



## **The Chem Gro Crop Watch, Issue #5, 6/8/10**

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**Focus on soybean management.** As the calendar keeps clicking away, we may have to rethink our management plans for soybeans that are not planted yet. The last few years, we have been re-taught to plant soybeans at lower planting rates. Also, many farmers have gone back to 30" row spacing vs. 15" or drilled. This management plan of reduced planting population and wide rows works excellent for soybeans, however your best chances of success is when you are planting early in the growing season. It is now June 8<sup>th</sup>, and rain has just passed through with more additional rain in the forecast. Whenever it does dry out enough to continue soybean planting, we will have to rethink our soybean management plans due to the late planting dates.

- **Row spacing.** In the last 2-3 years, there has been a trend of going back to 30" rows from 15" rows or drilled. A lot of this change has been due to the economics and maintenance of buying a split row planter, vs. buying a larger planter with 30" rows to plant corn faster. In most years in our geography, 30" row soybeans have been pretty much equal in yield to soybeans planted in 15" rows as long as they have been planted in mid-May or earlier. Early planting dates allow 30" row soybeans to canopy quicker, which prevent wasted sunshine from hitting the soil. Wasted sunshine = wasted yield potential. This is the reason why late planted soybeans will almost always yield more in row spacings of 15" or less vs. 30" or wider when we get into June or later planting dates because they are able to canopy the row quicker. ***For those who have soybeans yet to plant, I would highly suggest abandoning the 30" row planter and planting 15" rows or drilled to capture additional sunlight to allow for higher yield potential.***
- **Planting population.** Iowa State, University of Illinois, and Purdue University have had numerous soybean planting rate studies that have proven that soybeans can achieve 100% yield potential with a minimum of 100,000 plants per acre. With the increasing cost of soybean seed, many farmers have adapted these planting rate studies and reduced their soybean planting rates to save seed cost while maintaining yield potential. However, as we enter into mid and late June plantings of soybeans, increasing soybean seeding rate may have an advantage. Soybeans are triggered into reproduction stage when nighttime hours (darkness) increases. This is referred to as being photoperiod sensitive. Around June 20<sup>th</sup>, this is our summer equinox. At this time sunlight hours = nighttime hours. After June 20<sup>th</sup>, the nighttime hours become progressively longer as each day goes by which triggers the soybean plant into the initial stages of reproduction (flowers begin to form). Soybean that are planted late have very little time to develop vegetative growth (height) which is why late planted

soybeans are generally short. These short soybeans can set pods very close to the ground which can create yield loss due to harvestability issues because the sickle bar on the platform head cannot get low enough on the combine to cut below these bottom pods. By planting soybeans at thicker populations in later planting dates (June and July), this will help the soybeans to grow taller because of the plant to plant competition in reaching for sunlight. This will indirectly help to get the pods higher off the ground to get less harvestability yield loss with the combine. ***My suggestion would be to plant at least 180,000 plants per acre as we approach mid June or latter.***

- **Soybean Maturities.** If you use corn logic, a person would assume that with late planted soybeans you should switch to earlier soybean maturities as you would if planting corn late in the growing season. However, this is not the case. Corn matures by heat unit accumulation or more commonly referred to Growing Degree Days (GDD). This is why late planted corn needs to be switched to earlier hybrids because you cannot regain the lost heat units, or GDD that the corn was not planted/growing in prior to it being planted. ***As I mentioned earlier, soybeans are photoperiod sensitive, and mature by the increasing nighttime hours. Because of this, staying with your normal mid-full season maturity soybean varieties is recommended for our area.***

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

Lonne