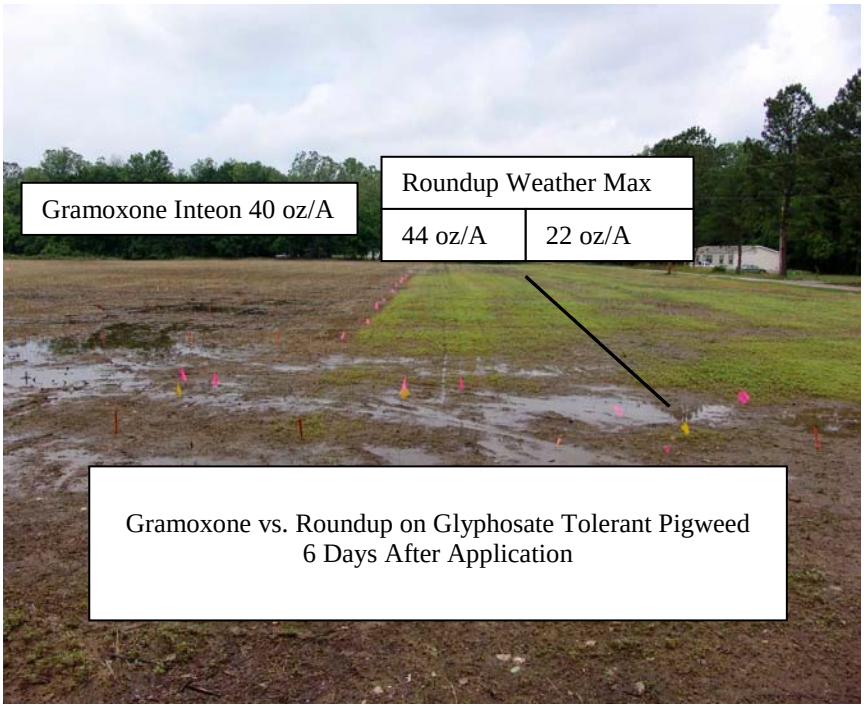
How to scout for SWCB in whorl stage corn. 1) Only target non-Bt fields only, 2) concentrate first on the earliest planted fields, 3) look for leaf feeding signs on leaves emerging from the whorls, and 4) pull whorls from plant and unroll them while looking for SWCB larvae. The number of plants you should check will vary. I suggest checking no fewer than 25 plants per field, but do more if you are finding larvae or feeding sign. There are some good pictures and a more detailed description of all this stuff on utcrops.com (see http://www.utextension.utk.edu/fieldCrops/corn/corn_insects/SWCB.htm).

Weed Control (Larry Steckel, Weed Specialist)



Palmer Amaranth Update. Palmer amaranth is getting a great start in many fields. Some of it is glyphosate resistant (GR). We have put out a number of research trials in a couple of fields where glyphosate did not control Palmer amaranth last year. We applied Roundup WeatherMax in a few strips to determine if the resistant Palmer population was still there. In 6 days after an application of 22 ozs/A of Roundup WeatherMax, we only controlled about 20% of the Palmer population. Another 20% showed some stunting. The rest kept right on growing. Some Palmer we had staked were 3-4" at spraying time. In 6 days those Palmer pigweeds had grown 6" (pictured right). In areas of the field where we had sprayed 44 oz/A of Roundup WeatherMax some Palmer plants had grown 4" in 6 days. My point is that we need to determine within a couple days of a glyphosate application if the Palmer amaranth in

the field is susceptible or resistant to glyphosate. Once glyphosate-resistant Palmer becomes 10" tall there are no good control answers in soybean or cotton.



