Australian Government
Department of Agriculture, Fisheries and Forestry

National Agricultural Traceability Grants Program – Regulatory Technology Research and Insights Grant Round: Trust Provenance™ grantee summary

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Project overview

- Trust Provenance was awarded a Department of Agriculture, Fisheries and Forestry Grant in 2022 to undertake a research, development and insights analysis project on digital traceability to streamline pest and chemical management in the Australian grains industry.
- This included engaging with a direct grain grower and across the Australian grains ecosystem.
- The project included configuring and implementing the TPalltrace traceability platform for:
  - digitally recording and managing the events of chemical application from drums/containers into the sprayer at the chemical shed, to fill a gap in information capture and streamline chemical spray data for spray diaries, compliance and Occupational Health and Safety management ('TPchem');
  - digitally recording and managing the events of pest management to fill an information gap and streamline compliance and reporting for chemicals use in pest management ('TPpest').

Project outcomes

- TPchem: Refinement and implementation of the TPchem native app and web app solution, and implementation of digital scales linked to a simulated sprayer-hopper setup using Bluetooth.
- TPpest: Refinement and implementation of the TPpest native app and web app solution, and demonstration use across an industry partner's grain farm to record mice bait use and location.
- TPchem and TPpest utilise the GS1 global protocols for supply chain data standards, and the system is accredited by the National Farmers' Federation Farm Data Code for information management privacy.
- The project also explored how TPchem and TPpest could enable farmers to streamline compliance by delivering digital information aligned with requirements on chemical use, spray diaries, chemical inventory, compliance with Australian Pesticides and Veterinary Medicines Authority (APVMA) permits for mice bait containing specialised chemical dosages (i.e. zinc phosphate 50mg) and using AI to analyse the APVMA database.
- The final outcome is a series of recommendations and next steps that industry bodies, government, chemical companies, standards groups, farmers, farmer educators and trainers, and compliance and equipment solution providers need to undertake to support effective implementation and realise the benefits of digital traceability for pest and chemical management in the Australian grains industry.

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Acknowledgement of Country

We acknowledge the continuous connection of First Nations Traditional Owners and Custodians to the lands, seas and waters of Australia. We recognise their care for and cultivation of Country. We pay respect to Elders past and present, and recognise their knowledge and contribution to the productivity, innovation and sustainability of Australia's agriculture, fisheries and forestry industries.