



The Chem Gro Crop Watch, Issue #4, 7/17/15

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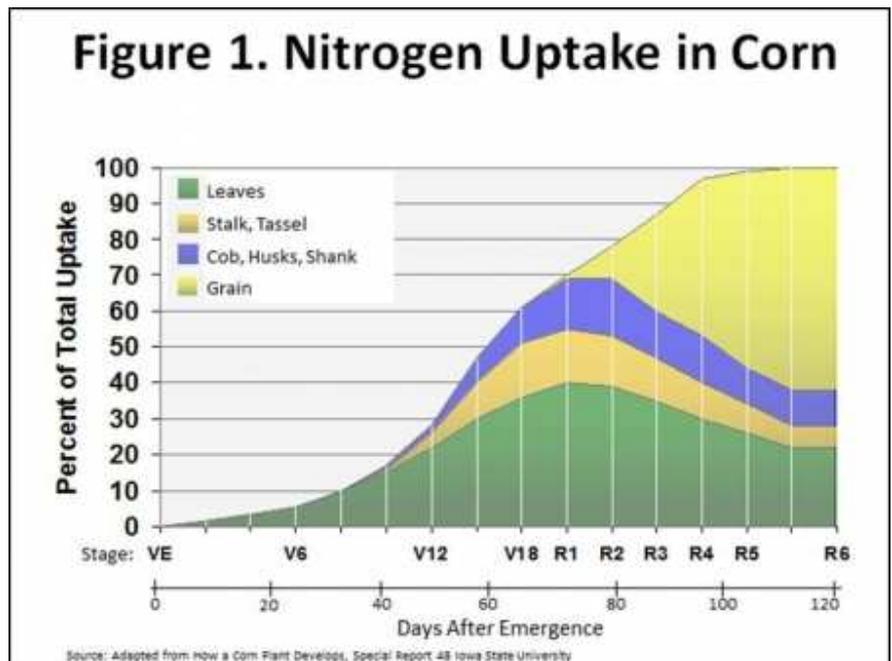
Corn leaves turning brown? In the last few days I have had several phone calls of customers walking corn checking for fungal disease. During their inspection they noticed the lower leaves turning brown and called me quite alarmed wondering if this was a new fungal epidemic?! After walking several of these fields I have come up with the following conclusions.

- These brown leaves are not a symptom of disease.
- These brown leaves are showing up in the “good areas” of the field not just the really poor wet areas.
- These leaves are not showing the text book nitrogen deficiency look
- These leaves turning brown are the direct result of the natural plant cannibalization process. The plant basically “recycles” the stored photosynthesis energy and nutrients in the bottom leaves to feed the ear for grain fill. **The problem is this natural process is happening about 2-3 weeks premature! I would expect to see this occurring at early kernel dent stage. However, it is happening in early kernel blister stage this year. This process is happening way, way, way, too early.**
- Our soils continue to be excessively wet (especially for July). Wet soils mean low oxygen content around the root zone = poor nitrogen uptake through the roots. These corn plants need to be running at peak nitrogen uptake efficiency through the roots to feed developing kernels; but they are not able to.
- I believe our low oxygen root environment is going to put a cap on the upper limits of yield potential this year, as indicated for the very early leaf cannibalization.
- If our environment does not dry out soon, the leaf cannibalization will eventually turn into early stalk cannibalization as the plant’s last attempt into preserving as much yield potential as possible. Early stalk cannibalization will be very susceptible to varying stalk rots, especially Anthracnose stalk rot. This is the stalk rot that will turn your combine BLACK with spores at harvest time, and will cause you to cuss like a sailor trying to combine stalk lodged corn.



I cannot express my concern enough of what I believe the importance of spraying your best and highest yield potential corn fields with a fungicide! The need to keep the leaves above the ear leaf healthy from fungal diseases, and preserving stalk quality for combining (my opinion) will be a HUGE asset this year!

The chart to the right shows how nitrogen is needed at various growth stages of a corn plant's life cycle. The "R1" growth stage is tassel/silking and "R6" is kernel black layer (physiological maturity). You can see as the kernels develop to maturity they consume nitrogen. The nitrogen content in the foliage and stalk decreases after pollination occurs to feed the kernels. However as I said earlier, this process is happening quicker and earlier in the corn plant's life cycle because of our wet environment.



Sudden Death Syndrome (SDS) it's back! (Insert Darth Vader's theme song here).

Two days ago I was walking soybeans (we are still trying to get the second pass Roundup spraying done in a few isolated wet areas) and I walked into soybeans showing visual leaf symptoms of SDS. I then split the base of the stems to look for the brownish discoloration in the vascular system. Sure enough, SDS is here again. It's no wonder why. Many of these soybeans were stressed at emergence, only to have a wet and cool growing season following. Da-Ja-Vo from last year. I hope I am wrong, but I am expecting another HORRIBLE year in soybean yields from SDS like last year.



- ILeVO seed treatment.** ILeVO is the first seed treatment with sound multi-year data that shows it can preserve soybean yield potential in high SDS environments. This spring many of you tried this seed treatment in full fields or split the planter with and without for side by side comparisons. With the stressful soybean emergence we had this spring, the general consensus was that the ILeVO seed treatment slowed emergence and early growth in soybeans. Despite this hiccup, I really hope that the yield protection this seed treatment gives from SDS will more than make up for the early slow stages of growth. Our area NEEDS a solution from SDS. I truly hope this is it. I hope to have good observations and harvest data to prove or disprove this. More to come on this topic.

That's my 2 cents worth.....the choice and decision is always yours.

Lonne