

IPM NEWSLETTER

Update for Field Crops and Their Pests

No. 8

May 3, 2007

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

The Tennessee Ag-Statistics Agency reports that about 5% of the cotton crop was planted as of April 29. This is 5% behind 2006 and about 3% behind the five-year average of 8%. Based on conversations with County extension agents and industry personnel, I believe we are a little further along than this report indicates. Next weeks report should reflect increased planted acres. As most of us are dodging widely scattered showers, other than the chance of rain, the planting forecast looks very good (see planting forecast below). Keep in mind that full season varieties such as Stoneville 5599 and Delta Pine 555 should be planted prior to May 10. After May 10, we need to be planting early season varieties to make sure we have enough growing degree days to finish out the crop. One other aspect to keep in mind is, with the recent dry weather, make sure that fields burndown with dicamba have not only met the waiting period of 15 days but also have received 1 inch of rainfall.

Cotton Planting Forecast for April 4- May 8, 2007

Brownsville, TN

Predicted 5-day DD60 accumulation – 58 (Very Good)
Rainfall – 4/28 (30%)

Dyersburg, TN

Predicted 5-day DD60 accumulation – 57 (Very Good)
Rainfall – 4/28 (30%)

Fayetteville, TN

Predicted 5-day DD60 accumulation – 49 (Good)
Rainfall – 4/28 (20%)

Memphis, TN

Predicted 5-day DD60 accumulation – 66 (Very Good)
Rainfall – 4/28 (30%)

Milan, TN

Predicted 5-day DD60 accumulation – 55 (Very Good)
Rainfall – 4/28 (30%)

Outlook (for all regions) – The forecast is for chance of showers on Friday and Saturday and good to very good accumulation of DD60s over the next 5 days. The good news is that a warming trend is predicted as we start next week. Keep in mind that these are not the kind of conditions that will result in a full stand five days after planting. Emergence and seedling growth is likely to be slow. The good news is that temperatures are expected to be above average for the period. The really good news is that some who needed it received some rain. The bad news is that some who need rain did not get any.

Cotton that was planted into moisture has typically been emerging 5-6 days after planting over the last week

Predicted DD60 accumulation for five days following planting	Outlook for planting
<10	Very poor
11-15	Poor
16-25	Marginal
25-50	Good
>50	Very good

DD60 Accumulation (TASS and NWS data)

Location	4/20/07 – 5/04/07	4/27/07 – 5/04/07
Brownsville	96	49
Dyersburg	101	53
Fayetteville	104	57
Memphis	133	73
Milan	97	50

Wheat Update (Chris Main, Extension Cotton and Small Grains Specialist)

I have been getting a lot of questions about the suitability of some grain from the freeze damaged wheat being used for seed next fall. First check to make sure the variety of wheat you planted allows you to save seed. Next, quality of grain from freeze injured plants should be checked for germination percentage before planting. Grain of most wheat varieties has a natural dormancy mechanism that causes low germination for several weeks after harvest. Grain should be subjected to cold treatment before conducting a germination test, or the test should be delayed until about four weeks after harvest. The suitability of grain from freeze damaged wheat for seed use could be improved by proper conditioning. Conditioning removes small, shriveled, and immature kernels leaving the largest kernels which should be the most vigorous. The amount of conditioning needed is dependent on the severity of the freeze injury. Germination percentage of the conditioned seed should be checked after any long period of storage. The seed will typically maintain a high level germination for one year after harvest under proper storage conditions.

Several questions about the development of seeds inside the glumes have been asked. The picture shows typical development of the seed. Shortly after pollination, healthy kernels begin to develop and are greenish white. As healthy kernels continue to develop they will contain a clear liquid. If kernels were



developing when the freeze hit the development stops immediately and the seeds are grayish white, rough to the touch, and shriveled. It is normal for developing seed to look like they have been cut in half. As the grain continues to develop, it will fill out the blunt end of the seed. If the developing seed are brown, black, or contain a brownish liquid in these kernels will not develop normally and have died.

Weed Control (Larry Steckel, Extension Weed Specialist)

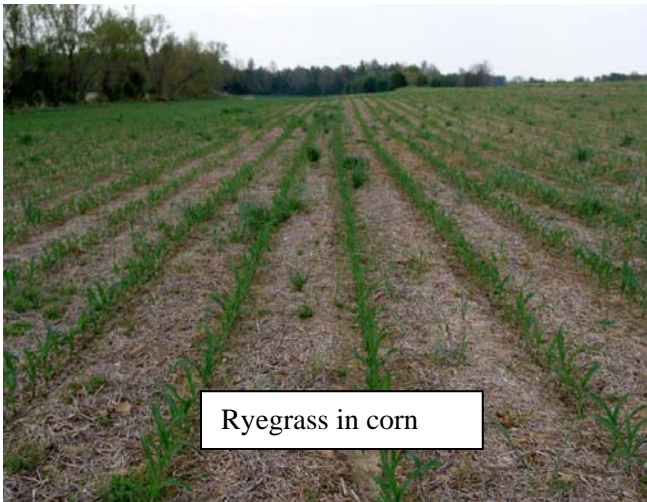
Crisis Exemption for Harmony Treated Wheat: We have received a crisis exemption to cut for hay or graze wheat treated with Harmony Extra XP, Harmony GT or XP herbicide. This comes just in time so producers can do something with the many acres of wheat that were damaged by the Easter weekend freeze. The exact wording for the crisis exemption is as follows:

