

# Lupin Grazing Trial

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**Snow Loxton, Sawdon Station**

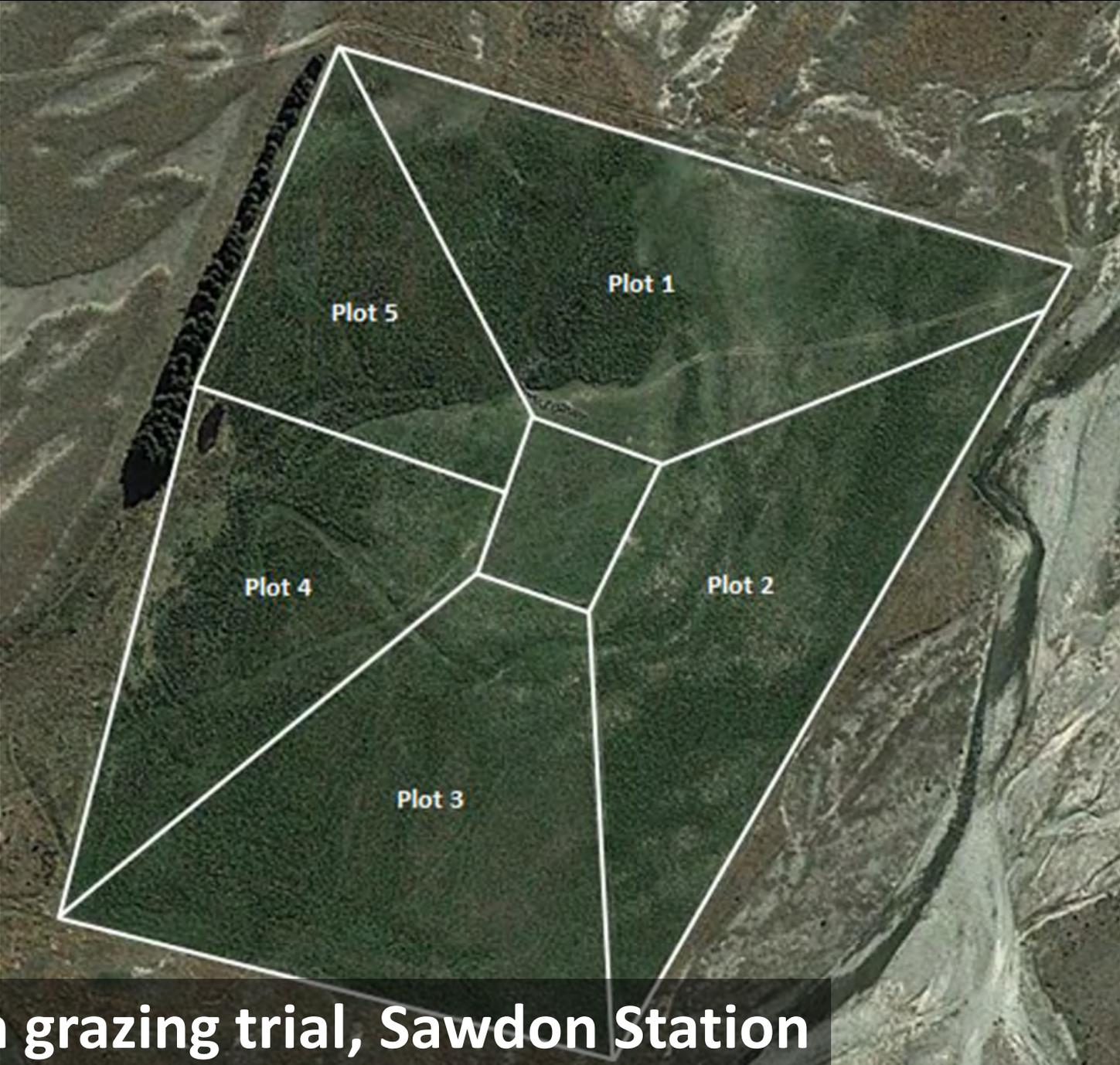


**Lupin root system**

# Objectives

A group of five men are standing in a field of tall green lupin plants with purple flowers. They are looking towards the right, where a range of brown mountains is visible under a cloudy sky. The men are dressed in casual outdoor attire, including a white shirt, a blue shirt, a brown sweater, a tan sweater, and a plaid shirt.

