

PIRSA

Soil pH and EC Mapping Technology

Reduce costs and improve production



PIRSA is offering innovative technology to measure and map soil pH variation across paddocks - helping you reduce costs and improve production.

Primary Industries and Regions SA (PIRSA) has a Veris pH and electrical conductivity (EC) machine.

This machine, with an experienced operator from PIRSA's Rural Solutions SA is available to measure and map the spatial variation of pH and EC on your farm.

Rural Solutions SA soil consultants are regarded as leading experts in the treatment and management of soil acidity.

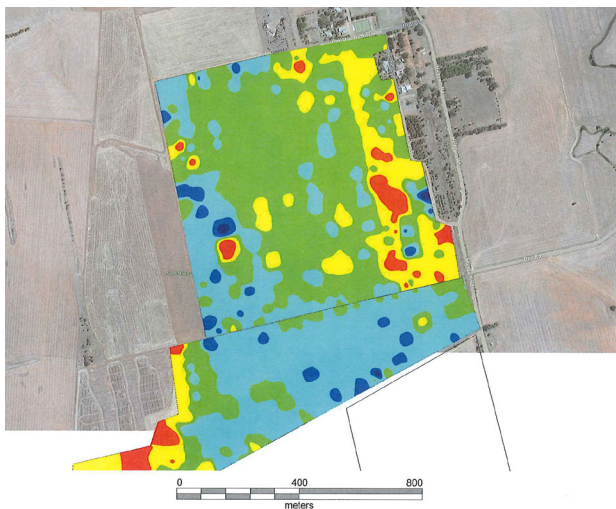
This new service combines expert advice with the latest mapping technology to deliver real cost savings and production improvements for those farming on acid soils.

Why should you map?

More than two million hectares of agricultural land in South Australia are susceptible to soil acidification. This occurs in the South East, Adelaide Hills, Kangaroo Island, Mid North and on the Eyre Peninsula.

Lime is the most effective and economical method for the prevention and treatment of acid soils. However, the cost of lime and freight has increased significantly in recent years.

Soil pH mapping identifies pH zones within a paddock, allowing you to apply lime where it is needed. This results in better soil health and pH conditions for crop and pasture growth.



An example of a pH map of a paddock showing pH zones. Anything red or yellow requires lime.

Targeted lime applications can also lead to potential cost savings. In one case study a farmer saved 40% of the cost that included the cost of lime, freight and spreading costs.

EC (electrical conductivity) is used to define soil texture variability throughout the profile. The type of soil texture can determine the water holding capacity, drainage and nutritional status of the soil. EC can also define sub-soil constraints, such as high amounts of salts within the soil.

How does it work?

The Veris soil pH machine, which is towed behind a 4WD vehicle, collects soil samples and measures the pH of each soil sample on the go, and records the geographic position.

At a swath width of 36 metres wide, the soil pH machine can take 8 to 10 readings per hectare. From the data, pH maps are produced showing pH zones. This allows liming recommendations to be calculated for each zone.

EC can be measured at the same time and a shallow (30cm) and deep (60cm) map can be prepared.

When should we map?

Soil pH mapping can be carried out in the autumn in dry or moist soils. Mapping early in the year allows time to get the maps back and then lime can be applied, if necessary, before seeding.

Mapping service and cost

PIRSA is providing soil pH and EC mapping technology to NRM Boards, farmer groups and individual farmers.

The cost of mapping starts at \$16/hectare plus travel costs to and from the mapping sites.

Contact

For more information, or to make a booking, contact Andrew Harding at the PIRSA Clare Office

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