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:** Cotton progress and defoliation Soybean insects Corn and soybean update Farm management

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

I would like to extend a big thank you to everyone who attended this week's cotton tour and wheat production meeting. Check out UTcrops.com at the following link for access to the wheat presentations from Wednesday's meeting. http://www.utextension.utk.edu/fieldCrops/wheat/presentations.htm

The Tennessee Agricultural Statistics Service reports cotton condition as 7% E, 53% good, 32% F, 7% P, and 0% very P. 11% of the crop is setting bolls compared to no report last week, 71% last year, and 32% for the 5 year average.

Based on the lack of phone calls for the last week and a half we are just waiting to fill out this crop. Some cotton fields are rapidly moving toward defoliation. So far most products and combination of products are doing an adequate job of defoliation. Please see the following table describing defoliation performance. The only desiccation that has been evident is with herbicidal type products used at high rates or when mixed with crop oil concentrate. Our first defoliation demos are going out next week. We will have in-field tours associated with the demos the following week. Also, we will begin harvesting some April planted cotton next week to get an early read on yield potential.

**DD60 Accumulation after cutout date (TASS and NWS data)**

| Location | 8/1-9/4 | 8/7-9/4 | 8/14-9/4 | 8/21-9/4 | 8/28-9/4 |
|---|---|---|---|---|---|
| Dyersburg | 613 | 470 | 369 | 267 | 144 |
| Fayetteville | 660 | 520 | 413 | 287 | 158 |
| Jackson | 619 | 476 | 377 | 272 | 149 |
| Memphis | 711 | 552 | 436 | 310 | 170 |

**Season long DD60 Accumulation (TASS and NWS data)**

| Location | 4/20-9/4 | 4/27-9/4 | 5/4-9/4 | 5/11- 9/4 | 5/18-9/4 | 5/25-9/4 | 6/1-9/4 |
|---|---|---|---|---|---|---|---|
| Dyersburg | 2152 | 2107 | 2084 | 2047 | 2028 | 1948 | 1836 |
| Fayetteville | 2211 | 2154 | 2123 | 2069 | 2051 | 1971 | 1865 |
| Jackson | 2086 | 2038 | 2016 | 1973 | 1953 | 1884 | 1780 |
| Memphis | 2458 | 2389 | 2362 | 2304 | 2268 | 2171 | 2046 |

***Use pattern and expected activity for defoliants and dessicants.***

| Harvest Aid[1] | Labeled Broadcast Rate/Acre | Max. Use per Season | Rainfree Period (hours)[2] | Pre-Harvest Interval (Days) | Estimated min. temp. | Mature leaves | Juvenile growth | Re-growth prevention | Boll opening |
|---|---|---|---|---|---|---|---|---|---|
| Def 6 | 16-24 oz | 24 oz | 1 | 7 | 60 F | E | F | P | N |
| Folex 6 | 16-24 oz | 24 oz | 1 | 7 | 60 F | E | F | P | N |
| Harvade 5F | 8-10 oz | 14 oz | 6 | 7 | 55 F | E | F | P | N |
| Lintplus | 20 oz | 36 oz | 6 | 7 | 55 F | E | F | P | N |
| Ginstar | 6.4-16 oz | 16 oz | 12 | 5 | 60 F | E | E | E | N |
| Leafless | 10-12 oz | 20 oz | 24 | 7 | 65 F | E | E | E | N |
| Aim | 1.0-1.6 oz | 3.2 oz | 8 | 7 | 55 F | E | E | P | N |
| ET | 1.5-2.0 oz | 5.5 oz | 1 | 7 | 55 F | E | E | P | N |
| Dropp SC | 1.6-3.2 oz | 9.6 oz | 24 | 5 | 65 F | E | E | E | N |
| Freefall | 0.1-0.2 # product | 0.6 # product | 24 | 5 | 65 F | E | E | E | N |
| Finish 6 Pro | 21-42 oz | 42 oz | 6 | 7 | 60 F | E | P | F | E |
| FirstPick | 96-112 oz | 112 oz | N/A | 7 | 60 F | E | P | P-F | E |
| Glyphosate[3] | | | 4 | 7 | 55 F | F | F | E | N |
| Ethephon (many) | 21-42 oz | 42 oz | 6 | 7 | 60 F | F | P | P | E |
| **Desiccants** | | | | | | | | | |
| Gramoxone Inteon | 11-21 | 21 | 30 min. | 3 | 55 F | F | E | P | F |
| Sodium chlorate | 4.5 # ai | N/A | 24 | 7 | 55 F | F | F | P | N |

[1] Addition of spray adjuvants may enhance defoliation during cold temperatures or when leaves are tough from drought stressed conditions. However, adjuvants may increase leaf desiccation during the early season when temperatures are warm.

