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. 12 *June 18, 2009*

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

Bookmarks: Weed control Insect stuff Farm management Moth traps

Soybean Scout Schools - Mark Your Calendars For One Of The Following

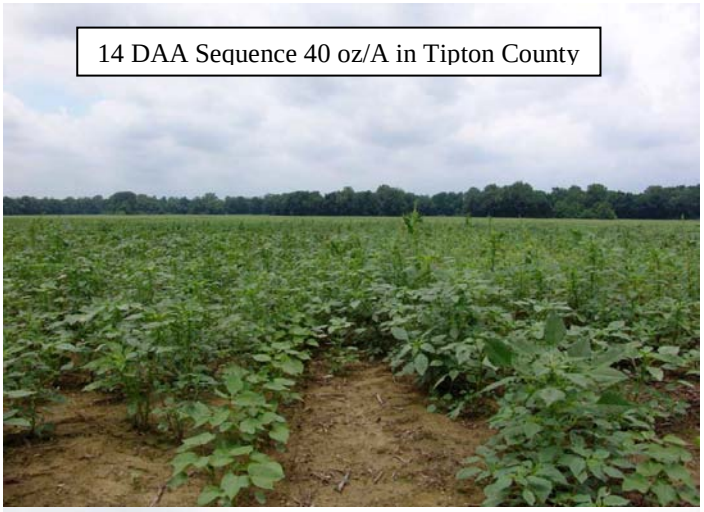
- July 1st 9:00 AM Dyer Co. (3581 Bethlehem Road, Newbern, TN) Link to Directions
- July 1st 1:30 PM Fayette Co. (2357 Highway 222, Somerville, TN) Link to Directions
- July 14th 9:00 AM Cannon Co. (Location TBA)
- July 14th 1:30 PM Lincoln Co. (63 Benson School Rd., Kelso, TN)

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. Watch for further information and directions in the next newsletters and on UTcrops.com.

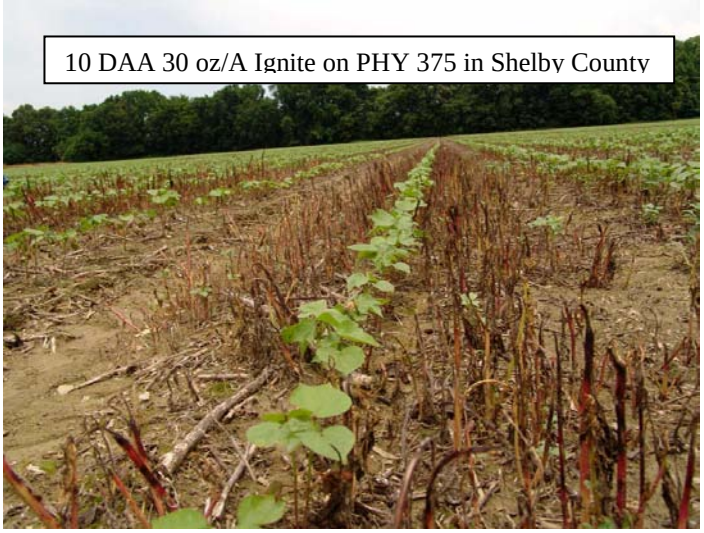
Weed Control (Larry Steckel, Weed Specialist)

Glyphosate-Resistant Palmer Amaranth.
Unfortunately, glyphosate-resistant (GR) Palmer amaranth is being found in many fields here lately. It has spread at least to a couple more counties including Madison (we found some on the station). What has been the most troublesome news though has been the spread in the counties where we found it last year. We had just a couple fields that had heavy GR Palmer amaranth pressure last year. This year we are seeing high numbers of Palmer amaranth survive glyphosate applications in many fields. This is particularly true in north Shelby, Tipton, Lauderdale and Haywood counties.

In cotton, Ignite based systems have worked well in glufosinate tolerant cotton. By the word "well" what I mean is we are seeing between 60 to 90% control depending upon the size of the Palmer pigweed at application. The surviving Palmer pigweeds are growing back from lateral buds. Though this is not ideal, at least the grower has some time to come back with a hooded application to try and take out the Palmer that is

