



# Intensive grazing grows the bottom line



Photo: Bill Perrottet

**Precision grazing:** A system of permanent and temporary electric fencing that allows intensive grazing of small cells can boost productivity per hectare and water use efficiencies on grazing enterprises.

Northern New South Wales livestock producers Bill and Jacqui Perrottet are reaping the rewards of an intensive rotational grazing system after only one season and are well on their way to boosting pasture utilisation by 25 per cent resulting in greater profitability in their livestock enterprise.

## Farm information

**Farmers**  
Bill and Jacqui Perrottet

**Location**  
Guyra, NSW

**Property size**  
1500ha

**Soils**  
Red and black basalt

**Enterprise**  
Breeding and trading cattle, Merino sheep, first-cross lambs, meat goats



**Skyrocketing input prices** led Bill and Jacqui Perrottet to totally change their grazing practices and adopt an innovative intensive grazing system on their Northern New South Wales property. And after one growing season the results have convinced the Perrottets that their 'TechnoGrazing' system can deliver outstanding livestock and pasture performance and that moving stock every 2-3 days is well worth the effort.

### The forces of change

Set stocking, rotational and cell grazing had all been used with limited success on the Guyra property before adopting TechnoGrazing during 2009.

**"Achieving maximum animal performance and lambing rates under a loose rotational system was often difficult," Bill said.**

"This combined with high fertiliser and glyphosate prices during 2008 put enough pressure on our budget that something had to change."

An analysis of five years of benchmarking data showed business performance was above average in cost of production, labour efficiency and gross margin but kilograms of beef per hectare per 100 millimetres of rain was a considerable enterprise weakness.

"We were achieving 27-33 kilograms of beef per hectare per 100 millimetre of rain which was well below the 50kg of beef/ha/100mm achieved by the top 20 per cent of producers."

Their search for a solution led Bill and Jacqui to try TechnoGrazing after seeing

first hand the results from a local University of New England (UNE) trial.

"I had been following the TechnoGrazing trial closely for more than five years and was impressed with the results and how productive and efficient the system was in terms of pasture and rainfall use. I could see overall enterprise performance could be boosted by having a small intensive grazing area achieving high pasture growth and utilisation." Visits to two other intensive grazing systems in the New England area showed how the New Zealand-based system could be modified to suit local conditions.

Now the Perrottets run 120ha under the intensive rotational grazing system and are working towards their target of producing 100kg of beef/ha/100mm and 75% pasture utilisation. Expansion plans are also on the horizon with another 200ha set to be developed by June.

### Small-scale efficiency

TechnoGrazing is a system of intensive rotational grazing developed in New Zealand for fattening dairy bull beef. Based around small mobs of livestock grazing very small paddocks, the grazing area, which is designed by GPS uses similar-sized lanes that are progressively taped off with hotwires to create equal-sized grazing areas.

An intensive three-day course in New Zealand gave Bill and Jacqui a solid grounding in TechnoGrazing principles and the important relationship between pasture utilisation, pasture growth rate, feed quality, energy levels and animal performance.

"The course really got us going and helps us to focus in on the important principles and how to maximise kilograms of beef per hectare. It would be hard to run the system without doing it," Bill said.

## At a glance

- An intensive system of rotational grazing known as TechnoGrazing has boosted animal productivity and enterprise profitability.
- Permanent and temporary electric fencing is used to split grazing blocks into small cells and is designed using GPS.
- The grazing system is easily tailored to producers individual operations and lifestyle needs.
- Intensive, precise grazing can produce better dry matter production, better pasture quality and better pasture utilisation.



Photo: Bill Perrottet

**LEFT Monitoring growth:** Rotation length, rest period and paddock size are manipulated so 3000–4000kg of DM/ha is available when stock enter a new paddock. **RIGHT Time to move:** Cattle are moved every two-and-a-half days ideally when 800–1000 kg/DM of feed is on offer. Specialised software helps monitor pasture growth and adjust the grazing system.

### Efficient design

Their first 60ha (two 30ha systems) TechnoGraze block is laid out with eight laneways, each 900 metres long and 80–100m wide. Designed using GPS the laneways are permanently fenced with multistrain electric fencing and temporary high tensile single front and back wires, which are used to form up to 96 small grazing areas within the laneways. This network of cells and laneways is very efficient at moving stock and vehicles around.

Water pipes buried under the soil surface of every second lane deliver stock water via evenly spaced hydrants and moveable plastic troughs. An additional two, 20ha blocks have since been developed and Bill estimates the initial set up costs were about \$375/ha for fencing and troughing, plus an additional labour cost.

### Precision grazing

Since mid-October 2009, 142 steers have been grazing 16 paddocks each about 4ha in size and have gained about 1–1.3kg/day on the 60ha block. Cattle are moved into a new paddock every two-and-a-half days — Monday morning, Wednesday lunch time and Friday afternoon — which provides the grazed area 40 days rest before being grazed again. While the grazing period does not change during the year, paddock and mob sizes are adjusted to cope with variations in pasture growth. Bill aims to have 3000–4000kg dry matter per hectare when stock enter a new grazing area and 800–1000kg/DM/ha when they leave.

“We designed the rotation to suit our operation and lifestyle and we find moving cattle every two-and-a-half days is manageable. The moves are easy and the

cattle are happy to walk over the wires. Dismantling and running out new temporary fencing is achieved using a four-wheel motor bike and ATU buggy that we adapted to drive over temporary fences and handle hot wires.”

### High achiever

The Perrottets system has sustained very high stocking rates — about 30 dry sheep equivalents/ha with stocking densities up to 600 DSE/ha and high animal liveweights — 0.9–1.5kg/day during the growing season.

“We always seem to need more stock on the TechnoGraze area and less on the other country, which has had an average stocking rate about 12DSE/ha. A second mob of 150 steers running on another part of the property have not achieved the same growth rates grazing twice the areas.”

Under the old grazing system stock preferentially ate the slowest growing pasture on the lighter soils while pastures on the heavier soils went rank. But the high grazing pressures achieved with TechnoGrazing system means any rank growth is knocked down during the winter creating a layer of mulch which sets the fescue-clover-based pastures up for a successful spring-summer.

“TechnoGrazing brings everything down to the same level and pasture utilisation is unlike anything we have achieved with our other systems,” Bill said.

Better fluke control has been an added benefit of re-fencing parts of the property. “We have been able to design our fencing to avoid fluke prone areas and this had made a huge difference to animal health and eliminated the need for fluke control treatments.”

### Challenges

Achieving the high stocking rates needed to utilise additional pasture growth is one important challenge for TechnoGraze systems. Retained stock represent a significant opportunity cost when starting out in TechnoGrazing.


Bill and Jacqui say their new grazing approach is not a ‘set and forget system’. They need to continually monitor pastures and stock, however the system suits their farming interests.

### More permanent future

So far the TechnoGraze system has brought the Perrottets closer to their production goals and they say they are learning more all the time.

“We are still getting used to the system and making refinements.

**“My only regret is that we didn’t start earlier — we are pulling down fences that we only built five years ago.”**

If per hectare productivity levels continue on their upward trend during the next 5–10years, Bill and Jacqui will look to implement TechnoGrazing across the entire property and revise their labour requirements, which may include more input from their three children. Fences may also become more permanent particularly on the steeper country where motorbike access is limited. “We will lose some flexibility to adjust paddock sizes but it will reduce the time and labour needed to move stock around grazing cells,” Bill said. 

**CONTACT ► Bill Perrottet**  
 **0427 791 997**