

## THE ACID SOIL PROBLEM

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Soil acidity affects approximately 7.5 million hectares in NSW. The characteristics of acid soils include: aluminium and manganese toxicity; deficiencies of calcium, magnesium and molybdenum; increased incidence of nodulation failure and fungal root diseases. These cause reduced yields of wheat and barley, failure of lucerne and reduced pasture production which leads to reduced stocking rates, increased erosion risk and reduced nitrogen in the soil.

Symptoms of soil acidity such as poor lucerne establishment, poor barley growth and yellow patches in wheat should be checked by having the soil pH tested. This will help with deciding the most appropriate management to use.

Applying lime in the most universal way of raising soil pH and overcoming the problems of aluminium and manganese toxicity. It increases the availability of molybdenum and enhances nodulation of legumes.

The rate of lime should be determined in consultation with the district agronomist because the appropriate rate depends on the pH change required, the soil type and the crop to be sown. It is important not to over lime light soils and ensure that other nutrients are not deficient. Lime is not a substitute for superphosphate. Liming has long-term benefits but soils will slowly re-acidify.