

IPM NEWSLETTER

Update for Field Crops and Their Pests

No. 3

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Five Day Cotton Planting Forecast (Larry Steckel, Assistant Professor)

These comments are meant to be used as a guide for the critical decisions of when and where to begin planting the 2006 cotton crop. Weather forecasts that are used are based on National Weather Service forecasts for Memphis, Jackson, and Dyersburg, TN. As with any forecasts, these are subject to errors and change. Similarly, the comments included here provide no guarantee of successful stand establishment and are meant only as a guide.

Temperatures are forecasted to provide very good DD60 accumulation over the next 5 days for all of West Tennessee. There is little or no rainfall in the immediate forecast. Many I have talked to sound like they will start planting cotton in the next few days. The forecast can not be much better than this for those who intend to plant in mid-April. Remember for this time of year soil temperatures tend to lag behind the air temperatures. This is particularly true for our no-till acres that have had extensive winter annual growth. The best fields to start on would be those with little cover.

North Tennessee (Dyersburg)

Predicted DD60 accumulation over the next 5 days – 64.5 (Very Good)

Weather outlook – Continued warm temps with highs in the mid 80s and lows in the low 60s and a 20% chance of rain on Monday.

Central Tennessee (Jackson)

Predicted DD60 accumulation over the next 5 days – 59 (Very Good)

Weather outlook – Continued warm temps with highs in the low 80s and lows in the low 60s and a 20% chance of rain on Sunday and Tuesday.

South Tennessee (Memphis)

Predicted DD60 accumulation over the next 5 days – 72.5 (Very Good)

Weather outlook – Continued warm temps with highs in the mid 80s and lows in the high 60s and a 20% chance of rain on Monday.

Forecast DD60s after planting

<10

11-15

16-25

25-50

>50

Estimated Planting Conditions

Very Poor

Poor

Marginal

Good

Very Good

Cotton Planting Considerations

1) Warm/Cool Seed Germination Tests

If you have not done so, now would be a good time to contact your seed dealer about the germination tests on the particular seed lot you have purchased. Though warm germination tests will provide a good guideline about the quality of the seed, the real useful number is the cool germination score. Seed lots with excellent cool germination scores would be good candidates to plant in April, while lots with poor cool germination scores will often respond with better stands when planted in May.

2) Soil Temperature

In order to obtain the best results soil temperatures should be at least 68°F at the two inch depth with favorable conditions (accumulation of 25-50 DD60s) forecasted for the next five days. Conditions 2-5 days after planting are critical for stand establishment.

3) Seed Rates

With the ever increasing seed cotton prices, everyone would like to be as efficient as possible with the seeding rate. The problem is that reducing seeding rates too low does not provide any insurance under unexpected adverse conditions. Seeding rates should be figured with final plant population in mind because 3 seeds per foot rarely results in 3 plants per foot. Consider planting conditions, soil type and germination information when deciding on seeding rates. For more information please visit our seeding rate calculator at: http://www.utextension.utk.edu/fieldcrops/cotton/seed_rate_calc.htm.

4) Planting Speed and Depth

One of the best recommendations for making a uniform stand is to slow the planter down. Planters ideally should not be run more than 5 mph. In fact planters driven 8 mph or more will drop as many seeds in a minute as some machine guns can fire bullets in that time. That kind of speed makes it very difficult even for the best maintained planter to provide uniform stands. Cotton should be planted into moisture but should not be planted any deeper than 1.5 inches. This is particularly true in April when soil temperatures are inherently cooler. If soil moisture cooperates, planting cotton at a ½-inch depth is ideal.

Cotton and Soybean Burndown Considerations (Larry Steckel, Assistant Professor)

The phone has been busy with folks worried about the effectiveness of their burndown applications on glyphosate-resistant (GR) horseweed. In previous years, applications under cool conditions take Clarity 2 to 3 weeks before horseweed look like they may die (Picture right). In some cases a follow up application may be needed prior to planting or behind the planter.

Close to Cotton Planting Burndown Options

There are several options for follow up or first time burndown treatments for GR horseweed just prior to cotton planting. The two options center around the use of either Gramoxone Inteon or Ignite 280. In research we have had good success with either Gramoxone Inteon (48 oz/A)



or Ignite 280 (23 oz/A) plus either Cotoran (32 oz/A) or Caparol (32 oz/A) or Direx (16 oz/A). These treatments have been very good for initial burndown of horseweed or as a follow up treatment after an initial burndown.

