



## Sulf-N® News

### Ammonium Sulfate: Higher Efficiency, Higher Corn Yields

Sulfur has become recognized as the fourth macronutrient, joining nitrogen (N), phosphorus (P) and potassium (K) on the list of vital nutrients for corn production. However, not all sources of sulfur are created equal.

A critical period of sulfur uptake in corn occurs very early in the growing season, before microbes can release tied-up sources of sulfur and before root systems are large enough to reach subsoil sulfate reserves.

Sulfur is especially vital to today's corn crops. Here is why:

- High-yielding crops take up significantly more sulfur from the soil than lower-yielding harvests did in the past. A 200-bushel corn crop takes up 33 pounds of sulfur<sup>1</sup>
- Farmers today are more likely than ever to be planting in cool, wet conditions – either because of the prevalence of no-till or reduced-tillage practices, or because of the push for earlier planting dates. Those conditions can keep sulfur reserves tied up for weeks or months
- Free sources of sulfur, including atmospheric depositions from industrial smokestack emissions and bonus sulfur in older forms of fertilizers, are no longer common. Farmers must deliberately apply sulfur to their crops
- Sulfur deficiency symptoms are no longer confined to crops in sandy soils. University trials have demonstrated significant yield improvements in heavier soils in Minnesota (17 bushels/A<sup>2</sup>) and Iowa (15 bushels/A<sup>3</sup>), among others

Ammonium sulfate has several key advantages as a delivery source for both sulfur and nitrogen, including:

- Sulfate sulfur is immediately available to crops. Elemental sulfur and sulfur tied up in soil organic matter must be made available by microbial activity, which can take months – and only begins after soil temperatures reach about 60 degrees Fahrenheit
- The ammonium form of nitrogen is resistant to loss and can be immediately integrated into amino acid and protein production. With 100 percent ammonium nitrogen, ammonium sulfate is a more efficient source of nitrogen than nitrate or urea-based fertilizers

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

<sup>1</sup> Plant food uptake tables –International Plant Nutrition Institute

<sup>2</sup> Evaluation of banded application of sulfur for corn production in conservation tillage production systems. University of Minnesota Extension System, 2001

<sup>3</sup> Sulfur fertilizer response in Iowa corn production. Better Crops, Vol. 95, 2011

---

#### 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)

[Privacy Statement](#) | [Terms & Conditions](#)

Sulf-N® is a registered trademark of AdvanSix Inc.  
© 2017 AdvanSix Inc. All rights reserved.