



Agronomy Notes for Weeks ending June 11 and 18, 2011

Corn plant development was from emergence to V6 (6th visible collar on the corn plant) with the average corn plant being at V4 and is 8-12 inches tall for the week ending June 11. For the week ending June 18 corn plant development was from V2- V8 with the average plant at V6 and standing 12-18 inches tall.

GDU's for week ending June 11

Planting Date	GDU's	Plant Stage
25-Apr	540	V6
5-May	520	V5-V6
15-May	400	V4

GDU's for week ending June 18

Planting Date	GDU's	Plant Stage
25-Apr	635	V8
5-May	615	V7-V8
15-May	500	V5-V6

In the last two weeks we have picked up 200 Growing Degree Units (GDU's) and 10-12 inches in height. With this sudden growth spurt some of the early planted good emerging corn was almost knee high for the week ending June 18. Late in the week of June 11 we had some 20 inch row corn that started to canopy, with some 30 inches rows starting to canopy late in the week of June 18.

With corn plants growing as fast as there are, we are starting to see some yellow leaves caused by Rapid Growth Syndrome (RGS) in random plants across the field. The cause of this yellow leaf is that plants grow so rapidly that the uppermost leaves do not unfurl, and will wrap or twist together which causes those leaves to "buggy whip". Once these leaves unfurl the leaves appear light green or yellow and will green up once that plant tissue is able to photosynthesize. Other instances where you might see a yellow leaf is frost, hail or wind damage as well as herbicide injury from a growth regulator herbicide such as dicamba (Banvel) or 2,4-D.



Prior to the rain we received last week we were seeing sidewall compaction as well as rootless corn syndrome caused by an open seed furrow, which normally happens when we are forced to plant in too wet of conditions. Without the rain we received we would have had to cultivate those affected areas to close that seed furrow. With a compromised root system in areas of the field we will need to receive timely rains in order to maximize yields with those affected plants.



The picture on the left shows plants with rootless corn syndrome as well as symptomology of sidewall compaction. (No nodal roots and roots growing in the seed furrow or straight down and not out into the row.) The picture on the right shows a healthy corn root system with nodal roots in place where as the corn roots on the left has no nodal roots. (The nodal root system becomes the main supplier of water and nutrients to the plant between V3 and V6.)



Corn plants, that have a less than adequate root system, increase the potential for nutrient deficiencies as well as plant disease or insect pressure. If you have areas that have sidewall compaction or rootless corn a plant tissue test maybe able to help identify deficiencies and allow you to make an in season application of nutrients to lessen the yield loss. Those affected areas may also need additional scouting to identify any disease and/or insect concerns, especially corn on corn fields.

As plants reach the V6 growth stage the growing point is out of the ground and the plant has determined the numbers of rows around the cob will be. Starting at about V6 you may also start to see some tillers or ear shoots at the base of the plant with some genetic families being more prolific at tiller production than others. These tillers for the most part do not contribute to yield and will degenerate if the plant need's more nutrients.

Soybean plant development is from germination to V3 (3rd trifoliolate leaf unfurled).



The picture on the left shows a soybean plant at V2 (two sets of trifoliolate leaves), and the picture on the right shows a soybean plant at V4 (four sets of trifoliolate leaves).



Central Valley Website-If you have a chance check out the updated Central Valley website at www.centralvalleycoop.com we have previous Agronomy Notes articles as well as topics of the week under the Agronomy tab. We also have updates on markets and weather on the website.

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. ***The deadline for this nomination process is June 30, 2011.***