

Liberating soil data for profitable agriculture and catchment health in the Corangamite region, Australia

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Detailed soil data has been collected in the Corangamite region of south east Australia for over 80 years, as testament to the productive value of the region's agricultural soils. Over that time soil science has considerably progressed the knowledge of soil health issues, especially those related to soil erosion, soil salinity and soil acidity, with historic soil data, archival soils and soil trial sites providing valuable baseline data for the analysis of trends over time.

Initiated in June 2013, the Corangamite Soil Health Knowledge Base is a collaborative research project between the Corangamite Catchment Management Authority and the Centre for eResearch and Digital Innovation at Federation University Australia. The project aims to develop a comprehensive, informative, intuitive-to-use, publically accessible, internet portal that will assist the broader community to plan soil health improvements in the Corangamite region. The project is overseen by the Corangamite Land Health Project Steering Committee who advise on the function, use and relevance of the data and information sources in the knowledge base. Data sources include legacy information held by government agencies, modern data available via web services, community contributed soil data, academic research data and industry contributed data.

The award-winning Soil Health Knowledge Base (www.ccmaknowledgebase.vic.gov.au/soilhealth/) comprises two main components: a searchable eLibrary of digital documents, webpages, images and multimedia; and an interactive map portal to discover spatial soil data. The map portal is based on spatial data infrastructure that has been developed and deployed to federate soils data from disparate database sources into a single web portal thereby making data more easily discoverable. Where possible, the portal offers real-time access to remote authoritative databases by integrating the interoperable web services they each provide. In cases where the data already exists in other web locations, linked data technologies are used to connect to that remote resource.