With all the moisture and heat, Palmer amaranth should turn its top over within 2 days after a glyphosate application. If that is not the case then have a plan "B". The plan "B" **should not** rely on another glyphosate application! We did some of that last year. It was expensive and did not work. The plan "B" will still include glyphosate, in most cases, as it controls a lot of weeds but should also be tankmixed with something that will control GR Palmer. In soybean, herbicides like Prefix, Flexstar and Blazer should provide good control of glyphosate-resistant Palmer amaranth provided they are less than 6" in height. At pigweed heights above 6", the taller they are the less control is typically achieved. In cotton the only real option is Ignite. Tankmixing Ignite with glyphosate is not an option. Again Palmer height at time of application is critical to achieve good control with Ignite. In our work this year where we applied Ignite on 8" plus tall Palmer, we received about 60% control. A sequential Ignite application is needed to provide anything near acceptable control of tall Palmer.

Dicamba Injury Symptoms on Soybeans. There have been some cases this year where we are seeing soybeans showing dicamba injury in low spots in fields. There was even a field here on the station where this occurred. Scott speculated that we are seeing some dicamba from early burndowns wash into low areas and becoming concentrated. I think he is right. This injury appears to be fairly minor and small in area (just a few sqaure feet in most cases) so it should not pose a serious reduction in soybean yield. However, it is another "I have never seen that before" event in a spring that has proven to be way too interesting.

Cotton Situation (Chris Main, Extension Cotton and Small Grains Specialist)

I wish the news was better for cotton producers. Excellent progress was made planting last week. USDA statistics reported us as 60-65% planted. Portions of Crockett, Dyer, Haywood, Lauderdale, and Lake Counties were hit hard by heavy rains over last weekend. Most cotton planted Thursday and Friday last week will be subject to close observation for re-planting. While I am not excited about June planted cotton, continuing to plant or replant till June 5th or 6th should provide sufficient DD60's to make a crop as long as we do not have a late September frost. Below are some guidelines for managing this late planted crop for earliness. Since we will be working this late crop all year I will expound on each of the following issues in future newsletters as situations arise.

Variety, plant or replant an early maturing variety. Some examples (in alphabetical order) CG 3220 B2RF, CG 3520 B2RF, DG 2520 B2RF, DP 0912 B2RF, DP 0929 B2RF, DP 444 BG/RR FM 1740

B2F, PHY 370 WR, PHY 375 WRF, ST 4427 B2RF, ST 4498 B2RF. Using a *Bt* variety will provide worm protection, but severe infestations will require treatment.

Fertility, Bottom soils 30-60 lb. N, Hill ground 60-80 lb. N. Apply early (by 2 leaf stage) as to not extend vegetative growth late in the season. Research from 5 producer nitrogen trials in 2008 found that N rates above 80 lb. do not significantly increase yield and contribute to increased total nitrogen cost.

Pests, protect from thrips, spider mites, plant bugs, and sink bugs. Control weeds to prevent competition and promote early maturity.

Plant Growth Regulation should begin closer to squaring in late planted cotton. Being proactive is important, but applying too much mepiquat too early and shut the plant down prematurely. Using lower rates early and making a final application near bloom will help prevent shutting the plant down. Monitor fields with a history of excessive growth closely to prevent a costly application of high rates that are less effective.

Defoliation and Boll Opening. Most importantly expect a late planted crop to have at least 3-4 fewer nodes than an early planted crop. Don't wait on the small top bolls that set after September 1st. These bolls will not contribute much to overall yield and can cause fiber discounts. While ethephon will open mature bolls, no amount of ethephon will open immature bolls. Prepare for defoliation under less than ideal conditions with a crop that may not be well 'cut-out'.

Farm Management (Chuck Danehower, Area Specialist - Farm Management). It is hard to believe that it is late May and as a consequence of the wet weather we are still trying to decide what to plant. For producers, planning on planting soybeans, that decision has not changed. But, those who had planned on corn or cotton and have not got it in or have to replant significant acres; there may be some decisions to make. As of May 24, 88% of the corn crop in Tennessee had been planted compared to the 5 year average of 99%. Cotton had 64% planted compared to the 5 year average of 82%. Soybeans in Tennessee had 22% planted compared to the 5 year average of 51%. A couple of weeks ago, I mentioned about the impact crop insurance may have on your decision. The crop insurance final planting date in Tennessee for corn and cotton was May 20. Corn has a 25 day late period and cotton has a 10 day late period. Check with your crop insurance agent and /or adjustor about the late planting period and how it will effect when you can plant another crop.

