ROCK RIVER SEED AND CHEMICAL

11/01/2020

Update

Another great harvest month is in the books! It's always a good thing when corn harvest starts early in October instead of November. This has also allowed us to start harvesting corn plots and continue to stockpile data to help us make better hybrid decisions. Look to our Facebook page, Rock River Seed and Chemical, for local plot results.

Looking Ahead

Just a reminder to Deferred Payment customers that 2020 loans are due Tuesday December 1st. Payments can be sent in several ways but Rock River has the ability to scan in checks to make payments to PHI. Please contact PHI directly if you have questions. This is a very firm deadline unless you reach out to PHI early and make arrangements for a delayed payment before the deadline. Please do not wait until the last minute to call them.

Agronomy Corner

With corn being harvested, we have received a lot of questions about lower than expected test weights. While yields have been up, the test weights have been all over the place. Finding a research article on the matter turned out to be difficult but after reading through several articles, there seems to be a consensus that several factors influence test weight.

There are two weather factors we had in September that could have caused some reduced test weight. The first would be the drier weather we saw in late August to September. This could have allowed the plant to not have available nutrients it needed to help fill out the kernels. When lack of water is a factor, it also leads to reduced stalk quality because the plant takes the nutrients from the stalk in order to help fill out the kernel.

The second factor that effects test weight is solar radiation(sunlight). Sunlight is what the plant collects as an energy source. The table below shows the major effect shading (cloudy days) can have in kernel weight. This seems to be the most likely factor in our area for our lower test weights. It seemed like approximately 97 day corn was the cut off to having really strong test weight. 96 day hybrids and lower have shown very consistent 57 pound test weight and up. Our opinion is that those hybrids had enough sunlight to finish out grain fill properly and the longer maturities struggled at the end. The products that did not have great test weight were not horrible by any means, they were just a few pounds less than the earlier maturities.

Shade Period	% Yield Reduction	Change in kernals/row	Change in Kernal WT.
Vegetative	12%	-5%	1%
Flowering	20%	-21%	9%
Grain Fill	19%	-5%	-13%

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The chart below shows the solar radiation levels and 10 year average deviation from the trend for Matt Vellema's corn plot from July thru October. A major drop off takes place come early September. From then on, we had too many cloudy days which hampered the plant to produce enough energy to help fill those ears with weight.

For the majority of our summer, we had perfect growing conditions. Our fall off, especially when talking test weight, came at the end of August to late September. The combination of dry to excessively wet, cloudy days and the timing of those factors played a large role in why we are seeing reduced test weights.