[2] Expected temperature ranges are estimates only and may or may not be exact. Other conditions, including temperature, moisture and crop status will play a role in product performance.

[3] Non-Roundup Ready only.

**Soybean Insect Management (Scott Stewart, Extension IPM Specialist).** It is the time of year when we shift are energies to harvesting corn and early beans and defoliating cotton. However, don't forget about your late soybean crop. Some areas have decent yield potential. R3-R6 is a critical window to protect soybean fields from insect pests, and later maturing fields will be an oasis for these critters. Although corn earworms did not cause wide scale problems, I have had a several reports of 1X-2X threshold populations over the last two weeks in wheat beans. There was one report of 96 larvae/100 sweeps in the Great River Road area on wheat beans which had a relatively open canopy. *Reminder*: large corn earworm infestations are more likely in fields where the canopy has not yet closed. These are sometimes fields with relatively low yield potential, but they should still be treated if populations reach $10^{+}$ larvae per 25 sweeps. Corn earworm larvae feed on pods, and they will eat a similar amount of seed regardless of yield potential. We are no longer running moth traps, but the

bollworm/corn earworm flight is subsiding and most soybean fields now have a closed canopy. We may not have many more problems with this pest.

In contrast, the likelihood of stink bug populations reaching treatment threshold will increase over the next several weeks in late group IV and group V fields. I visited several fields this week in the Millington area that were averaging over one stink bug per sweep ($100^{+}$ bugs per 100 sweeps). These fields were just reaching R6, and I should mention that they were treated with an insecticide at R3. This reemphasizes that spraying at R3 does not mean you are finished managing insects. *Reminder*: the treatment threshold for stink bugs increases from 12 to 36 per 100 sweeps once fields reach mid podfill (R5.5). I would not argue too much with treating fields once they hit 30 bugs per 100 sweeps. I'm not convinced this is necessary despite the higher market price for soybeans, but in many cases you will only be jumping the gun by a week or so. A danger with being too early is that stink bugs or other pest populations may rebuild and a second spray will be required when one would have been sufficient. Repeated insecticide applications are more likely to flare soybean looper populations (see below).

**Green Stink Bugs (hatching eggs, small nymph are large nymph)**

Soybean loopers populations are not being reported at treatable levels, but Louisiana, Mississippi and southern Arkansas have had unusually high populations this year. Soybean loopers do not overwinter in Tennessee. Populations migrate their way thru the Gulf States as the season progresses. Soybean loopers may never reach Tennessee in significant numbers during some years. When they do, it is almost always later maturing fields that are seriously infested. I'm guessing this may be a relatively bad year for loopers in Tennessee. The treatment threshold is when 20% or more defoliation as occurred. I also use the "Mississippi threshold" of 19 larvae per 25 sweeps. This number of larvae will typically cause about 20% defoliation. Intrepid (4 oz/a), Larvin (18-24 oz/a), Steward (6 oz/a) and Tracer (1.5 oz/a) are all good treatments for soybean looper. Pyrethroid insecticides are not good choices, providing partial control at best.

Because I have had some questions, the following is a repeat from a previous newsletter.

…. The above insecticides for looper control have little or no activity on stink bugs. Orthene/Acephate (1 lb/a) or Lannate LV (24 oz/a) are sometimes used for a combination of loopers and stink bugs, but Orthene will sometimes miss a few loopers and Lannate will sometimes leave a few stink bugs. Perhaps a better option for a combination of stink bugs and loopers is Intrepid (3-4 oz/a) plus a pyrethroid insecticide or methyl parathion (16 oz/a). Remember that pyrethroid insecticides are not as effective on brown stink bugs.

**Corn and Soybean Updates (Angela Thompson Corn and Soybean Specialist).** Corn harvest has started in a number of areas this week, but the showers and humidity have kept things damp enough to hinder progress in southwest Tennessee. Areas that didn't receive much rain yesterday should be rolling again this weekend. Early reported dryland yields haven't been too spectacular (anywhere from less than 10 bushels to 125) which is not surprising as the more droughty areas may have matured out first. My best guess is that we are less than 10% through harvest.

**Estimating Soybean Yields.** A few early fields have been harvested with numbers hovering in the 30's for non-irrigated beans in west Tennessee. With the soybean crop being all over the board as far as yield potential, a few folks have asked for a way to come up with a yield number in fields. Soybean yield estimates are most accurate when they are measured within three weeks of maturity, but are still only estimates. The method below assumes 2.3 seeds per pod but you can use a different value if this doesn't reflect what is in your field.

