

IPM NEWSLETTER

Update for Field Crops and Their Pests

No. 21

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

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Announcement: Cotton Tour (West Tennessee Research and Education Center, Jackson), September 12, 7:30 AM - Noon. For more information see http://www.utextension.utk.edu/fieldCrops/upcoming_events.html.

Cotton Progress Report (Chris Main, Extension Cotton and Small Grains Specialist)

The Tennessee agricultural statistics agency reports that 88% of the crop is setting bolls compared to 75% last week, 79% last year, and ahead of the 5 year average of 74%. Cotton condition is rated as 0% very poor, 9% poor, 31% fair, 50% good and 10% excellent.

Lack of moisture is at critical level for much of our crop. Most dry-land fields are at cutout (NAWF=5). Lack of moisture and demand for carbohydrates in older bolls has square and small boll shed kicked into high gear. While it is typical for a plant to shed 50% or more of the fruiting sites, our excellent early retention of fruit makes the phenomena appear worse than normal. Do not make an insecticide application for plant bugs just because you are seeing fruit shed. Employ proper scouting techniques and make insecticide decisions based on thresholds. The most expensive spray is the one that was not needed.

With the dry conditions now would be a good time to scout your fields for any nutrient deficiency symptoms. While you will not be able to correct the problem this year, it will give you a head start on planning for next year's fertilizer requirements. Record the areas that show deficiency and collect soil samples accordingly this fall to determine nutrient levels in the weak areas of the field. The abnormally dry weather this year even helps a technology challenged person like myself figure out soil zones without the need of precision equipment.

Starting next week DD60's past NAWF=5 will be calculated to help aid in insecticide and defoliation decisions.

DD 60 Accumulation (TASS and NWS data).

For each location Accumulated DD60's are calculated starting with six different planting dates up to the date of the newsletter release. For example 4/20-8/1 would indicate DD60's accumulated for cotton planted on April 20 up to August 1.

Location	4/20-8/1	4/27-8/1	5/4-8/1	5/11-8/1	5/18-8/1	5/25-8/1
Brownsville	1575	1527	1475	1404	1302	1257
Dyersburg	1636	1587	1531	1426	1351	1292
Fayetteville	1677	1630	1567	1478	1400	1331
Memphis	1953	1913	1817	1696	1606	1521
Milan	1498	1541	1399	1287	1227	1185

Insect Issues (Scott Stewart, IPM Specialist)

Cotton. Bollworm numbers have climbed, but thus far, not to the level expected. A few Bt cotton fields have been sprayed specifically for bollworm, and many non-Bt fields are at threshold (4⁺ worms per 100 plants). There are now some reports of higher egg lays and worm counts in scattered fields.

Many fields have reached treatment threshold numbers for plant bugs and/or stink bugs in the last 10 days. There has been a lot of spraying, but for the most part, pest numbers are not out of control. Plant bug numbers are diminishing in more mature or drought stressed fields. We've rated many plant bug insecticide trials recently rated. The trends in these data are the same as those seen most years. Some of the best treatments are full rates of Bidrin, Acephate and Vydate OR combinations of a pyrethroid insecticide with Bidrin (3-4 oz), Acephate (0.33-0.5 lb), Vydate (8 oz), Dimethoate (8 oz), and Diamond (4 oz), Centric (1.5 oz), and Carbine (2 oz). Except in special circumstances, I normally do not recommend using products like Carbine, Centric, Intruder, or Trimax Pro at this time of year. This is partly for the sake of resistance management (UT already recommends these products for prebloom use), and partly because tank mixes with these products tend to be a little more expensive.

Spider mites continue to be a problem, and we may see some "flaring" from our recent round of spraying for plant bugs. I'm not sure what else I can say about control. Based on a combination of cost and efficacy, the first candidate for control is bifenthrin 2E @ 5 oz/acre (e.g., Brigade, Discipline, Fanfare, etc.). But there are many other options including Acramite, dimethoate 4E, Denim, Oberon, Zeal and Zephyr. Do not expect miracles. Miticides performance can be inconsistent, and none will totally eliminate mites. The hope is that a single application will knock them back, and we will get some help from Mother Nature. However, most miticide labels suggest two applications at a 5 day interval for best control.

Soybean. Things are still relatively quiet, although there are a few reports of bollworm infestations and defoliation from white-fringed beetles adults. Finding high numbers of bollworms (a.k.a. corn earworm or soybean podworm) in soybean is relatively uncommon, but they can be a significant problem when populations are high. The treatment threshold is four bollworms per foot of row (or 15 per 25 sweeps). Mid-rate pyrethroid insecticides (e.g., Asana XL, Baythroid XL, Karate, Mustang Max or Prolex) should do an excellent job of controlling bollworm in soybean. Ammo and its generic versions are NOT labeled for soybean.

Sorghum. What about bollworm in sorghum? Late sorghum fields are particularly at risk, and some fields are currently above threshold. The suggested threshold is 2 larvae per head, but with the good grain prices you could make an argument to reduce this number *a little*. Research indicates that an average of one bollworm per head can reduce yield by about 5%. You can get out a pencil and paper, estimate your yield potential, and figure out an approximate threshold based on current grain prices. But keep in mind that a single insecticide application will not completely eliminate all grain loss caused by bollworm. Sorghum webworms may also be present but do less damage. Treat for sorghum webworm if larval numbers reach 4-5 larvae per head. Low to mid rate pyrethroid insecticides (e.g., Baythroid XL, Karate, Mustang Max or Prolex) will control both pests.

