

Country Wide

A black silhouette of New Zealand is positioned between the words 'Country' and 'Wide' in the main title.

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SHEEP MILKING

MILES KING'S WAIRARAPA OPERATION FEATURES IN
OUR SPECIAL REPORT p22



SHEEP MILKING

Sheep dairying in New Zealand has had its problems in the past with a number of failed enterprises during the 1990s and earlier this decade. But now there is renewed interest and investment especially in high-value products made from sheep's milk. *County-Wide* writers investigate why.



Cutting through the red China tape

Lynda Gray

Selling off part of Blue River Dairy to Chinese investors was the only way to guarantee a future for the Southland sheep milking business.

The break-up of what was a vertically integrated sheep milking and product exporting business was a pragmatic decision, founder Keith Neylon says.

"It wasn't emotional in the end because we had to do it to keep alive."

Staying alive involved the selling in February of the processing plant and associated brands to Chinese company Blueriver Nutrition HK. The do-or-die move followed nine months of unsuccessful negotiation to get Blue River's infant formula range certified by China's Certification and Accreditation Administration (CNCA).

"We launched it in Xiang in April 2014 and had 750 distributors and three years of orders waiting," Neylon said.

But the product was stonewalled in Beijing because of what Neylon described as a combination of politics and red tape. He tried to work in with the Ministry for Primary Industries, CNCA's New Zealand agent, to get the necessary sign-off but became frustrated with the time taken. In the end he decided to take the inside-out approach by forging a connection with an established Chinese business. The Chinese connection has fast-tracked market access and although the final sign-off by CNCA is still to happen Neylon is confident the path for an ongoing export relationship of sustainable scale is finally in place.

The sale has left him with the sheep milk supply side of the business and effectively moved him from the price maker of value-added product to a price taker of raw milk. But Jazz Hewitson, chief executive of Neylon's sheep milk supply business AntaraAg, reckons the huge demand for the raw product should ensure a fair market price prevails.

"China is screaming out for sheep milk products so they need the raw milk in volume."

AntaraAg has an exclusive supply agreement with Blueriver Nutrition HK and the two businesses have a joint mission statement to grow milk supply and per head production through investment in genetics and management systems.

When the new 10-month season starts in July, AntaraAg will milk 15,000 East Friesian-Poll Dorset ewes on three farms – two at Brydone and the third at Springhills.

Eventually farmer suppliers will be taken on. The exact structure of the farmer supply relationship is still to be decided but would probably involve syndicate ownership of land and a sharemilker franchise-type agreement where AntaraAg supplied the sheep.

"For us maintaining stock quality and exclusive rights to the milk is important," Hewitson said.

Hewitson is a chartered accountant and former chief executive of NZ Deer Farms, a successful corporate deer farming business sold off following the death of founder Howard Paterson in 2003. He took on the AntaraAg role a year ago and oversees running of the business with operations manager Hamish McAsland and field technician Ashley Greenwood. He believes there is huge potential for both AntaraAg and the NZ sheep milking industry provided scale and supporting infrastructure gets up and running over the next two years.



AntaraAg chief executive Jazz Hewitson.



Sheep milk supplier AntaraAg wants to produce 25 million litres of milk in NZ in the short term.

He said AntaraAg, like its predecessor Blue River Dairy, is the only NZ player with combined supply, value-adding and exporting experience but still had a lot to learn.

"We're at the starting line whereas the others are still in the changing room."

Getting past go and becoming a proven stayer in the global sheep milk business would require critical mass at all stages along the supply chain.

"The biggest challenge is to grow the supply to get diversity of product."

A realistic industry short-term goal would be 100,000 milking ewes.

"That should mean about 25 million litres of milk, which represents stability from an industry point of view," Hewitson said.

Neylon, in a 2013 briefing paper to the NZ Government, projected the industry could grow to two million sheep in 20 years. Industry growth will require collaboration, especially on how to improve sheep productivity.

Hewitson said the AgResearch-led and the Ministry of Business, Innovation and Employment-funded six year, \$6.6m project involving AntaraAg, Kingsmeade and WKH Trust looking at sheep milk composition, sheep milk function and ways of boosting milk production through feeding and environmental footprint analysis was a step in the right direction because it would provide industry-wide benefits.

