

Add Nutrients According To Need Assessment

BETTY VALLE GEGG-NAEGER
MidAmerica Farmer Grower

PRINCETON, KY.

A tissue survey conducted by Dr. Edwin Ritchey the past two springs is helping make recommendations on nutrient needs. Ritchey is an extension soil specialist located at Princeton in the Plant and Soil Science Department of the University of Kentucky.

"We conducted a tissue survey the past couple of springs, and we wanted to see if we were short on any nutrients," he said. "Most nutrients can be applied based on soil test recommendations; however there are a few that we don't have correlated, calibrated data to make these recommendations. One way to make sure we're not lacking in these nutrients is by tissue analysis."

For P and K, the recommendations are based on calibrated field trials. Nitrogen recommendations are based on numerous field response trials and different soil conditions. Some of the nutrients for which soil tests have not been correlated and calibrated are sulfur, boron and zinc for winter wheat production.

"One of the things we're hearing quite a bit about now is that sulfur is needed for wheat production," Ritchey continued. "We've not seen a documented yield response to sulfur yet in Kentucky, so we conducted this survey just to see how things were looking. From the 69 fields in 20 western Kentucky counties that we sampled over 2011 and 2012 we came up with one field that had a couple of small areas with sulfur deficiency. This was atypical, as the field had historical oil production and deep soil disturbance due to the removal of old fence rows and the burning and burying of the residue in the soil. We don't think this is common, but this is something we're studying. We want to make sure that we're on top of this for Kentucky producers."

Anyone with concerns about this can contact Ritchey at his office or by email at edwin.ritchey@uky.edu.

His take-home message for farmers is to make sure to add nutrients based on the good reason that your plants need those nutrients.

"We can verify this need through soil tests, or with those nutrients we don't have data for, we can verify it with a tissue analysis." Δ

BETTY VALLE GEGG-NAEGER: Senior Staff Writer, MidAmerica Farmer Grower



Dr. Edwin Ritchey, extension soil specialist located in the Plant and Soil Science Department of the University of Kentucky discusses how they have been taking tissue surveys on nutrient needs.



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