

# IPM NEWSLETTER

## Update for Field Crops and Their Pests

No. 8

May 16, 2008

Past newsletters and other information can be found at [UTCrops.com](http://UTCrops.com)

Bookmarks: [Cotton update](#) [Corn and soybean updates](#) [Weed control](#) [Insect control](#)  
[Farm management](#) [Moth traps](#)

**Cotton Scout School** Friday, May 30<sup>th</sup>, 8:30 AM - Noon, West TN Research and Education Center, Jackson - An overview of pest management in cotton including plant growth and development, pest identification and injury, sampling methods, and living and preserved insect specimens. Scouting notebooks, sampling supplies and lunch will be provided. There will be a short “go-to-the field” session after lunch for those interested in participating. Pre-registration is not required.

**Cotton Progress Report (Dr. Chris Main, Extension Cotton Specialist).** The Tennessee Agricultural Statistics Agency reports that 15% of the cotton crop was planted as of May 11 this is about 35% behind of 2007 and about 20% behind the five-year average of 35%. The forecast for planting appears to be improving. Sunshine and temperatures in the 80’s are predicted starting Saturday for the next 7 days with only slight chances of rain. Since the weather has delayed most cotton planting, be sure that your burndown treatments are still holding. Remember to start clean. This may mean needing to treat with Roundup, Gramoxone, or Ignite behind the planter to keep the field free of green vegetation.

It is very important to start thinking about how to manage this crop for early maturity. This includes reducing the total amount of nitrogen applied, judicious use of plant growth regulators, and retaining as many early fruiting sites as possible by scouting and controlling insects in a timely manner. I will continue to include pointers for earliness management in future newsletters.

The following pictures are of cotton planted on different dates this spring. Note the ragged look and chill injury of the April planted cotton that endured several nights below 45 degrees.



Planted 4/16/2008



Planted 4/20/2008



Planted 5/5/2008

## DD60 Accumulation (TASS and NWS data)

Location	4/20-5/15	4/27-5/15	5/4-5/15	5/11- 5/24	5/18-5/24
Dyersburg	119	74	52		
Fayetteville	158	101	70		
Jackson	129	82	60		
Memphis	183	114	88		

### Corn and Sorghum Updates (Angela Thompson, Corn and Soybean Extension Specialist)

Every week I think to myself that next week will surely be better- warmer temperatures and no rain for awhile. So far, we haven't hit that yet, although next week certainly looks promising.... The corn crop is off to a fair start. I have taken very few calls about replanting field corn and we are more than 90% planted. Most April planted corn is around 4 to 5 collars and ready for a side-dress nitrogen application. The yellowish color in our small corn is caused by lack of heat for growth and wetter than normal soils. Corn utilizes energy reserves from the kernel until about leaf stage V3 then slowly transitions to soil uptake via the root system. Corn at 1 to 5 collars actually doesn't require much nitrogen for growth and normally can remove sufficient amounts of soil nitrogen. Demand for nitrogen escalates rapidly after about 6 collars as corn begins rapid vegetative development.

We have planted about 15% of our intended soybean acres. Small beans are struggling just to get out of the ground. Once above ground, new growth has been very slow. When cool and/or wet soils delay germination and emergence, young seedlings are subjected to longer exposure to soil-borne diseases, insect and bird feeding, and sometimes injury from burndown and preemergence herbicides that have soil activity. The photo at the right is from a field planted 10 days ago at Jackson that tends to stay wet and where the pigeons have decided to stop by for a daily snack. Bird feeding can be identified by dig holes near young seedlings that are pulled from the ground (birds looking for seed) or the tender cotyledons are pinched off (birds realize the seed isn't near the roots as it is with corn!). Bird feeding is worse when plant emergence is slow. Generally when soybeans are past the young cotyledon stage, birds leave them alone.



**Replant Decisions in Soybean.** I have had several calls this week about replanting. We knew that our seed quality was not great this spring and cool/wet planting conditions have all contributed to erratic emergence and seedling mortality. For fields planted less than 2 weeks ago, I strongly encourage folks to wait until next week, after temperatures warm up, before they make their replant decisions. Seeds that have sprouted but not emerged can still contribute to a stand. If a field was planted more than 2 weeks ago, and there are not enough living seedlings either above or below ground, replanting should be considered. Make sure to **accurately estimate the viable plants in a field, taking into account both stand and uniformity of stand.** Fortunately, a soybean plant can compensate for a thinner stand by producing more branches and pods per plant and research plots have had some impressive yields with stands of 80,000 or below in good rainfall years. Maturity Group 4 and 5 soybeans with

remaining uniform stands of 90,000 to 100,000 plants or more should be kept. Maturity Group 3 soybeans should be left alone when uniform populations exceed 110,000 (data indicate a MG3 can yield well with even lower populations but only in a good rainfall year or under irrigation). When beans are “skippy” only in spots, consider spot replanting instead of driving over beans to “add to” the population of an existing stand. Populations can be estimated by two different methods. Regardless of the method used, make counts in areas that are truly representative of the field:

**Method 1. Hula Hoop method:**

- Works great for drilled beans; check 4 to 5 locations per field

Table 1. Hula Hoop method for determining drilled soybean populations.

No. of Plants	Inside Diameter of Hula Hoop				
	30"	32"	34"	36"	38"
	(Plants in 1,000's per acre)*				
6	53	47	41	37	33
10	89	78	69	62	55
14	124	109	97	86	77
18	160	140	124	111	100
22	196	172	152	136	122
26	231	203	179	160	144

\* Plants/acre = no. plants ÷ (3.14 \* r<sup>2</sup> ÷ 43,560 ft<sup>2</sup>) where r = radius of hula hoop in feet.