Depending on location and weather permitting, you may have already made your decision and planted your crop by the time you read this. If not, then I would look closely at a partial budget focusing on yield expectations and expenses from this point forward. Fertilizer, whether it has been already applied or has to be reapplied, may be the decision maker. If, for example, the cotton fertilizer has been applied and will still be available, then I would not figure it in the partial budget. I would calculate the costs for seed, weed control, insecticide, fungicide, etc. or in other words, the costs from the day of planting. If fertilizer has not been applied, or some has to be reapplied due to loss, then make sure to include the costs. Be realistic on your yield assumptions for the crop. Prices for fall delivery soybeans are above $10 bushel, but will the entire crop be sold at that level or just a portion? Most marketing analysts are looking for soybean prices to fall once the planted acreage is known. So be realistic on prices. Every situation is unique, and will have different assumptions so work through them to make an informed decision. I have looked at several different situations with different results. I would encourage some diversification if possible and not go all soybeans unless necessary or at least diversify the soybean

varieties. Don't forget milo, as it looks to have some profit potential and offer a good crop rotation. Contact your local Extension office for assistance in determining crop suitability on your farm as well as for assistance in partial budgeting.

Farm Bill Yield Plug Update – FSA has released on their Direct and Counter-Cyclical Program/ACRE website the county yield plugs that can be used in place of actual farm yields in determining the farm level trigger. The FSA website is www.fsa.usda.gov/dcp. Scroll down the page to ACRE County Yields and download the Excel spreadsheet with the yields. It does have all the states listed, so within the spreadsheet, scroll down to Tennessee. It currently has a date of May 26, 2009. If I can assist you in making the ACRE decision, or you would like for me to email you the yield plug data, please let me know by email at scdanehower@utk.edu or give me a call at 731-635-9551.

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 4, Ending 5-27-09)

Trap Location	Tobacco Budworm	Corn Earworm (Bollworm)	Beet Armyworm	Trap Location	Southwestern Corn Borer
Hardeman (Bolivar)	0	1	0	Fayette (Somerville)	1
Fayette (Whiteville)	0	3	---	Tipton (Covington)	0
Fayette (Somerville)	4	3	0	Madison (WTREC)	38
Shelby (Millington)	6	17	0	Crockett (Maury C.)	2
Tipton (Covington)	9	1	---	Gibson (MREC)	72
Tipton (North)	0	1	0	Obion (Midway)	5
Lauderdale (Goldust)	*	*	*	Obion (Crockett)	32
Haywood (West)	17	0	0	Obion (Union City)	12
Haywood (Brownsville)	1	5	---	Obion (Obion)	5
Madison (WTREC)	4	13	0	Lake (Cottonwood)	4
Madison (North)	1	2	3	Lake (Croanville)	8
Crockett (Alamo)	1	1	0	Lake (New Markham)	3
Crockett (Maury City)	2	9	0	Haywood (B'ville)	1
Dyer (Dyersburg)	*	0	0	Haywood (Hwy 19)	4
Dyer (Newbern)	4	0	0	Giles (Tarpley Shop)	3
Lake (Ridgley)	0	*	0	Dyer (Newbern)	0
Gibson (Kenton)	1	4	0	Dyer (Craig Rd)	12
Gibson (Milan REC)	3	8	1	Dyer (Hwy 104 E)	52
Carroll (Coleman Farm)	0	1	0	Dyer (Parker Rd)	132

An asterisk (*) indicates trap was missing or knocked down.

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