



Will You Need Sulfur for your Next Corn Crop?

Source: University of Illinois

Oct. 13, 2010 1:46am

University of Illinois (U of I) researchers say corn response to sulfur may be more common than in the past.

In 2009, Fabian Fernandez, U of I Extension specialist in soil fertility and plant nutrition, began a study to evaluate the response of corn to sulfur. He discovered that while some locations showed no response to sulfur, some did. Locations that were more responsive showed yield increases ranging from a few bushels to more than 50 bu./acre compared to the untreated check.

While 2010 yield data is not complete yet, Fernandez did see visual evidence that sulfur applications were achieving a response.

“Sulfur is a very important nutrient for corn production,” Fernandez says. “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.”

But times are changing. Soil sulfur levels or supply may be diminishing due to several factors.

“Strict air pollution standards have cleaned the air of gaseous sulfur compounds resulting in less sulfur atmospheric deposition,” he says. “In general, many agronomic inputs such as fertilizers, insecticides and fungicides are ‘cleaner,’ having less incidental sulfur in them. Also, fewer livestock operations across the state are leading to decreased manure applications, which further reduce the amount of sulfur being applied with this fertilizer source.”

At the same time less incidental sulfur is being applied or deposited, there is greater removal of sulfur by increasing crop yields, he adds.

Due to these factors, Fernandez believes there is a need to further investigate sulfur fertilization for corn in Illinois. This study will produce valuable information regarding the frequency of sulfur deficiency that Illinois can expect, and most important, identify the most likely regions or conditions under which sulfur deficiencies can occur in the state.