



Sulf-N[®] News

University of Illinois Research Sheds Light On Surprising Sulfur Use in Corn

Research from the University of Illinois on the uptake and remobilization of nutrients by high-yielding corn hybrids is shaking up conventional wisdom on how corn uses key nutrients. Among the most surprising revelations arising from the study is the volume and use pattern of sulfur, according to crop physiologist Dr. Fred Below.

Since the last deep studies into the uptake and partitioning of mineral nutrients by corn in the 1980s, average yields have risen by more than 50 bushels per acre. The devastation once wreaked by corn rootworms has been held in check on millions of acres by bacillus thuringiensis (Bt) traits, Below notes. Those changes in the crop made it important to understand changes in how it grows, he says.

Among the findings of the Illinois study:

- Half of the crop's sulfur was taken up before flowering, with the other half drawn from the soil after flowering and utilized directly for grain fill
- Unlike nitrogen, sulfur cannot be held in reserve in leaf tissue and remobilized to fill kernels – sulfur is relatively immobile in the plant. That means roots need access to readily available sulfur late in the growing season
- Sulfur has a high harvest index, which is defined as a nutrient that is vital for grain production – and that ends up being exported with the harvest.

Ammonium sulfate provides sulfur in the sulfate form, which is immediately available to plants. Today's high-clearance, high-capacity spreaders allow for it to also be applied late in the season to address post-flowering needs.

Dr. Below warns that decreases in the atmospheric deposition of sulfur as a result of the Clean Air Act, along with unprecedented levels of nutrient removal by high-yielding crops, threaten to leave many soils sulfur deficient.

For more information on the use of Sulf-N[®] ammonium sulfate in corn, [click here](#). Also feel free to contact [Mercedes Gearhart](#), Senior Agronomist for AdvanSix.

Contact AdvanSix

To learn more about the benefits of Ammonium Sulfate, visit [Advan6.com](#) or [SulfN.com](#) or call: 1-844-890-8949 (toll free, U.S./Can.) +1-973-526-1800 (international)

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