Late Season Burndown Options for Soybean

Some folks are considering using FirstRate mixed with glyphosate to control GR horseweed prior to planting soybeans. This mixture should work if temperatures are warm. However, if temperatures are cool (<50°F at night) FirstRate will often not provide consistent control of horseweed. The option that has been the most consistent inside the window where Clarity can no longer be used is 48 oz/A of Gramoxone Inteon + 1% COC + 4 oz/A Sencor or 20 oz/A Boundary. The mistake some make with this mixture is that they cut the Gramoxone rate. We have found in research as well as grower fields that cut rates of Gramoxone will often provide incomplete control of horseweed.

Wheat Fungicides (Angela Thompson, Assistant Professor)

Fungicide. I've had a few calls this week regarding wheat fungicide sprays. This is the best time to spray many fields (after the flag leaf has emerged but before heading). The Tilt label indicates better potential yield enhancement when Tilt is sprayed at the flag leaf stage, although Tennessee has a 24C that allows Tilt applications through full head emergence if an earlier spray cannot be applied on time. Growers are encouraged to include a spreader sticker with the treatment for maximum coverage.

Wheat and Corn Insects (Scott Stewart, Extension IPM Specialist)

Cutworms. There have been reports of treatable cutworm infestations occurring in corn, at least in the northwest parts of Tennessee. Fields should be scouted shortly after emergence, particularly if insecticides were not applied at or near planting. Corn is more sensitive to stand loss than most other crops, and if 3-5% freshly cut plants are found, applying a pyrethroid insecticide should be considered. Cutworms are found underground during the day, often near freshly cut plants. Larvae are often concentrated in low, wet parts of the field, and spot treatments can sometimes be made. Insect control recommendations can be found at the web address below (although the web site was down when I checked this morning).

Corn Insect Control: <http://www.utextension.utk.edu/fieldcrops/publications/pbfiles/pb1064.pdf>

True Armyworms. The paragraphs below are quoted from an article sent out by the University of Kentucky. It suggests that true armyworms populations, at least in Kentucky, appear to be developing similarly to previous, outbreak years. It is not clear what this means for Tennessee, but it does suggest that true armyworms populations may be unusually high this year, and we might expect damaging infestations beginning in early May. True armyworms can potentially damage wheat and corn by totally defoliating plants. In outbreak years, I've even observed larvae migrating from grassy ditch banks and destroying seedling cotton. The point - stay alert for this pest!

Doug Johnson (Extension Entomologist, Kentucky). "Capture of true armyworm moths are back on the Rise! UK-IPM's pheromone baited traps on the University of Kentucky Research and Education Center (UK-REC) captured 290 and 252 moths per-trap-week, in the week ending 06 Apr 06. These are unusually large numbers compared to the past four years and very similar to the trap captures during the armyworm outbreak year 2001. While trap catch numbers cannot be directly translated to outbreak levels of the damaging larval (worm) stage, they certainly indicate that scouting for this pest is necessary.

In the outbreak year of 2001 our greatest first generation peak trap captures were about 400 moths per-trap-week during the middle of April. It is definitely possible that our current capture for this first week in April could indicate that record numbers of moths are in the offing during the normal middle-of-April peak flight time.

The last time this happened (2001) Kentucky producers saw outbreaks in hay & pasture fields as well as in small grains. Corn is also a target host of this pest. It is too early to try any control measures and high trap counts do not necessarily mean that a larval outbreak will occur. Armyworms are a major food source for many natural enemies. Natural enemies (predators, parasites and disease) usually control armyworm populations. However, large trap counts do indicate that producers, scouts and consultants should be watching for the worms to appear. Additionally, if an outbreak does occur, it will not be uniform across our production area or crop type. Each field will have to be evaluated individually for the presence/absence and relative number of worms.....

If in fact our trap catch numbers are still climbing and the situation is similar to what occurred in 2001, we might expect our peak trap catches to be on or about 14 Apr. In this case the major portion of the population should begin about 02 May.

Also, true armyworms require about 498 DD to complete larval (worm) development, so we might expect a large disappearance of the larvae on or about 29 May.....I think it likely that if the “outbreak” does occur it will likely begin near the first week in May and disappear in the final week of May. Of course there will be worms present both before and after the major occurrence.”

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The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914. Agricultural Extension Service, Charles L. Norman, Dean.

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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