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# Selecting sub clover cultivars for dryland pastures

Dick Lucas, Annamaria Mills, Stephanie Wright, Alistair Black & Derrick Moot

New Zealand's specialist land-based university

# Publication details



This presentation was made at the 77<sup>th</sup> annual New Zealand Grasslands Conference held in Masterton, 3-5 November 2015.

It is associated with the following publication:

- Lucas RJ, Mills A, Wright S, Black AD, Moot DJ. 2015. [Selection of sub clover cultivars for New Zealand dryland pastures](#). Journal of New Zealand Grasslands 77: 203-210.

# Sub clover



- **Best adapted legume for >4M ha of dryland pasture in NZ.**
- **Environment is defined by the duration of the summer dry season rather than rainfall.**
- **Sub clover will thrive:**
  - **where white clover fails to persist**
  - **where volunteer annual clovers are common (cluster/striated)**
  - **Olsen P >10, soil pH >5.3**



# Sheep prefer 70% legume, 30% grass



# “Older” sub clover cultivars

(commercial release pre 2000)

Cultivar	Min. growing season (months)	Hardseededness (1-9)
‘Tallarook’	9	1
‘Mt Barker’	7.5	1
‘Woogenellup’	7	1
‘Denmark’	7.5	2
‘Leura’	8	2

# “Newer” sub clover cultivars

(commercial release post 2000)

Cultivar	Min. growing season (months)	Hardseededness (1-9)
‘Campeda’	6	5
‘Narricup’	6.5	3
‘Coolamon’	6.5	5
‘Rosabrook’	7.5	5
‘Monti’	6	2
‘Napier’	7.5	5
‘Antas’	7.5	3



# Is hardseededness important in NZ?

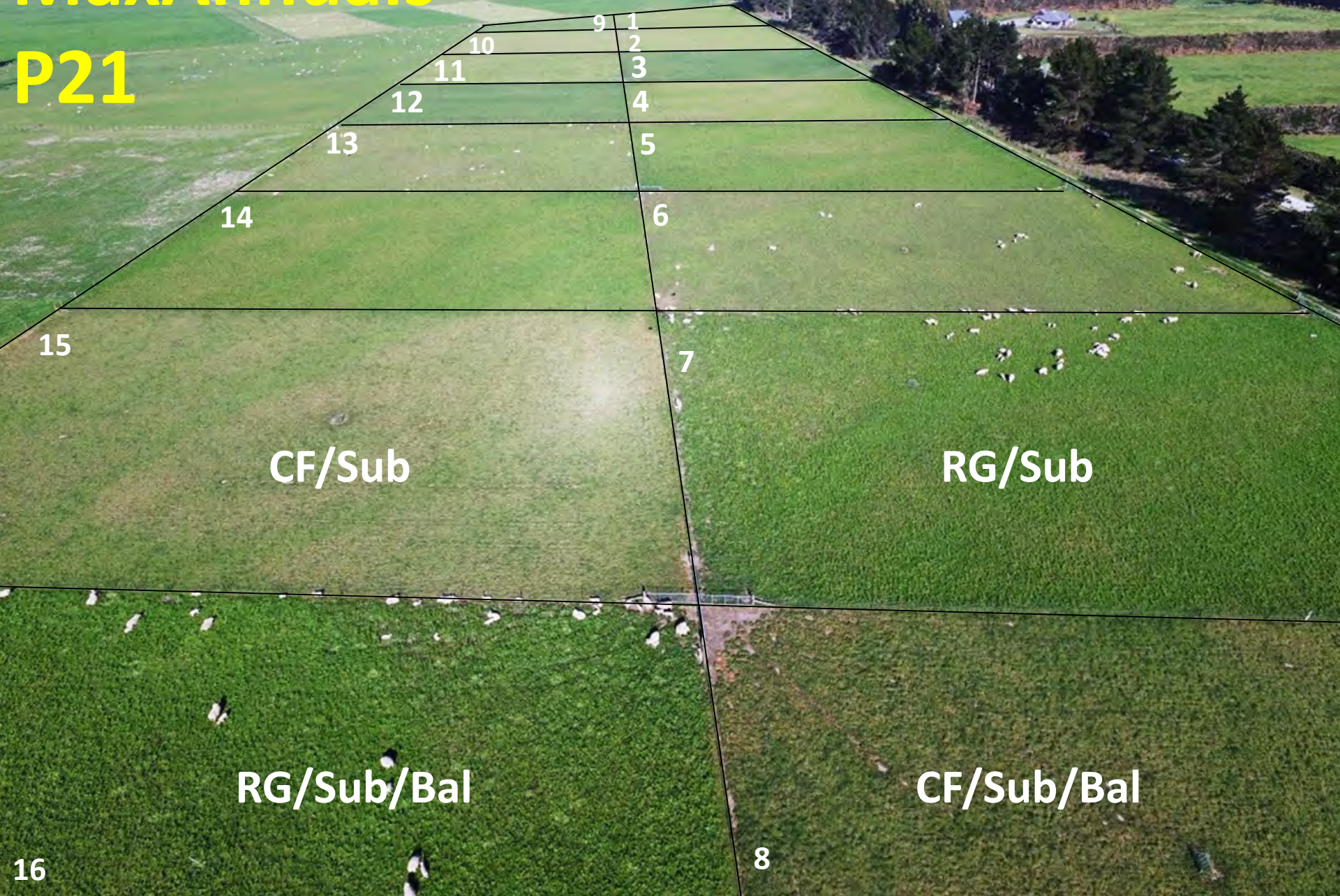
- 'Denmark' (2) vs. 'Rosabrook' (5)
- Grazing experiment on Ashley Dene stones
- 5 kg/ha of each cultivar mixed with RG or CF
- Sown autumn 2013





# MaxAnnuals

## P21





# Proportions of sub clover cultivars

	<b>'Denmark' (%)</b>	<b>'Rosabrook' (%)</b>
<b>Spring 2013 (Yr 1)</b>	<b>50</b>	<b>50</b>
<b>Spring 2014 (1<sup>st</sup> natural reseeding)</b>	<b>90</b>	<b>10</b>
<b>Spring 2015 (2<sup>nd</sup> natural reseeding)</b>	<b>70</b>	<b>30</b>



# What sub clovers to sow?

- **Limited NZ knowledge/experience with “newer” cultivars.**
- **Interpret Australian results for NZ environments.**
- **Allow for climatic and site variation by sowing mixtures of sub clover cultivars.**
- **Sow 10 kg seed/ha total sub clover (5 kg/ha of each cv in autumn.**



# Sow complementary mixtures

- “Older” proven cultivar with a “newer” cultivar
- Soft seeded (1-2) with hardseeded (3-5)
- Mid flowering with late flowering



# Suggested Combinations

- 5-6 month dry  
    ‘Woogenellup’ + ‘Narrikup’
- 4 month dry  
    ‘Denmark’ + ‘Narrikup’
- 3 month dry  
    ‘Denmark’ + ‘Leura’
- Wet soils –  
    add ‘Monti’ or ‘Napier’
- Early spring feed  
    add ‘Antas’
- Hardseededness of 5: more information needed





# Acknowledgements



Ministry of Agriculture and Forestry  
Te Manatū Ahuwhenua, Ngāherehere



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