K-STATE Research and Extension | Meadowlark District

June 18, 2021

Jody G. Holthaus
District Extension Agent
Livestock and Natural Resources

No News From Jody Today.

K-STATE Research and Extension | Meadowlark District

June 18, 2021

David G. Hallauer
District Extension Agent
Crops & Soils/Horticulture

Plant Nutrient Analysis - Corn

Almost without fail, there will be one corn or soybean field with what we *thought* was planted in perfect conditions that looks less than stellar as we scout it during the growing season. If you suspect a nutrient deficiency (particularly of a secondary or micronutrient we don't always have good soil tests for), plant analysis is a great option to consider for diagnosis.

Plant analysis for monitoring of nutrient levels is typically done at the beginning of reproductive growth. If sampling for diagnostic purposes, however, don't wait. Go ahead and pull samples now while corrective action might still be a possibility. For plants less than 12 inches tall, collect the whole plant at ground level. For larger plants, collect the top fully developed leaves (those with leaf collars). After reproductive growth starts, collect the ear leaves (below the uppermost developing ear).

While nutrient monitoring samples are best taken randomly throughout the field, diagnostic samples should focus on plants in normal areas of the field as compared to problem spots. Plants/leaves should be collected from both areas for comparative purposes. If a nutrient deficiency is suspected, soil samples from each area can be helpful as well. Tissue samples should be allowed to wilt overnight and placed in a paper bag/mailing envelope then shipped to a lab for analysis. Avoid the use of plastic bags or tightly sealed containers.

What should you test for? In Kansas, N, P, K, S, Zn, Cl, and iron are the most commonly deficient nutrients. The KSU Soil Testing Lab and many others offer testing packages to provide a host of different nutrient testing options. Results will be returned as either a percent value or in parts per million for comparison to averages to help diagnose the issue at hand.

Tissue testing may not give you the 'final answer', but when used appropriately can help with field diagnostic issues during the growing season as well aid in monitoring of a nutrient management program, both of which can help you fine tune management for future growing seasons. For additional information on tissue testing through the KSU Soil Testing Lab or tissue test result averages, contact me at any of our District Offices or via e-mail to dhallaue@ksu.edu .

Physiological Leaf Curl in Tomatoes

After you've spent time waiting for soils to dry so you can get plants in the ground, hoping they weren't hailed on or eaten by wildlife, then keeping them watered as temperatures rise, the last thing a tomato grower wants to see is curling leaves. In some cases, it can be the result of disease or herbicide injury, but in many cases, it may just be the plant's natural response to help it 'balance' growth and development.

If growing conditions in your garden were such that tomato plants grew vigorously, sometimes you'll see top growth out pace root growth. When warm/dry weather hits, the plant has to take a step back and grow a few more roots before top growth can continue. To do so, it reduces leaf area by rolling leaves. The leaves curl along the length of the leaf (leaflet) in an upward fashion. It is often accompanied by a thickening of the leaf giving it a leathery texture.

Leaf rolling can also occur after heavy cultivation, hard rains, waterlogged soils or any sudden weather change. Fortunately, it should subside a week or so as the plant acclimates itself to the new growing conditions.

K-STATE Research and Extension | Meadowlark District

June 18, 2021

Cindy S. Williams
Meadowlark Extension District
FACS

Don't Forget to Wash your Hands…AND your Fresh Vegetables

When it comes to washing fresh vegetables and fruits there are 5 basic rules:
*Wash hands with warm soapy water, for at least 20 seconds, before handling Fresh produce.
*Wash all fresh produce under clean, running water before peeling, cutting, or Eating.
*Scrubbing with a clean brush is only recommended for produce with a tough rind or peel (such as carrots, potatoes, cucumbers and squash) that will not be brushed or scratched by the brush bristles.
*Discard outer leaves of leafy vegetables like lettuce and cabbage before washing.
*do not wash fruits and vegetables with bleach or soaps---it can be absorbed into the product and change the taste.

What about pesticides: Pesticides are strictly controlled by the FDA, USDA and EPA and the health benefits of eating fruits and vegetables outweigh their possible presence. A lot of the pesticides are water-soluble and will come off with water, which is another reason to wash fruit and vegetables before you eat them.

Dry produce with a paper towel may further reduce bacteria. Although it is not necessary for items that will be cooked.
Washing with water is just as effective as consumer produce washes. Many produce washes include surfactants, which are cleaning agents. They work by attaching to oil and dirt and loosen water-resistant substances like wax. To use on food, they need to be registered with the EPA. However, research shows that washing produce with tap water is just as effective as washing produce with any produce wash solutions that are on the market.

You can wash produce with baking soda and vinegar, however:
*Vinegar may affect flavor.
*baking soda contains sodium which may affect the flavor of the produce. The strength of baking soda and water mixtures affects its cleaning ability.
For preparing salads, leafy greens like spinach, chard, kale and collards that are not prebagged need to be rinsed because many grow in sandy soils.

There is no need to wash bagged leafy green salads in sealed bags labeled "washed," "triple washed" or "ready-to-eat". They don't need additional washing at the time of use unless specially directed on the label.
Fresh produce in the summer can provide many great dishes. You can find lots of ways to incorporate your produce into your diet. A great salad is always a hit at cook outs.

K-STATE Research and Extension | Meadowlark District

June 18, 2021

Nancy C. Nelson
Meadowlark Extension District
Family Life

Go ahead, drink your coffee, but do it in moderation

That morning Cup of Joe could be doing a whole lot more good for you than simply giving your body and brain a jumpstart.

Kansas State University food scientist Karen Blakeslee said coffee has the potential to lower risks for Type 2 diabetes, heart disease and some types of cancers. “Polyphenols and antioxidants in coffee can possibly protect against some chronic illnesses,” she said.

But it is possible to get too much of a good thing. “Moderation is important with any caffeinated product,” said Blakeslee, who is also coordinator of K-State’s Rapid Response Center for food science. “Excess caffeine can raise blood pressure, cause insomnia, jitters, increased heart rate, headaches and nausea, to name a few. Your weight and medications you take can also affect how you tolerate caffeine.”

The 2020-2025 Dietary Guidelines for Americans recommend that healthy adults can safely consume 400 mg of caffeine each day, or about four cups of coffee. However, one should remember that many other foods and drinks contain caffeine, as well, so you shouldn’t judge your daily intake based on coffee alone.

“Caffeine is identified as Generally Recognized as Safe (GRAS) by the U.S. Food and Drug Administration,” Blakeslee said. “Consuming 400 mg per day is not generally associated with negative health effects. Caffeine should not be given to children under the age of two. Pregnant women should consult their healthcare provider for advice about caffeine consumption.”

She added that getting enough sleep helps to reduce the amount of caffeine needed to stay awake. Adults should strive for 7-9 hours of sleep each night.