Case Study – Dairy Farm in South Gippsland, Victoria

Challenge
Dairy farmer wanted to increase pasture production to reduce feed costs

Objective
Increase dry matter (grass) and demonstrate improvement in soil health

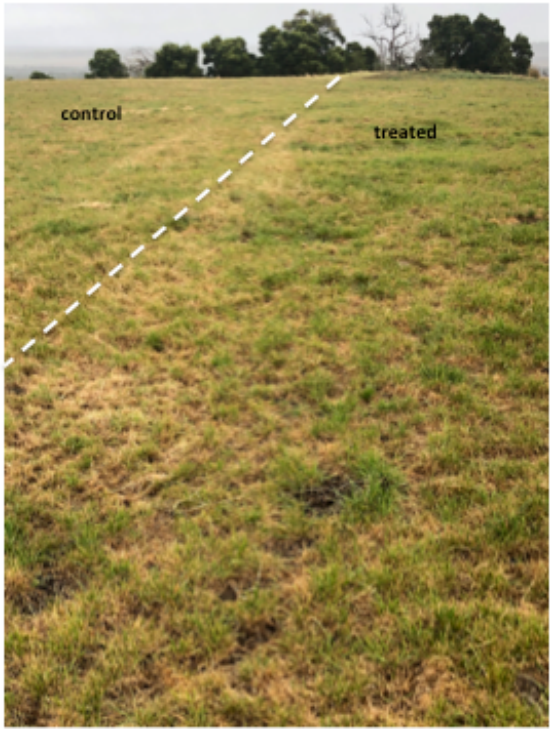
Details
Trial period: November 2020 – March 2021
Area: peat river flat paddock (1 Ha)
Soil type: sandy clay
Control: pasture treated with existing inputs and dosages (urea, lime etc.)
Application schedule:

Stage	Product	Dose per Ha	Mode of application	Benefits
At time of planting	Geoxol granules	20kg	Soil application (add with base fertiliser)	Improves soil properties and water retention for better nutrient absorption
~60 DAP	Silixol	1000 ml	Foliar spray	Optimizes crop nutritional status, reduces abiotic and biotic stress
~120 DAP	Silixol	1000 ml	Foliar spray	Optimizes crop nutritional status, reduces abiotic and biotic stress

Results

Samples	Dry Matter	Notes
control	20.8%	soil very hard and compact, very difficult to dig hole; soil clumpy and hard; patchy ground cover
Treated (20kg/Ha)	29.2%	soil moderately hard and compact but easiest to dig hole; soil less clumpy and finer, breaks down into smaller particles; good ground cover with very few

Control Treated



Key Observations

Increased dry matter yield by approx. 8.4%
Higher pH - 6.6 to 6.8
Soil much more friable with extensive root system in treated area
Treated area recovered quickly after being grazed

Outcome

The use of Geoxol and Silixol (OSA) significantly increased dry matter and improved soil health.

Next steps: Reapply Geoxol and Silixol over a larger area and reduce fertiliser use by 25%. With fertiliser costs soaring (Urea $800/mt, Phosphorus $900/mt, Lime $1200/mt), the potential cost savings are significant.