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Sheep performance on Perennial Lupins at Sawdon Station, Lake Tekapo

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New Zealand's specialist land-based university



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Note:

This presentation was made by Snow Loxton on 7 Nov 2014 in Alexandra at the New Zealand Grassland Association Annual Conference.

It is associated with the following scientific publication:

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2014. [Sheep performance on perennial lupins over three years at Sawdon Station, Lake Tekapo.](#)
Proceedings of the New Zealand Grassland Association,
76, 35-39.



Sawdon Station

- 7500 ha – 6500 ha undeveloped, 300 ha lucerne, 500 ha pasture, and about **200 ha in lupins**
- Climate – rainfall 600 mm, 100 frosts per year
- Altitude 700 m
- 4500 Merino ewes, 1200 replacements
- Some trading cattle
- 14 years into Tenure Review



Mt John Research Centre, Tekapo



Photo: Kate Wilson



Lupin stand at Sawdon Station



Objectives

1. Animal performance on lupins
2. Seasonal growth and feed quality



Tailing to weaning 2011-12

	Lupin		Control	
	Ewes	Lambs	Ewes	Lambs
	Live weight (kg)			
12 Dec	56	19	55	18
10 Feb	53	28	60	31





Flushing 2012

	Lupin	Control
	Live weight (kg)	
23 Mar	54	53
18 May	61	62
	Scanning %	
20 August	156	156



Wool growth (Sep 2012)

	Lupin	Control
Greasy fleece wt (kg)	4.64	4.92
Staple length (mm)	79	80
Mean micron (μm)	18.6	18.5

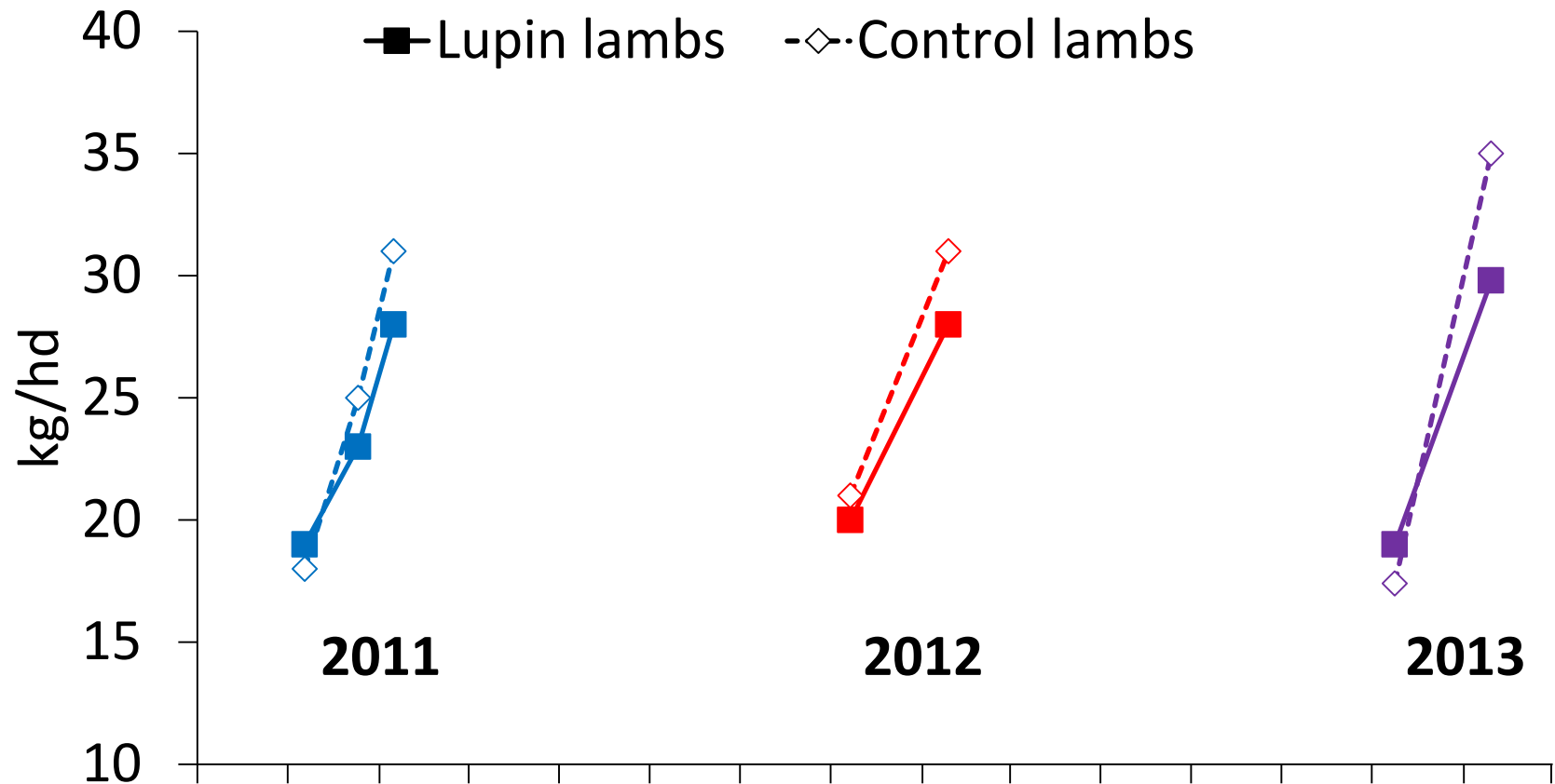


Lambing on lupins

	Lupin	Control
	Lambing %	
2012	103	93
2013	111	105



Lamb growth (Dec – Feb)



JULY 2012



Winter survival

SEPTEMBER 2012



Lupin recovered after winter – 2 t DM/ha

NOVEMBER 2012



Cover during lambing – 6.1 t DM/ha



DECEMBER 2012

Sheep ate the flowers first – 6.6 t DM/ha



JANUARY 2013



Pre-grazing cover – 7.6 t DM/ha

JANUARY 2013



Post-grazing cover – 4.6 t DM/ha



New leaves regrow from basal shoots



FEBRUARY 2013

Pre-grazing – 6.3 t DM/ha (24% other species)



MAY 2013

Pre-grazing cover – 4.9 t DM/ha

Lupin nutritive value

	ME value	Crude protein
Lupin leaf	11.2	20.0%
Lupin stem	10.7	19.5%
Other species	10.5	16.0%

Conclusions

1. Animal performance was similar on lupins and lucerne
2. Perennial lupins can persist, and produce high quality and quantity forage



Lupins.nz













