

Sustainable Autumn Milk Production

The Farm

The Roderick Family

Harrisville, Queensland

Production Challenges

'Milk production is affected most during February,' said Paul. 'This is due to lower dry matter intake as result of the heat and humidity. In the longer term conception rates are also affected.'

Milk Production

Milk production averages around 22 L/cow/day with 3.9% butterfat and 3.3% protein. 'We're not aiming for a totally flat milk supply,' said Paul. 'It's more economical to stay within the allowable tolerance.'

Feeding and Nutrition

'We make the best quality silage possible to feed throughout the year,' said Paul. 'Silage makes up the bulk of the diet in autumn when pasture quality drops and this helps to maintain milk production at reasonable rates. Protein meals are incorporated into the silage and fed out using a Bobcat.'

'The diet usually consists of around 6-8 kg/day of grain fed in the dairy, 8-9 kg silage and 3-4 kg of high quality grazing,' said Paul. 'When there is no suitable pasture, grazing is replaced by 1-2 kg of lucerne hay. The diet formulation is mostly intuitive, but nutritionists are consulted and the NutritionPlus workshops have been useful.'

Reproduction

'Calving is reasonably even throughout the year but slightly

Business Snapshot

Herd: 220 milking cows (90% Friesian, 10% Jersey/Red cross)

Farm Size: 243 ha, Effective dairy area 182 ha

Dairy: 14 aside herringbone computerised, single operator

Production: 1.5 ML
7200 L Rolling Herd Average

Feeding System: PMR

Calving pattern: Year round

Irrigation: 400 ML Licence from Moogerah Dam

Soil type: Black clay

Pastures/Crops: Rye, Barley (W)
Corn, Forage Sorghum, Lablab (S)

Key Strategies

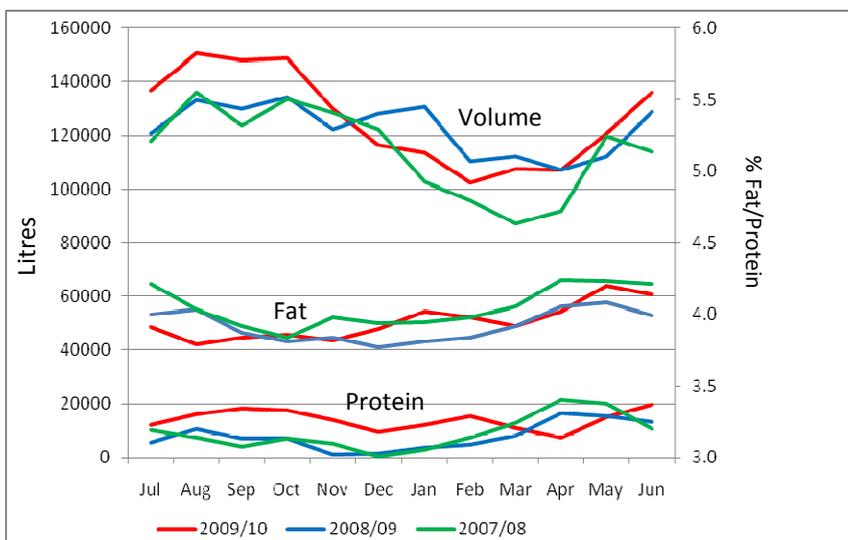
- Shade shed over feed pad
- Sprinklers in dairy yard
- Afternoon milking delayed in hot weather
- Good quality silage is fed year round
- Better water scheduling produces more tonnage and a better quality crop with less water
- An even calving pattern provides a flatter milk production
- Reproduction is closely monitored and recorded

Paul Roderick in the holding yard of the new 14 aside herringbone computerised single operator dairy



fewer calves are born in November and December,' said Paul. 'During the hotter months conception rates are down, and stressed cows show fewer signs of being on heat. At this time of year we use a good quality bull.'

Reproduction is closely monitored and recorded using the *Westfalia Dairy Plan* software. Joined cows are pregnancy tested every 6 weeks, and post natal tests are conducted on every fresh cow.



Monthly milk production 2007-2010

Forage and silage

'Lucerne and Lablab are preferred over forage sorghum,' said Paul. 'Forage sorghum is difficult to manage in a wet year because it grows rapidly and loses quality. Lablab has a longer window when at optimum quality. About 16 ha of lucerne is grown to be either grazed or baled. Bloat is managed by feeding silage first and adding Rumensin to the grain. Sometimes bloat oil is also added to the trough water.'

'Corn is preferred for summer silage however forage sorghum is grown when less irrigation water is available. If the corn can't be ensiled in the 2-3 week window of optimum quality it is left for grain.'

'We've also got a lot smarter with irrigation,' said Paul. 'We understand water scheduling better and can grow more dry matter with less water.'

Heat Stress

A number of strategies are used to manage heat stress. 'A shade shed was built in 1992 following a severe heat wave which affected many of the local dairy herds,' said Paul. 'This has made a huge difference to both milk production and cow comfort.'

'Cows also receive a good wetting under 4 garden sprinklers in the new dairy yard,' said Paul. 'Good airflow is important and fans would be ideal for this. In hotter conditions the afternoon milking is also delayed by 30 minutes.'

The 70m x 6m shade shed provides adequate space for 220 cows



Future Plans

To further reduce heat stress shade cloth is planned for the top half of the dairy yards.

To further improve water use efficiency we'd like to install gypsum blocks to monitor soil moisture in the irrigated rye grass and corn.

More kikuyu will be planted to provide a good quality, all weather summer and autumn pasture.