- Do merino ewes and lambs perform well on lupins?
- How is lupin feed supply and nutritive value throughout the year?



**Lupin grazing trial, Sawdon Station**

# Animal performance



# Pre-weaning 2011/12

|        | Lupin                   |       | Control |       |
|--------|-------------------------|-------|---------|-------|
|        | Ewes                    | Lambs | Ewes    | Lambs |
|        | Live weight (kg)        |       |         |       |
| 12 Dec | 56                      | 19    | 55      | 18    |
| 10 Feb | 53                      | 28    | 60      | 31    |
|        | Liveweight gain (g/day) |       |         |       |
|        | -55                     | 164   | 91      | 218   |



# Pre-tupping 2012

|        | Lupin                   | Control |
|--------|-------------------------|---------|
|        | Live weight (kg)        |         |
| 23 Mar | 54                      | 53      |
| 18 May | 61                      | 62      |
|        | Liveweight gain (g/day) |         |
|        | 125                     | 161     |



# Lambing to weaning 2012/13

|        | Lupin            |       | Control |       |
|--------|------------------|-------|---------|-------|
|        | Ewes             | Lambs | Ewes    | Lambs |
|        | Live weight (kg) |       |         |       |
| 11 Oct | 66               | -     | 63      | -     |
| 14 Dec | 58               | 20    | 61      | 21    |
| 18 Feb | 58               | 28    | 64      | 31    |
|        | Lambing %        |       |         |       |
|        | 103              |       | 93      |       |



# Lupin feed supply



**Strips were cut every month in 2012/13**



**Samples weighed and taken back to Lincoln**



# September 2012

Lupin recovering after winter – 2 t DM/ha

A photograph of a white lamb lying in a field of green lucerne plants. The lamb is in the lower-left foreground, looking towards the right. The field is filled with dense, vibrant green lucerne plants. In the background, there are rolling hills or mountains under a clear blue sky with a few wispy clouds. The overall scene is bright and sunny.

**November 2012**

**‘Best lambing block in the Mackenzie’ – 5 t DM/ha**



**December 2012**

**Merinos eat the flowers first – 6.6 t DM/ha**

# January 2013

A group of about ten people, mostly men wearing hats and casual shirts, are standing in a field of tall, green plants with clusters of purple flowers. They appear to be engaged in a field study or discussion. The background shows a vast, open landscape with rolling hills and a range of mountains under a clear blue sky. The overall scene is bright and sunny, suggesting a clear day in a rural or agricultural setting.

