Pasture production at Budgeree Holsteins

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Introduction

In 1985 I returned home to join my parents on the family dairy farm, Budgeree Holsteins, on the Stewarts River at Hannam Vale. Back then we were milking 50 cows with an annual production of 250,000 litres per year.

Today, through a series of upgrades and the purchase of adjacent farmland, production is now 1.7 million litres from 200 cows. The current herd average is 8,451 litres of milk per cow per lactation.

Home grown feed the heart of the matter

To achieve such a high production rate the focus has been on using home-grown feed. We currently grow three quarters of the cows' diet on the farm which saves us money and means healthier cows.

The base pasture is kikuyu with high quality ryegrass sown from early February to make sure there is sufficient feed throughout the cooler months when the kikuyu naturally tapers off, but rather than waiting for the kikuyu to slow down we use Roundup® to suppress it in early February.

We use a system of direct drilling for ryegrass seeds using 40 kg per hectare with a red, white clover and chicory mix. Current ryegrass varieties are Maverick, Crusader and Accelerator. This early February sowing is at a slightly higher than normal rate because of the potential for seedling death which can occur given that we still get some scorching hot days throughout this month. The sowing rate then drops off to about 30 kg per hectare throughout March and April. By using long rotation ryegrass varieties we can get to January before summer pastures such as kikuyu dominate.

Direct drilling is used because it provides better seed to soil contact and does not break down the soil structure like traditional ploughing can. Ploughing can also encourage weed germination.

To top up the home-grown pasture fresh cows get 10 kg of wheat per day in the dairy, while cows late in lactation get around 2 kg, with some added minerals and buffers. I choose wheat because it has 13 MJ/ME (metabolisable energy) per kg compared with traditional barley feed, which is 12 MJ/ME.

Fertiliser

At sowing we use DAP (Diammonium Phosphate) fertiliser at 125 kg per hectare to ensure seeds get a good start.

After the first grazing for the season the paddocks receive a blend of nitrogen and potassium and after each subsequent grazing urea at 75 kg a hectare is applied. Grazing rotation is based on the three-leaf stage of ryegrass (generally 25 to 30 days in winter).

Every five years lime is applied at 2.5 tonnes per hectare.

Silage part of the solution

My silage goal is to make 600 round bales in a season. In order to achieve this we get contract workers in but the cost is well worth it when it means we can continue to feed the cattle high quality home grown pasture from March right through to August.

On our silage paddocks we use Pasture 16 (5.9%P, 16.5%K, 7.4%S) at 250 kg per hectare every spring and use a urea or nitrogen/potassium blend through summer. We aim to make high quality ryegrass clover silage with our fertiliser program.

Insuring against drought

Although the property includes approximately four kilometres of Stewarts River frontage we

have made moves to alleviate the pressure on this and to establish alternative water sources to insure against prolonged drought.

Water is going to be the biggest issue for farmers into the future and with that in mind a 100 megalitre dam was installed. A bike shift irrigation system is used to allow watering from different points around the property.

Effluent is treated using a series of holding ponds and both solids and liquids are returned to the paddocks. A contract fertiliser spreader is employed to spread the solids across the paddocks.

To learn more about utilising natural resources in the most sustainable and efficient manner I attended the Farmers' Target for Change (FTC) program in February 2006. Since then a number of initiatives have been implemented on the farm including fencing off waterways and dams and installing water troughs in every paddock.

Funded by the Australian Government through the Hunter-Central Rivers Catchment Management Authority (CMA) the FTC process involves mapping the physical layout of your farm and using that map to plan ongoing work.

Workwise in the sheds

Over four years ago I installed a 21-a-side herringbone dairy which has improved efficiency greatly.

It's been a gradual improvement going from a six-unit walk through and an eight-a-side dairy to the 21-a-side one we have now.

I can now single-handedly milk 170 to 180 cows in one and a half hours. It's easier on me and my back and means the cows can spend longer in the paddocks spreading their manure on the pasture as opposed to the concrete floor of the dairy shed.

Dairy health

In keeping with my philosophy of looking after the number of cows I've got rather than putting the pressure on and milking 300 plus I've looked at improving the cleanliness in the dairy.

This is a key factor in lowering somatic cell counts. The number of somatic cells increases in response to pathogenic bacteria such as *Staphylococcus aureus*, a cause of mastitis.

I am proud to say we keep our herd's somatic cell count in the premium band range and by doing so command an extra 2 cents per litre for our milk.

I also conduct monthly monitoring of herd health which includes a monthly veterinarian visit.

Farm snapshot

Total area:	142 hectares
Milking area:	73 hectares
Irrigation:	45 hectares
Herd size:	200 cows

Milk production: 1.7 million litres per year with 8,451 litre rolling average

Silage: 600 round bales per year

Concentrate: 1.8 tonnes per cow per lactation - wheat/barley protein meal added in summer

Dairy shed: 21-a-side swingover herringbone