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### 2015 Corn Row Spacing Demonstration Plot Results – Part II

In last week's column, I shared data from the last two years of corn row spacing work we've done in the District. Both years showed an advantage to the narrower row spacing. 2015 data showed differences of 16 bushels/A (204 vs. 188) at 26,000 plants per acre and 11 bushels/A (206 vs. 195) at 30,000 plants per acre. Is two years enough data to bank on? Maybe...maybe not! To determine the value of the data, we first have to understand how the plant responds differently in narrow versus wide rows.

Sunlight drives plant growth and water is needed to then convert sunlight to biomass. If we are managing everything else as we should (weed control and nutrients), light and water tend to be our limiting factors – two factors that row width effect.

For example, gaps within or between rows equals wasted energy, which equals less efficient photosynthesis and the misuse of energy to be captured and utilized by weeds. Research shows that narrow row spacing crops intercept more light energy earlier in the growing season. The hope is that we provide enough ground 'cover' to keep moisture loss to a minimum as well. In addition, early canopy closure helps to minimize herbicide applications (input cost).

So why aren't narrow rows a no brainer? For starters, the advantage to light interception appears to be gone by the V12-V14 growth stage (approx. 2-4 weeks before flowering). If we were sunlight limiting, it might be an issue. We tend not to be!

Second, by flowering, corn roots have expanded to span the distance between 30 inch rows. In other words, our root 'space' advantage tends to be gone by that stage in most years.

Third, we just don't seem to see consistent data favoring narrowing row spacing – in most environments. This data encompasses one site over two years (and hopefully more!!) with excellent yields. To continue to sort out the differences over a longer range of yield environments (yields have averaged near the 200 bushel mark the last two years), we have to look at longer term plot work and references to other data. KSU data from the late 1990's showed an advantage to narrow rows at yield levels nearing the 200 bushel mark, so this data isn't necessarily out of line with previous data. Other states haven't necessarily seen the same.

Where do narrow rows fit? We'll wrap this up next week with some suggestions!

### Keep Compost Pile Moist

If you've been putting off starting a compost pile – wait no longer! Between leaves and other yard/garden waste, there's definitely no shortage of material available this time of year. One of the challenges of a compost pile is keeping it at the right moisture level. Since the compost needs to be kept moist so that the bacteria and fungi can break down the raw materials, you may need to use a sprinkler to soak through the pile to the center. Follow up by allowing the pile to drain. The goal: keep the pile moist, but not waterlogged. Edges will dry out the quickest and may need a light sprinkling from time to time.

If you are interested in composting but don't know how it is done, check out a K-State Research & Extension video at <http://tinyurl.com/c8aw6lk> and/or our publication at <http://www.hfrr.ksu.edu/doc1757.ashx> - also available via your District Office.