

Sulphur's Role in Fertilization

Sulphur (S) is a key component for producing amino acids. It is essential in all crop systems, and a shortage can lead to decreases in yield and protein levels.

Crops with large S requirements are often those with the highest protein contents, especially when the proteins contain high levels of cysteine and methionine. Of the crops commonly found in Western Canada, canola requires the largest amounts of S. Many other crops such as oats and malt barley benefit from proper S fertilization as well.

How Much Sulphur is Needed?

It all depends on where and what you grow. Sulphur deficiencies exist all over the world and impact many crops. Canola is particularly vulnerable in several regions. Tissue & Soil testing, visual inspection and a sound fertilization program built around 4R Nutrient Stewardship can improve crop quality and yield. 4R Nutrient Stewardship is an approach to fertilizer management with a simple core concept: apply the right source of nutrient, at the right rate, at the right time and in the right place.

Benefits and Features of Elemental Sulphur

- ✓ Improve availability to the plant by applying in the fall, spring or after seeding.
- ✓ Sustained release.
- ✓ Not lost through leaching.
- ✓ Builds a sulphur "bank" in the soil.



Image: Sulphur Prills

Why Crops Are Now Deficient Sulphur

Historically, SO₂ gas from industrial processes entered the sulphur cycle in large quantities and was taken up by plants in other forms. Today, crops aren't receiving the necessary amounts of sulphur from the atmosphere alone. It must be included in many fertilizer programs.

Why the change? Regulations altering the composition of fuels and other pollution controls improved air quality but lowered the amount of sulphur compounds available in the atmosphere for plants.