

Succeeding through the seasons

Part 1: Case study farm overviews

Neville and Ruth Kydd, Blighty, NSW

Ruth and Neville have been dairy farming in the Blighty area since 1985. There has been a steady decline in rainfall over this period, with a slight increase in maximum average temperatures.

The area's mean annual rainfall is 409 mm, but for the 10 years to 2009 the mean was 342 mm. Graph 1 shows the average rainfall and average maximum temperature for this period.

With increased summer temperatures, the Kydds have tried to counteract the impact of heat stress on cows by feeding them closer to the dairy to reduce walking and offering more supplements.

Key points

- Pasture will continue to be the main source of feed.
- More land has been bought to reduce the risk of exposure to the forage market in times of drought.
- Cow numbers will be reduced if the business becomes too reliant on bought-in forage.

Farm profile

Herd: 1,000 crossbred cows.

Calving pattern: Seasonal calving with heifers starting in early June and cows in late June (this was moved from late July).

Farm size: Total of 970 ha with 1,680 ML of water entitlement and 130 ML of bore water entitlement. Effective milking area: 370 ha.

Dairy: 50-unit rotary dairy.

Production: 5,178,075 L/year or about 450,000 kg milk solids (MS)/year.

Rainfall: 342 mm average for past 10 years; Deniliquin's long-term average is 409 mm.

Irrigation: Allocations have been low and variable over the past 10 years.

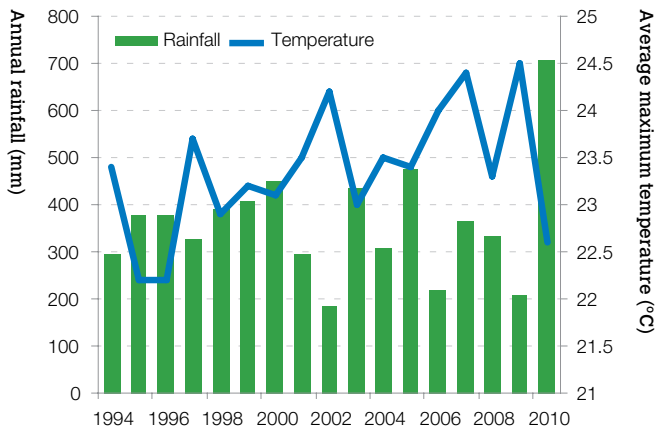
Predominant pasture: Perennial ryegrass and longer rotation annual ryegrass.

Feeding: Pastures supplemented with up to 1.5 t of wheat fed in the dairy. Through the drought this was further supplemented with palm kernel extract, DDG and almond hulls.

Feeding system classification: Type 2 – pasture, forages and moderate to high grain feeding in the bail.



Neville and Ruth Kydd



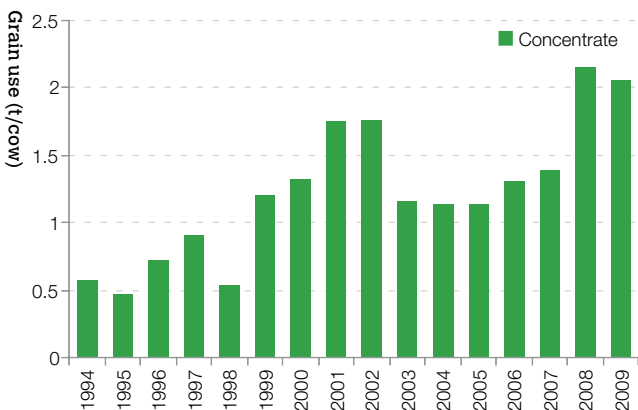
Graph 1: Average annual rainfall and average maximum temperature since 1994.

“On really hot days, cows will do very little grazing. To keep intakes up, we feed more supplements on those days,” Neville said. “We also bring cows to the dairy fairly early on hot days (11 am), so that they can be cooled in the yard by the sprinklers.”

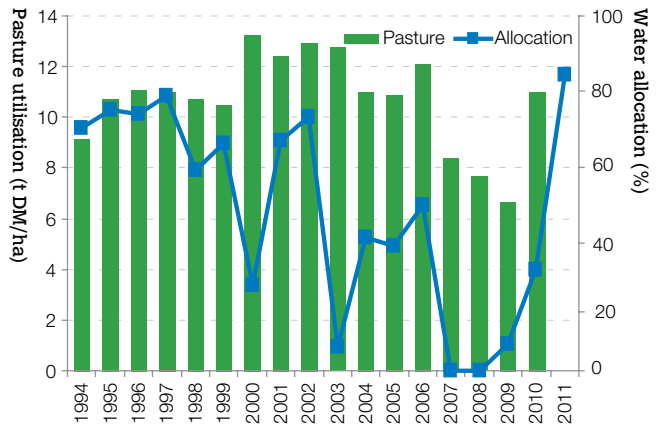
Graph 2 shows the impact of the lower rainfall on both water allocations for irrigation and its subsequent impact on pasture use. With low water allocations and above average summer temperatures, it was difficult for Neville and Ruth to maintain production from their perennial pastures through the summer. The area planted to annual pastures was expanded to take advantage of winter rainfall and a smaller area of perennial pasture was maintained through the summer.

