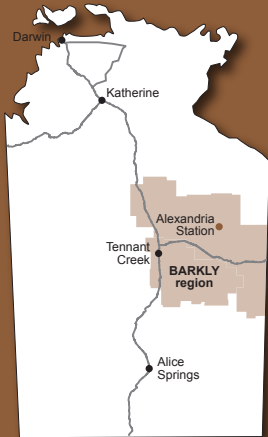
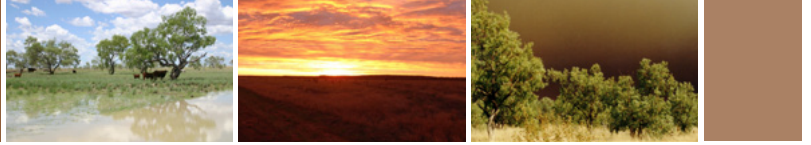




Northern
Territory
Government



Case Study: Alexandria Station



Wet season spelling and stocking rate management for healthy pastures and business performance in the Barkly

The North Australian Pastoral Company (NAPCO) has owned Alexandria station, 218km north-west of Camooweal, since 1877. The property is primarily a breeder operation producing weaners for NAPCO's Channel Country properties in Queensland. Alexandria also produces bulls for other NAPCO properties.

Ross Peatling has been the manager of Alexandria since 1991. Ross routinely implements wet season spelling to improve and maintain land condition. The company is also highly regarded for its sustainable approach to stocking rate management.

A research trial is underway to study the land condition and production benefits of the wet season spelling and stocking rate management used at Alexandria. Soil carbon levels are also being measured at the site.

- **8,391 km² property**
- **Breeder operation and bull stud**
- **Wet season spelling**
- **Sustainable stocking rates**
- **Soil carbon sequestration**

Photo: Dionne Walsh



Australian Government



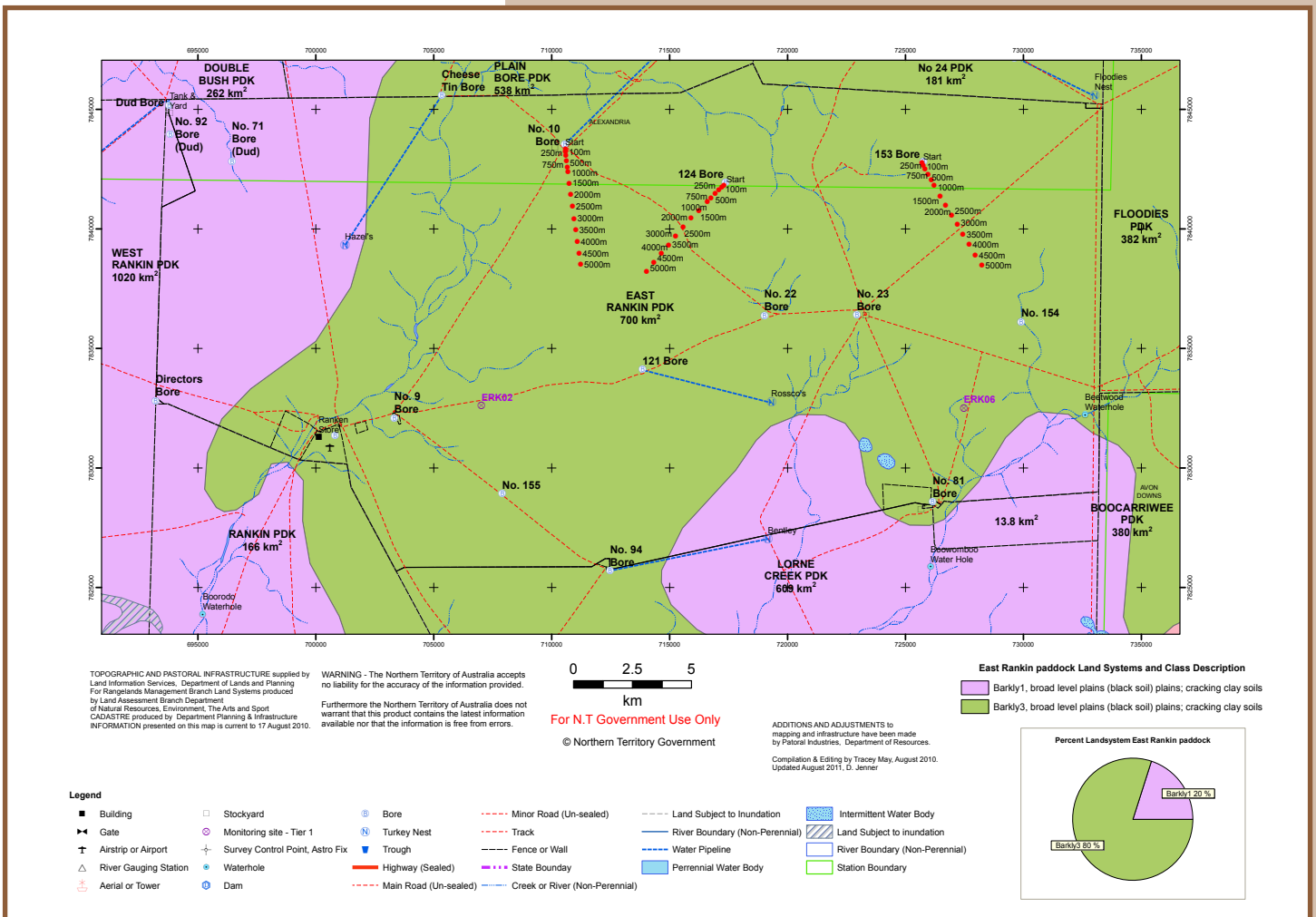
“The aim of the trial is to document the benefits of wet season spelling and stocking rate management for land condition, pasture productivity and business performance”