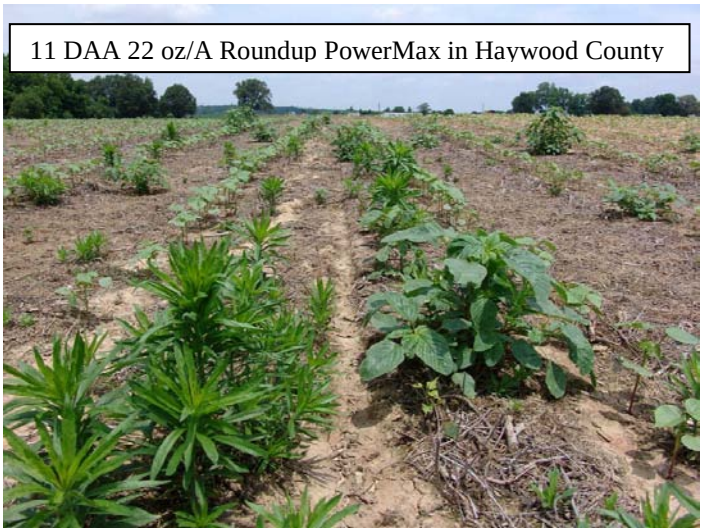


14 DAA Sequence 40 oz/A in Tipton County



10 DAA 30 oz/A Ignite on PHY 375 in Shelby County

coming back. This is not near as easy a program as when glyphosate controlled Palmer but at least it is a workable plan.


11 DAA 22 oz/A Roundup PowerMax in Haywood County

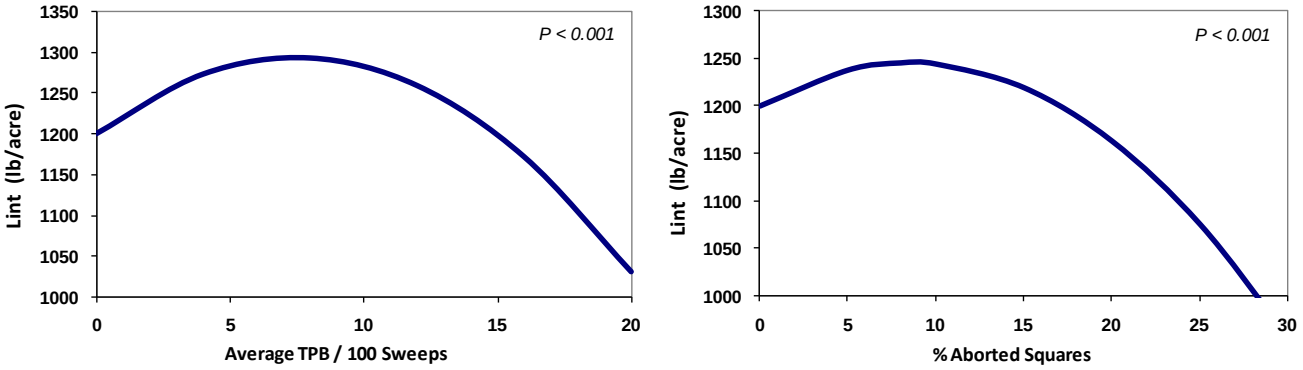
In Roundup Ready cotton there are few good options to manage GR Palmer. Some folks have asked about the Cotoran salvage label for over the top applications. Cotoran can be applied over the top of cotton. Typical injury ranges between 10 and 20%. Unfortunately, in research conducted by Dr. Hayes, one can only expect good control with Cotoran applied postemergence on very small Palmer (<3"). I know that a lot of folks wanted to park the hoods. However, the only effective option we have to control GR Palmer amaranth in RR cotton is getting a broad spectrum herbicide up under the cotton. This also includes folks using Ignite on Phytogen 375. In our research, sequential applications of Ignite have typically increased the amount of leaf burn on WideStrike cotton varieties. Hooded applications that contain a residual pigweed product should follow up any over the top Ignite application. Two hooded application tankmixes that have shown good results in the past on GR Palmer amaranth are Gramoxone + Valor or Reflex and Direx + MSMA + Valor. Obviously these are very hot mixtures and care must be used when applying them particularly to fields with replant smaller cotton interspersed with older cotton. Ignite is labeled to be applied under the hood as well and would be less injurious than the above mixtures in WideStrike or LL cotton.

Herbicide Injury to Cotton has Been More Common. Post applied Dual is showing more leaf burn this spring than it has in the past. Some of this is due to some tank contamination issues. However, that does not explain some other areas where we are seeing some enhanced burn. This burn has been a bit spotty with some areas seeming to have more problems while other areas are not. I think some of this is due to planting date and local weather at time of application. Talking to my colleagues in other states this has been very common occurrence across much of the South. The excessive wet cloudy weather has apparently made leaf cuticles very thin and more susceptible to surfactant or oil type burn than we have seen in the past. I really do not think this burn is going to reduce yield but in a few cases it could cause a little delay in maturity. With so much June planted cotton this year any delay is a concern.