I scout for bollworm or webworms by shaking 2-3 heads into a small bucket and looking for larvae. You can also shake the heads over a sweep net. This should be done at a minimum of ten locations in the field.

Area Report for Northwest Tennessee (Gene Miles, Area Crop Specialist, Week of July 30th).

Cotton: Area producers are really needing a rain this week. Cotton bolls in droughty areas of more mature fields are beginning to crack open. Other signs indicating the maturity of the cotton plant being noted are the red color (tougher tissue) of the main stem as it approaches the top of the plant. Selected more mature plants this week are averaging 19 nodes, 40 fruiting positions and 85 percent total fruit retention.

Growth stages for cotton fields being monitored through the Dyer and Lauderdale county IPM program range from boll set stage to NAWF=5. Plant bug numbers being reported from private consultants and county IPM scouts range up to 4.6 per 6 row feet and/or 53/100 sweeps. Combinations of plant bugs and stink bugs (where 1 stink bug is equal to 3 tarnished plant bugs) are reaching the threshold level with the high combination count being reported at 4.8 per 6 row feet. The high stink bug count this week was 0.8 per 6 row feet. Also, aphid “mummies”, caused by a small parasitic wasp (*Lysiphlebus testaceipes*) have been noted reducing aphid populations this week. Sap beetles are being noted in blooms causing no apparent damage. Bollworm/budworm pressure being reported from IPM scouts this week include 10% eggs, 3 worms (greater than 1/4 inch) per 100 plants/terminals) in Bt cotton. Also, 1% damage in Bt cotton has been reported and 14% damage in conventional cotton. Beneficial counts range up to 9.6 per 6 row feet.

Soybeans: Private consultants are reporting 1 stink bug per 25 sweeps in Group IV soybeans in the growth stage bloom to mid-pod fill. Corn earworms are being reported at 3 per 25 sweeps with the threshold considered to be 15 per 25 sweeps. Foliage-feeding insects (bean leaf beetle, grasshoppers, cloverworms and loopers) are causing less than 5% defoliation.

Grain Sorghum: Some late planted grain sorghum is being treated this week with recommended insecticides. Combinations of sorghum webworm and corn earworm are running 3 to 5 per head.

Farm Management Update (Chuck Danehower, Area Specialist – Farm Management)

I goofed! In last week’s newsletter please correct the approximate material cost per acre of Karate to be \$4.67. This inadvertent mistake should no way be a reflection on any of the products listed. In pricing any agricultural product, check with your local supplier for **your** cost when doing a price comparison. With this change, the average price of oversprays including a custom application cost would be approximately \$13.92 acre. Make sure the overspray is justified before applying.

The House of Representatives passed the Farm, Nutrition, and Bioenergy Act of 2007 last Friday, July 27. The Senate must consider the Farm Bill. I have not found a lot of specific information on the new farm bill so I will have to hit the highlights. The House version of the farm bill extends into 2012. It is basically an extension of the current 2002 Farm Bill. Highlights include:

- Maintains the safety net programs authorized in 2002 with minor changes.
- Continues support for farmers through direct payments at the same level.
- Preserves the non-resource marketing loan program.
- Continues the price-based counter-cyclical program.
- Increases target prices for wheat and soybeans
- Rebalances loan rates on wheat.
- Equalizes sorghum loan rates with corn loan rates down to the county level.

- Changes the calculation of the adjusted world price of cotton to reflect current market conditions and adjusts the cotton marketing loan program to make American cotton more competitive and move stocks out of storage.
- Offers producers the option of enrolling in a new revenue-based counter –cyclical program.
- Reforms payment limits for commodity programs.

This is just the starting point for the farm bill. The final version will be different. The Senate has signaled that they want the Conservation Security Program (CSP) to have a larger role in the new farm bill. As more information comes available, we will be looking at how it will impact Tennessee producers. For more information on the House version, go online at <http://agriculture.house.gov/inside/2007FarmBill.html>.

Don't forget the Mid-South Agricultural Finance Conference will be Wednesday, August 8 at the UT Martin University Center. Registration starts at 8:00 a.m. Hope to see you there.

Tennessee Pheromone Moth Trapping Summary - Trapping efforts are funded in large part by the Tennessee Cotton Incorporated State Support Program.

Numbers of Moths per Week (Week 13, Ending 8-1-07)

Trap Location	Tobacco Budworm	Corn Earworm (Bollworm)	Beet Armyworm	Southwestern Corn Borer
Hardeman (Bolivar)	1	3	0	---
Fayette (Whiteville)	0	5	0	---
Fayette (Somerville)	0	0	---	1
Shelby (Millington)	39	15		---
Tipton (Covington)	7	0	0	---
Tipton (North)	5	45	---	0
Haywood (West)	0	1	0	---
Haywood (Brownsville)	0	0	---	---
Madison (North)	3	11	---	---
Madison (Exp. Stn.)	5	3	16	33
Crockett (Alamo)	0	3	0	0
Crockett (Maury City)	7	16	---	---
Dyer (Bogota)	4	33	0	---
Dyer (Newbern)	0	4	---	0
Lake (Ridgley)	0	8	0	---
Gibson (Kenton)	1	2	---	---
Gibson (Milan Exp Stn.)	0	0	2	6
Carroll (West)	2	0	1	---
Lauderdale (Goldust)	1	5	0	---

An asterisk (*) indicates trap was missing, knocked down or not run.

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