But the immediate priority was to increase AntaraAg's milk production.

"It's important that we get the farm production side of things right," Hewitson said.



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HOMEWORK needs to be done

The inaugural FoodHQ Ewe Milk Products and Sheep Dairying Conference was held at Massey University earlier this year. Kellogg rural leadership programme participant **Damian Buckley** attended and reports back.

The New Zealand sheep milking industry has the opportunity to grow to \$200 million in the next five years.

That's the view of Lucy Griffiths, a 2014 Nuffield scholar who believes the international consumption of premium-value sheep milk products is substantial.

Griffiths' Nuffield report covered her travels to a number of countries where annual consumption of sheep milk products is 10m tonnes and demand is growing at 10-20% a year – see p26.

Secure customer demand before getting caught up on the supply issue of production and genetics was the message.

The inaugural two-day FoodHQ Ewe Milk Products and Sheep Dairying Conference held at Massey University attracted more than 160 people, well above what organisers were expecting. Scientists and academics made up the bulk of the attendees, outnumbering farmers and processors by about two to one.

Participants included five established sheep milk producers and processors, and Landcorp's sheep dairy project team. Ministry of Business, Innovation and Employment, the Ministry for Primary Industries, AgResearch and Massey University all had significant representation. This was hardly surprising given each has a vested interest in sheep dairying – MPI is the regulator, MBIE the funder while Massey and AgResearch are the research providers.

At times the conference appeared to be a game of “you tell us what you know” and “we'll tell you what we know”, and some cards were firmly held to chests.

Organiser Craig Prichard, from Massey's Business School, was session chairman and worked hard to tease out information and comment.

Landcorp's Andrew McPherson discussed his organisation's fledgling sheep milk enterprise without giving too much away. However, since the conference Landcorp has publicly announced their intention to start producing milk from a newly converted farm on the North Island's Central Plateau. Industry participants have since reported the state-owned enterprise has been buying up East Friesian ewes and rams from around the country to create a 2500-strong flock.

Landcorp had formed a joint-venture

Industry moves

Two of the pioneering sheep milk businesses in attendance at the first NZ sheep dairying conference held at Massey were at tipping points in their company history. One of these, Neudorf Dairy from Upper Moutere near Nelson, has since been sold to a soya bean manufacturing business and has ceased trading its sheep products.

The other, Blue River Dairy, recently sold their processing facility and brand rights to Chinese company Shanghai Blue River Food in a move to secure further investment for the Invercargill-based business, safeguarding jobs and export earnings for the region – see p23.

Natalie Dang, the Shanghai-based representative for the new owners of Blue River, spoke at the conference. Her sentiments were as a veteran specialist brand and marketing company in China her organisation was keen to increase the supply of sheep milk products to an increasingly Westernised middle-class population.

with specialist sales and marketing company SLC Group, headed by Scottie Chapman. Chapman's view was that without researching international market opportunities thoroughly, selecting the right trading partners and entering into water-tight supply arrangements, the industry was basically dead in the water.

Secure customer demand before getting caught up on the supply issue of production and genetics was the message.

>> Problems aired p25



Problems aired

Getting the sheep-product-market-customers all lined up is never easy, as Waituhi Kuratau Trust has found. It has a 3000-milking ewe operation near Turangi. While not discussed openly at the first sheep dairying conference held at Massey University recently, sources said the trust has been in a tussle with MPI over their process of supplying frozen milk to specialist cheesemakers.

The conference heard from Andy and Kat Gunson of Hawke's Bay who have been milking sheep for the past three seasons. The Gunsons are in growth mode and have expanded their flock to 350 ewes. They supply Origin Earth, a Havelock North-based milk company. The couple discussed the challenges of milking sheep, where the learning curve has been steep and costly.

Andy Gunson believed development of the sheep milk industry had to be farmer-led in order to safeguard the milk price return for individual farm suppliers. He recognised that market demand will ultimately drive production but insisted farmers need to be intimately involved and consulted within the process.