**Method 2. Count Number of Plants in 1/1000<sup>th</sup> of an acre (this also works for corn and other crops):**

- Works well for planter seeded rows and is pretty accurate; Number counted X 1000 will give per acre population; Make at least 5 counts per field.
- 7 inch rows = count number of plants in 74' 8 inches of row (reconsider the hula hoop for easier estimating drilled bean populations).
- 15 inch rows = 34' 10 inches
- 20 inch rows = 26' 2 inches
- 30 inch rows = 17' 5 inches
- 36 inch rows = 14' 6 inches

**Weed Control (Larry Steckel, Weed Specialist)**

**Glyphosate Resistant Horseweed Management.** The burndowns that went out last on some very tall horseweed (12 to 18” tall) has provided inconsistent control in a number of cases. When horseweed reaches 8” tall it really looks like we are going to have to figure on a two pass program or tillage to provide good control. Follow-up applications of Ignite under warm conditions or Gramoxone Inteon when it is cooler has in the past provided good control of escaped horseweed and should do the trick again this spring.

There have been quite a few more calls this spring from growers concerned about GR horseweed in corn. In the past, 2 lbs of atrazine tank mixed with glyphosate has provided good control of

horseweed. That has not been the case this year. On corn up to the 4 leaf stage, 8 to 12 ozs/A of Clarity should provide good control. On larger corn, 2.5 ozs/A of Callisto or 3.5 to 4 ozs/A of Status has provide good control of horseweed in our research.

**Weed Control in Corn.** Corn is in various stages of development within the same field. Spot replant in some fields as well as corn struggling to make a stand in poorly drained areas is often the cause for these maturity differences. Ranges in corn maturity can make timing post emergence applications a challenge. Determining the maturity of corn on its height alone after it has endured prolonged cold, wet conditions can be misleading. Under cool wet conditions corn will sometimes remain small in size for its maturity. The best way to determine corn maturity is to count the number of fully opened leaves (leaf collars) rather than the plants' height. Listed below are some of the corn maturity cutoff stages for the more popular post applied herbicides.

<u>Herbicide</u>	<u>Corn Leaf Collar Stage</u>	<u>Corn Height</u>
Accent	6	20"
Atrazine	--	12"
Clarity	5	8"
Callisto	--	30"
Resolve DF	6	12"
Resolve Q	7	20"
Roundup WeatherMax	8	30"
Status	Apply after 4 lf	36"
Steadfast	7	20"
2,4-D	--	8"

**Insect Management (Scott Stewart, IPM Specialist).** Short this week -- it is hard to have insect problems when many crops are still in the bag.

**Armyworms in Wheat.** A few true armyworms are being reported but not yet at treatment level. Late maturing fields may be especially sensitive to armyworm infestations. For more detailed treatment recommendations please refer to [last week's newsletter](#).

**Thrips in Cotton.** The rain is keeping thrips numbers down on what cotton that has emerged. However, this does not mean they are not causing injury. Even low numbers can cause problems when cotton is growing slowly, and any cotton already up or emerging now is certainly struggling. Seed treatments can be expected to control thrips for 14-21 days after planting (and Temik for about a week longer). I've have some test plots that have been planted for 23-25 days that are just now putting out the first true leaf. As I touched on last week, this is a scenario where I would recommend making a foliar application of Orthene or acephate, Bidrin or Dimethoate within the next week despite the relatively low thrips numbers.

**Moth Traps.** Pheromone traps catches for several moth species are appended to the end of this report. Essentially no moths have been caught thus far. Trapping data will be shown weekly throughout the season. This effort is partially supported by a State Support Cotton Incorporated project, and we thank Tennessee growers for their support.

### Farm Management (Chuck Danehower, Area Specialist - Farm Management)

The farm bill conference report passed the House by a vote of 318 to 106 on May 14. The Senate on May 15 passed the farm bill by 81 to 15. The farm bill will go to President Bush early next week for his signature or veto. Currently, the Administration is indicating that the President will veto the farm bill. However, the overwhelming support in the House and Senate assures that if those votes hold, a veto can be over ridden. Look for more information next week as we see the direction the farm bill will take.

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 2, Ending 5-14-08)

Trap Location	Tobacco Budworm	Corn Earworm (Bollworm)	Beet Armyworm	Southwestern Corn Borer
Hardeman (Bolivar)	0	0	0	---
Fayette (Whiteville)	0	0	---	0
Fayette (Somerville)	*	0	0	---
Shelby (Millington)	*	0	0	---
Tipton (Covington)	0	0	---	0
Tipton (North)	0	0	0	---
Haywood (West)	0	0	0	---
Haywood (Brownsville)	0	*	0	---
Madison (North)	0	0	0	---
Madison (Exp. Stn.)	*	*	---	*
Crockett (Alamo)	0	0	0	---
Crockett (Maury City)	0	0	---	0
Dyer (Bogota)	0	0	0	---
Dyer (Newbern)	0	0	---	0
Lake (Ridgley)	*	0	0	---
Gibson (Kenton)	0	0	0	---
Gibson (Milan Exp Stn.)	0	0	1	0
Carroll (West)	*	0	0	---
Lauderdale (Goldust)	0	0	0	---

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

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Scott D. Stewart (editor)  
Extension Cotton IPM Specialist

A handwritten signature in black ink, appearing to read "Scott D. Stewart". The signature is fluid and cursive, with a prominent initial "S" and a long, sweeping underline.