



**Lincoln
University**

Te Whare Wānaka o Aoraki

AOTEAROA • NEW ZEALAND



Maximising the subterranean clover content on a summer dry Wairarapa hill country farm through grazing management

Sonya Olykan, Dick Lucas, Dan Nicholson,
Crile Doscher and Derrick Moot

New Zealand's specialist land-based university



Publication details

This presentation was made at the 81st annual New Zealand Grasslands Conference held at Napier, 5-8 Nov 2019.

It is associated with the following publication:

Olykan, S.T., Lucas, R.J., Nicholson, D.J., Doscher, C., and Moot, D.J. 2019. [Maximising the subterranean clover content on a summer dry Wairarapa hill country farm through grazing management](#). Journal of New Zealand Grasslands 81, 91-99.

Tokaroa Farm, Wairarapa



Photo: RJ Lucas, 30-03-17
Lincoln University

- 608 ha sheep and beef property
- Winter 2000 terminal ewes, 2300 hoggets (1500 in-lamb), 350 trading cows

Climate



Photo: Malcolm Macfarlane, 27-09-15
On Farm Research

Rainfall ~ 800 mm/year
More rainfall in winter (~90 mm/month)

Climate – summer dry

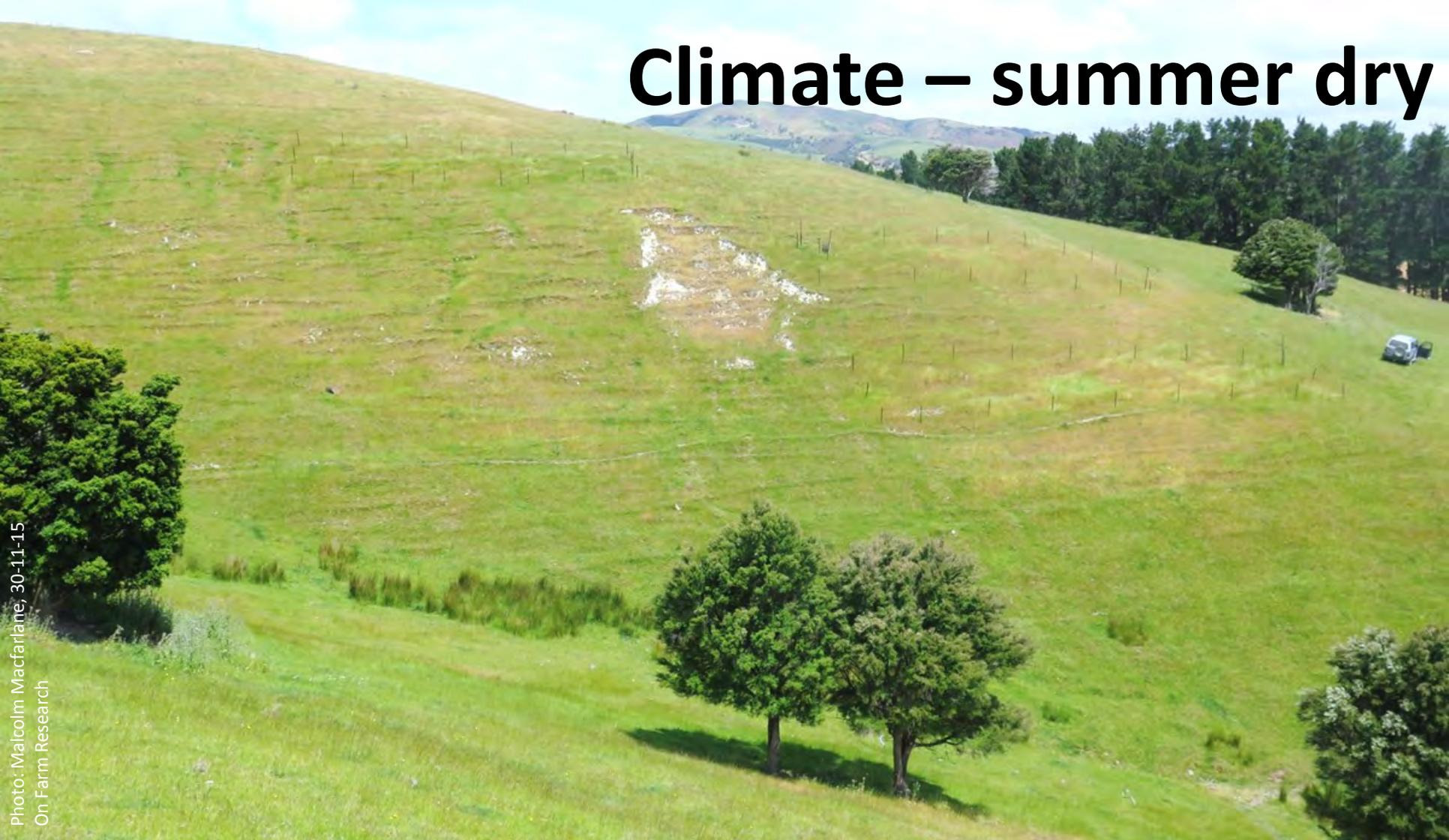


Photo: Malcolm Macfarlane, 30-11-15
