

# NUTRIENT MANAGEMENT PRACTICES FOR COTTON PRODUCTION

## Benefits of sulphur in cotton

- Required for amino acid and protein synthesis.
- Increases chlorophyll production.
- Improves root growth and nitrogen uptake.
- Essential for healthy green plants.
- Sustains high cotton yields.



## SULPHUR the 4th major crop nutrient

### Symptoms of sulphur deficiency in cotton

- 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.
- Fewer and smaller bolls.
- Reduced root growth.
- Sulphur deficiency is more common in sandy soils with low organic matter.



A sulphur deficient cotton plant with uniform chlorosis or yellowing on younger leaves. Courtesy: Yara



Sulphur deficiency symptoms in cotton may appear as yellowing of upper leaves and stunted growth. Courtesy: The Univ. of Tenn. Inst. of Agriculture



Leaf veins may stay green under sulphur deficiency but will become chlorotic as the condition becomes severe. Courtesy: Yara

#### Right Source

Sulphate-containing fertilizers can be used when cotton 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 fertilizers, current soil fertility, and target yields.

#### Right Time

Apply S fertilizer preplant or at side dress. 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.