Among the speakers was United Kingdom Sheep Dairy Association chairman John Ryrie. Until recently he was farm manager of a 72ha organic sheep dairy farm milking 1500 ewes in Dorset, which is Britain's largest sheep dairy unit. He said demand had outstripped supply in the UK and it would take time to meet that supply. There were similarities between NZ

and the early UK sheep milk industry, he said, and warned against reinventing the wheel.

Xcell Livestock's Ian MacDonald spoke about a prototype mobile sheep milking plant he had set up, which is driven to where milking sheep graze – see p28. There must surely be an opportunity with this innovation?

Several attendees were heavily involved in the genetics industry. There is a push to import superior genetics from Europe and elsewhere for the benefit of NZ's national milk sheep flock but MPI restrictions on importing germplasm (embryos and semen) continue to frustrate. This is particularly true in regards to establishing MPI-approved risk management protocols that outline the biosecurity process for safe and secure importation of genetic material.

AgResearch illustrated it was adept at attracting funding for good causes when research scientist Dr Linda Samuelsson reported on some of the work the organisation was doing. They had received \$5.5m in grants to research the health and nutritional attributes of sheep milk, as well as lamb weaning and the environmental impact of sheep dairying.

Samuelsson said the conference



A mobile milking plant at the inaugural sheep dairying conference held at Massey earlier this year.

highlighted enthusiasm and belief in the sheep milk industry.

"There was a strong feeling of 'let's get this right from the start and make it succeed this time' because there have been a few failed attempts in the past."

Growing the industry

So what are the short-term impediments to growth in the sheep milk industry? The essential next steps for creating a growth industry were debated in the final session of the recent inaugural sheep dairying conference held at Massey.

The key limiting factors recognised included a lack of existing international market exposure, limited national milk supply and not enough specialist milking sheep.

It was universally affirmed and accepted that a steering committee be set up with voluntary input from industry players and with a mandate for focusing effort on four critical areas:

- market and product development – including health and nutrition research
- industry structure
- milk supply – including breeding and genetics, and
- education and communication.

Over the next few months this fledgling committee will work towards establishing a viable industry body that will provide the foundation for growing the NZ sheep dairying industry.





Milking Assaf sheep in Israel.

Raising the milk baa

Nuffield scholar Lucy Griffiths has travelled the world to find out why New Zealand's sheep milk industry is globally insignificant when compared to other aspects of Kiwi agriculture.

From her studies she has developed a business plan for the NZ dairy sheep industry. The following is a brief summary of her key findings.

Overseas trade

If NZ could build its sheep dairy flock to one million ewes and increase feeding and genetics to produce an average of 600 litres a year from each animal, this country could be in the top 10 global sheep milk producers in 10 years.

At the current farmgate price for sheep milk of \$2 a litre the industry has a potential value of more than one billion dollars.

Parts of Europe and the Middle East have been milking sheep for thousands of years. NZ has just five vertically integrated sheep dairy operations, ranging from fewer than 100 stock units up to 25,000su.

The United States is the largest consumer of sheep dairy products, consuming more than half the world's consumption of sheep cheese but it has just three sheep dairies larger than 1000su.

NZ has the potential to supply the US with premium sheep dairy products including butter, cheese, yoghurt and ice-cream. Asia also offers great possibilities for sheep dairy products, particularly in markets where this country has free-trade agreements.

To build a premium brand for the industry three or four markets should be invested in. Before the industry invests heavily at a farming and breeding level, market contracts should be in place.

Potentially there is a huge range of NZ sheep milk products including fresh

milk bottled, beauty products and infant formula.

NZ has a competitive global advantage with its pasture-based systems which are seen as animal welfare friendly. Also the Pure NZ brand perception is strong. There are free trade agreements with China and Taiwan.

Genetic research

The NZ dairy sheep industry will only be able to grow at the rates predicted with the help of embryo transfers and advanced genetics. Working alongside organisations with sufficient resources such as Landcorp will be the key.

Milk volumes will only increase with better genetics, stringent culling policies, and quality feed in the form of total mixed rations. The industry will also need competent staff, the best electronic milking equipment and fully modernised milking facilities.

Financial benefits

To gain the highest premiums NZ needs to be focused on creating high-value sheep milk niche products in sectors like health, infant care, and gourmet food.