On Farm Research

Summer rainfall is 50 mm/month

PET is 130 mm/month

Soil moisture deficit ~120 mm in Jan/Feb

Set stocking: early spring to November



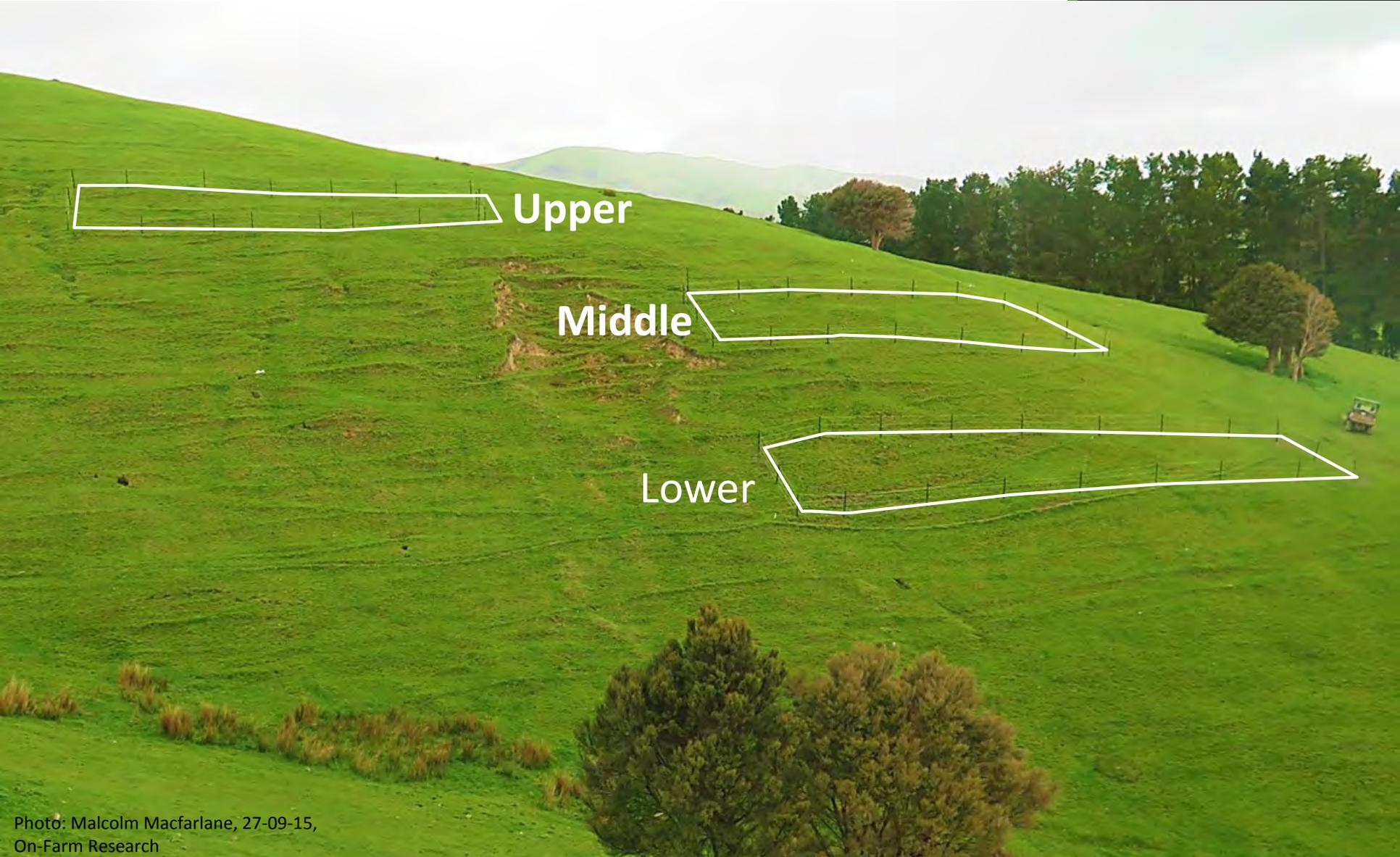
Sub clover barely surviving



Photo: Malcolm Macfarlane, 19-10-15
On Farm Research

Exclosures and spelling

Exclosures - 2015

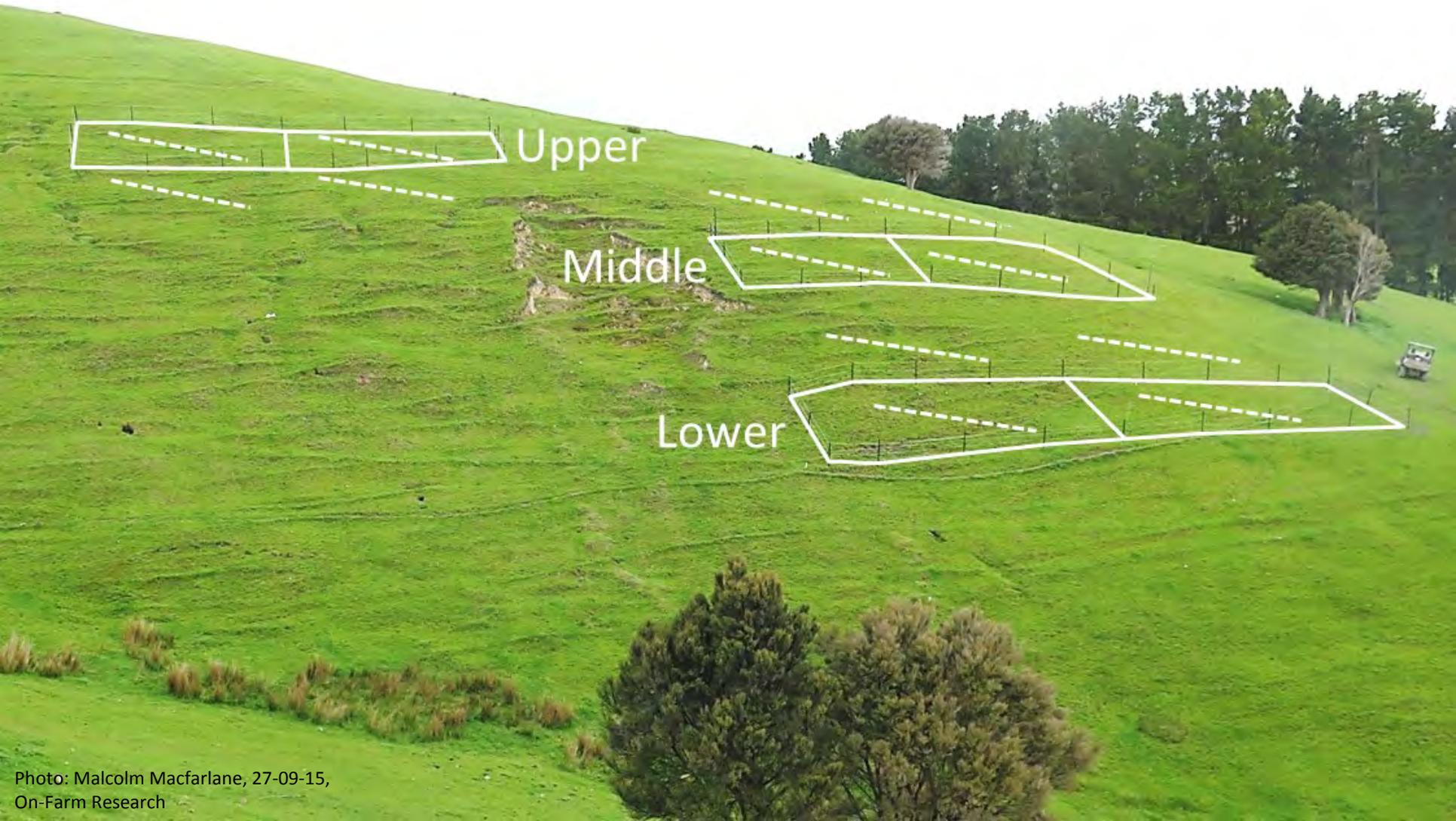


Upper

Middle

Lower

