

TALKIN' COTTON

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COTTON PRODUCERS have to be careful not to leave out essential nutrients but really need to know what is already in the soil before being able to correctly manage essential soil nutrients, according Dennis Coker, Texas AgriLife Department of Soil and Crop Sciences. Coker's report was given at a recent Texas Plant Protection Association annual conference. Coker's research was reported in Southwest Farm Press.

An annual soil test to determine nutrient needs for cotton is very important, Coker said. Farmers should dig a little deeper to determine if they have residual nitrogen to significantly reduce fertility costs.

The soil bank is a season-long resource, Coker said. He recommends annual soil tests because of increased fertilizer costs and the need to know what is in the soil bank.

Several factors affect availability of some nutrients in the soil, he said. Rainfall, plant variety selection, day and nighttime temperatures, soil texture, pH and organic matter content all may affect nutrient uptake, leaching potential and volatilization.

Price volatility is a good reason to soil test, he said. Since 2003, the price of anhydrous ammonia has increased from 15 cents a pound to 35 cents a pound, urea has gone from 27 cents a pound to 54 cents a pound; and UAN 32 has increased from 28 cents a pound in 2003 to 62 cents in 2011. These prices are down from 2008, he said.

Nitrogen may have been left in the soil following the 2011 drought, he said. A lot of cotton was planted in exceptional drought areas. A lot of corn failure could have left residual nitrogen, he said. In any given season, a certain amount of nutrients are removed by crops, he said. But some nutrients like phosphorus, potassium, calcium, magnesium, sulfur and micronutrients may carry over.

Nitrogen can be lost to leaching, runoff and volatilization, but enough may remain in the soil following a drought to produce cotton the following season.

Coker said more than 10 years of research has demonstrated residual nitrogen measured to a 24 inch soil depth can be credited at 100 percent. Residual soil nitrogen in the major production areas of Texas is often substantial with cotton showing a yield response to supplemental nitrogen fertilization at only 23 percent of study sites, he said.

Sulfur and boron are also easily leached deeper into the soil, down to 24 to 48 inches, he said. Coker recommends deep soil profile sampling. Identifying residual nitrogen and adjusting supplemental applications has benefits other than cutting back on fertilizer. Coker said farmers may be able to use less plant growth regulator, insecticide and harvest aid. Earlier harvest may also be possible, he said;

Coker said tests evaluating advantages of slow-release nitrogen shows no significant yield advantages.

Phosphorus is a very stable, immobile element not prone to leaching or volatilization so Coker recommends band injecting phosphorus at a six inch depth. Additional work is needed, he said, to determine if nitrogen losses can be reduced under loss potential conditions, he said.

FATIGUE can be a potentially deadly force for people who work long hours outside. Farmers and ranchers who spend a lot of time driving tractors, trucks and other other vehicles should be on the lookout for the following symptoms and take a break:

Headaches, dizziness or blurry vision. Slow reflexes and reaction time as well as poor concentration. Feeling irritable, moody and short tempered. Aching, weak muscles. Feeling tired all over or sleepy. Falling asleep unexpectedly.

Fight fatigue by getting a good night's rest every night, exercising, drinking plenty of water, taking short breaks during the day, pacing yourself, planning activities in advance, limiting alcohol and reducing caffeine. Although agricultural, fishing and forestry workers have demanding workloads, fighting fatigue can ultimately reduce the risk of injury and fatality and improve productivity.

TALKIN' COTTON is produced by NTOK Cotton, a cotton industry partnership which encourages and supports increased cotton production in the Rolling Plains of North Texas, Oklahoma and Kansas. For more information on the cotton scene, see okiecotton.org and ntokcotton.org. For comments or questions about Talkin Cotton, contact bustersbarn1@yahoo.com.