

NUTRIENT MANAGEMENT PRACTICES FOR SOYBEAN PRODUCTION

Benefits of sulphur in soybean

- Required for amino acid and protein synthesis.
- Improves nodule development.
- Increases seed protein and oil concentrations.
- Essential for healthy green plants.
- Sustains high soybean yields.



SULPHUR the 4th major crop nutrient

Symptoms of sulphur deficiency in soybean

- 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.
- Reduced shoot development.
- Reduced nodulation.
- Sulphur deficiency is more common in sandy soils with low organic matter.



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



Sulphur deficiency will first occur on younger leaves. Entire plants may appear deficient as the condition progresses. Courtesy: NCSU Extension



Sulphur deficiency symptoms in soybean may include reduced nodulation. Courtesy: MSU Extension

Right Source

Sulphate-containing fertilizers can be used when soybean 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 11 – 22 kg S/ha (10 – 20 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

Apply S fertilizer before or after seeding. Available nutrients should be near crop roots during uptake periods. In-crop applications can correct S deficiencies.

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.