



Sulf-N® News

Recognizing the Symptoms of Sulfur Deficiency

As crops emerge from the ground and the growing season begins to pick up steam, incidences of yellowing foliage will be one of the first signals of nutrient deficiencies in some fields.

Yellowing foliage can be deceiving – it’s often difficult to differentiate between nitrogen and sulfur shortages. There is a simple explanation for the similarity in deficiency symptoms plants show when they are lacking nutrients. Nitrogen and sulfur play many closely-related critical roles within the plant, including photosynthesis. They are both essential for the synthesis of the chlorophyll molecule, which contains the green pigment needed for photosynthesis. A deficiency of either one will lead to a shortage of chlorophyll, which leaves plants yellower – and less productive.

But there is a handy way to figure out which one a plant is lacking –sulfur deficiency results in yellowing of new growth, while nitrogen deficiency is more severe in older tissue.

This is because while nitrogen is a mobile plant nutrient, sulfur is not. Nitrogen will readily move away from older tissue to new growth, while sulfur will not move to new growth.

Because sulfate sulfur is immediately available to plants, ammonium sulfate sources such as Sulf-N® can quickly help address sulfur deficiency. However, it is critical to apply sulfur as soon as possible after a shortage has been noted:

- If moderate to severe sulfur deficiency continues in corn beyond 21 days after emergence, yields can fall by one to two bushels *per day* past that critical date¹.
- Corn that remains sulfur deficient at silking can suffer yield loss of up to 75%².
- Cotton yields have been improved by as much as one bale per acre after sulfur deficiencies have been corrected³.
- A yield boost of more than 40% has been recorded from split applying 20 pounds of sulfur per acre on wheat growing on sulfur-deficient soil⁴.

Vigilance this spring could help growers achieve their yield potential. Pay close attention to these symptoms. It is best to invest in plant tissue tests to confirm diagnosis or identify cases of “hidden hunger”—shortages occurring before visible symptoms even develop. A sharp eye over the next few weeks can make a big difference.

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

¹ North Carolina State University (2003)

² North Carolina State University (2003)

³ University of Florida (1998)

⁴ Wheat Tech, Missouri (2000)

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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