

IPM NEWSLETTER

Update for Field Crops and Their Pests

No. 7

April 27, 2007

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

Cotton planting was getting under way slowly this week. Cotton that was planted at the West Tennessee Research and Education Center on Friday May 20 into soil that was 65 to 67°F is beginning to emerge. Pay close attention to the cotton planting forecast that is included below. I expect cotton planting to pick up this coming week as the grounds dried up after the recent rainfall.

Cotton Planting Forecast for April 27- May 1, 2007

Brownsville, TN

Predicted 5-day DD60 accumulation – 33(Good)

Rainfall – 4/28 (30%)

Dyersburg, TN

Predicted 5-day DD60 accumulation – 36 (Good)

Rainfall – 4/28 (30%)

Fayetteville, TN

Predicted 5-day DD60 accumulation – 18 (Marginal)

Rainfall – 4/28 (20%)

Memphis, TN

Predicted 5-day DD60 accumulation – 47 (Good)

Rainfall – 4/28 (30%)

Milan, TN

Predicted 5-day DD60 accumulation – 26 (Good)

Rainfall – 4/28 (30%)

Outlook (for all regions) – The forecast is for chance of showers on Saturday and a marginal to good accumulation of DD60s over the next 5 days. Some forecast lows drop below 50F for Friday and Saturday especially in middle Tennessee. 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.

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

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

The wheat crop continues to be in a very poor state after the Easter freeze. Wheat that has the best chance of making *some* grain should have anthers showing from the glumes of the seed head (See picture). I have found very few fields in West Tennessee that are worth taking to grain unless you plan to plant double crop soybeans. Even fewer fields warrant the use of a fungicide this year. We are still working to get a crisis exemption label for Harmony Extra that was used on wheat this year. This crisis exemption would allow wheat treated with Harmony Extra to be cut and fed to livestock as hay or grazed in the field. Continue to watch for e-mail updates about the status of this crisis exemption.



Corn and Soybean Update (Angela Thompson, Extension Corn and Soybean Specialist)

I believe we have finally turned the corner on the corn crop this week. Replant decisions have either been made or already implemented and corn that is out of the ground looks good. We were pretty fortunate that most folks who needed to replant back to corn were able to find seed to replant with. Some settled for what they could get- but at least we found seed. Many thanks to our seed industry reps who came through with seed for us in a pinch. I know producers appreciate the help provided by their county agents who traveled a lot of miles this month to evaluate stands and generally make replant decisions a little less painful. Based on my best SWAG, we replanted or will replant between 175,000 and 200,000 acres of our March planted crop.

I would like to dispel a rumor that has been floating around west Tennessee the past few weeks—you may have heard this one--that chilled corn will only produce nubbin ears, will not tassel, will never grow right, etc... The corn we kept that was planted before the freeze that has a uniform stand should produce an ear as usual. I don't pretend to know all there is to know about severe freeze impacts on corn, but based on feedback from my Midwestern colleagues who suffer more crop freezes, we should have decent ear production in our salvaged corn.

Soybean Crop Getting Planted. Yes, we do have soybeans in the ground. Warmer weather and moderate moisture conditions have allowed beans to emerge in 5 to 7 days. A seeding rate of 150,000 seeds per acre works well for MG 4 and MG 5 varieties. We typically plant MG 3 varieties at about

180,000 seeds per acre. More consistent stands have been obtained by planting early MG 4s earliest, then MG 3s, MG 5s and the remaining MG 4 varieties.

SOYBEAN PLANTING GUIDE

Row Width (Inches)	Desired Seeds Per Acre (thousands)				
	100	125	150	175	200
	Plant this many seeds per foot of row				
7	1.3	1.7	2.0	2.3	2.7
10	1.9	2.4	2.9	3.3	3.8
15	2.9	3.6	4.3	5.0	5.7
20	3.8	4.8	5.7	6.7	7.6
30	5.7	7.2	8.6	10.0	11.5
36	6.9	8.6	10.3	12.1	13.8
38	7.3	9.1	10.9	12.7	14.5
<p>For other planting rates or spacing: seeds per ft = planting rate divided by (522,720 divided by row width in inches)</p> <p><u>Suggested Guidelines:</u></p> <ul style="list-style-type: none"> -Increase by 10% in rough no-till seedbeds, where cool, wet conditions are present or when planting with drill -Increase by 10% in double-crop beans -Decrease by 10% if lodging has occurred with a field in the past and particularly when planting a variety that tends to lodge 					

Planting Soybeans into a Failed Wheat Crop. When soil N is abundant, soybean plants will simply delay nodule formation until soil N is used up, then nodulate to fix their own nitrogen. I am comfortable planting soybeans back into mowed/killed wheat where little N (20 to 40 lbs) is suspected to linger from the wheat crop. Based on research conducted in the Midwest, soybeans planted into plots where up to 100 lbs N were applied, grew normally and produced yields similar to zero nitrogen treatments. Maturity Group 2, 3 and 4 varieties were utilized in this work. I am a little uneasy with very high N levels that might delay nodule formation until late in the season. Where high residual N is a concern, producers may want to delay removing living wheat from the field to allow more N removal before planting back to soybeans.