Under normal conditions, perennial pasture made up 66% of the pasture and annuals the balance. As drought took hold, the area of annuals was increased and some perennial pasture was not irrigated the whole way through summer.

“When water was restricted we only irrigated 60 ha of perennial pasture each year, rotating the area grown to try to mitigate the damaging effects of the bore water,” Neville said.



Graph 3: Historical grain use.



Graph 2: Water allocation and pasture utilisation.

The ratio dropped to as low as 50:50 when ‘Yarrandale’ was bought. Asked about the ideal ratio of perennial to annual pasture, Neville said, “It’s very dependent on cow numbers. If you don’t have the right stocking rates, too much perennial pasture has as much of a negative impact on production as too little. It’s all about striking a balance so that you can provide enough feed, of the right quality, to ensure dry matter intakes remain high. Too much and quality, intake and production decline; too little and production declines.”

With a decline in pasture growth and use, the Kydds became more reliant on bought feed.

“We set a limit on what we were prepared to pay for forage. When forage was priced too high, we chose to reduce cow numbers and feed what home-grown feed was available rather than buying forage to make up lost production,” Neville said.

Graph 2 shows the decline in pasture production during the years of zero water allocation. In 2008, cows were sold and the stocking rate was reduced to less than two cows per hectare.

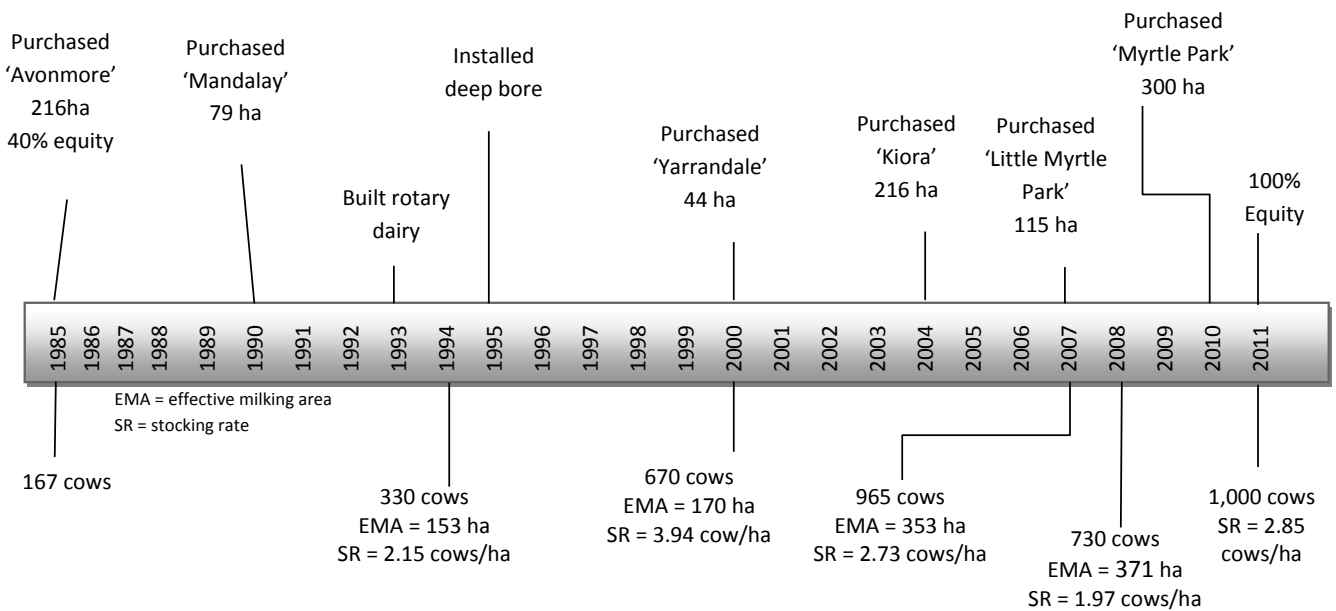
Reducing cow numbers also reduced the wear and tear on people and machinery.