Insect Considerations (Scott Stewart, IPM Specialist)

Recent Problems. Well there is nothing really serious or widespread, but I have had reports of spider mites in cotton from both Haywood and Carroll County. In cotton, use a threshold of 30-50% infested plants. You *must use a true miticide* for reliable control of early season spider mites. This means Dicofol (32 oz), Zephyr or Zoro (4-8 oz), Zeal (0.75-1.0 oz), Oberon (4-8 oz), Portal (16-24 oz) or Acramite (16-24 oz). Do not use Comite II (20 oz) on cotton less than 12 inches tall because injury may occur. All these are good choices. Dicofol tends to be the most cost effective. There have also been a few reports of tarnished plant bug infestations at or near treatment level. Watch the earliest cotton closely because plant bugs will often concentrate in those first fields that have squares.

Tarnished Plant Bug Thresholds in Prebloom Cotton. A midsouthern regional project was recently completed that evaluated treatment thresholds for tarnished plant bug (TPB). The results indicate that current thresholds for TPB in prebloom cotton are very adequate, and in fact, are conservative. These thresholds are 8 TPB/100 sweeps during the first two weeks of squaring and 15 TPB/100 sweeps thereafter. Throughout the prebloom window, you should strive to retain 80% or more of squares. Thus, consider treatment if square retention drops rapidly or below 80% even if plant bug populations are below threshold. Square retention will rarely drop below 80% unless plant bug populations are well above threshold. Monitoring square retention can also help detect other non-plant bug problems that may be causing square loss.



Yield vs. Plant Bug Density and % Square Loss (average of 33 locations)

The two graphs above show the relationship between 1) tarnished plant bug density and yield and 2) square loss and yield. These are average results for prebloom cotton across 33 replicated, large-plot experiments in the Midsouth. Across the entire prebloom period, notice that yield was maximized when plant bug populations averaged about 8/100 sweeps and square retention was about 90%. The moral - don't spray for plant bugs if populations are below threshold. Having a few plant bugs and a little square loss didn't hurt a thing and actually tended to improve yield. What you can't see by looking at the graphs is that plant bugs caused substantial yield loss in a couple of locations. In these cases, populations were 3-6 times threshold. In situations where plant bug infestations are several times the threshold, scout more frequently and make insecticide application at 4-5 days intervals until the pressure subsides. Fortunately, this does not happened too often.

You Make the Call? We had a bit of hail damage at the station earlier this week. I have some early planted cotton with subpar square retention (about 75%). Plant bug numbers have been (and still are) below threshold (about 4 or 5 bugs/100 sweeps). Would you spray insecticide? I wouldn't but only because I feel confident this is the result of hail injury, the plants should recover, and retention is only slightly less than 80%. I would reconsider this decision if retention had been knocked back to 50-60%.

Southwestern corn borer moth catches are starting to subside as this rather extended (and not too small) first flight is coming to an end. Although this first generation is winding down, there is still an immediate need to scout non-Bt corn and make treatments as needed. Thinking ahead … expect the beginning of the second generation in mid July. Frankly, I am concerned for any late non-Bt corn. Pay attention to moth trapping reports. If traps on or near your farm peaked at 30+ moths per week during this first generation, and assuming you had some non-Bt corn around, you should be prepared to spray non-Bt corn for borers during the next generation. Traps during the second generation will typically peak at 5 to 10 fold the number of moths caught during the first generation.

Regional Report (Hayden E. "Gene" Miles, Area Extension Specialist, Northwest Tennessee). Rain continues to slow down farming operations in the area. Growth stages of cotton being checked through the Dyer and Lauderdale County IPM Associations and by private consultants range this week primarily from the 2nd to 4th node. Cotton should put on a new node about every 2.7 days under adequate growing conditions. Thrips counts are below threshold (1 or more per plant and damage is occurring) in fields checked both by IPM scouts and private consultants. Thrips counts as determined by IPM scouts ranged up to 0.7 per plant. Thrips damage can be recognized by upward cupping of leaves and terminal damage.

