

Special Analysis Interpretation Sheet
Sulfur (S)
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Sulfur is an essential element for plant growth. It is classed as a secondary nutrient. It is found in the soil either in organic matter or in sulfate form. Sulfur in the sulfate form moves with the soil water and may leach from the soil.

Sulfur deficiencies usually occur in one of three situations. (1) sandy soils with low levels of organic matter. (2) Cool-season crops. This is because organic matter decomposes more slowly in cool weather, thus releasing less organic sulfur. (3) Heavy clay soils. This is due to restricted root growth.

Our lab extracts sulfur with a mixture of acetic acid and ammonium acetate. This extractant is for the sulfate (inorganic) form of sulfur. Soil tests for sulfur are less reliable than tissue tests. This is due to the difficulty in sampling soils for sulfate-sulfur. Sulfate-sulfur may leach below the level of sampling. But still be available to plants.

Sulfate-Sulfur Level (parts per million)	Interpretation
<8	Low
8-12	Medium
>12	High

Sulfur is routinely recommended on several crops. Sugarcane grown as stubble can on caly soils receives a recommendation of 24 lbs. S per acre. High-yielding hay crops should receive 12-24 lbs. of S per cutting. Rice fields which have been recently leveled usually respond to sulfur. Also, many crops grown in cool weather, such as ryegrass and winter vegetables respond to sulfur applications.