

Farm study

Milking cows - calcium required vs. calcium provided by grass**

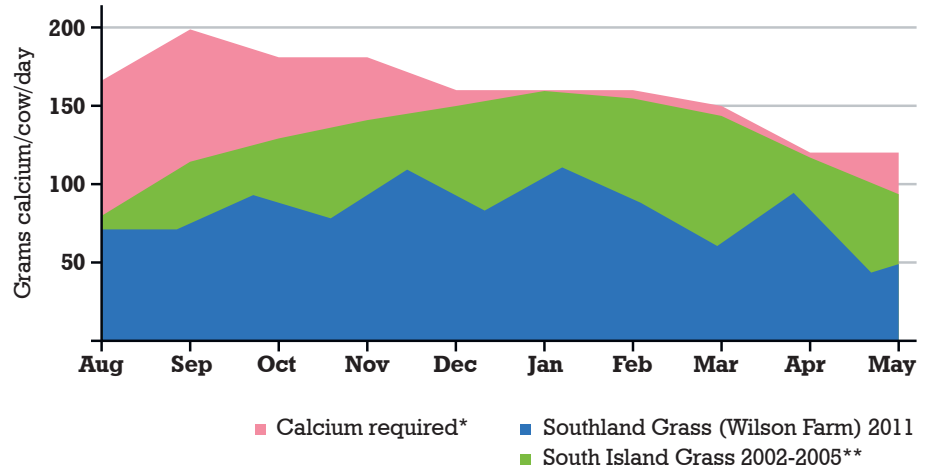
healthy
COW

This graph shows the calcium requirements for milking cows compared to how much calcium is provided by South Island and Southland grass pasture throughout the year.

*Calcium requirements based on optimal DMI for a 450-500kg milking cow

**Grass calcium levels based on 2002-2005 averaged data from Hill Laboratories for the entire South Island (NZ)

It is important to recognise this is based on two data sets. Individual farm testing is recommended.



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Date	Wilson Farm Grass Ca levels %	SI 2002-05 Minimum Grass Ca Levels %	Cow DMI Intake kg/cow/day	Southland Grass (Wilson Farm) 2011 g/cow/day	South Island Grass 2002-2005** g/cow/day	Calcium requirement as % of DMI %	Target DMI kg/cow/day	Milking Cow Ca requirements* g/cow/day
Aug-11	0.58	0.67	12	70	80	1.1	15	165
Sep-11	0.47	0.76	15	71	114	1.1	18	198
Oct-11	0.61	0.81	15	92	121	1.0	18	180
Nov-11	0.51	0.88	15	77	132	1.0	18	180
Dec-11	0.72	0.88	15	108	132	0.8	20	160
Jan-12	0.55	0.94	15	83	140	0.8	20	160
Feb-12	0.74	0.94	15	111	141	0.8	20	160
Mar-12	0.59	0.96	15	89	143	0.75	20	150
Apr-12	0.40	0.78	15	60	117	0.6	20	120
May-12	0.63	0.62	15	95	94	0.6	20	120
Jun-12	0.54	0.61	8	43	48	0.6	20	120
Jul-12	0.72	0.59	8	58	47	0.6	10	60

Farm study

Milk production with and without healthy cow

healthy
COW

From 1 August - 4 November both herds received calcium supplementation (the farm manager needed the calcium in both herds during this time).

On 4 November, the older herd stopped receiving calcium via supplementation, and the younger herd continued receiving calcium right through to 13 April.

The results are outlined in the following graph showing the two-day average milk production per cow.

Once the older herd stopped receiving the calcium supplementation the younger herd had slowly (but surely) overtaken the milk production of the older herd even though the younger herd was expected to produce less.

Our thoughts quickly turned to "what would the older herd have produced if they had received the calcium?". It is interesting to note that the herd receiving the calcium had a 3% better conception rate at mating too.

