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Your Farm, Your Questions Our Solutions

Did you know the average American farmer gets 40 growing seasons in their career? 40 seasons full of tough decisions, hard work and worries. In the last few months I have been honored to be a part of UFC, and part of a few of those 40 seasons. We are glad to partner with you in helping with some of those tough decisions, alleviating some worry and even being a part of some of the hard work.

I have been asked several times over the last few weeks on what the RD2 program is about. This week I want to start to give you an idea of things I will share over the summer from these plots, in articles like this, tours and pictures. In general the RD2 concept is less about the products we use, and more about the way in which we employ the tools at our disposal. Higher yield is not about using more nitrogen, or a higher plant population or any one management change alone, it is about the total system and how it all works together. This systems approach is what I plan to focus on. RD2 is also about your individual questions regarding your operation. So my goal is to merge those two things in to something that will help all the customers at UFC move forward in production. Since I got a late start this year we are keeping it simple, we are mostly going to look at population as a part of a larger management strategy to achieve higher yields. With the advances in hybrids through new breeding technologies we are able to handle higher plant populations than ever before. Planting population is what seems to have the most amount of hesitation attached with it and is the hardest change to make.

Iowa State University did research in 32 locations across Iowa in the years 2006-2008. This research showed that maximum corn yields occurred with harvest plant populations between 34,500 and 37,000 plants per acre. To achieve those kinds of harvestable populations you would need a drop at planting of somewhere around 38,300 and 41,200. The RD2 sites are planned to show that; higher plant populations are manageable by raising the plant populations by 5, 10 and 15% roughly and then building a new management system around them. The goal is not only to find the highest yielding population but to discover where you are most profitable. I look forward to working with the nine farms in the program this year and the opportunity for many more in the future. I also commend UFC for having the foresight and willingness to invest in the future of agriculture. Please feel free to ask any questions you may have or schedule a personal tour of the sights by contacting me at the York East office. I am here to help answer questions on your quest for higher yields.

The most important thing to me about the RD2 program is that we are willing to invest in your farm to answer some of these questions. I may reference University data often, but the challenge is taking small plot replicated research and making it translate to real world full scale production. UFC has made a commitment to sharing the cost of these new ideas and management strategies, with you the grower. We as American agricultural professionals are going to be met with more challenges than ever before in both production and stewardship, I look forward to being a part of and seeing the best growers in the world not only meet those challenges, but be more innovative and exceed all expectations.

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Changing Plans Midstream

With last week's moisture and wind we are caught in a situation where we may have to change our weed control plans for the year. There are many options for an early post with residual in both corn and soybeans. For corn we can switch to *Capreno®, Halex® GT, Impact®, Resolve®, Status®, TripleFLEX™* and *Warrant®*. In Soybeans we can use *Extreme®, FirstRate™* in a tank mix, *Prefix™* and *Warrant®*. As for some of this corn that may have been flooded out, the next few days will be a good time to use the tools in the last few week's articles about stand evaluation. If a replant situation presents itself United Farmers Cooperative has a great inventory of hybrids to fulfill any replant needs. Just a few quick thoughts on replants, the first being the decision itself. There could be situations that are obvious and those we need to address to give you the best opportunity to maximize yields. Where the decision is marginal at best my advice is that only replant if you are absolutely sure that is what you want to do. Your gut instinct will be your greatest tool. Secondly if you do decide to replant, it isn't too late to still plant a fuller maturity corn. Rule of thumb is that planting in the next few weeks a hybrid will actually shorten in calendar days because it accumulates GDU's faster. It could shorten its growing season but 6-9 days. If you do replant, I would still suggest using a starter fertilizer like 10-34-00 and maybe even *Ascend®*. Those two things will assist in dry down at harvest.

Secondary Nutrients

Last week we took a look at the primary nutrients, and now this week we are going to discuss calcium, magnesium and sulphur are the secondary nutrients. For most crops these three are needed in lesser amounts than the primary nutrients. These nutrients are growing in importance in crop fertilization programs due to more stringent air standards and the efforts to improve the environment.

Calcium is utilized for continuous cell division and formation and plays a vital role in nitrogen metabolism. It is also important in the regulation of the stomata in reducing respiration. Calcium aids in the translocation of photosynthesis from leaves to the fruiting organs.

Magnesium is a key element in chlorophyll production and is an activator in many plant enzymes. Having balanced levels of magnesium improves the utilization and mobility of phosphorus in the plant and influences uniformity and rate of plant maturity.

Sulphur is an integral part in the formation of amino acids. It also aids the development of enzymes and vitamins. Sulphur is necessary in chlorophyll formation and aids in seed production. In legumes it promotes nodule formation.

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