



Add value to your product is the catch-cry – get closer to your customers and move out of commodity trading. Steve and Mary Barr have heeded the call and managed to add 40c/kg MS across their whole production by selling Arran Farm A2 raw milk through their purpose-built Manawatu farm shop. Steve told **Jackie Harrigan** about some of the lessons they have learned along the way.

Changing from dairy farmers who said goodbye to their milk when it disappeared down the driveway in an Open Country Dairy tanker, to customer-focused fresh A2 milk sellers, has been quite a journey, Steve and Mary Barr say.

The Manawatu dairy farmers' former focus on production and profitability has been partly replaced with strategies for marketing, research into the fresh milk market, procedures to meet the new raw milk regulations and thinking about the customer experience.

"It certainly is very different to ordinary farming," Steve says, "and I have really enjoyed meeting our customers and getting to know them."

And nothing is better, he says, than the feel-good factor of allowing people who have had health complaints with ordinary milk coming back to being able to drink and enjoy the Arran Farm milk fresh from their A2 cows.

"We have had some amazing stories of people who haven't been able to drink milk for years finding our milk good for their arthritis, their children's eczema, their digestive problems," he says.

"It's quite humbling hearing stories of young kids whose eczema has gone in a couple of days after struggling for years with creams and milk replacers, and I

wasn't ready for the older people – one lady who has never drunk much milk because it hasn't agreed with her, told me now she can drink it and her bone density scan has never been so strong."

Customers come from as far afield as Wellington – a family with two children with severe milk intolerances and a chap from National Park who visits his Manawatu-based parents and buys milk each weekend.

The clients fall roughly into three

FARM FACTS:

- Farm 478ha, 260ha milking platform
- Herd: 830-850 cows, split calving, 350 winter milkers, 280 autumn calvers, 520 spring calvers
- System: System 5-plus
- Production: more than 600kg MS/cow last three seasons, 2000kg MS/ha, 2015-16 520kg MS/cow, 430,000kg MS total

camp; a third have health issues that preclude them buying A1 milk, a third come because they say it tastes better than regular milk and the other third are locals who are supporting the farm and the Barr family.

The Arran Farm shop sells about 1500 litres each week in 1-litre glass bottles



Steve fills his bottles from the vending machine, a simple self-service job.



Steve and Laura Barr in the Arran Farm farm shop – they enjoy the interaction with clients coming and going 12 hours a day.

at \$2.50/l through the automated Italian vending machine. Another vending machine sells the refillable glass bottles and branded bottle bags and a further machine sells locally made Arran Farm A2 soft cheeses – camembert, feta and silver award-winning halloumi, made on contract by artisan cheesemaker Adrian Walcroft of Cartwheel Creamery in Pohangina. Adrian collects up to 300l of milk each week to make and sell the cheeses through the farmshop and a wholefoods store in Palmerston North.

A2 cheese was added to the product mix 12 months ago, because Steve says it can be sold more widely and is another way of adding more value.

Milk made into the cheeses is worth \$1.50/l, rather than the 40 cents a litre the family earns from supplying Open Country Dairy.

From 5.3 million litres of milk produced on Arran Farm, 80,000 litres of certified A2 milk was sold through the farm shop last season. Although it's only 1.5% of the milk production it contributed 9% of the income, adding 40c/kg milksolids (MS) to the overall farm profitability. Selling the A2 milk for \$2.50/l and netting about \$2/l translates to about \$24/kg MS.

The investment into diversification has been well worthwhile, says Steve, who says the farm shop and setup was paid off in the first year and he is now looking at other ways of adding to the value of the milk from his A2 cows.

Under the new raw milk regulations, satellite milk depots are not permitted, but home deliveries are, and Steve has been investigating this option, along with a small scale pasteurising plant.

"Of course a whole lot of things are viable at an \$8/kg MS payout that are

not at the current \$4 on the bulk of the milk, which is where we would get our setup funding."

Interest in A2 milk

The A2 journey started for Steve and Mary 15 years ago when the issue first arose with the a2 Milk Corporation and the resulting stoush with Fonterra.

"I found the debate (about the health benefits of A2 milk) interesting and thought it made sense – there seemed to me to be no downside to having more A2 cows."

The family started using A2 bulls then and have moved the herd from 20-25% pure A2 to 70% purebred A2 cows. Three years ago he read about the Village Milk vending machines in Takaka and saw a way of adding value to his A2 milk.

"Usually it's all mixed up in the tanker, but by DNA-testing some cows we were able to identify those pure A2 cows and keep a separate herd to sell the milk through the farm shop."

Arran Farm was New Zealand's first certified A2 fresh raw milk supplier.

Steve imported a self-service machine and built the shop, contracted Homegrown Creative in Wellington to develop branding and imagery and started importing bottles and holders from China.

Setting up the herd involved DNA testing and identifying 149 purebred cows, at a cost of \$20/cow, and selecting the lowest somatic cell count cows to be in the A2 herd.

These girls – just 19 in the herd in winter – are milked first each morning. Three of Steve's six staff members take about 20 minutes to milk them into a

separate vat where it is rapidly chilled. A mobile vat is used to transfer the milk to the farm shop every morning for fresh milk sales. Afternoon milk usually goes straight into the vat for OCD pickup unless the shop has been very busy and needs a top up.

