SULPHUR the 4th major crop nutrient

Symptoms of sulphur deficiency in alfalfa
• As sulphur is not mobile in plants, younger leaves appear pale green or yellow. Uniform chlorosis may occur as a sulphur deficiency progresses.
• Plants may appear stunted and spindly.
• Reduced shoot development.
• Reduced nodulation.
• Sulphur deficiency is more common in sandy soils with low organic matter.

Benefits of sulphur in alfalfa
• Required for amino acid and protein synthesis.
• Improves nodule development.
• Increases chlorophyll production.
• Essential for healthy green plants.
• Sustains high alfalfa yields.

Sulphur deficiency symptoms in alfalfa include chlorosis, or yellowing, of the uppermost leaves. Courtesy: UC Cooperative Extension

Sulphur deficiency may appear as stunted plants that appear pale green or yellow. Courtesy: IPNI

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Right Source
Sulphate-containing fertilizers can be used when alfalfa needs sulphur (S) for immediate crop uptake. Elemental S will become available to the crop depending on the degree of S oxidation into sulfate during a cropping season.

To ensure the selected fertilizer contains S, check the label for details on S content.

Right Rate
Apply 22 – 34 kg S/ha (20 – 30 lbs S/ac) depending on soil fertility and observed S deficiency in previous seasons.
Consult your local crop advisor to determine right rate for your farm based on the S content of available fertilizer, current soil fertility, and target yields.

Right Time
Sulphur can be applied by incorporating it with other fertilizers at establishment or broadcast after a cut. Avoid application of S fertilizers during periods of very high rainfall to avoid leaching loss of applied S.

Right Place
Surface and incorporation of soluble sulphate fertilizers are equally effective.
Granular elemental S requires dispersion of the S particles within the soil for oxidation to take place.