Exclosures - 2016



Upper

Middle

Lower

Assessing sub clover

– 120 points

10% Sub



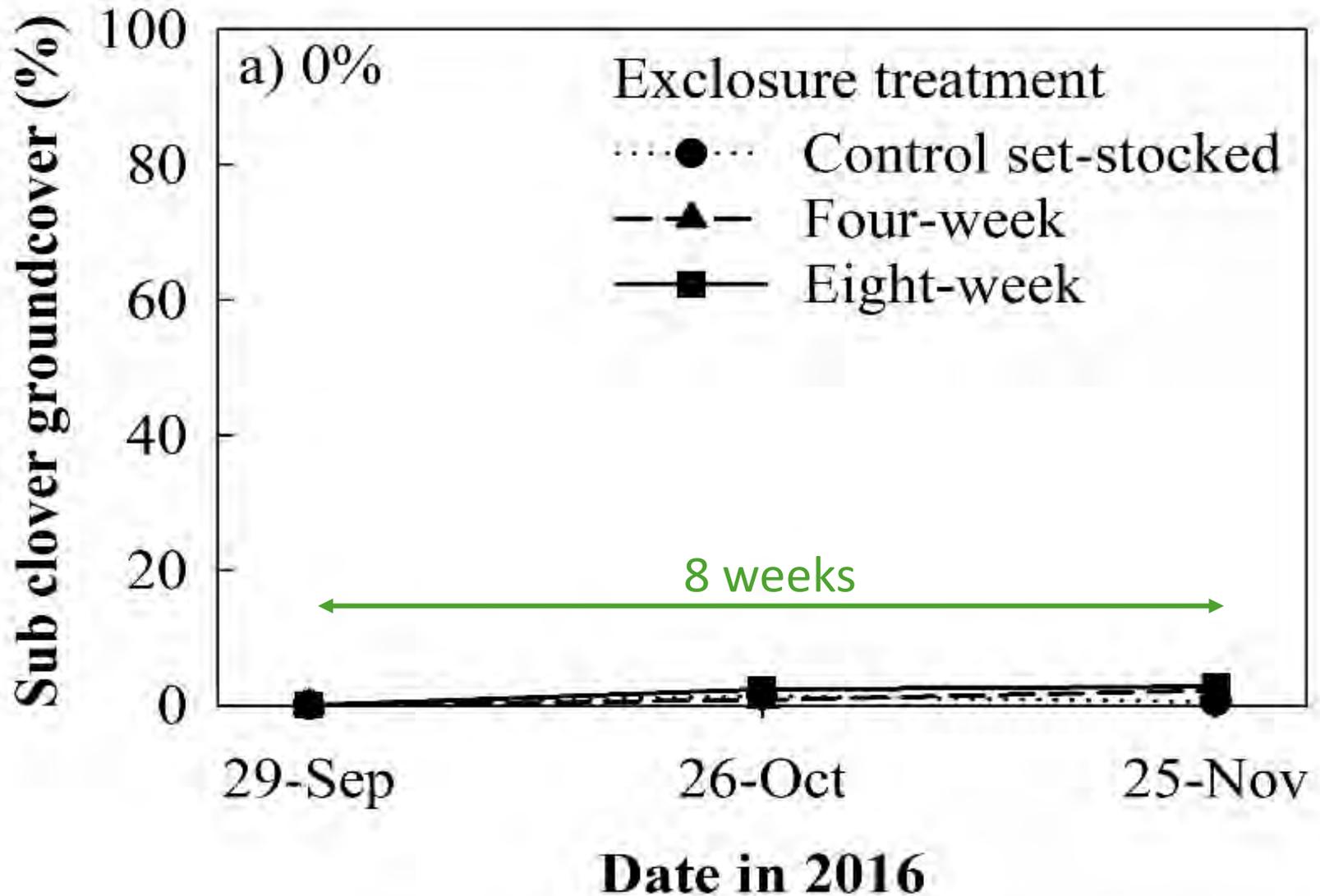
40% Sub



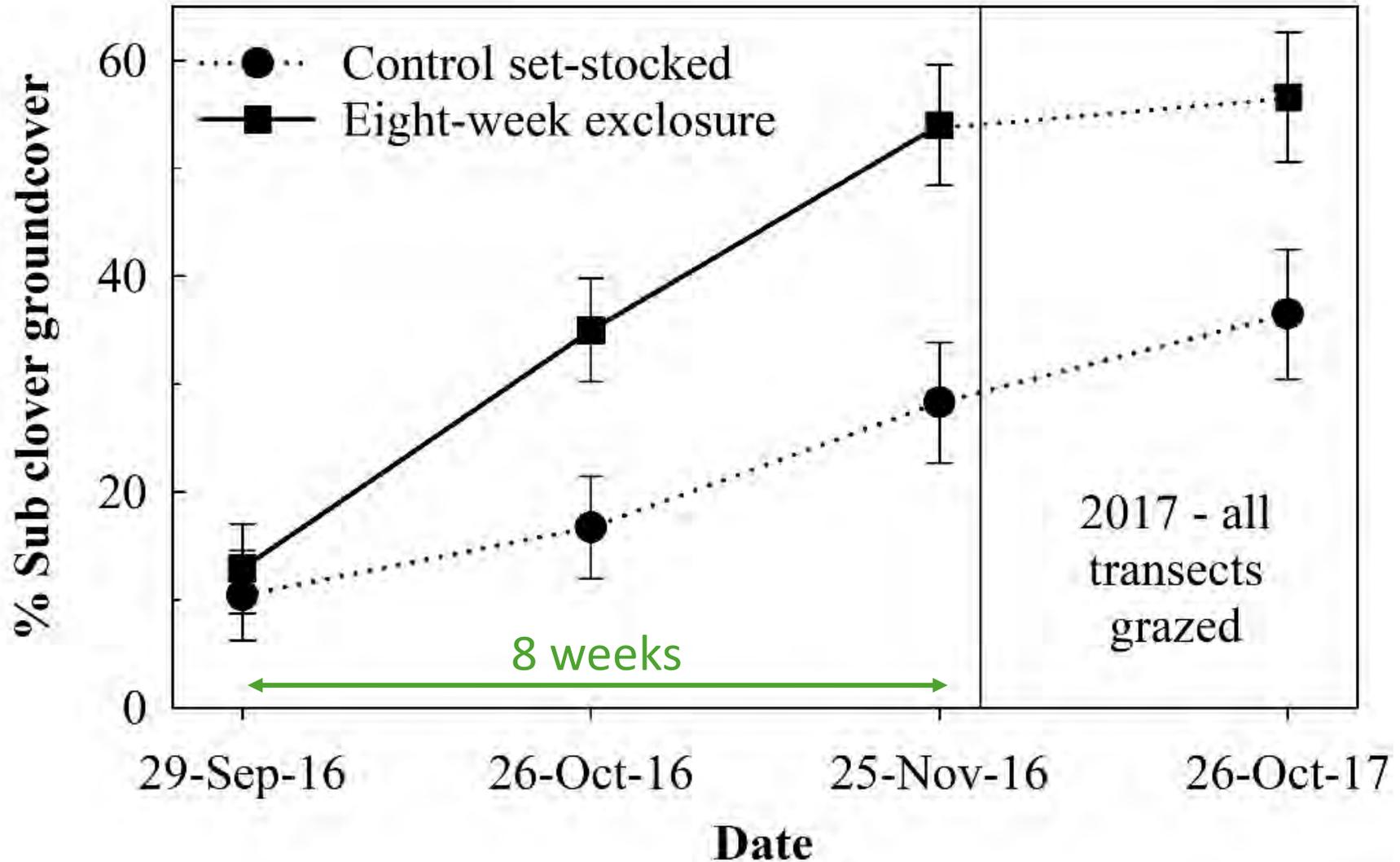
Photo: Soniya Oiyikan, 29-09-16
Lincoln University

Photo: Richard Lucas, 29-09-16
Lincoln University

0% sub clover groundcover



≥ 1% sub clover groundcover



Sub clover thriving and running away!