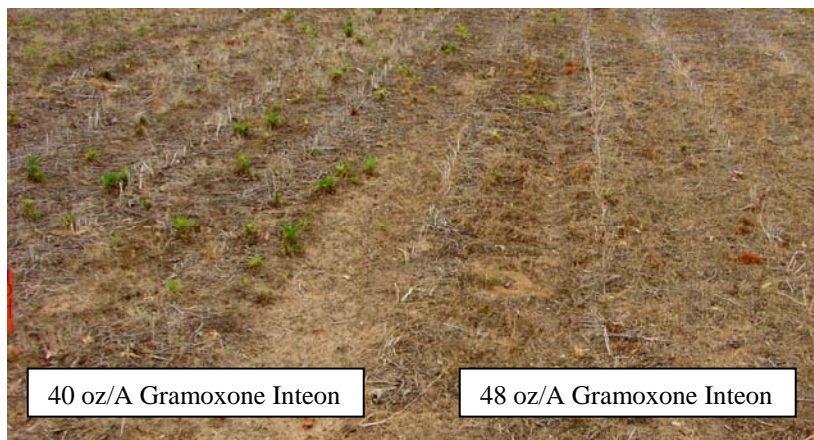
Weed Control (Larry Steckel, Extension Weed Specialist)

Corn Weed Control. The scramble this past week to plant and in many cases replant corn has left some folks to comment that they were not familiar with the brand name of the seed corn they wound up with let alone the hybrid number. While it is still somewhat fresh in your memory take a moment and update your records of what corn hybrid was planted or replanted in which field. In some cases Roundup Ready hybrids were replaced with conventional hybrids. After all we have been through with corn planting this spring lets not spray Roundup on a non-Roundup Ready corn hybrid. If in doubt go out with a hand sprayer and spray Roundup on a few corn plants at the end of a field and check back in a week and see if they are tolerant.

I have had several phone calls on a new corn herbicide called Status. Most of you are familiar with Distinct herbicide which is dicamba plus a synergist that greatly enhances the activity of the dicamba molecule in plants. That is why the rate for Distinct is 4 to 6 ozs/A and is much lower than the Clarity

rate of 8 to 16 ozs/A. There have been a few instances where Distinct has injured corn. Status is essentially the same as Distinct herbicide with a safener added to deter crop injury. The rate for Status is 5 to 10 ozs/A. The typical field use rate is 5 ozs/A. Status can be applied from V2 to V10 corn (36 inches tall). This window is larger than either Distinct or Clarity and that is due the safener added to Status. The other question I get about Status is my experience with it. I have just looked at Status this year for the first time and that corn was frozen back so I have yet to form an opinion.

Cotton Weed Control. There has been a significant late flush of glyphosate-resistant horseweed in many fields that will go to cotton. We went into the February with a moderate population of horseweed but a late flush is very evident in many fields. In many cases these fields will be planted next week to cotton so Clarity is now out of the question. The second best option then is to go with 48 ozs/A of Gramoxone Inteon plus 32 ozs of



Caparol or 32 ozs of Cotoran or 16 ozs of Direx. A 0.25% NIS should also be added to this tank mixture. In research this tank mixture has provided better than 90% control. Here is the rub **do not cut** the Gramoxone Inteon rate. Just dropping back to 40 ozs can **decrease** control significantly (see picture right). We have seen this in research every year.

Giant ragweed is very evident in a number of fields going to cotton or soybeans in counties along the Mississippi River. First hand experience has shown that at best Roundup only provides about 50% control even at very high rates. It is imperative that these weeds be taken out now with either tillage or burndown. Clarity at 8 ozs/A would be my first choice to control this weed before planting soybeans or cotton. If the target planting date is within 2 weeks then Ignite at 29 oz/A can provide good control if it is warm (Highs in the high 80s and Lows in the 60s). Gramoxone Inteon mixed with 2 ozs/A of Sencor for fields going to soybeans would be the best choice if temperatures stay cool. In cotton, 48 ozs/A of Gramoxone Inteon plus 32 ozs of Caparol or 32 ozs of Cotoran or 16 ozs of Direx would be the best fit if temperatures remain cool.



