

Innovation Grant 1/2/2014 – 31/3/2016

Innovative and cost-effective solutions to the treatment of acid soils in SA (\$414,990)

With over 1.9 m hectares of agricultural land in SA susceptible to soil acidification it is becoming an increasing problem due to the use of high nitrogen fertilisers and the removal of farm produce. Liming is the most effective and economical method to treat soil acidification however due to an increase in freight costs, cost of lime and unavailability of some lime sources, some farmers have significantly reduced their lime application. The use of soil pH mapping machines is a quick and inexpensive method to measure and map the soil pH variability across the paddock. With the maps it allows farmers to zone their paddocks and only apply lime where it is needed. This results in reduced costs. The project will also identify, analyse and evaluate new lime sources. Decision support tools are being prepared so that farmers can calculate the amount of lime required and the cost. Working with farmer groups has provided a greater awareness and understanding of the issue of soil acidification and liming.

To date, the project has seen mapping of soil pH on a number of paddocks with farmers and farmer groups. Farmer groups have included:

- Laura Agricultural Bureau
- Tungkillo Landcare group
- Angaston Agricultural Bureau.
- Millicent Agricultural Bureau
- Mil Lel Agricultural Bureau
- Crossville Agricultural Bureau
- Koppio Agricultural Bureau

The project has identified a number of new sources of lime in the South East, KI, Eyre Peninsula, SA MDB and Northern and Yorke region. These sources have been analysed for their neutralising value and particle size and evaluated as liming materials. This will help to address the increasing costs and replace lime sources that are now unavailable. One of the new identified sources in the N&Y region is now registered as a lime source.