Field Crops Newsletter: June 2009

In General:

In case you didn't notice, I did not get around to doing a newsletter in May. Following the twenty or more inches of rain, failing stands, and delays in almost everything I was so busy that I had very little time to collect thoughts for a decent letter. And on top of all that, we have had so many negative experiences this year until I didn't think you wanted to hear any more of that. In recent weeks, some of our challenges have been overcome and others have taken their places; but we need to go over a few things that may be on your minds lately.

Corn:

Corn has reached the silk and tassel stage faster than I can recall. In general, I would estimate that most fields have achieved this level of development around two weeks quicker than in most years. I have not stopped to add up the DD50 units that might explain this; but this analysis that might make me sound smart would not change anything. Many of the fields that were planted during brief breaks in the rain in the month of April that I had expected to reach tassel about the end of June and be ready for our usual July rains were in tassel as much as two weeks ago. Those that were planted near the end of April are exerting tassels now.

There is little doubt that early planting is still a very desirable thing for corn; however only a few fields were planted early enough (prior to mid-March). These very early fields have again shown the value of early planting since they have been able to achieve most of their grain filling prior to the worst heat and dry weather. We have still to see how the mid to late April plantings fare as they are dependent on the July rains. As for those fields planted in the interim period, many of them have been caught pollinating during the worst of the hot weather. We will be extremely fortunate if this does not take a significant toll in yield for these fields. The toughest and best adapted varieties will have a chance to prove themselves.

Generally, corn has recovered well from the monsoon season, while most fields still have a few reminders in areas where corn is short, later maturing, and showing poor yield prospects. Thankfully, most fields have recovered well; but I still expect to see the effects of early problems when the harvest starts. As usual, we will likely see some noticeable differences among varieties with regard to their ability to deal with heat and drought stress. In case anyone has forgotten, tolerance to the kind of weather we are having is the single most important factor in variety selection. Every year, we are tempted with a host of new varieties that are touted as great performers; but somehow only a handful of them make the cut when the combine arrives. The performance of corn varieties is almost always dependent upon their tolerance to heat and drought.

One of the most common questions lately has been about foliar fungicides in corn. We still do not have hard data to support the "economic" justification of this practice; however a lot of people are going ahead with applications with the hope of improving stalk strength, "plant health", grain quality, and yield. I will admit that I've had high hopes that we might see significant yield increases with fungicides; but so far it has not happened in university trials that

have been conducted in recent years. I don't argue with anyone who makes the decision to apply a fungicide; but if you planted a variety that is well adapted and proven in our area you will likely not see a yield response.

Diseases and insects have been scarce in fields I have scouted all over this area. It's been so hot that most pests can't survive. The few common rust pustules I have found in corn lately have not been producing spores; and I expect the heat has been the reason.

As nighttime temperatures rise into the mid-seventies, corn has little time to "rest" and store carbohydrates. Much of the day's production is consumed at night as energy for cooling. This will reduce yield, and may lead to incomplete development of the grain; which in turn makes the grain susceptible rotting organisms. One of these is our worst enemy *Aspergillis flavus*. Following a year like this one is becoming, we need good weather for field drying and rapid harvesting to get the crop out and stored as soon as possible. Please keep this in mind as you make your plans for the harvest.

Soybeans:

Soybeans have been the star performer this year. We started with some of the best planting seed we have had in years; and they emerged well under a wide range of environmental conditions, withstood saturated soils, cool weather, short periods of flooding, and now are generally dealing well with the heat and dry weather. Sure, we've had some poor stands where heavy rains arrived after planting; but considering all the factors our replant level has been amazingly low.

We have a wide range of ages resulting from the long planting period. Oldest beans are nearing the R5 stage when small beans can be seen in pods four nodes down from the terminal. Most of the older group of soybean plantings are in the R2 to R4 stages now. Later plantings range from newly emerged to the R1 stage (first bloom). I expect that a few more fields may be planted if rains arrive in early July; but we will be especially lucky to see a repeat of last year's high yields from late plantings.

Just in case you need a refresher on the reproductive stages of soybeans, the following may help.

