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Considering Plant Analysis

The past few weeks have seen corn transition from a slow start to rapid growth. Along the way, there may have been issues you noticed that caused you to question what might be going on. To help solve some of these issues – or maybe just as a ‘quality control’ tool, you might want to consider tissue testing.

For diagnostic purposes, sample any time. If plants are 12 inches or less in height, cut the plant off at ground level and submit the whole thing. If plants are greater than 12 inches in height, collect the top fully developed leaf – the one with a leaf collar. Collect from both the good and bad areas for comparison purposes.

Monitoring for nutrient levels is typically done at the beginning of reproductive growth. At that time, collect the ear leaf (the one located below the uppermost developing ear) from random areas of the field. Avoid sampling under stress conditions when nutrient uptake may be limited by factors other than nutrient deficiencies.

Allow collected leaves to wilt overnight to remove excess moisture. Place in a paper bag or mailing envelope and ship to the lab for analysis. Avoid plastic bags or tightly sealed containers that can cause decomposition. Most of the soil testing labs in the region provide plant analysis services, including the K-State Soil Testing Lab.

For more information on tissue testing and sufficiency ranges, drop me a line at any of our Meadowlark Extension District Offices or e-mail me at dhallaue@ksu.edu.

Fertilizing Tomatoes

If a little is good, a lot is better, right? Not so much when it comes to tomato fertilization. In fact, too much nitrogen can result in large plants with little to no fruit.

Instead of more nitrogen as a whole, instead spread out nitrogen applications, fertilizing three different times during the season.

The first sidedressing should go on one to two weeks before the first tomato ripens. Apply the second shot two weeks after the first tomato ripens. Do the third application one month after the second.

Common sources of nitrogen-only fertilizers include nitrate of soda, urea, and ammonium sulfate. Blood meal is an organic fertilizer that contains primarily, but not exclusively, nitrogen. Use only one of the listed fertilizers and apply at the rate given below:

Nitrate of soda (16-0-0): Apply 2/3 pound (1.5 cups) fertilizer per 30 feet of row.

Blood Meal (12-1.5-.6): Apply 14 ounces (1.75 cups) fertilizer per 30 feet of row.

Urea (46-0-0): Apply 4 ounces (½ cup) fertilizer per 30 feet of row.

Ammonium Sulfate (21-0-0): Apply 0.5 pounds (1 cup) fertilizer per 30 feet of row.

If you cannot find the above materials, you can use a lawn fertilizer that is about 30 percent nitrogen (nitrogen is the first number in the set of three) and apply it at the rate of 1/3 pound (¾ cup) per 30 feet of row. Do not use a fertilizer that contains a weed killer or weed preventer.