

Extension Crop Update

This newsletter, and previous issues from recent years, can be found on-line at:

<http://www.extension.iastate.edu/plymouth/info/cropupdate.htm>

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Counties in NW Iowa.*

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Corn Emergence: In the NW corner of Iowa we have had really good corn emergence so far this year. Seedbed conditions in most fields I have been in were very good at planting time, very limited crusting has occurred, and although emergence has been slow stand counts look excellent. Of course, there are likely exceptions to that, but most fields have emerged very well!

The slow emergence is due to cool weather conditions, but at least we have not had excess moisture to make the problem worse. Seedlings appear healthy, but kind of yellow in color. Some warmth and sunlight will likely improve that! As it begins to warm up and these plants grow, I would suspect that we will get reports of purple corn, too. According to Roger Elmore in a 2007 ICM News article found here: <http://www.ipm.iastate.edu/ipm/icm/2007/6-11/coloredcorn.html>, "Purple leaf coloring is more pronounced in some hybrids' genetics than others. Most often though, the leaf purpling is related to stress experienced by the young seedling and/or restricted root development. Phosphorus unavailability is often mentioned as a culprit for the purple leaves. Phosphorus deficiency will result in reddish purple leaves, yet it is not likely the primary cause. A reddish purple tint on leaves can be due to anything that disrupts sugars within the plant. Cool and/or compacted soils, as well as shallow planting, can each create the opportunity for purpling to be expressed in corn leaves. If root development is restricted (due to temperature or seedbed problems), then the observed symptoms are simply an expression of this since the plant is not developing normally." If there are not nutrient or compaction restrictions, the purple will disappear when the nodal root system starts taking off.

Speaking of root development, that is the next event for corn growth we need to monitor. Corn seedlings transition from dependence on kernel reserves to dependence on nutritional support by the nodal roots around the V3 (three collar) leaf stage. Damage or stress to the first few sets of developing nodal roots during the time period V1 to V5 can severely stunt or delay a corn plant's development. Damage to the first few sets of nodal roots forces the young seedling to continue its dependence on kernel reserves longer than is optimum. If the kernel reserves are nearly exhausted, continued seedling development is easily stunted and seedling death is not uncommon. Typical stresses that can stunt initial nodal development include fertilizer salt injury, seedling diseases, herbicide injury, insect feeding damage, excessively wet or dry soils, soil compaction (tillage or planter sidewall compaction). If growth becomes uneven when corn gets about 4 to 6 leaves, one of these is probably the reason. Bob Nielson from Purdue has a recent "Corny News Network" article about corn root development at this site: <http://www.agry.purdue.edu/ext/corn/news/timeless/Roots.html>. It's a good article to review before corn reaches this stage of growth.

Extension Crop Update, continued

Bean leaf beetle mortality - Levels of bean leaf beetles are expected to be low this spring. The combination of insecticide application for soybean aphid control and cold winter time temperatures has reduced the overwintering populations of bean leaf beetles. The level of overwintering bean leaf beetles was reduced by 98/99% as a result of the 2008-09 winter conditions in the NW/NC crop reporting districts. However, the soybean fields that emerge first in an area may still be damaged by bean leaf beetle. Therefore, check early planted fields at emergence for bean leaf beetle damage.

Extension Re-Structuring - Jack Payne, VP for ISU Extension, announced on April 30 that extension will reorganize. The reorganization is in response to reduced state revenues. This re-structuring changes Extension from a geographically based organization to an issue based organization. Jack Payne has said this re-structuring is “changing our methods, not our mission.”

The most visible change will occur at the county level where County Extension Councils will decide how to direct the funding of programs for the county. Therefore, there may not be a staff person that has been known as a County Extension Education Director. There may be a person in the county office that will focus on specific programs as directed by the County Extension Council. More information on the ISU Extension re-structuring can be found on the ISU Extension webpage: <http://www.extension.iastate.edu/>. Extension field agronomists (my position) will remain in place. However, our geographic area will likely change. That change will likely occur in late summer.

Check stored grain – I know that managing the grain in storage might not be your first priority right now, but it remains a valuable commodity to you. Keep it that way!

"Thanks for Subscribing!"