



## Smaller Paddocks Increase Stocking Density and Improve Feed Utilisation

June 2013

Temporary electric fencing has been used successfully by Graham Keynes to improve grazing while lambing in June. Graham grazes his ram breeding mobs on improved perennial pasture during lambing. The mobs are small due to the ewes lambing down in sire mated groups. After lamb marking at the end of July, when the lambs are identified to sire groups, mobs are joined up and continued to be rotational grazed.

### Paddock Subdivision

A 28ha hilly paddock with a phalaris, cocksfoot and subclover pasture was subdivided into two 14ha paddocks on 11 June. The hill in the paddock was split off from the flat using a two wire 800m temporary electric fence which was constructed using the RAPPA™ machine. Dividing the paddock according to landclass allows the flat to be grazed separately and prevents the sheep camping on the hill and overgrazing it.

### Grazing Management

The pasture had not been grazed until lambing in 2013 and was saved to provide the ewes with a lower worm burden pasture. Saving the pasture also allowed good quality feed to accumulate ensuring the ewes could consume their required daily pasture to meet their nutritional requirements.



## Farm Facts

**Producer:** Graham Keynes

**Location:** Moculta

**Property Area:** 6800 Ha

**Enterprise:** Wool/ Prime Lamb/ Beef Cattle/ Cropping

**Annual Rainfall:** 450mm

A mob of un-scanned 60kg ewes with around 100% lambing can be rated at 3DSE per ewe (this includes the lamb). For simple feed budgeting 1 DSE requires 1 kg of green dry matter (DM) per day. Therefore a ewe and lamb requires 3kg of DM per day. For ewes to get their daily requirements from a pasture it needs to be above 1000kg DM/ha for singles and 1500kg DM/ha for twins and above 75% digestible.

There was 1800kg of DM/ha on offer when the paddock was first grazed which meets the requirements of twin bearing ewes. The paddock was grazed with 105 ewes that started lambing in the last week of June (Table 1).



*A two line temporary electric fence being erected using Rappa*

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## Stocking Density and an Even Graze

With these small mobs of lambing ewes, the stocking rate and stocking density in the 28ha paddock, without the use of temporary electric fencing would be 11.25 DSE/ha. Once split in half the stocking rate is still 11.25 DSE/ha but the stocking pressure increases to 22.5 DSE/ha.

A stocking pressure of above 60 DSE/ha in this environment, would allow for an even graze and quick graze period across the paddock allowing the pastures to remain in the Phase 2 growth stage. Once lambing finishes, mobs can be put together to increase the stocking density.

## Rest and Recovery

There are 3 phases of pastures growth:

**Phase 1** is below 800-1000kg DM/ha and could be at the break of the season or after grazing. Pasture growth is slow as there is insufficient leaf area to capture sunlight. If grazed for long periods at this level the pasture production will be low and issues such as weeds, and erosion could occur.

**Phase 2** is between 800-2500kg of DM/ha and is when rapid pasture growth occurs as there is more leaf to captures sunlight and produce pasture. The benefits of keeping pasture in growth phase 2 is that it produces more pasture of good quality, avoids wastage, recovers quickly after grazing and provides protection to maintain ground cover above 70%.

## Key Messages

- Temporary electric fencing can be used to reduce paddock size and increase stocking density, particularly in situations where mob size cannot be increased
- Temporary electric fencing can be used to facilitate fencing to landclass
- Aim to keep pasture in growth stage 2

**Phase 3** is above 2500kg of DM/ha and the pasture growth rate starts to decline as new growing points are shaded. The feed quality also declines as older leaves die and the plants start to mature.

Graham used a simple 2 week graze, 2 week rest rotation and the use of the temporary electric fence allowed him to achieve this even with small mobs. The rest allows the pasture to recover and grow more feed keeping the pasture in growth phase 2. After the plants are grazed they are able to produce more leaf from stored energy reserves and once recovered they replenish these reserves and are ready to be grazed again.

**Table 1: Grazing Details for the Cells Grazing 105 Pregnant Ewes (DSE 3)**

Cell	Date in	Date out	Days Graze	Before Grazing kg DM/ha	After Grazing kg DM/ha	Stocking Pressure DSE/ha	*Pasture Utilised kg DM/DSE/day	Pasture Growth Rate kg DM/day
1	11/6/13	20/6/13	9	1800	1000	22.5	4.9	
2	20/6/13	04/7/13	14	2000	1500	22.5	2.9	#22
1	04/7/13	17/7/13	13	1500	900	22.5	3.4	##35

\*This is estimated and includes intake and wastage  
 # Calculated from the previous 'before grazing' measurement  
 ## Growth since last graze

## Further Information

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Temporary electric fencing improves flexibility for grazing pastures with small mobs