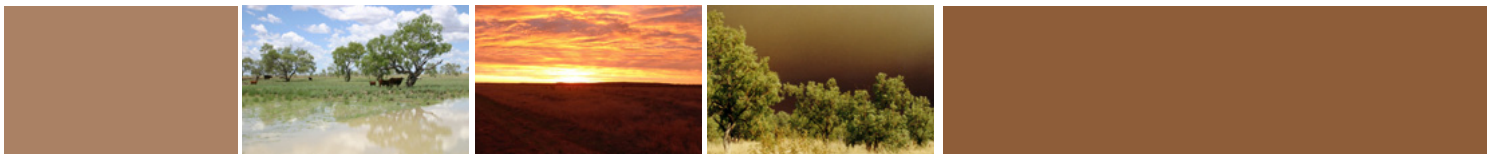
Map showing the location of the three bores and the monitoring transects (red dots) in East Ranken Paddock, Alexandria.

Alexandria spelling and stocking rate demonstration site

The demonstration is situated on Downs Country (Barkly land system) in East Ranken Paddock. When in good land condition, these black soils are dominated by Mitchell grasses (*Astrelba species*). Mitchell grasses are very valuable for pastoral production but can decline under constant heavy grazing. If managed using sustainable stocking rates and periodic wet season spelling, Downs Country can be very resilient.

The trial is monitoring the pastures at three bores of different ages (>100 years, 8 years and a new bore first used in 2010). At the end of each wet season, a range of pasture measurements are recorded at regular points along a 5km long transect radiating away from each bore. An economic assessment of the management practices will also be undertaken as part of the project.





Early results

A program of water point development since 2005 means that 95% of the land in East Ranken Paddock is now within 5km of water. This infrastructure development has resulted in:

