

Pasture dieback demonstration site

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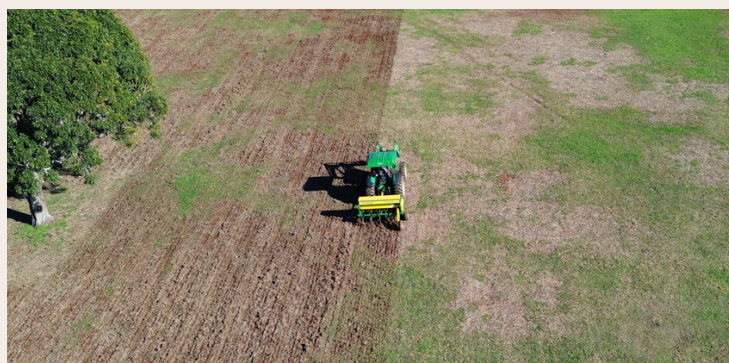
Site details

22Ha Steer trading enterprise
Tucki Tucki Creek catchment
Red Ferrosol soil
Median rainfall 1550 mm/yr

First signs of pasture dieback

Prior to 2022, pastures were predominantly kikuyu and broadleaf paspalum. The broadleaf paspalum originally dominated under the tree lines (in shade) and then progressed into the centre of some paddocks over time.

Dieback was first observed in 2023 and proceeded to kill broadleaf paspalum and kikuyu in large patches over the autumn of 2024.



Demo details

In winter 2024, large scale demonstration blocks were established to trial a range of pasture reestablishment options following the dieback incursion.

Perennial pasture species Cocksfoot (temperate) and Rhodes grass (tropical) were selected because they showed moderate to high dieback tolerance at the nearby Alstonville replicated plot trials.

Results of soil analyses showed typical Ferrosol low pH, and low available phosphorous and calcium.



Key questions

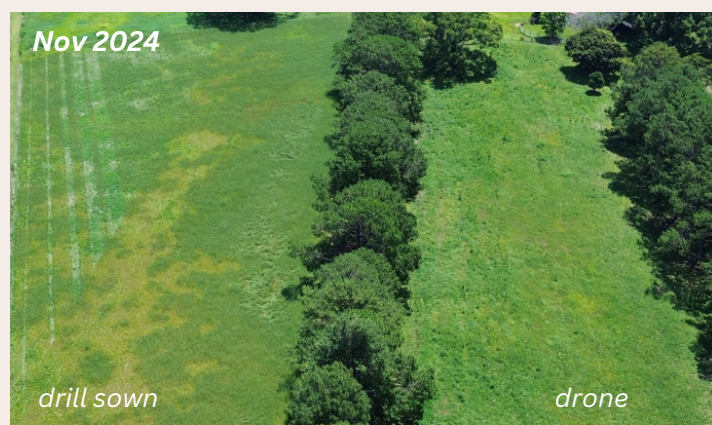
Can tropical pastures be successfully under sown with winter-active annuals (ryegrass) or perennials (cocksfoot) to provide winter cover and feed prior to tropical species emerging in spring?

Can legumes and forbs be sown at the same time as the perennial pasture base, or do broadleaf weeds need to be controlled in the first season?

Can Cocksfoot establish and persist as the dominant perennial grass in the wet subtropics where dieback is present, and does nutrition play a role in improving persistence?



Can pastures be successfully established by drone sowing or do we need to drill these pastures?



Pasture dieback demo Tregeagle - observations to date - May 2025

Observations of pasture establishment to date

The drone sown paddock took longer to establish, however the reduced vigour of ryegrass allowed better establishment of Rhodes Grass than in the adjacent drill sown paddock.

The drone sown paddock was weedy in early establishment, however grazing and mulching led to good results as shown here.



Earlier grazing pressure on both paddocks may have led to improved establishment of Rhodes Grass, particularly on the drill sown paddock where ryegrass and chicory dominated, leading to patchy grass establishment.



Cocksfoot showed good establishment where competition from tropical grass is reduced. We are uncertain about how long Cocksfoot, as a temperate species, will persist, particularly if tropical grasses re-establish on this site.

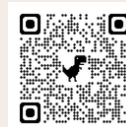
Panic has shown average establishment to date. No signs of dieback observed in Panic or Cocksfoot.

Pasture dieback signs April 2025

Rhodes Grass - mild impacts observed, in contrast to nearby trial site where no dieback symptoms yet observed.



See trial site video updates here:



Kikuyu and Broadleaf Paspalum - severe impacts observed, as expected. Kikuyu did not recover vigour over summer, providing little forage value. Paspalum returns each season via a large seed bed.



Pasture dieback resources

- Identification guide
- Case studies
- Videos



www.bit.ly/pasture-dieback