Plant bug numbers being reported from private consultants this week ranged up to 2/100 sweeps in first week squaring cotton. Once a pin-head square is found in the field, cotton plants should be considered in the first week squaring growth stage. Since plant bug thresholds change up to first bloom, it is important to know what week squaring the cotton field is actually in. A standard 15" sweep net or drop cloth can be used to determine plant bug counts. When using the sweep net, a minimum of 100 sweeps should be made regardless of the size of the field to determine plant bug numbers. When using the drop cloth, 5 (6 row ft.) locations should be used in fields up to 75 acres; 8 (6 row ft.) locations in fields from 75-100 acres and 10 (6 row ft.) locations in fields over 100 acres to determine plant bug numbers. Adult green stink bugs and plant bugs were found to be above threshold in more mature 10th node cotton in the Delta this week. A recommended rate of Centric is being used to control the plant bug and stink bug problem.

Farm Management (Chuck Danehower, Area Specialist - Farm Management). An upcoming seminar of interest in Memphis is *Decisions 2009* sponsored by Brock Associates, Delta Farm Press, Helena, Monsanto, and Rabo AgriFinance. It will be held on Monday, July 20 at the Peabody Hotel. Registration before July 6 is $95, otherwise it is $110. A copy of the brochure and registration information can be found online at http://www.brockreport.com/seminars.php . Scroll down to the Memphis event and click on view brochure. Speakers include Drew Lerner of World Weather Inc. on weather influences, Barry Knight of Monsanto on new advancements in technology, Richard Brock on grain price outlook & strategies. Other speakers also include Erin FitzPatrick with Rabobank International on a global perspective of farm inputs; Dr. Yarlagadda, the National Agronomist for Helena Chemical discussing information management; and Randal Pope of The Winchester Group, examining the fundamental drivers of farmland values. It starts at 8 a.m. and will adjourn at 3:15 p.m. Register by calling 1-800—558-3431.

Farm Bill ACRE Update. The Farm Service Agency has released on their website, www.fsa.usda.gov/dcp, an Excel spreadsheet tool that will allow producers to calculate ACRE benefits for the 2009 production year. Producers will have to make some assumptions on yield and prices to project payments. It will then compare payments in the DCP program to the ACRE program. Producers need to have their crop bases, direct and counter cyclical payment yields, and production history on their farms to make the best comparison. The spreadsheet can be downloaded from the website. As mentioned in IPM Newsletter # 4, the Texas A & M Agricultural Food & Policy Center also has an ACRE Decision Aid program online at http://www.afpc.tamu.edu/models/acre/index.php. This decision aid can also assist in making the ACRE decision. There is still plenty of time to make an informed decision on ACRE. For 2009, it would probably be to a producer's advantage to wait and see how the crop develops relative to yield prospects and also look at the latest projections on marketing year average prices before making the decision. Signup for ACRE for 2009 will end on August 14, 2009.

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 7, Ending 6-18-09)

Trap Location	Tobacco Budworm	Corn Earworm (Bollworm)	Beet Armyworm	Trap Location	Southwestern Corn Borer
Hardeman (Bolivar)	1	1	0	Fayette (Whiteville)	0
Fayette (Whiteville)	0	6	---	Tipton (Covington)	0
Fayette (Somerville)	0	0	0	Madison (WTREC)	5
Shelby (Millington)	1	31	0	Crockett (Maury C.)	0
Tipton (Covington)	2	2	---	Obion (Midway)	14
Tipton (North)	10	23	0	Obion (Crockett)	14
Lauderdale (Goldust)	0	30	0	Obion (Union City)	2
Haywood (West)	0	6	0	Obion (Obion)	3
Haywood (Brownsville)	0	24	---	Lake (Owl Hoot)	3
Madison (WTREC)	0	56	3	Lake (Croanville)	13
Madison (North)	4	7	2	Lake (New Markham)	46
Crockett (Alamo)	0	4	0	Haywood (B'ville)	*
Crockett (Maury City)	1	14	1	Haywood (Hwy 19)	*
Dyer (Dyersburg)	0	13	1	Dyer (Newbern)	1
Dyer (Newbern)	0	18	0	Dyer (Craig Rd)	68
Lake (Ridgley)	6	1	0	Dyer (Hwy 104 E)	74
Gibson (Kenton)	1	11	0	Dyer (Parker Rd)	43
Gibson (Milan REC)	0	1	0	Weakley (Ore Sprg.)	5
Carroll (Coleman Farm)	5	52	0	Weakley (Greenfield)	3
				Weakley (Bean's S.)	15
				Gibson (MREC)	*
				Gibson (Rutherford)	9
				Gibson (Strawberry)	*
				Giles (Tarpley Shop)	0
				Giles (Agnew)	1
				Henry (Tosh Farms)	22
				Lincoln (Molino)	0
				Lincoln (Camargo)	6
				Lincoln (Meridianvil.)	0

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

Scott D. Stewart (editor)
Extension IPM Specialist