



NINTI ONE **CRC** **REMOTE ECONOMIC PARTICIPATION**

PRECISION PASTORAL MANAGEMENT TOOLS UPDATE:

BEEF WEEK

PROJECT OBJECTIVE

- ▶ The Precision Pastoral Management Tools (PPMT) project is developing new management technologies that integrate precision animal data with precision spatial data to match livestock performance to environmental conditions, leading to more efficient pastoral management.
- ▶ The project is facilitating understanding and adoption of the systems and technologies by pastoral enterprises through research on commercial properties.
- ▶ The aim is to deliver products of the research to industry by a commercial partner to ensure they meet customer needs and have ongoing support.

Background

The Precision Pastoral Management Tools (PPMT) project began in 2010 and is one of twelve in the Cooperative Research Centre for Remote Economic Participation (CRC-REP), which is headquartered in Alice Springs. The project expands on the work of the Desert Knowledge Cooperative Research Centre, which resulted in the commercialisation of the Remote Livestock Management System by Precision Pastoral Limited. The PPMT project integrates remotely collected animal and pasture data into a management decision support system and aims to deliver a product to the market through a commercial partner before the CRC-REP finishes in June 2017.

Progress

We have developed a software prototype called the Precision Pastoral Management System (PPMS), which draws data on animal and pasture performance into one cloud-based online system. The PPMS is being evaluated on five commercial cattle stations in WA, Qld and the NT. We want to determine if the system is accurate, reliable and robust enough for beef producers. We also want to measure the economic, environmental and management benefits for producers. After testing the PPMS for two wet seasons and two dry seasons, we will then report back our findings to the industry via a series of field days held at each of the cattle stations involved.

The research so far has shown that individual animal performance is highly variable, although herd averages are positively correlated with rainfall on enterprises with good land condition. During a project survey, pastoralists described the value of the PPMS to their business, particularly when making decisions about reducing stocking rates. The availability of objective animal and pasture data was also identified by pastoralists as a significant development that removes the guess work from important economic and business decisions.



The major output of this project will be the PPMS software that operates at a resolution, and on a geographic scale, that allows pastoralists to integrate precision animal data with precision spatial data to match livestock performance to environmental conditions, leading to more efficient pastoral enterprises.



Research team

The PPMT Project Leader is Sally Leigo, who is employed by the Northern Territory Department of Primary Industry and Fisheries. Pieter Conradie and Helen McMillan from NTDPIF are assisting with data collection and processing. Other members in the research team are Tim Driver and James Christian (Precision Pastoral Pty Ltd) and David Phelps and Ian Houston (Queensland Department of Agriculture, Forestry and Fisheries). Kevin Williams and Andy Bubb (Ninti One) are also involved in the day-to-day operations of the project. External consultants are also engaged as required.

The PPMT project's advisory committee is made up of beef producers and beef industry leaders:

- ▶ Sharon Bell of Dulkaninna Station via Marree, SA
- ▶ Roy Chisholm of Napperby Station via Alice Springs, NT
- ▶ Kurt Elezovich of Country Downs Station via Broome, WA
- ▶ Bill Hawkins of Herbertvale Station via Mt Isa, Qld
- ▶ Ion Heseltine of Karratha Station via Karratha, WA
- ▶ Matthew Pryor of Observant Pty Ltd, Melbourne, Vic
- ▶ Mick Quirk of Meat and Livestock Australia, Brisbane, Qld

For more information visit our website or contact: info@nintione.com.au.



Research Partners of the CRC-REP Precision Pastoral Management Tools Project



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