BIO-CYCLE SOLUTIONS

Sulphur's Role in Fertilization

Nitrogen (N), phosphorus (P) and potassium (K) are critical components of a well fertilized crop. In order to achieve higher yields and more nutritious foods, crops may need sulphur (S).

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.

Sulphur deficient canola is characterized by small, narrow and cupped leaves. Yellowing, prolonged flowering, and small, pale flowers may also occur. Deficiencies may show up in patches, and are more typical in sandier soils.

Photo credit: Canola Council of Canada

Where Do Crops Get Their Sulphur?

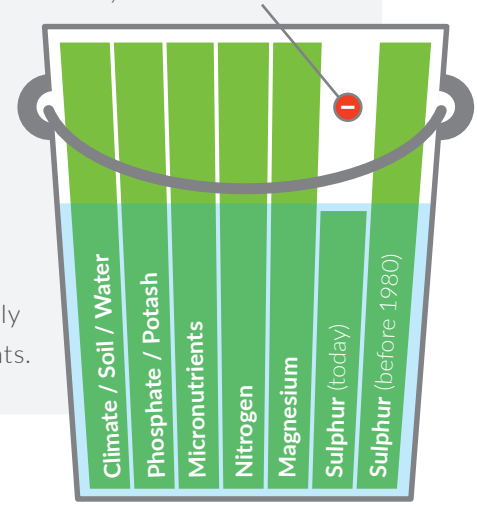
Historically, SO_2 gas from industrial processes entered the sulphur cycle in large quantities and was taken up by plants in other forms. Today, crops aren't receiving the necessary amounts of sulphur from the atmosphere alone. It must be included in many fertilization programs.

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

Why is Sulphur So Important?

Imagine you are filling a bucket with water, but one of its slats are broken. The water level can only go as high as the lowest slat before it begins to overflow. Fertilizers contribute to plant growth like the bucket slats help hold in water. If a nutrient is lacking, the plant can only utilize a portion of the other nutrients.

One nutrient deficiency decreases usability of all other nutrients.



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For more information on sulphur, visit www.SulfurInstitute.org