K-STATE Research and Extension | Meadowlark District

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Corn Stalk Rot Contributors

Another August has come and gone and in typical NEK fashion, it came with plenty of heat and left most of the area with little soil moisture. As the corn crop continues to dry down, we could start to see those effects on stalk integrity issues.

Vast differences in stalk integrity/rots can be found on the hybrid side of the equation. Not all hybrids allocate carbohydrates during grain fill the same way, with some pulling more from the stalk. The resulting genetic differences plus our management (increasing plant densities, etc…) can sometimes result in weakened stalks at harvest. It doesn't mean the hybrid shouldn't be used, just that attention should be paid to those differences for appropriate harvest planning.

For areas throughout the season that experienced stress: cold or waterlogged soils, soil compaction, or severe drought, be on the lookout for inadequate root systems. The developing ear always has priority for carbohydrates within the plant. During grain fill, the plant will tend to allocate resources to the ear at the expense of the stalk, potentially reducing stalk integrity.

Poor leaf health can also be an issue. If green leaf area is lost due to weather/insect damage, disease, or nutrient deficiencies (potassium/nitrogen in particular), the plant may mobilize crown or lower stalk reserves to complete grain fill. With the Gray Leaf Spot pressure seen this year, untreated fields in particular have increased stalk rot potential.

As we approach maturity, it's a good time to think back on what hybrids we planted and the growing season they experienced – and start making a harvest plan to make sure stalk rot losses are kept to a minimum.

Cool Season Turfgrass Fertilization – Round One

If you were to fertilize a cool season turfgrass stand three times a year, the first time would be coming up just around the corner. In fact, if you could fertilize only one time per year, September would be that one time. Why now?

As days shorten and night time temperatures moderate, grasses enter their fall growth cycle. During that time, they naturally thicken up via tillering (or in the case of bluegrass, spreading by underground rhizomes). A fertilization in September can aid in the process.

Rate is important. Try to get in the range of one to one and a half pounds of actual nitrogen per thousand square feet in the form of a quick release nitrogen source. If phosphorous and potassium are needed, they can be applied now as well. A soil test is a great way to determine whether that will be needed or not.

Start planning now for window number two as well, coming up in November. November applications are the ones that help the grass green up earlier next spring and provide the nutrients needed until summer. Nitrogen should also be applied at the rate of one pound of actual nitrogen per thousand square feet for this application as well.