

Do You Need To Apply Sulfur To Your Corn Crop?

URBANA, ILL.

Researchers at the University of Illinois are questioning the importance of adding sulfur to corn crops and are looking for volunteers to participate in an on-farm research study to measure corn's response to sulfur.

In 2009, Fabián Fernández, U of I Extension specialist in soil fertility and plant nutrition, began a research project studying the response of corn to sulfur. While some locations in Illinois showed no response to sulfur, some locations did show a response.

Responsive locations showed yield increases ranging from a few bushels to more than 50 bushels per acre compared to the untreated check.

"Sulfur is a very important nutrient for corn production," Fernández said. "Historically, routine sulfur application for corn has not been recommended in Illinois because earlier research showed no response to sulfur and because soil supply, manure applications, and/or atmospheric deposition were sufficient to supply sulfur needs for this crop."

However, soil sulfur levels may be diminishing over time due to several factors, he said. Strict air pollution standards have cleaned the air of gaseous sulfur compounds resulting in less sulfur atmospheric deposition.

As well, many agronomic inputs such as fertilizers, insecticides and fungicides are "cleaner," with less incidental sulfur. Fewer live-

stock operations across the state are resulting in fewer manure applications, which further reduces the amount of sulfur being applied.

"At the same time less incidental sulfur is being applied or deposited, we are seeing greater removal of sulfur due to increasing crop yields," Fernández said. "Because of these factors and the response we saw in last year's research trials, we need to further investigate sulfur fertilization for corn in Illinois."

Farmers interested in participating in these research trials should contact Fernández at 217-333-4426 or fernande@illinois.edu for more details on soil conditions, equipment, and data collection measurements. Volunteers won't be required to take plant or soil samples, but would need to allow the researcher to obtain samples two or three times during the growing season.

"The better coverage of the state that we can obtain, the greater our ability to predict where sulfur applications are most needed," he said. "This study will produce valuable information regarding the frequency of sulfur deficiency that we can expect, and most importantly, identify the most likely regions or conditions under which sulfur deficiencies can occur in Illinois."

For more information on this study, check out The Bulletin, an online publication written by U of I Extension specialists in crop science, at <http://ipm.illinois.edu/bulletin/>. Δ