The Tennessee Department of Agriculture petitioned the U.S. Environmental Protection Agency on behalf of those Tennessee producers who experienced damage to more than 380,000 acres of wheat due to freezing temperatures.

If you applied DuPont Harmony GT XP Herbicide EPA Registration No. 352-446, DuPont Harmony Extra XP Herbicide EPA Registration No. 352-611 or DuPont Express XP Herbicide, EPA Registration No. 352-509 for weed control in wheat, the petition resulted in the following: **You may bale the hay or use the wheat crop for grazing from May 1, 2007 through June 1, 2007.**

Glyphosate Resistant Horseweed Management: Glyphosate-resistant (GR) horseweed (marestail) control this spring on a whole has been much better than last year. However, the dry conditions over the last three weeks have caused inconsistent control in some cases. We saw this last year as well with late April applications of dicamba during a very dry period only providing about 80% control. When walking these fields, pick up some of the horseweeds that are still green. If the stem is hollow then it will die. If the stem is still white it will probably recover to some extent. With the good temperatures over the next week, Ignite should provide good control of these escaped horseweeds. Gramoxone Inteon at 40 ozs/A + either Caparol at 32 ozs/A or Cotoran at 32 oz/A or Direx at 16 oz/A should also control these horseweeds before cotton planting. In soybeans the story is a little different this year. One of the go-to tank mixes to control horseweed right before soybean planting, Gramoxone Inteon + Sencor, can not be used due to supply problems with Sencor. Bayer, the company that manufactures Sencor and most generic metribuzin, has been caught flat-footed by the demand this year. The folks at Bayer tell me there will be no new Sencor available until later this month. The best alternative would be FirstRate at 0.3 to 0.45 oz/A + glyphosate. Having warm temperatures should enable this tank mixture to control horseweed prior to soybean planting.

Ryegrass Control in Corn: Driving through West Tennessee it is very evident that there is a widespread infestation of ryegrass in numerous corn fields. If the corn is Roundup Ready and you plan to treat with Roundup, less than optimum ryegrass control may be the result. Ryegrass is most easily controlled with glyphosate when it is very small or when it is headed out. Glyphosate will typically provide inconsistent control of ryegrass between these two stages. In corn fields where the ryegrass pressure is not heavy this will not be a problem, but in fields with heavy pressure this could cause yield loss. Accent or the premix Stout (Accent + Harmony) by themselves or mixed in with glyphosate will typically provide the best control of ryegrass in corn. With the rain and heat this week the corn will grow very rapidly and will quickly pass the 6th collar stage of development. Accent and Stout can not be sprayed beyond 6 collar corn or they could cause yield loss.



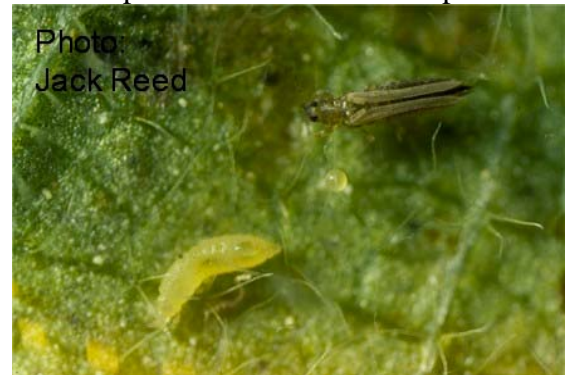
Ryegrass in corn



Ryegrass at a hard to control

Insect Issues (Scott Stewart and Russ Patrick, IPM Specialists)

It is still fairly quiet on the insect front. With some cotton emerging, it is necessary to scout fields for **thrips**. I've had several comments about people already finding thrips on many plants, despite having put out good at-planting treatments. Don't be too concerned about the presence of adults. Thrips are very mobile, and adults are constantly moving onto fields. These adults must feed to be exposed to insecticide. Enough adults can potentially do some damage before the at-planting treatments do their job, but with the currently good emergence conditions, I am not very concerned. However, if the weather was cold and nasty, I might be suggesting a foliar spray if an average of one or more thrips were present on each plant. If part of the population being found is immature thrips, this is an indication that at-planting treatments are playing out.



