

Emerging Bovine Tech for Northern Australia's Beef Industry

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Research Purpose

- Improve supplementation, production, data collection and resilience in northern Australian cattle
- Use animal feedback (give the cows a 'chance to talk' on what they need).
- Better customisation of supplements we feed cattle in northern Australia.
- To encourage stronger regulations and testing protocols around cattle supplements both imported and non-imported products.
- Enhance bovine tech use and monitoring to improve herd health overall.
- To help support producers with government 'red tape' on carbon credits, sustainability and traceability requirements.
- To promote more 'on station' research and development in the northern Australian beef industry.
- To encourage more strong voices to help advocate, advance and protect the northern beef industry in Australia.

Key Learnings

- Northern Australia's beef industry holds over 13 million cattle and is the single largest contributor to gross value in Agriculture in Australia – however with few people and vast landscapes, it can often feel overlooked.
- 2024-2025 predicted production value for beef is A\$40 billion. Compared to wheat – A\$13 billion.
- The dairy industry is more advanced than beef in Australia in terms of data collection, integration and tech adoption. Beef needs a boost.
- Fast, accurate, cost effective data collection devices that work crush-side and support same day decision-making are needed for improved large herd management, resilience and sustainability in Northern Australia.

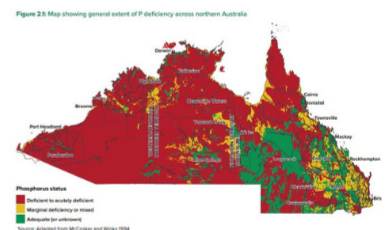


Source: Meat and Livestock Australia (2023)_Phosphorus management of beef cattle in northern Australia

Case Studies

Kidman Springs Station research study showed the effectiveness of good quality phosphorus use:

- Poor phosphorus (P) soils in northern Australia affect reproduction, health and survivability.
- In northern Australia the ratio of supplement use of P is low compared to what is needed.
- Blood sampling essay studies results have 99.9% accuracy.
- Producers often lose confidence when supplements don't show visible results.
- Guess work only works so far – we need the data for effective long term results.



Recommendations for Industry

- Prioritise crush-side usability: Devices must work offline, in dust, heat, and with minimal training. Results should be available in <2 minutes, at <\$5 per test.
- Bundle with extension services: Work with Elders, CPC, AACo. or S. Kidman & Co., MLA, or independent vets to deliver testing plus interpretation, not just hardware. Build in integration: Ensure compatibility with NLIS, BreedPlan, and farm record apps like Agri Webb or Cibo Labs.
- Fund regional validation trials: Support projects focused on P diagnostics, pregnancy detection, and drone-based nutrition tracking in extensive herds. Develop economic case studies: Show the cost-benefit of diagnostics under real-world northern conditions.

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