

# 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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*Serving Cherokee,  
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Counties in NW Iowa.*

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**Corn Issues:** Emergence of corn in the NW corner of Iowa looks great so far! Now we are starting to reach some critical time periods in many fields – the development of the nodal root system. This is a good time to look at how these nodal roots are beginning to establish. Check where they are establishing (should be about 1” deep), and if there is moisture in this area for them to get started. We will soon need these roots for the plant to continue growing at a rapid pace. I think a good rain in NW Iowa later this week would be helpful – particularly after these hot windy days we are experiencing at this time. Remember to review Bob Nielson’s (Purdue University) recent “Corn News Network” article about corn root development at this site: <http://www.agry.purdue.edu/ext/corn/news/timeless/Roots.html>.

**Considering a replant?** Most fields I have been in look fine, but as usual, there are some exceptions. Corn specialists Roger Elmore and Lori Abendroth just published an article in the ICM news title “Assessing Corn Stands for Replanting,” <http://www.extension.iastate.edu/CropNews/2009/0514elmoreabendroth.htm>. Tables for yield expectations at different stand levels have been updated based on recent research, and links to a calculation page for yield loss based on uneven emergence is included, too. I try to have these with me when I make field visits at this time of year.

**Weed competition:** I have observed some cornfields that are showing quite a few grasses starting to compete. How much yield loss does heavy weed competition cost us? It depends on when these weeds are finally controlled, of course. Bob Hartzler, ISU Weed Specialist, wrote an article recently discussing an experiment he conducted last year in a heavy weed competition site at the Northern Research and Demonstration Farm. He controlled weeds at different stages and measured growth and development losses along with yield losses from heavy weed competition. His data at that site showed that for the 16 days from emergence (VE) to 2-collar corn (V-2), yield losses were .5 bushels per day. From V-2 to V-4 losses were 1.1 bushels per day for the 14 days in this stage of growth. Losses from V-4 to V-5 were 17 bushels per day for these seven days in this stage of development. Fortunately, many of the fields I have observed with weed pressure only have a small percentage of the field exhibiting heavy weed pressure, so losses won’t likely be that high for the entire field, but proper timing is still critical! See Hartzler’s article titled “The Cost of Waiting Too Long” here: <http://www.weeds.iastate.edu/mgmt/2009/toolong.pdf>.

**While controlling those weeds, avoid drift problems!** ISU Ag Engineer Mark Hanna and PME Specialist Kristine Schaeffer recently authored an article for the ICM News titled “Drift Management Considerations.” Just because it is windy and your weeds are getting big is no reason to drift on your neighbor’s property. In fact, Iowa law does not allow drift regardless of your situation. So, using procedures to reduce drift are a must! If your tip is

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putting out 100 micron-sized droplets, these can travel 24 feet in a 5 mph wind, and 72 feet with 15 mph gusts! Using droplets of 400 microns would reduce movement to 5 and 14 feet respectively. Mark has other very good suggestions and information in this article – go here:

<http://www.extension.iastate.edu/CropNews/2009/0514hannaschaefer.htm> and read it BEFORE you start spraying this year!

**Thinking about Replanting Beans?** Research at ISU has shown that final stands of at least 73,000 PPA consistently yielded more than 90 percent of optimum, so being “just a little thin” might not be a good reason to replant. See Palle Pedersen’s publication “Soybean Replant Decisions” here:

<http://www.extension.iastate.edu/Publications/PM1851.pdf>. It’s another one of those references to have with you when checking fields in the spring.

**Black Cutworm Update** - A significant flight of black cutworm moths occurred in Iowa during April 28-30. Watch for the predicted cutting dates in “Integrated Crop Management NEWS” later this week. I recommend that you check low-lying spots and traditional trouble spots in corn fields later this week. Keep checking until the corn has four collars.

**Alfalfa Management:** I think it is time to talk about cutting management. As this alfalfa gets bigger, growers and livestock raisers should closely watch their alfalfa fields to determine readiness for cutting. Cutting at the right stage is important to achieve the desired hay quality that will support growth, weight gain, or lactation. I encourage you to use the PEAQ method to help you determine the quality of your alfalfa for the first cutting. For information on PEAQ, visit this web site: <http://www.uwex.edu/ces/crops/peaqest1.htm>. It gives you step by step instructions for estimating the forage quality in the field – based on stage of growth and plant height. Yesterday I was in two Plymouth County alfalfa fields, and the tallest stem height was 20”. The stems are in the late vegetative stage (although I could feel a couple of buds). **The calculated PEAQ value for these sites would be 211.** It’s important to remember variability occurs among neighboring fields and can show differences up to 30 RFV points. So it’s important for producers to measure their own crop. Relative feed value drops an average of 3 – 5 points per day. Alfalfa should be around 150 RFV for milking dairy herds, 120 – 130 for heifers, stocker cattle and lactating beef cattle. Under the best conditions, 15% of the forage dry matter will be lost at harvest. Therefore it is necessary to cut at 165 – 170 RFV to end up with forage at 150 RFV.

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