NUTRIENT MANAGEMENT PRACTICES FOR WHEAT AND BARLEY PRODUCTION

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.

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.

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.