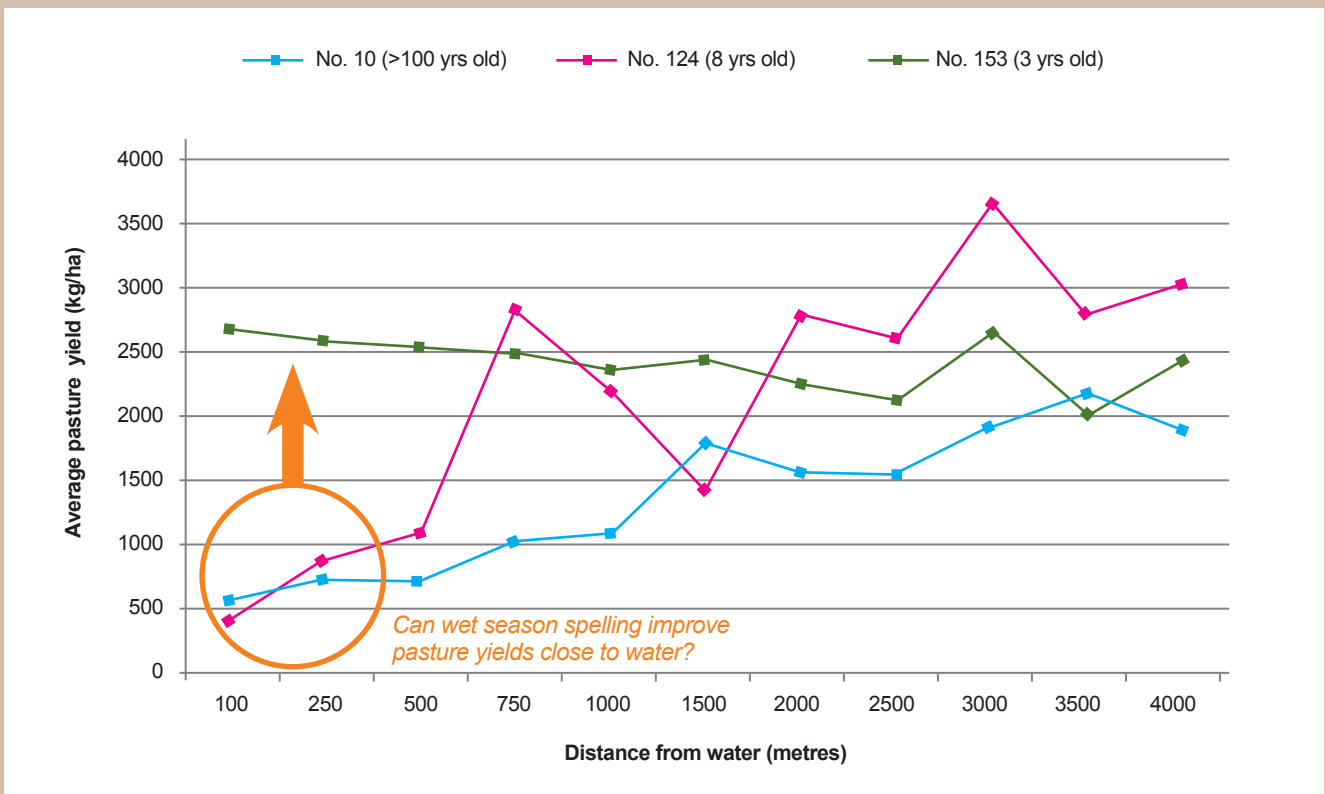
- More effective use of the paddock area.
- Increased opportunities to move cattle away from bores that need to be spelled.
- Cattle being spread across more land, which keeps stocking rates within recommended limits.

The graph below shows the average amount of pasture at different distances from water at the three bores in the study in 2013. Over coming years, the trial will determine whether the stocking rate and wet season spelling regime at Alexandria can:

1. Maintain high pasture levels and good land condition at new bores.
2. Increase pasture levels and land condition close to older bores.

“80% of the pasture yield recorded at No. 10 Bore in 2013 was from palatable species, which is remarkable given that this bore is more than 100 years old”

Alexandria demonstration site 2013





Project Partners

Current research at the Alexandria site is supported by funding from DPIF and the Australian Government. Significant in-kind support for the trial is provided by the North Australian Pastoral Company.

Banner photos courtesy of Department of Primary Industry and Fisheries

Pasture sampling at Alexandria.

Photo: Casey Collier

Benefits of sustainable stocking rates and wet season spelling

Producer experience and research across northern Australia indicates that sustainable stocking rates and wet season spelling can:

- Optimise the bulk and composition of pastures and keep them in good land condition.
- Help to restore land that has declined in land condition when teamed with appropriate stocking rates.
- Be used to accumulate feed for grazing or fuel for burning at strategic times.
- Potentially improve live weight gain per hectare over the long-term by allowing sustainable increases in stocking rate and carrying capacity.
- Optimise long-term economic performance in regions with highly variable rainfall.

For more information

Contact the Pastoral Production team at Tennant Creek on 8962 4493 or Berrimah Farm on 8999 2011.

