
Aglime, pH and



Plant Nutrient



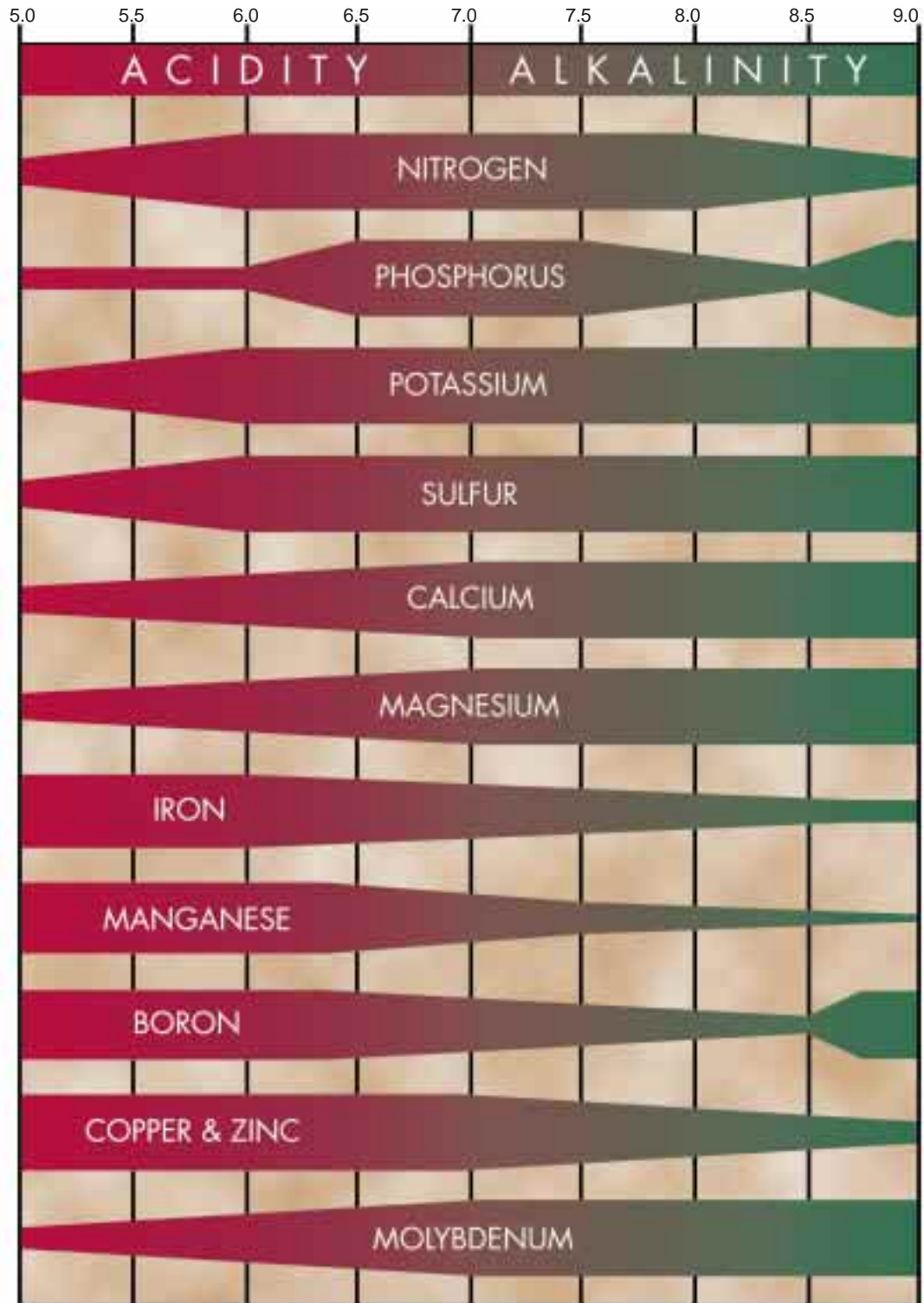
Availability

NUTRIENT AVAILABILITY and plant growth are optimum at a pH range of 5.8 to 7.0 for most soils and plant species. Aglime corrects soil acidity and improves availability of essential plant nutrients. It improves soil aggregation and tilth. This results in greater root exploration of the soil for nutrients by healthy root systems.

Aglime improves nutrient and water uptake while protecting the soil from wind and water erosion. Aglime improves fertilizer efficiency by as much as 50 percent or more and boosts the effectiveness of certain herbicides. It is a real profit-maker for farmers when used according to need.

Effect of Change in pH on the Availability of Plant Nutrients

Bar thickness indicates relative availability.



Aglime can supply calcium (Ca) and magnesium (Mg). While calcitic aglime contains Ca to correct soil acidity, dolomitic aglime can supply both Ca and Mg.

Soil Chemical Properties

University research has shown that cation exchange capacity (CEC) is pH dependent. Liming an acid soil that had a pH of 5.0 to pH 6.0 increased the effective CEC approximately 50 percent. Research found that when a fine sandy loam soil with a low effective CEC was limed, the amount of potassium (K) lost to leaching was reduced 300 percent.

Correcting Toxicities

Aluminum (Al), and manganese (Mn) toxicities are often growth limiting factors, particularly when pH levels are below 5.6. One of the more important benefits of aglime is that it reduces the activity of these elements. Soil pH should be kept above 5.6 to reduce the toxic effects of Al and Mn on plant growth.

Technical information in this publication prepared by agronomic scientists of the Potash & Phosphate Institute (PPI).

For more information about aglime for profitable crop production, check ***Aglime Facts***, a 16-page booklet available from the National Stone Association.

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