



## Aglime Quarterly

**What's Happening**  
**CAPCA Conference**  
**Disneyland**  
**October 21-23**

**The Almond Conference**  
**Sacramento**  
**December 11-13**



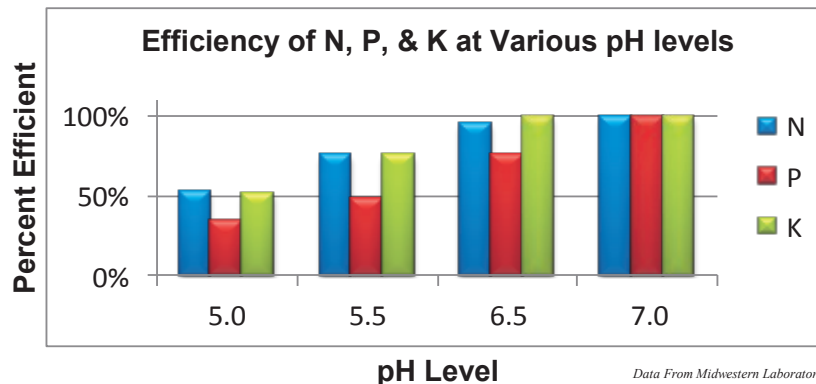
### 3 More Reasons for Limestone

Three essential nutrients for plant health are: nitrogen (N), phosphorus (P) and potassium (K). These nutrients work better when soil pH levels are near neutral (7.0). N is necessary for chlorophyll synthesis and critical for plant growth. P works to promote healthy root and seedling development, aids in photosynthesis, and can improve crop yield. K helps protein synthesis, photosynthesis and functions that improve yield.

Nitrification is an important step in the nitrogen cycle. This process occurs when various soil bacteria change ammonium into nitrite or change nitrite into nitrate. Nitrate ions are readily absorbed and usable to plants. When the pH of the soil is too low, many of the soil nitrifying bacteria are absent or inactive.

P can react with iron, aluminum and manganese to form insoluble products in acid soils.

K has a tendency to leach when the soil is too acidic. These are important reasons why acidic soils should be limed with Blue Mountain Minerals Agricultural Limestone products.



### Got Worms?

What do Blue Mountain Minerals and worms have in common? Both want healthy crops. Earthworms convert organic matter into rich humus, greatly improving soil fertility. Worms work to pull organic matter below the surface, even leaves. They either use the matter for food or in their burrow as a plug. Once in the burrow the worm will partially digest, shred or saturate the material with intestinal secretions.

Worm castings are 5 times richer in available nitrogen (N), and 7 times richer in available phosphorus (P) than the surrounding upper 6 inches of soil. One worm, in good soil conditions can produce up to 10 pounds of castings per year.

Earthworm populations depend on healthy physical and chemical soil properties. A low soil pH can send worms into diapause. This slows their metabolism, growth and development significantly reducing beneficial castings.\*\*

References:

\* IPNI Soil Fertility Manual

\*\*Earthworms: Renewers of Agroecosystems (SA Fall, 1990 (v3n1))