Blue Mountain Minerals

Aglime Quarterly

What's Happening

CAPCA
Reno
November 3-5

Almond Conference
Sacramento
December 10-12

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Importance of Calcium and Magnesium

Plants require several nutrients to grow healthy and strong. Calcium (Ca) and Magnesium (Mg) are considered secondary macronutrients because they are less likely to limit yield than N, P, and K but are still needed in large amounts. Plants absorb the soluble ionic forms from the soil solution which is then replenished by the exchangeable and mineral forms of Ca and Mg. Calcium usually accounts for more than 65% of base saturation.

Calcium is relatively immobile in the plant so deficiencies often occur in the younger tissues first. Death of growing tips, root tips, blossom end rot or buds that drop too soon are common symptoms.

Deficient soil Mg is more common and often results in limited crop yields due to reduced photosynthesis. Deficiencies can be seen in the older leaves first with specific discoloration to the leaf tissue while leaving the veins green.

The NCRS publication referenced states there is no reliable or critical level of Ca recommended for soils (only for the plant). However, a short supply of soil Ca can be evident when there is poor water infiltration, high sodium levels, surface crusting and low pH. Test your soil and talk to your crop advisor this fall.

Ca++	Mg++
• Aids in pollen development. • Strengthen cell walls reducing bruising and disease. • Helps give longer shelf life. • Essential for plant growth, cell division and enlargement. • Important for developing root system, shoot tips and storage organisms.	• Important for plant metabolism and protein synthesis. • Activates enzymes and chlorophyll. • Aids in formation of sugars, oils and fats. • Deficiencies are more common than Ca.

Why Test Your Soil?

Soil testing has been the recommended first step in soil management for decades.

- It is economically smart to know what is in the soil, and if you need to add fertilizers or nutrients.
- It is Agronomically sound based on years of research.
- It is environmentally responsible to know the impact of soil inputs.
- It can determine and meet crop nutrient needs.
- It can increase profits by focusing on the appropriate material that increases yields.

Reference: NRCS Chapter 6, Calcium and Magnesium Management
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