Sulfur For Corn: Feast Or Famine

URBANA, ILL.

niversity of Illinois research shows that most cornfields are not responsive to sulfur, but for those that are, the response is large, said Fabian Fernandez, U of I Extension specialist in soil fertility and plant nutrition.

While current data collected is not sufficient to make any broad conclusions, he said the data clearly indicate that some fields have great potential for response while other fields are very unlikely to respond to sulfur application.

"Our current results, although limited, are in contrast to earlier work done in Illinois in the late 1970s when only five out of 82 sites showed a significant response to sulfur," he said. "The frequency of sulfur deficiency and magnitude of yield response to sulfur application seem to have increased since then."

Several factors may be contributing to this change, he added. Strict air pollution standards have cleaned the air of gaseous sulfur compounds resulting in less sulfur atmospheric deposition. In general, many agronomic inputs such as fertilizers, insecticides and fungicides are "cleaner," having less incidental sulfur in them. Fewer livestock operations across the state are leading to fewer manure applications, which further reduce the amount of sulfur being applied. At the same time that less incidental sulfur is being applied or deposited, there is greater removal of sulfur by increasing crop yields.

"The only way to determine whether or not a particular field could be responsive to sulfur is by conducting a test trial," he said.

Fernandez is looking for volunteers throughout Illinois to participate in an on-farm research project to measure corn response to sulfur fertilization similar to the past two years. Participation not only would provide useful information for the participant's field, but better coverage of the state will also result in a greater ability to predict where sulfur applications are most needed.

If you are interested in participating (even if you are not sure whether your particular field or equipment would fit the conditions for this study), or if you have questions about how to find sulfur fertilizer or have the fertilizer applied, contact Fernandez at 217-333-4426 or e-mail fernande@illinois.edu . Δ

