

## Self-sufficiency is the key goal for the Harveys

### THE FARM

#### David and Cathie Harvey

Narrung, South Australia

Ongoing drought conditions have forced David and Cathie Harvey to re-evaluate their dairy business goals.

In 2002, the Harveys dairy operation had grown following the construction of a 60-unit rotary and a succession of reasonable seasons.

“We milked 380 large gangly Holsteins that, looking back, were always sick and struggled with fertility,” David said.

“We calved seasonally with the milking cows grazing on 120 ha of irrigated fescue and clover pasture (3.2 cows/ha) and were getting 1.8 tonnes of grain to produce 8,000 L/cow.”

The irrigation included a 40 ha pivot and 80 ha of lasered flood ground, using about 8 ML/ha in both systems. They also had about 300 ha of dryland available for grazing of young stock and drys and cropped a further 250 ha.

“Our fertiliser program included 30 units of P and 200-300 units of N annually. We had no need for K due to the already high levels in the black soil,” David said.

“The business was high input and we thought we may expand to 600 cows as we increased production.”

But 2002 was the start of a succession of drought years.

“That year we got 70% of our average annual rainfall but little rain fell during the growing season and none in spring, leaving us with a severe fodder shortage. We experienced our first year of restricted water allocations from the River Murray,” David said.

“We leased in 20-30% of our allocation and bought large amounts of fodder as we struggled to produce our contracted milk. We lost \$150,000 that year and we know we weren’t alone. We were too focused

### BUSINESS SNAPSHOT

- **Farm area:** milking area 150 ha, plus a further 150-200 ha used to cut silage
- **Herd size:** 200-300 depending on seasonal conditions
- **Irrigation:** Minimal
- **Milk production:** 1.7 million litres
- **Calving pattern:** Split (1/3 autumn; 2/3 spring)
- **Dairy type:** 60-unit rotary
- **Soil type:** Deep sand to alluvial loam
- **Pasture/crop species:** Lucerne oversown with ryegrass, chickory, home-grown cereal grain
- **Supplementary feeding:** 1.2 t/grain/cow/year and home-grown silage



Several years of drought prompted David Harvey to reconsider his dairy business and farming system. Changes include focusing on profit rather than production, using as much home-grown feed as possible and sowing deeper-rooted pasture species that do not require regular irrigation.

### LESSONS LEARNED

- **Focus on profitability as the key to business success rather than increasing production at any cost.**
- **Have the flexibility to adapt to changing circumstances but allow time to plan and put changes in place.**

on our production target and lost sight of profitability. We just weren't getting there." The Harveys took a step back and re-evaluated their goals. They thought they could achieve their aim of never having to take a loss by:

- ceasing to supply contract milk to reduce risk and increase flexibility;
- changing pastures over to a deeper rooted mix that didn't require regular irrigation; and
- designing their milk production system around the fodder and grain that their farm could produce.

"We had some setbacks with soil salinity and compaction resulting in poor establishment of lucerne when we direct seeded," David said.

## 2006

"It took us until 2006 to really begin the change process. This was another dry year with a catastrophic spring that forced us to make changes. We trialed using a mouldboard plough to turn the soil hoping to reduce the compaction and seedbed salinity. The 10 ha trial area resulted in a fantastic strike. Using a combined power harrow and seeder meant that we only made two passes but got the cultivation we felt we needed."

This was the first year where South Australia opened with a 2% allocation. The

Harveys were milking 341 head in spring but by mid-December they had reduced to the 270 they planned to carry over summer hoping that allocation would improve.

"We were able to maintain our goal (not taking a loss) by leasing our irrigation water, since then we haven't irrigated at all by choice," David said.

## 2007

In 2007, the Harveys elected to further reduce their numbers.

"The irrigation outlook was again poor and the previous summer had been a struggle. We peaked at 283 in September but had reduced to 200 by the end of October," David said.

"We hoped that by renovating a further 50 ha in 2008 and the remaining 10 ha in 2009 we could aim to milk about 300 cows over summer even if we had no irrigation water."

## 2009

In 2009, the Harveys completed the pasture renovation with lucerne and have oversown their first paddocks with low-cost ryegrass seed to try to address the winter feed gap. Chickory has also been included to balance the lucerne, as it is relatively deep-rooted and persistent and the cows like it.

"Our fertiliser program is now a biodynamic one using composted manures

that we age on farm to maintain fertility.

"We are shifting our herd towards crossbreds including Jersey, Illawarra and Aussie Reds and are looking to see if we can find older-style stocky Holstein genetics to include. We have also changed over to a split calving of a third in March/April and two-thirds in August/September in order to supply milk over winter."

## 2010

"To be cautious we are already reducing numbers from the spring peak of 300 when we produced 25 L/cow from our pastures and 3.3 kg of grain but did not have to feed hay or silage," David said.

"The pasture is getting a bit ahead of us and we need to shorten our rotation.

"Technically, we are understocked but it has given us breathing space and we are able to live within our means. It is pleasing to see the good even pasture growth without urine patches that shows that the reduced irrigation and changed fertiliser regimes is improving soil health. The groundwater here keeps the lucerne viable without irrigation.

"Last year we grew 6 tonne/ha of pasture. In future, if we could achieve 20+litres off pasture that would be the ultimate – we could stop growing grain. We know this isn't the best cropping country and it would be good to be able to reduce our reliance on grain further.

"While there is not just one individual action that has led to our successful shift in our production system a combination of planning, time to make the changes and being forced by circumstances to continue the process have seen us achieve our goals. We will no longer be caught up trying to achieve production goals but will continue to look to profitability as the key to a successful business."



David Harvey ceased irrigating in 2006, choosing instead to reduce the herd size and grow dryland crops and pastures.

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