



## Agronomy Notes for Weeks Ending May 7 and May 14, 2011

**Corn** –The soil temperature is 50-55°F at the 2-4 inch depth and is increasing, with the average soil temp 8-10°F warmer in May than in April. Corn plant development is from germination to almost VE (emergence). I would expect that we should be able to row corn in the next few days with the warmer weather predicted.

Corn that was planted April 15-25 has 100-130 Growing Degree Units (GDU's) with corn that was planted May 5 having 80-110 GDU's. It takes roughly 125 GDU's for Corn to emerge and another 80-100 GDU's to put on another leaf or growth stage.

After the seed has been planted and until you have the Coleoptile “spiking” through the ground you have a tremendous amount of growth taking place under the soil surface. The first part of the plant to grow is the radical, followed by the coleoptile, and then the lateral seminal roots. The seminal root system is made up of both the seminal roots and radical. The seminal root system anchors the young seedling and provide nutrients and water to the plant, and will be the main root system of the plant until the nodal root system becomes the dominate supplier of water and nutrients at about V6 (6-10 tall corn). Growth of the seminal root system stops between V2-V3 (2-4 inch tall) corn.

As the mesocotyl continues to grow it pushes the coleoptile to the soil surface and you start to see the “spike” and can row the corn. Once the coleoptile reaches the soil surface the nodal root system is initiated and the first set of nodal roots appears at V1 (first true leaf and collar). The nodal root system continues to grow and as stated previously becomes the major supplier of water and nutrients to the plant at about V6. Growth of the nodal root system continues until R3 (milk stage).



Pictures Courtesy of Iowa State University

One of the concerns at this time considering our cool, wet, compacted soil conditions is root rot and seedling blight. These pathogens attack the mesocotyl as well as the seminal and nodal root systems making the affected areas brown or reddish brown to gray lesions that are “mushy” or soft in the affected areas, whereas healthy roots will have a white appearance and will be firm to the touch. (We will have more information regarding root rots and seedling blights in future updates if they become an issue.)

**Soybeans**-With our cooler wet soils a seed treatment for soybeans is recommended. The seed treatment that Central Valley is using is CruiserMaxx Plus which is the only seed treatment that has a patented vigor affect for seed. If you have questions regarding soybean seed treatments contact your local Central Valley Agronomy location we will discuss the merits of a seed treatment and not just the color it makes the soybeans.

**Central Valley Website**-If you have a chance check out the updated Central Valley website at [www.centralvalleycoop.com](http://www.centralvalleycoop.com) We do have other Agronomy news posted on this site as well as updates on the markets and weather.

**Answer Plot Dates**- Listed below are the dates for our Answer Plot sessions in Hayfield for 2011.

- Tuesday, May 24 10:00 AM
- Monday, June 13 8:30 AM
- Friday, July 15 8:30 AM
- Thursday, August 18 Time To Be Determined

**Monsanto School Grant**- Monsanto is allowing schools to apply for a \$25,000 grant. One of the criteria used to award the grant is the amount of farmer support for the schools. The more nominations for a particular school district, the better their chances of getting the grant. Listed below is the link for this nomination process. <http://www.monsanto.com/americasfarmers/Pages/grow-rural-education.aspx> We do have hard copies of this information at your local Central Valley Coop Agronomy location.