

CROP UPDATE

Bob Streit
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2177 200th St.
Boone, Iowa 50036
515-432-0907

It is already mid-June and it's tough to accurately gauge the crops in Iowa and the rest of the country. In the parts of the state and in the fields of those farmers who planted early the corn is or was looking very good as of last weekend. It was at the stage where you could size it and project the tasseling date for early to mid-July. That puts it on par with the crop development schedule we had last year until the heat turned off at about this date. So the factors that we use to evaluate the corn yield potential, planting date, stands, status of the moisture profile, and greenness of the crop, would be called very good to excellent over the western two thirds of the state. Elsewhere our contacts in eastern states tell of excessively wet fields where nothing has moved in a month or more. The soybean crop might be another story in that while the plants are generally short and behind in growth stage, the heavy rains of the past two weeks is hurting the health of the crop and its ability to recover.

What we see now is that many traders don't quite know what to think about the crops either. Rain makes grain, up to a point. Now the same group is acknowledging that standing water and flooded fields have become negatives over a wide swath of the eastern corn belt. As things stand now I would take the status and conditions of the 2010 corn crop over that of the 2008 and 2009 crop hands down. I would not say that about the bean crop though. It is a long season, so let's let another month go by and make another evaluation.

It might be worth posing a question to other college sports fans and see what everyone's opinions about the game of musical chairs being played in the Big 12 and Big 10. It seems sad that several universities have demonstrated a severe lack of loyalty for the sake of money thinking that the pasture might be greener on the other side of the proverbial fence. To not have Nebraska to compete against and root for or against seems unhealthy. You have to wonder how well their fans will like traveling to Ann Arbor, Michigan or State College, Pennsylvania rather than Lawrence, Manhattan, or Columbia for away games. Now that the Big 10 now has twelve members and the Big 12 is down to ten, what will we call each conference?

The corn crop

Where drainage is good and rainfall has not been excessive the corn is nearing the V7 to V9 growth stage and is above knee high. We used to call it at the 'lay by stage' or when you could no longer get a tractor down the rows without breaking it off. The potential yield of many of these fields is extremely high if the rest of the season goes in its favor.

There are still problems with Fusarium root rots in lower laying fields as well as fields planted to second year corn and those with heavy residue pressure. If that disease as well as Anthracnose, which has already been documented in Iowa fields already, progress they will have a bearing on final yields. The effect of the Fusarium will really show itself as we get into warmer weather when the daily moisture use increases. If you have not looked at any of your crops' roots to see if they are healthy or have a problem, now would be the time to do so.

For the past two weeks the main focus of most farmers activity was to get the post emerge applications weed control program implemented. Now is the time to get back into those

fields to see how successful those efforts were. It has been long enough to see if the weeds are dying or if they were just slowed for a few days and are now growing out of that injury. If you sprayed just prior to a rain or on one of those very cloudy days and had a population of tough to control weeds it would be best to see if a second trip and alternative product needs to be applied.

As the week progressed I continued to see more cases of micro-nutrient deficiency. The symptoms varied from a light streaking appearance to severe stunting. At times it occurred on the lighter, eroded areas where the micros are deficient. In other fields entire sections of the field were affected. Be alert to this and be ready to add in a micro mix to eliminate the problem. Enough data has been assembled by companies and university researchers showing nice yield increases to make the decision to apply either Defender G or Trio easier.

The Soybean Crop

Now is when you should also be scouting your soybean fields to see if any problem exists or is developing in them. One big one for those who planted naked is that the wet conditions are limiting the ability to spray for weeds. Many are getting extremely weedy and grassy. Based on the Swanton research out of the University of Guelph, that early competition is detrimental to yields with a portion of that yield loss not being recoverable. Those who used residuals are thankful that there were a few effective products available and they chose to use them.

One big problem that has developed in the soybean weed arena is that there has been a big shift, especially under no-till management. I was around Marshalltown last week checking on bean fields growing on that rolling ground which is no-tilled due to its erosion potential. Fields treated with the best residual bean products were still green with weeds, namely dandelions, prickly lettuce, curly dock, and equisetum. None are well controlled or even affected with the main nonselective product. In that instance it appears that adding a herbicide application of a phenoxy in the fall after harvest is the next step in controlling the first three weeds. Controlling the equisetum is going to be a tougher item.

I mentioned last week that in many fields a high percentage of the bean plants had turned yellow. Some of that was likely due to the ground being saturated and root growth was not occurring. The same ground conditions were also limiting the roots from exuding the compounds that permitted iron and Mn uptake. The ominous thing when I pulled some of the plants was that many had a brownish, shrunken lesion on the stem, normally indicative of a serious root/stem disease. Right now those plants are getting plated out in the disease lab to make a firm diagnosis of the pathogen causing the problem. If it is diagnosed as *Rhizoctonia*, the best case is that they remain small and produce poorly.

Soybean Insects

Last week was also one in which it was easy to find several types of Lep larvae (from a moth or butterfly) eating holes in soybean leaves. The four types that could be found were inch-worm types that were a greenish-gray inch worm type, longer green ones with a yellow stripe, a black one with a yellow stripe and those of the pink lady butterfly. The last one ends up pulling and sewing the leaves into tents where they form their pupae. One hates to have to pull the trigger this early on any pest since economic threshold levels have not been firmly set on any of them. It is time for those owning them to put the black light traps out to catch and ID those night flying moths.

While I was having airport and flight time I had the chance to read a very interesting book by a professional entomologist by the name of Phil Callahan. He began his professional

career by spending twelve years in the Air Force setting up and perfecting aircraft radar over in England meant to detect incoming enemy German bombers. In that role he became the expert at designing and constructing antennae that could gather every wavelength and frequency of electromagnetic radiation. After he gained his degrees in entomology from the U. of Florida, he studied insect antennae and other body hairs and theorized that both were electromagnetic receptors. It took him twenty years to complete that task and being able to predict what type of frequency was given off by a food source that attracted the attacking insect. He was so far out in front of other entomologist, except maybe Reginald Painter at KSU, that no one else tried to understand or duplicate his work. If a group had been smart and insightful enough to do so it might currently enable us to understand the nutritional and stress status of our crops that make them prone to insect invasion and attack.

By now most have heard that entomologists from Minnesota have already detected aphid movement from Buckthorn to young soybean plants in the Rochester area. They think that the cold weather has slowed their development and spread. With warmer but not hot weather arriving they are due to keep moving into beans. We rightly have to wonder when they might move south into Iowa and produce an infestation that we have to monitor and manage.

Insect Control Plans

Trichoderma

Pseudomonas

Soil Testing and Lack of Enough Data

Insect Activity and Their Radar

Phil Callahan

Corn Nematodes