4 NUTRIENT MANAGEMENT PRACTICES FOR WHEAT AND BARLEY PRODUCTION

Benefits of sulphur in wheat & barley

- Required for amino acid and protein synthesis.
- Increases chlorophyll production.
- Improves tillering and nitrogen uptake.
- Essential for healthy green plants.
- Sustains high wheat and barley yields.

SULPHUR
the 4th major crop nutrient

Symptoms of sulphur deficiency in wheat & barley

- 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 tillering.
- Thin-stemmed or spindly plants.
- Sulphur deficiency is more common in sandy soils with low organic matter.

Sulphur deficiency may appear as stunted, yellow patches within a field. Courtesy: TFI

Sulphur deficiency symptoms in wheat and barley include chlorosis, or yellowing, of the uppermost leaves. Courtesy: TFI

A stunted wheat plant with yellow leaves because of sulphur deficiency. Courtesy: Kansas State Research and Extension

Right Source

Sulphate-containing fertilizers can be used when wheat or barley needs sulfur (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 at seeding or top dress before Feekes 5 (Zadoks 30) growth stage. Available nutrients should be near crop roots during uptake periods.

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.

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4 nutrient stewardship