

BENEFITS OF LIME

The foundation of a good soil fertility programme is correcting soil pH by using lime. Lime does more than just correct soil acidity it also:

- Supplies essential plant calcium
- Makes other essential nutrient more available
- Prevents element like Manganese and Aluminium from being toxic to plant growth.

But not all Limestone is created equal! There are 3 very important considerations when selecting an agricultural lime for your property:

1. Calcium Carbonate percentage
2. Particle Sizing or Fineness and
3. Moisture content.

How effective lime is depends on its calcium carbonate (CaCO_3) and the fineness of the grind. Good quality lime has a high calcium carbonate (CaCO_3) percentage. This is the stuff that does all the work.

You will require less good quality lime to achieve the same result of a poor quality lime. AB Limes agricultural lime is consistently over 90% CaCO_3 – that's the best in Southland!

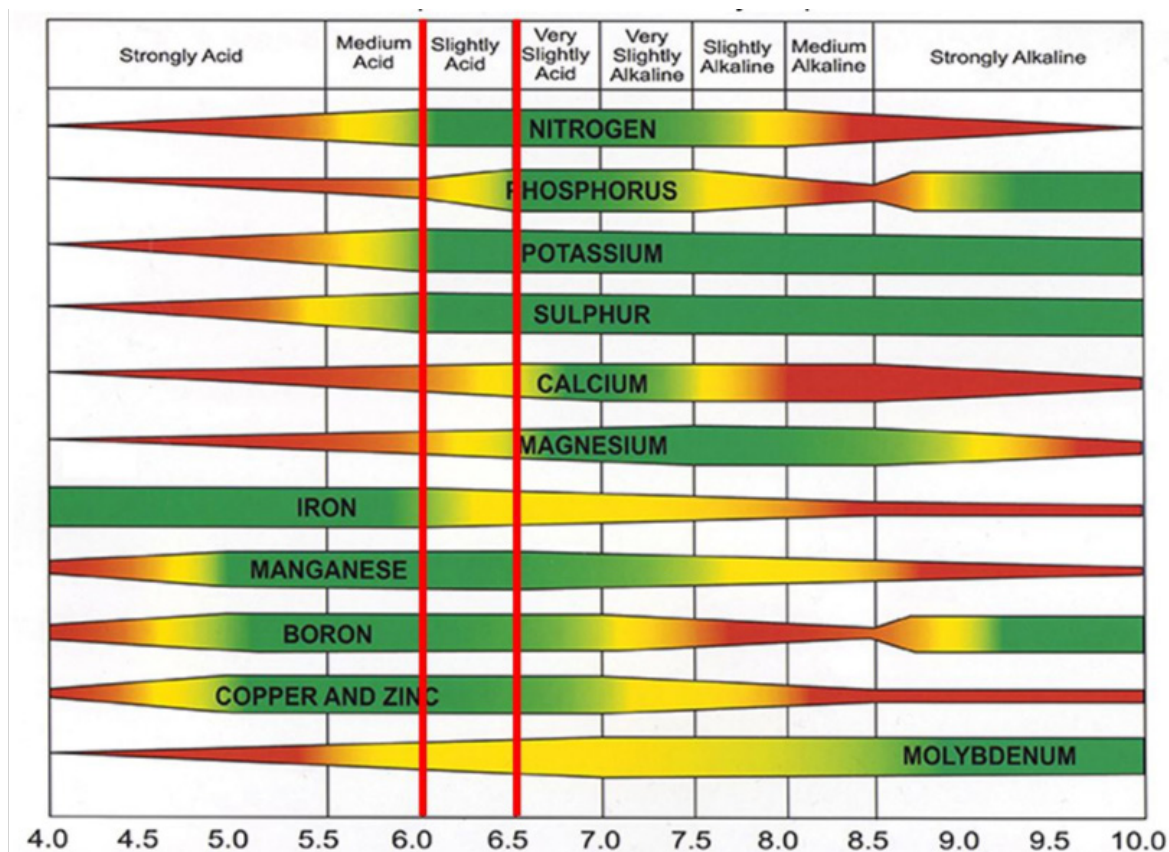
Particle sizing influences the rate of response from your lime application – finer limestone will neutralise soil acidity faster. You need these fine particles to get the work underway immediately to give you a response in the first 3 months of application. Over 50% of our lime consists of fines (<0.25mm).

The larger particles will give you sustained soil neutralisation over the coming year. If you don't have the fines you could wait up to a year for a response to your application – and if you only apply fines you will need to apply multiple times a year to keep you soil pH where you need it.

Lime rock is quarried with a natural moisture content of around 14%. That means if you buy undried lime, 14% of your purchase is water! We dry our lime to between 2-4% moisture content, so that you get value for your money.



INFLUENCE OF SOIL PH ON THE AVAILABILITY OF PLANT NUTRIENTS



In slightly acid soils (pH 6- 7) plant essential nutrients like calcium (Ca), magnesium (Mg), potassium (K), nitrogen (N) and phosphate (P), are present in optimum amounts.

In Acidic soils (low pH) these nutrients are displaced by acidic cations and leached from the soil. Other micronutrients like zinc (Zn), aluminium (Al), copper (Cu), manganese (Mn), and iron (Fe) are soluble in low pH soils and can be present in levels toxic for plant growth.

Soil pH has large influence on soil nutrient availability. While there is no 'correct soil pH', a target of a least 6.2 will optimise plant availability of freshly applied N, P & K and unlock soil P and K. Soils with pH below this target will have reduced levels of plant available N, P & K and therefore will limit plant growth accordingly.