

Southwest Iowa Crop Update: June 4, 2009
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Planting

It looks like most of SW Iowa is done planting corn and beans now, well at least we hope we are. I'll have some links listed later for replant decisions just in case we encounter some bad weather.

Corn- <http://www.extension.iastate.edu/Publications/PM1885.pdf>

Soybeans- <http://www.extension.iastate.edu/Publications/PM1851.pdf>

Corn Condition

Corn out in the area is various sizes, most of which is from about V2 to V8. Clean tilled fields that were planted early and in protected areas seem to be the largest corn around and almost has the canopy closed. I've received several calls and walked many fields of corn that just looked off. The cool weather at the beginning of last week while a lot of this corn is getting the secondary root system going seems to be the common theme. I assessed a field of corn that had four hybrids planted the same day into soybean stubble. The hybrids were different sizes and of different color, corn hybrids were what was making the difference. There is a plot with different tillage practices on the Armstrong research farm. In this plot there is corn soybean rotation and also corn corn rotation. The plots are all planted the same time with the same hybrid just the tillage being different. No-till corn on both rotations expressed visual differences of the leaves from the tilled plots. The no-till plots had striping and purple margins on the leaves, more or less indicating cooler soil temperatures. After the heat at the end of last week the plants all look the same, it was temporary.

This is the time of year where the primary root system is not keeping up with the plants needs and at the crown, secondary roots (nodal roots) have emerged and are growing rapidly. Good root growth now will definitely help the corn plant anchor itself and establish the root system it will need to supply needed water and nutrients.



Ammonia burn?

What is it, and how do I know if I have it? This year seems to be a year that ammonia burn has shown up. I have found fields having ammonia burn from spring and fall application!

Ammonia burn is just what it sounds like. Roots and/or seeds of corn are injured from the concentration of Ammonia. The ammonia disrupts cell activity which destroys cell walls and membranes. The roots of the seedling look shortened (burnt back) and are off color, either brownish black and further away look more yellowish brown.

Below I attached some pictures of ammonia burn I took yesterday and the best link there is regarding ammonia burn.

<http://www.ipm.iastate.edu/ipm/icm/2003/6-16-2003/icm20030616.pdf>



There are a couple of reasons why the ammonia burn is there. Most common I'm finding this year is the shallow applied ammonia and having the seeds planted directly on top of the ammonia band. There are the things that need to be thought about to make sure precautions are taken for next year's application of ammonia.

- 1) Shallow application of ammonia
 - Shallow bar setting
 - Speed to fast
 - Bar doesn't flex to meet the ground the same
 - soil is hard
- 2) Wet or Dry soil allowing ammonia to come to the surface
 - knife smearing a slot for the ammonia to come up
 - soil is dry enough the ammonia does not convert into Ammonium
- 3) Soil pH is high
 - greater concentration of ammonia @ high pH
- 4) Ammonia applied in same pattern as planting
 - I know this is impossible not to do

-ammonia applied on an angle lessens the chance of big areas affected

Insects

Black cutworms have hatched in SW Iowa. I have observed corn that shows leaf feeding and damage to the plant below the ground. The black cutworms I'm finding are about ¼ to ½ inch long. Dingy cutworms are still here and cutting corn also. I have not seen many dingy cutworms in the north part of my area, just the extreme southern counties. Dingy cutworms look very similar to glassy cutworms. The one thing to remember about cutworms is how to tell the black from the dingy. The black cutworm has different sized tubercles on its body and the skin feels rougher than the dingy cutworm. Iowa State University has a black cutworm calculator available that can be used if you have scouted and taken population and loss counts.

It is available here: <http://www.extension.iastate.edu/CropNews/2009/0527hodgson.htm>

Fall armyworms have been in found in a few fields. Yesterday I received a call about a field that was going south in a hurry. The field had a cover crop planted previously which looked like an excellent place for adult armyworm moths to lay their eggs. After laying their eggs the cover crop had been sprayed and killed the cover crop. When the armyworms emerged there was nothing to eat except young corn plants. The field was affected only where the cover crop was grown and close proximity (10-15 feet). The armyworms had eaten many of the plants down to about a 1" stump. The growing point is still below the soil, the plants are still viable but will have to regrow new leaf area. The field was treated with an insecticide within a few hours of the visit. Here are some pictures I took that will show the damage and insect.



If you have any questions feel free email or call.

Have a good and safe week.
Any questions or comments please contact me.