



Purchasing Agricultural Lime

Fact Sheet No. 2
June 2008



Agricultural lime will reduce soil acidity and a regular application routine will allow optimum pasture production conditions. Lime will allow farmers to unlock nutrients stored in the soils potentially saving thousands of dollars in fertilisers and reducing nutrient run-off. The use of lime in the Heytesbury seems to have fallen off in the last few years seemingly due to some poor lime use results.

In 2008 the Landcare Network had samples of ag lime tested by a laboratory and found several to be technically ineffective. The Victorian standard for lime is Effective Neutralising Value (ENV) which is a calculation to determine the ability of lime to reduce pH. It is based on chemical composition, particle size and solubility of each lime. The closer the ENV is to 100 the more effective the lime will be. All lime suppliers should be able to provide an ENV certificate when delivering lime. If not consider other sources.

Factors to check when buying agricultural lime:

Purity: The effectiveness of lime will be reduced by contaminants and water. Check that the lime you are buying actually contains lime.

Fineness or particle size: Lime is most effective when the particle size is less than 0.075mm (powder). At this size it can be 10 times more effective than a 1mm size particle (sand sized). Some reclaimed limes can also be very useful (like gypsum). Particle size can be tested with a household sieve. Any product that doesn't sieve will be less effective.

**HEYTESBURY SOIL AND WATER
DAIRY ACTION PROGRAM**



Purchasing Agricultural Lime

Why Lime:

In very acid soils all the major plant nutrients such as nitrogen (N), phosphorus (P), potassium (K), sulfur (S), calcium (Ca) and manganese (Mg) may be restricted or unavailable to pasture. Liming reduces this acid stress and help nutrient availability.

Indicative Liming Rates:

Existing pH (water)	Recommendation
5.7 and above	No lime
5.1 to 5.6	2.5 t/ha
4.8 to 5	3.75 t/ha to 5 t/ha
Less than 4.8	5 t/ha to 7.5 t/ha

Applying Lime:

The best method is to incorporate the lime during pasture renovation as this allows the most intimate contact and therefore most effective change. Of course this is not always possible and top spread lime will be effective but not to the same extent. Research has shown that lime should be dosed at between 2.5 and 7.5 tonnes per hectare for maximum effect.

pH Effect:

Soil acidity is measured on a logarithmic scale. This means for example that it takes ten times as much lime to increase pH from 5 to 6 as it does to increase pH from 4 to 5.

Key Messages:

- Check purity, solubility and particle size before accepting delivery.
- Apply between 2.5 and 7.5 tonnes per hectare
- If possible time major applications to coincide with paddock renovation
- Greater pH changes will occur in more acidic soil with the same quantity of lime .
- If in doubt do an initial paddock trial to test your farms response.

Heytesbury District Landcare Network

PO Box 69 Timboon Vic 3268 Phone: 5598 3755
Email: hdln@heytesburylandcare.com.au