R1	First flower - at any node on main stem.
R2	Flower at first node below the terminal (many flowers on plant, but no small pods yet).
R3	Pod(s) that are $^{3}/_{16}$ inch long at one of the four uppermost nodes.
R4	Pods(s) that are ¾ inch long at one of the four uppermost nodes.
R5	Seeds beginning to develop in pod(s) at one of the four uppermost nodes. 
R6	A pod that contains green seed that fill the pod cavity at one of the four uppermost nodes.
R7	Pods yellowing- at least one pod on main stem that has reached mature pod color.
R8	90% of the pods have reached their mature pod color (approx. 5 to 10 days prior to harvest).

The picture of the pod at the R5 stage above is shown because you should have your yield-enhancement fungicide applied no later than this stage. In fields where little if any disease is found, we may choose to delay this application past the R3 stage at which we have normally recommended the application. This is now the situation in most fields I have visited. Usually we see Cercospera leaf blight, frogeye, and other fungal diseases by the R2/R3 stages; but this year their incidence is very low in fields I have scouted. This is a convenient break that will let us delay fungicide application and allow it to be present in higher concentration during the later maturation stages so that pod rot may hopefully be suppressed.

The soybean rust scouting crew is still reporting no justification for the addition of triazole fungicides that target rust. Just stay with the strobilurin products for now. We will give you adequate notice if this situation changes.

As you are applying fungicide, you may want to include an insecticide if insect numbers are on the increase. At present we are seeing moderate increase in numbers of some pests; but none of the fields I have visited have reached threshold numbers yet. This decision should be made on a field-by-field basis after thorough scouting by someone familiar with methods and thresholds. As with diseases, high temperatures may be retarding the development of pests; but don't assume this is true in your fields. Irrigated fields will likely develop both diseases and insects more rapidly than dryland fields.

Cotton:

Cotton was planted from early April to early June; and the growth stages reflect this. I have seen 15 node cotton blooming at the 5th node, and every other possible stage all the way down to the two-true leaf stage in fields around this area. Many fields have multiple stages within them; and this complicates everything all the way to harvest. We have some of the best fields I have seen in years, and some of the worst; but all of them have the potential to produce if managed properly.

While the early planted fields with advanced development have the potential to produce some of the highest yield, and should receive normal rates of nitrogen; later planted fields will require less in order to allow for moderate growth, rapid fruiting, reduced need for growth regulator, simpler defoliation, and a once-over harvest.

The presence of corn earworm (otherwise known as bollworm) in pre-tassel corn suggests the possibility for the development of this pest in cotton. This is especially critical for those who planted conventional or Roundup-only varieties. Beneficial insects should be allowed to develop to their highest possible levels in these non-Bt fields; and we should be prepared to apply insecticides if levels exceed threshold levels. Remember that pyrethroid products may not be very effective on tobacco budworms if they develop. Scout fields and identify moths as a way of giving yourself some warning about which species may be present in your fields. In no-till fields, allow fireants to build by avoiding insecticides that damage them. I know some people still doubt this; but it's real. They help manage most cotton pests if you let them have some working room.

We have one flex cotton variety trial planted at the Vaiden Gin on Highway 51. There are some noticeable differences among varieties with regard to early season vigor. I will be labeling the plots soon if you want to visit. We also have a conventional variety trial at Walnut Grove. With more interest developing in conventional varieties, this plot may provide good information for the future.

The key to growing conventional cotton successfully is weed control, as all of you know, and have been reminded if you have any on your farm. Don't let weeds get a head start, or you will not be happy.

In Conclusion:

It's difficult to focus on the things we need to do with all of the issues we are facing these days. I try to tune it out of my thinking; but every time I hear a news broadcast or read a newspaper it all comes flooding back. Like most of you, I am very concerned about the future of our agricultural profession; and I expect most others have similar feelings about their futures as well. Most of all I am concerned about our country. It may just be time to evaluated everything and take a stand for what we believe. If this is the case, then all of this will have been for good. If we sit idly by, we may lose more than we can afford. Two quotations from the English philosopher Edmund Burke(1729-17979 seem to fit today: "All that is necessary for the triumph of evil is that good men do nothing", and "No one could make a greater mistake than he who does nothing because he can do only a little". Thanks for your time.

Sincerely,

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