Each cow has her teats cleaned with a wet chux cloth. She's then paper-towelled dry and tested with a mastitis meter. Teat spraying after milking is automatic with Steve's ADF (auto dipping and flushing) milking machines.

"It's all about keeping the milk clean and bug-free because the urban population doesn't tend to have a good immune system," Steve says.

The systems set up at Arran Farm with cleaning and bulk testing for APC (Aerobic Plate Count) and coliforms each week has stood the Barrs in good stead for the new raw milk protocols, although Steve has yet to implement new systems for tracking customers and labelling milk with a purchase date.

The farm has always had a risk management plan but from October 1 it will be under a regulated control scheme with twice-yearly audit and checking.

The big change is the removal of the volume limit, which is a good thing for Arran Farm. The possibility of online ordering and home delivery is giving Steve food for thought.

"We are still getting new customers



A2 milk and cheese could soon be joined by yoghurt and ice-cream, and delivered to customers' homes in the future.

but weekly supply has plateaued at 1500l per week, which is probably constrained by the number of people able and willing to get to the shop, but delivering could give us a whole new market."

A2 yoghurt and ice-cream are other potential products Steve and Mary are looking at and doing some development work on with Massey University.

Winding back supplements

The Arran Farm platform is prone to winter-wet and summer-dry conditions, so the family have built a feedpad. They feed supplements on it before each milking, along with running up to 200 K-line irrigation pods around the platform to keep summer growth pumping.

The milk price downturn has caused the Barrs to wind back supplements of soy, dried distillers grain, molasses and tapioca – "all the expensive stuff" Steve says – but palm kernel is still in the mix because the price has dropped. It's fed along with 90ha of maize silage and sugary apple pulp. Supplements make up 25% of the cows' diet.

The Keenan mixer wagon is out for 365 days a year and while the decreased economics of System 5 returns would back production to 520kg MS/cow for the 2015-16 season, Steve hopes to crank it up again now supplements have come down in price.

Laura Barr has been working on the farm since she left school and now at 28 is the operations manager, overseeing all aspects of the cows, staff and pasture production.

The family have been farming in the Manawatu since 1998 when they moved down from Taranaki, bought their first 60ha block and have been building their platform size ever since. Originally the family hailed from the Isle of Arran, hence the Arran Farm name and cow and thistle branding.

Branding and marketing have become new skill sets for Steve and Mary. They count themselves lucky to have found Jamie Schaefer at Homegrown to help develop the look and feel of the brand that runs across the labelling of bottles to the imagery of the shop to the design of the website and Facebook page.

Marketing their venture started with a stall at the Feilding Farmers market where Mary sold milk bottles and bottle carriers and explained the A2 product. Backed up by an extensive radio advertising campaign, an advertisement on the back of a Palmerston North bus and good early editorial exposure in the region's newspapers, the Barrs also take every opportunity to talk to groups of farmers and urban folk about their venture.

Both the website – www.arranfarm.co.nz – and the active Facebook page have been useful to build the brand and to keep 12,000 followers and clients abreast of what is happening on the farm and in the shop.

"We are always looking for new opportunities to get our name out there – last year we sponsored a girl in the Miss Manawatu pageant, which was a bit different," Steve says.

School visits to expose groups of school children to what happens on a dairy farm have grown in popularity with the farm shop adding another dimension to the experience.

Handing over operational responsibility to Laura has given Steve more time to concentrate on the farm shop and the A2 operation, and growing the business is something he is always thinking about.

He keeps abreast of the research about A2 milk and is heartened by growth in the A2 market in Australia, North America and China.

Recent small-scale trials in Australia and China unequivocally showed health advantages in A2 milk, he says.

A1 VERSUS A2

A2 milk is cow's milk that contains only the A2 type of beta-casein protein, rather than the more common A1 protein found in regular milk. A1 and A2 are genetic variants of the beta-casein milk protein that differ by only one amino acid. A1 is the most common type found in Europe (excluding France), the United States, Australia and New Zealand. Evidently all cows were A2 until a genetic mutation somewhere in the European cow population about 5000 years ago altered the protein composition.

During the digestion of A1 milk a tiny protein fragment is formed called beta casomorphin-7 (BCM7) and it is the effect of this on human health that makes the story get interesting – and rather contentious.

In 2007 a book called *Devil in the Milk* highlighted links between A1 milk and a range of serious illnesses, including heart disease, Type 1 diabetes, autism and schizophrenia. However a European Food Safety Authority review of scientific literature in 2009 found there was insufficient evidence to prove that peptides in A1 milk had a negative effect on health. Research is ongoing, although results from both sides of the argument have been debated and refuted.

Nevertheless, many consumers feel and anecdotally report that A2 milk has a beneficial effect on their health and that of their children – lessening or removing the effects of eczema, asthma and irritable bowel and digestive complaints and improving bone health. This anecdotal evidence has led to the widespread uptake of A2 milk through the a2 Milk Company and other providers around the world.

"The surveys highlighted bigger problems than people originally thought, with the digestibility of A1 milk identified as a problem within 30% of the population," he says.

"Research is now being carried out with AgResearch and Auckland medical school over the next three-five years to look more closely at A2 milk."

The other great thing about operating a farm shop is the interaction Steve gets with urban people visiting his farm.

"It's great to see them coming out here and seeing what happens on a farm – the more they find out what is happening on farms, the less we need to feel threatened by them."

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