

Spring liming a good option for pasture

Time to *Re-Lime*

WANTFA Spring Field Day

11th Sept

The Avon Catchment Council Soil Acidity Project report will be available to discuss the subsoil testing subsidy for 2008

More and more farmers are opting for spring liming because improved prices for meat and wool have prompted many growers to dedicate more attention to their pastures.

Pasture growth and composition respond strongly to treating acid soils with lime.

Advantages of spring liming

- ✓ Save time next autumn.
- ✓ Spread the workload. Take advantage of potential cost savings on cartage and spread when you are ready. Can you store your lime in the super shed?
- ✓ Potentially better availability of transport and spreading contractors.
- ✓ Ideal warm moist conditions for microbial activity and nitrogen mineralisation.
- ✓ Some incorporation or working-in by stock.
- ✓ Take advantage of summer rainfall, this allows extra time for the lime to work before cropping.

Research

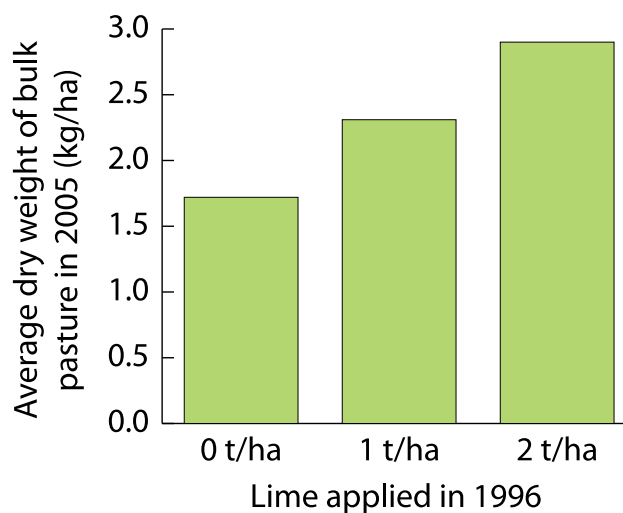
Preliminary research shows more rapid changes in soil pH when lime has been applied in the previous spring compared with soils limed in the autumn.

Two demonstration sites will be set up by the Avon Catchment Council Soil Acidity Project this spring. The information we collect will help growers to decide if Spring liming is the right option for them.

Research conducted by the Department of Agriculture and Food shows that liming to treat acid soils is just as important for pastures as for crops.

Pasture production was 70% greater where 2 t/ha lime had been applied 9 years earlier in a trial at Bindi Bindi. The increased production resulted from less acidic soil with less aluminium. Most importantly, untreated soil continued to acidify over this time.

Pasture response to lime



Pasture production increased when soil acidity and aluminium concentration were reduced by applications of lime nine years earlier in a trial at Bindi Bindi.

Soil response to lime

Average $\text{pH}_{\text{CaCl}_2}$ and aluminium concentration (ppm)* in 2004

| Depth (cm) | Lime applied in 1996 | | |
|------------|----------------------|--------|--------|
| | 0 t/ha | 1 t/ha | 2 t/ha |
| 0-10 | 4.4 | 5.0 | 5.6 |
| 10-20 | 3.9 | 4.4 | 4.3 |
| 20-30 | 4.0 | 4.2 | 4.3 |
| | 6.7 | 3.9 | 3.4 |

*Aluminium Rule-of-Thumb: <2 ppm Al non toxic, 2-5 ppm toxic to sensitive species, >5 ppm toxic to tolerant species.



The Kent family examine liming on their pasture at Bodallin this year.



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The Avon Catchment Council has set a target $\text{pH}_{\text{CaCl}_2}$ of 5.5 for topsoils and 4.8 for subsurface soils in the Avon River Basin by 2020.

This article is produced by the Avon Catchment Council Soil Acidity Project, a collaborative project between the Department of Agriculture and Food Western Australia (DAFWA) and Precision SoilTech. The project is funded by the Avon Catchment Council with investment from the Western Australian and Australian Governments through the National Action Plan for Salinity and Water Quality. For more information on soil acidity or liming, please contact Chris Gazey, DAFWA, 9690 2000, or your advisor.