1. Determine the number of feet of row needed to make 1/1000 of an acre using the table below.

| Row Width | Length of Single Row to Equal 1/1000 of an acre | |
|---|---|---|
| (inches) | (feet) | (inches) |
| 7 | 74 | 8 |
| 10 | 52 | 3 |
| 15 | 34 | 10 |
| 20 | 26 | 2 |
| 30 | 17 | 5 |
| 36 | 14 | 6 |

2. Count the number of plants in ten (10) different randomly selected 1/1000$^{th}$ of an acre sample areas. Calculate the average. Avg. = _____ = A (plants/A)

3. Count the number of pods per plant on ten (10) randomly selected sample areas. Calculate the average. Avg. = _____ = B (pods/plant)

4. Calculate pods/acre by multiplying plant population by pods/plant.

A X B = _____ = C (pods/acre)

5. Calculate seeds/acre by multiplying pods per acre by an estimate (2.3 seeds/ pod).

2.3 X C = _____ = D (seeds/A)

6. Calculate pounds/acre by dividing seeds/acre by an estimate of 3000 seeds/pound.

D ÷ 3,000 = _____ = E (lbs/A)

7. Estimate yield by dividing pounds/acre by 60 pounds/bu.

E ÷ 60 = _____ = Yield (bu/A)

**Farm Management Update (Chuck Danehower, Area Specialist - Farm Management).**

The deadline of **September 16** is approaching for producers who would otherwise be ineligible for the new disaster assistance program to become eligible by paying a fee as required by the 2008 Farm Bill. The 2008 Act requires producers who wish to participate in the new disaster programs to have crop insurance or non-insured crop disaster assistance (NAP) coverage for the land for which assistance is being requested, and for all farms in all counties in which they have an interest. Since the 2008 Act was enacted after the application periods had closed for those programs, producers who did not have such coverage could not comply with this requirement in order to be eligible for the new disaster programs. However, the 2008 Act authorizes a waiver that allows producers to pay a fee, called a "buy-in" fee, to be eligible for this new disaster assistance.

Every producer whose crops, including grazing lands, are not fully covered by crop insurance or NAP may take advantage of this one-time opportunity. The buy-in fee is due no later than Sept. 16, 2008, 90 days after the date of enactment, as required by the 2008 Act. Those who miss this opportunity will not be eligible for disaster assistance. Producers are also reminded that the payment of the applicable buy-in fee does not afford the producer crop insurance or NAP coverage; it only affords eligibility for the 2008 disaster programs.

The crop insurance and NAP coverage requirements will be waived in 2008 for producers who did not obtain crop insurance or NAP coverage by the applicable sales closing date, if the producer files an application for waiver and pays a buy-in fee in an amount equal to the 2008 applicable NAP coverage or catastrophic risk protection plan fee for the crop or grazing lands.

The buy-in fee for 2008 eligibility only for either the catastrophic risk protection insurance (CAT) or NAP is $100 per crop, but not more than $300 per producer per administrative county, or $900 total per producer for all counties less any previously paid fees for CAT and/or NAP. Producers can contact their local administrative FSA County Office to file the application for waiver and pay the applicable fees. The applicable buy-in form must be completed and applicable fees paid by Sept. 16, 2008. Payment of the applicable fees will allow the producer to be eligible for benefits for losses under Supplemental Revenue Assistance Payments (SURE) Program, Livestock Forage Disaster Program (LFP), Tree Assistance Program (TAP), and Emergency Assistance Livestock, Honeybees and Farm-Raised Fish Program (ELAP).

The information above is from the FSA website. My understanding is that producers will have to have crop insurance on all crops to be eligible for disaster assistance. There was a permanent disaster assistance provision enacted in the 2008 Farm Bill. For example, a producer who did not have any crop insurance on their 2008 wheat crop would not be eligible for the SURE disaster program for any of their crops. However, if that producer were to pay the $100 CAT fee for their 2008 wheat by September 16, he/she would be eligible for disaster assistance for the 2008 crops. If producers think that they might have a disaster claim, it would be to their advantage to go back and pay the fee. Otherwise, I would focus on the 2009 crop and start evaluating the level of crop insurance needed. Keep in mind the sales closing date for 2009 Wheat Crop insurance is September 30, 2008. For more information on this buy in waiver for SURE, contact your Farm Service Agency (FSA) office.

**DISCLAIMER STATEMENT**

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label takes precedence over the recommendations found in this publication. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), The University of Tennessee, The Institute of Agriculture and the University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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