Grazing management is the key

Increasing resident sub clover is achieved by:

- 🍀 observing the sub clover lifecycle
- 🍀 rotational grazing
- 🍀 light set-stocking of cattle (any time)
- 🍀 the “summer graze”



**The biggest challenge is controlling
pasture grass**

Clover management classes at Tokaroa

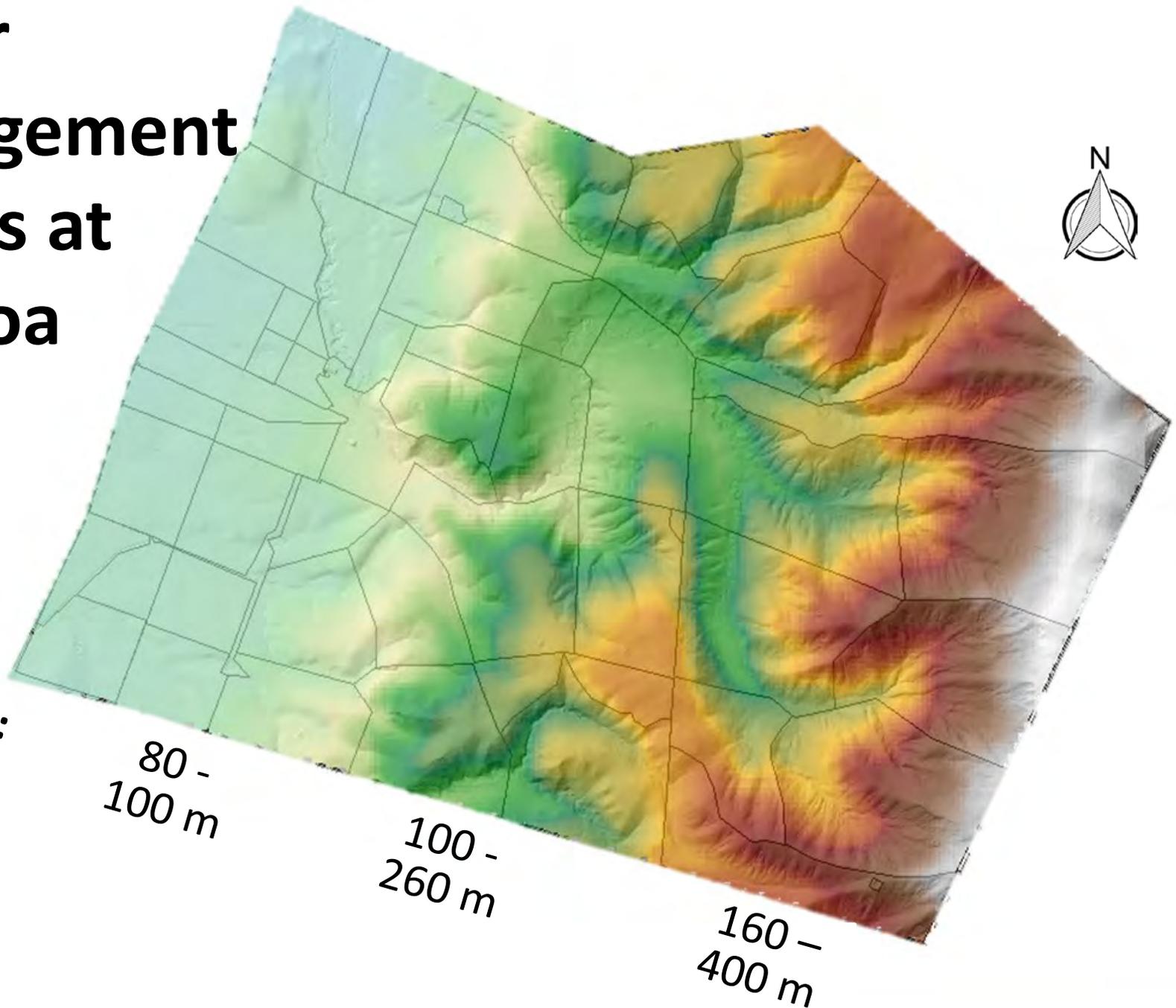


Altitude:

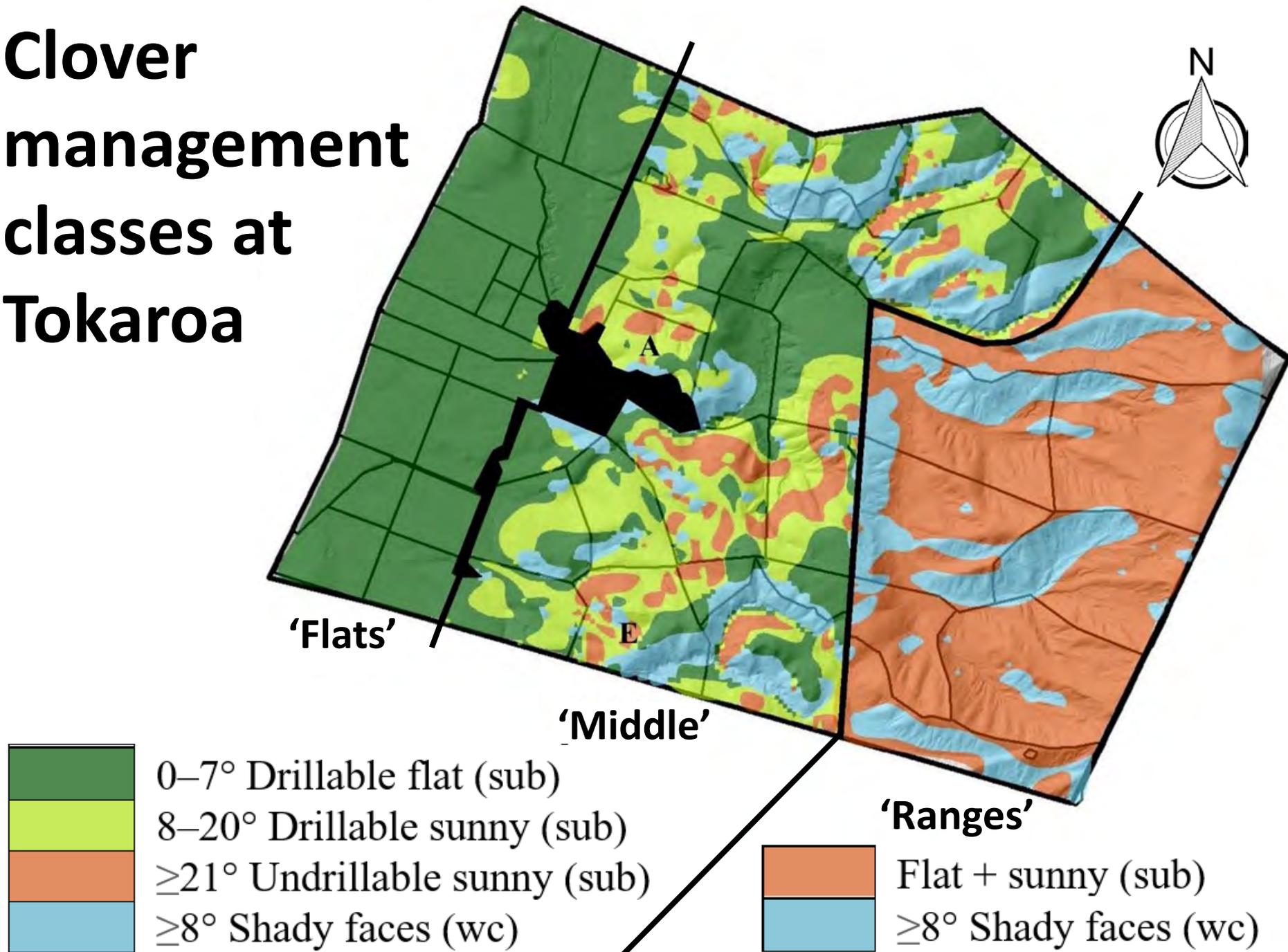
80 -
100 m

100 -
260 m

160 -
400 m



Clover management classes at Tokaroa



Sub clover 'Antas' drilled into pasture



Future clover management

Development of sub clover-dominant pastures on sunny aspects:

- ☘ overdrilling + grazing management (flats, gentle slopes)
- ☘ grazing management and oversowing (steeper slopes)
- ☘ reducing paddock size to improve grazing control

Relevant to dryland east coast pastures

Funded by SFF 'Sub 4 Spring' & 'Regenerating Hill Country pastures'

Ministry for Primary Industries
Manatū Ahu Matua



Mr Roland Stead