North-West Update

Growing red meat productivity through the selection and establishment of perennial legumes

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Project Overview

Currently the prevalence of perennial legumes in dryland pastures in Tasmania is low and is limiting profitability and productivity. This project aims to increase the legume component in pastures from 12-15% currently to 20-25%. .

In the high rainfall North-West of Tasmania the aim is to improve autumn and winter feed supply for grass-fed beef systems by identifying and demonstrating legume species that can successfully fill feed gaps during the late summer/autumn and improve resilience to waterlogging and pugging. The project will evaluate the productivity and waterlogging tolerance of a number of commercial cultivars and selections of strawberry clover and Lotus sp.., which are known to be waterlogging tolerant with commonly sown white clover.

In the low to mid rainfall Midlands region of Tasmania, this research aims to extend the growing season of dryland pastures through improved establishment and persistence of perennial legumes. The research is trialling various perennial legumes and sowing practices that advantage legumes during establishment as well as demonstrating how to establish legumes in existing grass dominant pastures.

The project runs from 2020-2025 with research continuing until 2023 and involve and partner activities on farm between 2023 and 2025.

Above: Strawberry clover forms adventitious roots under waterlogging

Current project activities in north-west

• Re-establishment of legumes in ryegrass dominated pastures (Freer Farm, Burnie)

• Evaluation of legume waterlogging tolerance (Edith Creek)

• Involve and Partner sowings (Arthur River and Marrawah)

• Pasture mixes demonstration (Alcomie – see over page)

• Strawberry clover accession (40+) screening for enhanced waterlogging tolerance (Launceston)

Above: Re-establishing legumes in ryegrass dominant swards (Freer Farm)

Alcomie pasture mixes trial

Above: Paddock walk held in July with guest Dr Richard Hayes from NSW DPI.
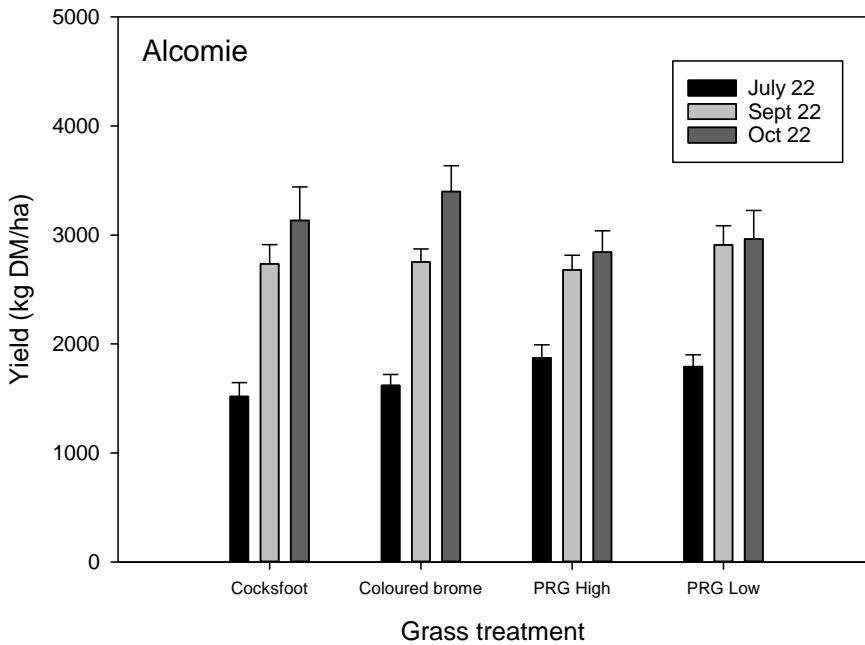

Figure 1: Dry matter yield (kg DM/ha) of 4 pasture mixes based on cocksfoot, coloured brome, perennial ryegrass high rate, and perennial ryegrass low rate with clovers at three harvest times (27/7/22, 14/9/22, and 20/10/22

Above: Left: Perennial ryegrass (high), Right: Cocksfoot. November 22
Below: Left: Perennial ryegrass (low), Right: Coloured brome

Involve & Partner

Importantly the learnings from phase 1 (which focuses on experimental work) will then be extended to producer led sites on-farm to trial alternative sowing techniques and species at a commercial scale that have shown promise during the first phase of the project. In 2023, TIA will be looking for more producers interested in participating in this second phase of the project. Anyone interested in discussing this further should contact: Rowan.Smith@utas.edu.au