



# R&D Snapshot

## Tracking Nutrients and Soil Health Indicators in Outdoor Piggery Paddocks

APL Project 2015/072

**Investigator:** Stephen Wiedemann, FSA Consulting

### **Purpose:**

- To analyse soil parameters including organic matter, electrical conductivity (EC), chloride and sodium levels in outdoor piggeries.
- To conduct trend analysis of these parameters, pre and post cropping, over a three year period.

### **Take home messages:**

- Moving of shelters, feeders and waterers frequently resulted in wider distribution of nutrients and salts across the area.
- Organic matter increased significantly over several paddocks whilst sodicity increased significantly on one farm indicating soil type, feed and/or water could influence sodic levels.
- Salt levels were variable, and did not result in toxic salinity levels despite significant increases. EC is a typical indicator of salinity but in paddocks with heavy co-deposition of both nutrients and salts, EC results indicated higher levels than were expected.
- Salinity was more reliably indicated by Cl and Na.
- It may be beneficial to plant salt tolerant cereal crops such as barley in the first year after the pig phase to reduce yield decline in hot spot areas.
- In hot spot areas, low pH and high sodicity may be mitigated by targeted applications of lime or gypsum prior to cropping, depending on whether sodicity or acidification is the issue.

### **Additional information:**

- Contact Janine Price at [janine.price@australianpork.com.au](mailto:janine.price@australianpork.com.au) or 02 6270 8827 for the final report.