**Pre-grazing cover – 7.5 t DM/ha**



# January 2013

Post-grazing cover – 4.6 t DM/ha



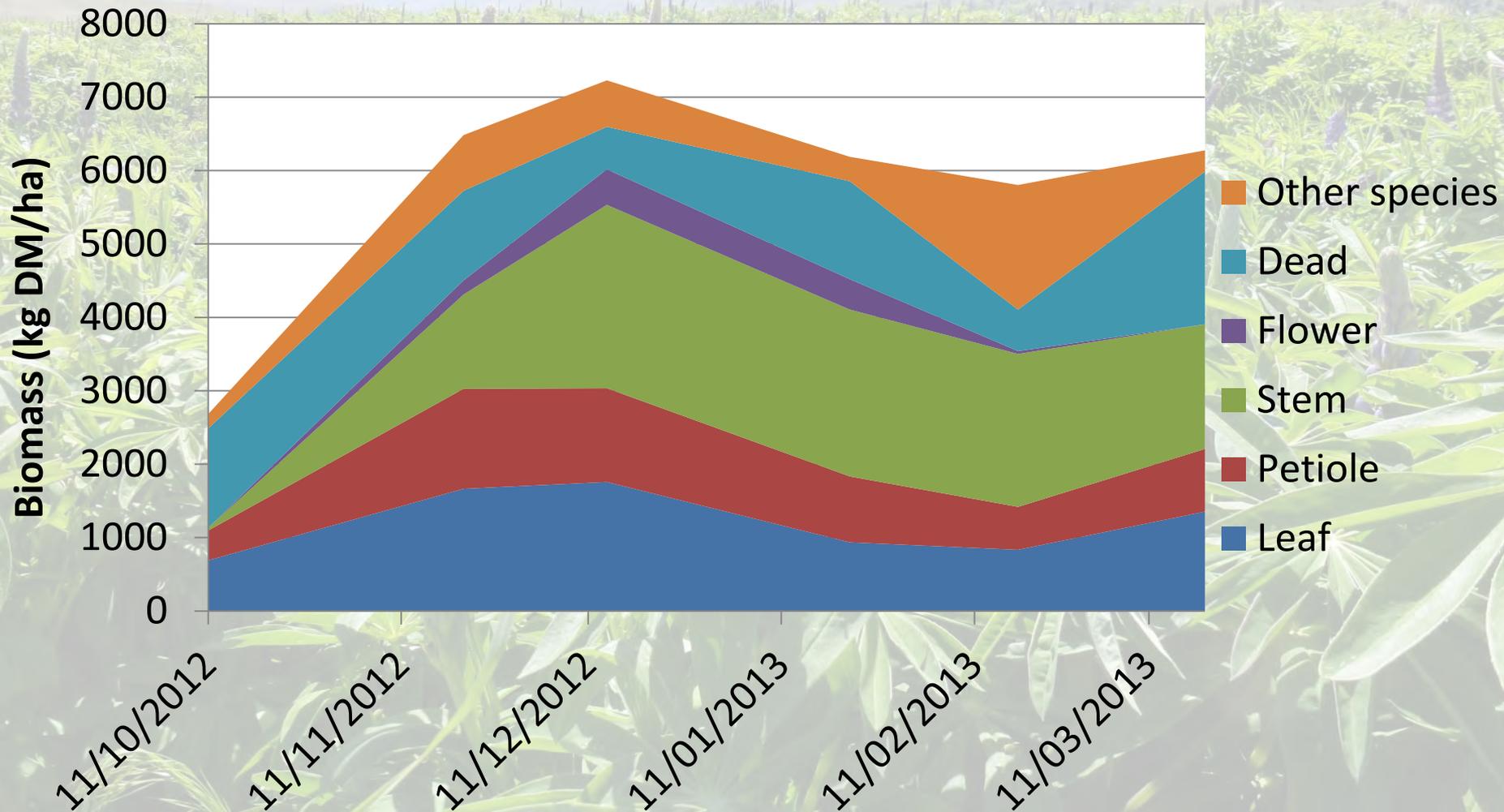
**Lupin regrows from basal shoots**



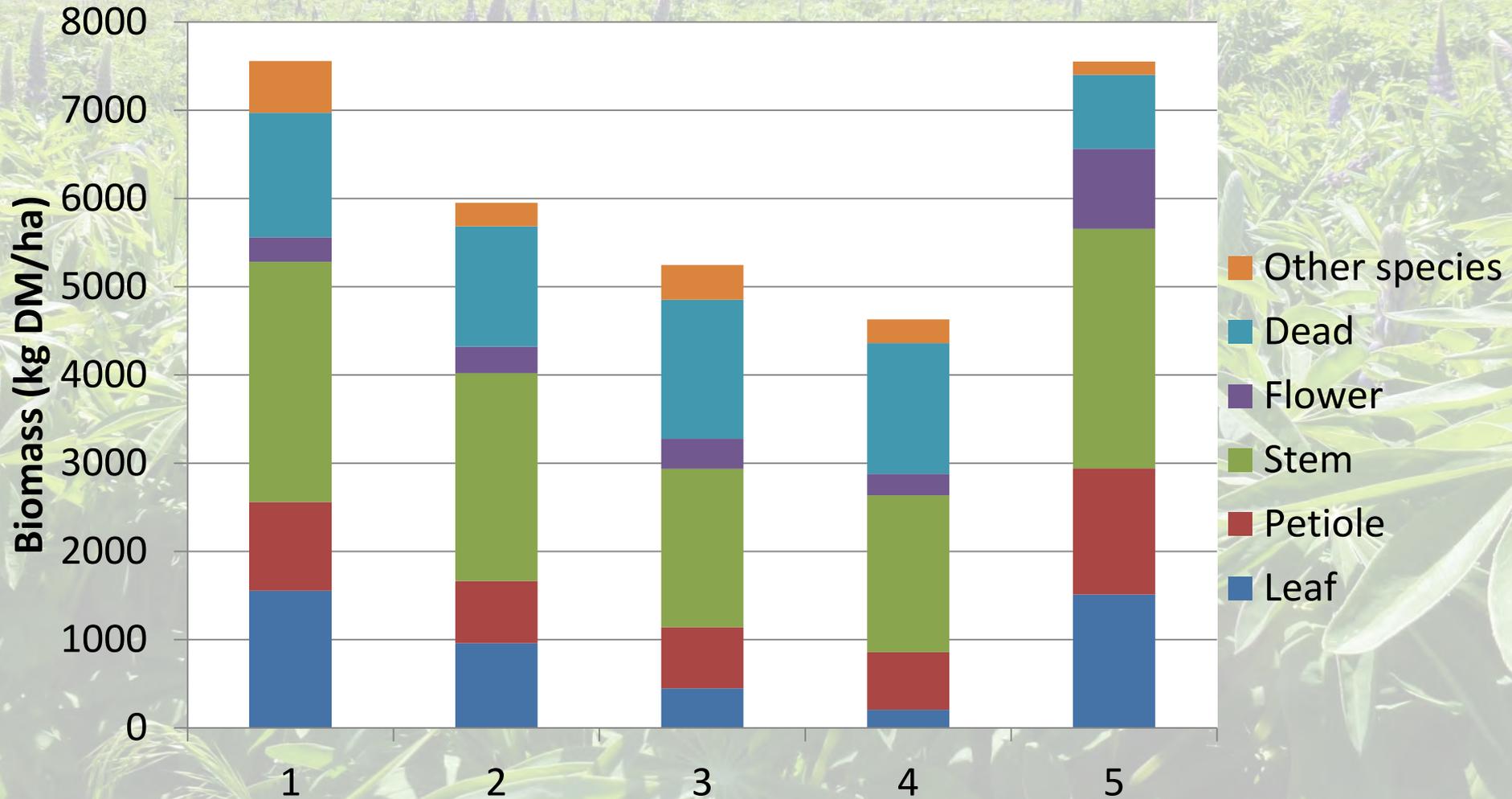
**February 2013**

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

# Lupin feed supply



# Apparent intake – Jan 13



# Lupin nutritive value

|               | ME value | Crude protein |
|---------------|----------|---------------|
| Lupin leaf    | 11.2     | 19%           |
| Lupin stem    | 10.7     | 20%           |
| Lupin flowers | 10.5     | 14%           |
| Grass/yarrow  | 10.5     | 18%           |

# Take home message

- Merinos *do* eat lupins – and the grass in between
- Lamb growth about as good as control mobs
- Lupin feed supply changes over seasons - leaf, stem, flowers, dead matter, other species
- Lupin regrows after grazing
- Plant lupin with a companion grass, e.g. cocksfoot
- Fence off lupin to focus grazing pressure and allow recovery after grazing