Blue Mountain Minerals

Aglime Quarterly

What's Happening

Duarte Friends Day
Hughson
May 2

CAPCA/OFAC
Chico
July 17

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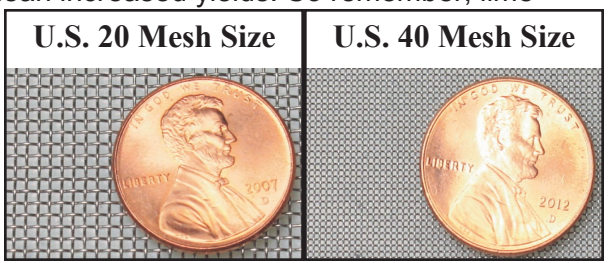
Particle Size, Smaller is Better

When soil acidity gets to a level that is detrimental to a crop's growth, limestone applications should be made. Purity and particle size determine liming materials' quality. Pure calcium carbonate has a Calcium Carbonate Equivalent, CCE of 100. This is the benchmark to which all liming materials are compared.

Particle, or mesh, size is an equally important aspect of determining aglime quality, that particle size specifications are a part of most state aglime laws. For example, a sample of peanuts may be placed atop a mesh size U.S. 4, (4 wires per linear inch) or 5mm openings. When the mesh is shaken the smaller, broken pieces and dust pass through while the whole peanuts are retained. Aglime particle size is measured the same way.

Oregon considers aglime particles that pass through a U.S. 40 mesh to be 100% effective at neutralizing soil acidity. Particles larger than 40 mesh, can be as little as 30% effective or have no effect on soil pH in a reasonable time. Maintaining your soil at a neutral pH can translate into healthier, more productive crops which can mean increased yields. So remember, lime quality increases as particle size decreases. Ask to see the typical analysis, and don't pay for rocks.



Low Soil pH Effects N, P, & K

Soil ph matters, and here is why: The availability of all plant nutrients that influence the growth and health of plants are effected by the soil pH. Healthy productive crops require many nutrients. The primary nutrients are N, P, and K.

N - Nitrogen helps plants with rapid growth, seed and fruit production, and improved quality of leaf and forage crops. N has decreased availability when soil pH is between 5 and 6.

P - Phosphorus is essential for photosynthesis, plant maturation, and encourages blooming and root growth. When soil pH is 6, P is only about 52% effective.

K - Potassium helps in the building of protein, fruit quality and reduction of disease. It is absorbed by plants in large amounts but is only about 50% effective at a soil pH of 5.

Only when a soil pH is near neutral are 100% of N, P, K, other valuable nutrients, and microorganisms available to the plant.

References:
*Penny photos, Wovenwire.com
*A&L Great Lakes Laboratories, Adjusting Aglime Rates, No 6
**Oregon State University, J. Hart, Fertilizer Guide 52