“With a pasture focus and little feeding infrastructure, all the extra supplementary feeding was putting pressure on the people and the machinery. By reducing cow numbers we alleviated this problem,” Neville said.

They also increased the use of grain and other by-products through this period. Neville’s approach to buying feed was that “you can transport concentrates economically, but not fibre”.

Wheat is the predominant grain fed in the dairy. Graph 3 shows grain use per cow.

“Our focus is on maximising pasture utilisation per effective hectare and supplementing home-grown fibre with quality supplements”.



Graph 4: Historical timeline graph of capital purchases, development and growth.

Risk profile



Neville and Ruth describe their approach to business risk as one of being informed about the decision, and they see themselves as optimistic and realistic. They ranked their risk aversion as between 6 and 7 on a scale of 1 to 10.

They saw their acquisition of land as a risk mitigation strategy, and one of their greatest risks as having insufficient home-grown feed to meet the herds' requirements, subsequently exposing the business to a volatile fodder market.

"When we got to 600 cows on 500 acres we felt vulnerable and exposed. It was at this point that we began our farm expansion, as a way of reducing the risk of a feed shortage and reducing our exposure to a volatile fodder market," Neville said.

He also recalled the way his father managed the risk of a feed shortage. "My dad always liked to have hay in the shed for next year". This continues to be the basis of Neville's risk management strategy.

Expansion and capital development

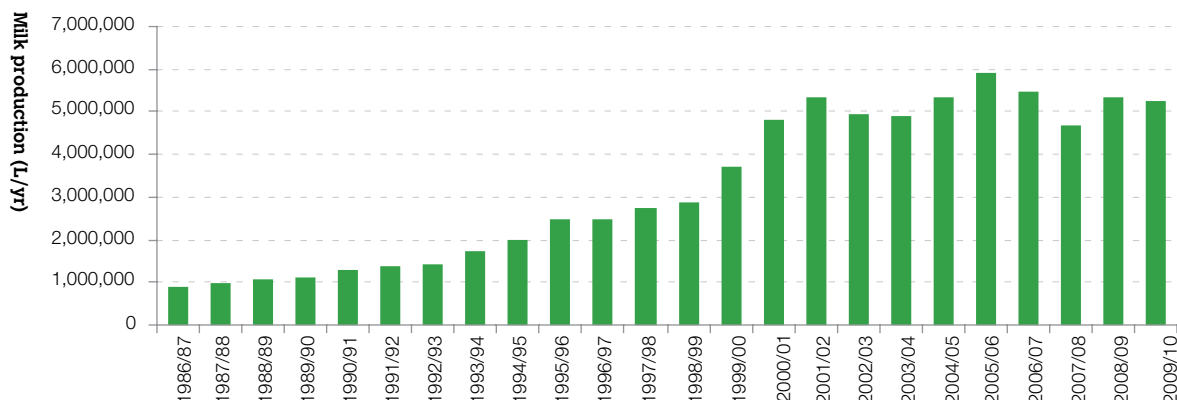
Neville and Ruth have embarked on a program of asset development and accumulation since their first farm purchase in 1985.

As young farmers starting out they had limited equity (40%) and plenty of enthusiasm. Graph 4 shows an historical timeline graph of capital development and purchases.

They based their capital buying strategy on not paying too much for assets – "if you pay too much, it's difficult to get a good return," Neville said.

The other point Neville made was that "in the '90s we borrowed money and while the debt remained at a constant level our equity grew through a combination of growth and appreciation". Since 2000, debt has remained the same, but they have not seen the same rate of growth in equity. "It has been harder because we haven't seen the same levels of growth and appreciation in our asset base."

Graph 5 shows annual milk production for the Kydds' farm since 1985. There was a steady increase in milk production from 1985 to 2002. Since 2002 production has been volatile and without the same level of growth as before 2002.



Graph 5: Annual milk production.

Key risk management strategies

- More land to reduce the risk of exposure to fodder markets.
- Stored forage in the form of silage.
- Reduce cow numbers when the business becomes too reliant on bought forage.
- Minimise risk in times of drought and look for opportunities.

Future plans

Assets

- Prepare a succession plan and possibly build a second dairy.
- Continue to invest in superannuation and off farm assets for our retirement.
- Semi-retired in 10 years.

Feeding

- Increase the area of perennial pasture to suit the cow numbers.
- Continue to stockpile silage as a risk management strategy: "This season and next season's requirements in storage".
- Continued focus on pasture utilisation.

Fertility

- Maintain focus on herd fertility through cross breeding and bull selection.

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