We typically start seeing immature thrips show up about 21 days after planting with Gaucho and Cruiser seed treatments. The need for a foliar spray on top of seed treatments is highly dependent on the weather conditions since planting (as well as thrips populations). In poor growing conditions, which we are not currently experiencing, a good argument can be made for automatic, foliar thrips sprays. However, it is critical to make the decision early, before cotton hits the second true leaf stage. If you are sitting at the first true leaf stage and you are already 20+ days after planting, consider a foliar thrips spray (especially if immatures are present). The standard treatments include acephate (0.2 lb ai/a), Bidrin (2-3.2 oz/ a), and dimethoate (4-8 oz/a). Keep in mind that dimethoate in particular can cause some "leaf burn", although this seldom affects yield. Tank-mixes with glyphosate increase the chances of burning with all these insecticides. Pyrethroid insecticides are not recommended because they are more likely to flare spider mites or aphid populations, however, an exception should be made if cutworms also require treatment.

Cutworms are being found in some corn fields and should also be looked for in emerging cotton. I've had to spray cutworms in one test where corn was replanted after the late freeze. There were no signs of cutworms prior to the freeze. This makes the point that I've made before. Preplant, preventative cutworm applications do not last forever. We need to be especially vigilant in replant scenarios because we've already had existing,



attractive vegetation in the field prior to the replant. If you are confronted with cutworms, the pyrethroid insecticides are preferred (Warrior, Mustang Max, Asana XL, Baythroid XL, etc.). Treatment is usually recommended when 3-5% of corn plants are cut and larvae are present. UT does not recommend the very low pyrethroid rates that are sometimes suggested by others. As a rule of thumb, about one-half the normal “bollworm rates” are the minimum rates that should be used. However, you can reduce these rates further by banding the application.

Recommended foliar insecticides and rates for thrips and cutworms can be found on [utcrops.com](http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/InsectBook.htm) at http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/InsectBook.htm.

Stored grain fumigation: It is the law that anyone who plans to fumigate grain bins and elevators must have a “Plan of Action”. By using some available software, you can design a plan to suit your situation. Contact Russ Patrick (731-425-4713 or russ1212@utk.edu) if you would like a copy of a CD which details the Fumigation Management Plan for those planning to fumigate.

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

The first week of May puts us in the start of the prime planting window for cotton, soybeans, and grain sorghum. Corn planting for the most part has finished with the exception of some replanting. Most agronomist and producers alike will agree that the highest yields generally come from crops that are planted on a timely basis during this planting window. This favorable window usually runs until about the 3rd week of May. It may be a little shorter for cotton and perhaps a little longer for soybeans.

The timeliness of planting is one of the most important aspects of a farm operation. Producers should evaluate their planter capacity for the acres of crops grown and maturity level of the varieties planted. As there is this week, factor in weather related delays in planting. In the late 1980s, Estel Hudson & Ozzie Vaigneur with UT calculated that on the average there were 11.8 days available in May for fieldwork. That information should still hold true for today. Do you have enough planter capacity to plant your crop on a timely basis? As you plant, it is important to evaluate the job your planter is doing as well as the timeliness of planting. This should be an annual evaluation at planting with adjustments made if necessary. Adjustments, whether it is a new planter or needed repairs, may not be able to be done in time for the current crop. Farming is a continuous progress, so the evaluation will be important for the next crop year.

One consideration for producers who are pressing to get their crop planted on a timely manner is to consider having some custom planting done. The reverse could also be true for a producer who finishes planting early – hire out to do custom planting. We always get calls for how much should I pay or how much should I charge for custom planting. The UT Crop Budgets list the total costs for a 12 row planter and 215 HP tractor as \$8.89 acre. The University of Kentucky has a 2007 Custom Rate publication that compiles custom rates from 5 states. The web address of this publication is http://www.uky.edu/Ag/AgEcon/pubs/ext_aec/2007-01.pdf. They use an average rate as well as list 15% below average and 30% above average. These differences help account for the efficiency among producers. The higher cost custom rate should capture more of the custom operators working with less efficient equipment.

Although cotton is not listed, a comparable custom rate for no-till corn ranges from \$11.90 an acre to \$18.19 acre with the average final rate of \$14.00 acre. Soybeans planted on 15 inch rows range from \$12.80 - \$19.57 acre with an average final rate of \$15.05 acre. On 30 inch rows, the range is \$12.67 - \$19.38 with an average final rate of \$14.91. Drilled no-till soybeans custom rates range from \$12.14 - \$18.56 acre with an average final rate of \$14.28 acre.

A producer just wanting to cover the cost of planting would need at least \$9.00 acre while the going market rate is \$14 - \$15 per acre. Some adjustments should be made depending on the efficiency of the operator. In most cases, yield increases from timely planting will offset the custom rate cost. Closely evaluate your planter and use the information to make adjustments for not only this year, but 2008. If you would like a copy of the Kentucky publication drop me an email at scdanehower@utk.edu or call 731-635-9551.

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