Insect Issues (Scott Stewart, IPM Specialist)

Current insect issues in our crops are essentially non-existent based on the lack of phone calls. Anyone burning down frozen wheat or corn and replanting to cotton should probably include a pyrethroid insecticide for cutworm control with the herbicide application because there was (or still is) living vegetation present in the field. I do have a few comments about thrips control in cotton:

- 1) Preventative thrips control is normally recommended. Suggested treatments include Cruiser, Gaucho Grande, Temik (3.5 lb product per acre), acephate as an in-furrow spray (0.9 - 1.0 lb ai/acre), or an acephate seed treatment (20-25 oz of acephate 90S per 100 lbs of seed). The acephate treatments tend to have less residual than the other treatments, whereas Temik tends to have the longest residual. The above are generally stand alone treatments with typical thrips populations or average (or better) growing conditions. When thrips populations are heavy or when growing conditions are poor, supplemental foliar applications may be necessary. Some growers use acephate at a lower seed treatment than those recommended above. This is not recommended unless at least one follow-up foliar spray is planned, beginning no later than the 1st or 2nd true-leaf stage.
- 2) I've had several questions about the value of putting a relatively low acephate seed treatment on top of a Gaucho Grande or Cruiser seed treatment. There is little data about whether this would improve thrips control. My gut reaction is that there would be little benefit. Adequate thrips control is enough, but it is conceivable that there would be some potential benefit. I see more potential benefit to adding something with longer residual to something with shorter residual control, and this is backwards of that situation. The logic being put forth is that acephate will be taken up more quickly than the other seed treatments, but I do not know if this holds water. Some recent data suggests that a combination of imidacloprid with aldicarb (Temik) does provide improved plant protection (but does not always increase yields).
- 3) Keep in mind that Temik is the only treatment above that will suppress spider mites and nematodes. Of course, the Avicta CP and AERIS seed treatments (which contain Cruiser and Gaucho, respectively), also have nematicidal ingredients.

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

It has been estimated that 150,000 – 200,000 acres of corn has had to replant due to freeze damage and poor growing conditions after the freeze. From an economic – budget perspective several questions come up – How will replanting effect my cash flow/borrowed operating money? What is the total cost to replant?

When calculating effects on cash flow/operating money, we will examine the variable cost (out of pocket cash costs) of replanting. To calculate the total cost to replant we add fixed cost (depreciation & interest on equipment) and the possibility of reduced yields.

Some basic assumptions include:

Applying a burndown such as Gramoxone Inteon and Direx to kill the failed corn stand; no additional tech fees on seed; 50% replant policy on corn seed for replant. Seed costs will vary on variety and plant population. Equipment cost as included in UT Extension AE 07-16 *Field Crop Budgets For 2007*. If custom spraying or planting is required then costs will have to be adjusted accordingly. If tillage is used rather than spraying some adjustment may be needed, although costs may be similar.

<u>Item</u>	<u>Per Acre Costs</u>		<u>Total Cost</u>
	<u>Variable Cost</u>	<u>Fixed Cost</u>	
Burndown material	\$ 9.55		\$ 9.55
Spray	\$.84	\$1.35	\$ 2.19
Plant	\$ 4.35	\$4.54	\$ 8.89
Corn Seed	\$20.00		\$20.00
Total	\$34.74	\$5.89	\$40.63

From a cash flow standpoint, an additional \$34.74 per acre will be needed to get the replanted corn back in the ground. Note \$2.74 per acre would be for repairs which may occur at a later time. The total cost of replanting including variable and fixed cost is about \$41 acre. If 150,000 acres is replanted then the cost to producers is \$6.15 million dollars.

Because of the corn seed supply, there is some concern that the varieties replanted may have a yield drag from the varieties originally planted. Some of that may be speculation, some we know from UT variety trials and some have said that they are planting a better variety than originally planted. However, if we assume a 10 bushel yield drag on replanted varieties the reduction in income at \$3.40 bushel would be \$34 acre. On 150,000 acres the reduction in income is \$5.1 million dollars.

Bottom Line - The impact of the freeze could cost Tennessee corn producers \$75 acre for a total of \$11.25 million dollars statewide. This number will be refined as more accurate information becomes available. Individually, producers who replant will need more operating money/increase lines of credit. It may be necessary to refine cash flow plans. UT Extension is available to assist producers in cash flow as well as long rang planning. Contact your local UT Extension office.

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