Research in this country is focused in areas such as sheep milk function, composition and health, properties, improving production and environmental footprint analysis.

Israel employs the expertise of one of the Middle East's leading small ruminant experts to trial onfarm research to maximise meat and milk yields for the whole industry. A similar move may help advance NZ's industry.

NZ needs a robust financial model to show farmers the financial benefits of investing in sheep milk. It will be important to look at feed options in relation to production outputs by analysing pasture-based versus housed "cut and carry" systems in relation to

Key points

- NZ has five vertically integrated sheep dairy operations, 100-25,000su in size
- China top fresh sheep milk producer, 1.58 million tonnes/year
- NZ Farmgate sheep milk price \$2/kg
- Contracts needed before onfarm investment made
- Need embryo transfers and advanced genetics for fast growth

costs and yields. Israel uses an intensive housed model – much like Dairy Goat Co-operative in NZ uses. In other parts of the world a combination of housed-plus-pasture systems are used to maximise milk yields and protect animals from heat and cold.

NZ sheep which walk long distances to be milked twice daily yield less than a litre a day. On smaller Kiwi farms animals are closer to milking facilities and fed 300g/ewe of high-protein rations produce more than 2l/day which is similar to overseas production.

Capital investment

Corporate farmers and agribusiness syndicates could be useful in raising the capital needed to increase scale and convert farms into highly efficient sheep dairy operations.

Set-up costs for milking equipment can be high but return on investment can be as quick as five years.


All farmers visited overseas achieving the greatest yields and revenue from their flock were heavily invested in electronic milking equipment and electronic tagging.

Marketing

All NZ sheep dairy producers are marketing and selling their products individually. There may be benefits in working together to sell and market products off-shore.

The formation of a NZ sheep dairy association could assist the industry from a marketing and sales perspective. As the face for the whole industry it would have an online presence as well as acting as a representative body. It could employ sales agents in key markets to grow the industry.

In Israel sheep milk is levied and an organisation acts on behalf of farmers to research best animal husbandry and fund marketers to work with major dairy groups.

Both the UK and US dairy sheep associations meet annually to network, exchange ideas and review research. 

- Lucy Griffiths's full Nuffield report can be found at www.nuffield.org.nz/reports



Finding markets the whey

Anne Calcinai

Keen on diversifying into dairy sheep?

To be sure you have a market and to avoid oversupply crashing the market, a good first step could be touching base with existing New Zealand sheep dairy industry players.

That's the advice offered by Nuffield scholar Lucy Griffiths. She found there was huge potential for sheep milking in this country and possibilities for a relatively quick return on investment.

"The key is to work with existing players if possible and see if they will contract buy milk," Griffiths said.

She said sheep dairy operations in Taupo, Wairarapa and Southland were all focusing on slightly different market areas. These sheep dairies have also indicated they need more milk supply.

Griffiths said previous attempts to build a significant sheep milking industry in NZ may have failed because markets were not secured first.

"All the best performing milk producers I visited around the world had a market sorted for their milk prior to investing in farms.

She said the timing was right at present because of high demand from Asia, combined with some large-scale businesses and farming groups willing to invest in the industry.

Griffiths said NZ's largest sheep dairy, Blue River Dairy, had grown by skilfully

targeting its markets. It had provided a successful model for other new sheep dairy ventures in NZ, such as that under way by the country's largest farmer, Landcorp.

"For me it's a really interesting move by Landcorp. They are taking a calculated risk on this and it's reassuring to see they're developing their own brand."

She said Landcorp was investing alongside great market partners to ensure they have discerning markets for their sheep milk products.

"They have the right people to make it work and I think they add credibility and weight to the burgeoning industry."

The sale of Blue River's processing factory to Chinese interests provided the investment needed for continued growth. Retaining ownership of the dairy farm land created a good partnership, she said.

Sheep milking has been mooted as a possible third income stream for sheep farmers. Griffiths' Nuffield report included a gross margin analysis based on a 300-ewe operation with milk, meat and wool income.

"In my estimate, if your ewes can average 400 litres a year then you can get a return on investment in around six years based on current feed, equipment and stock costs."

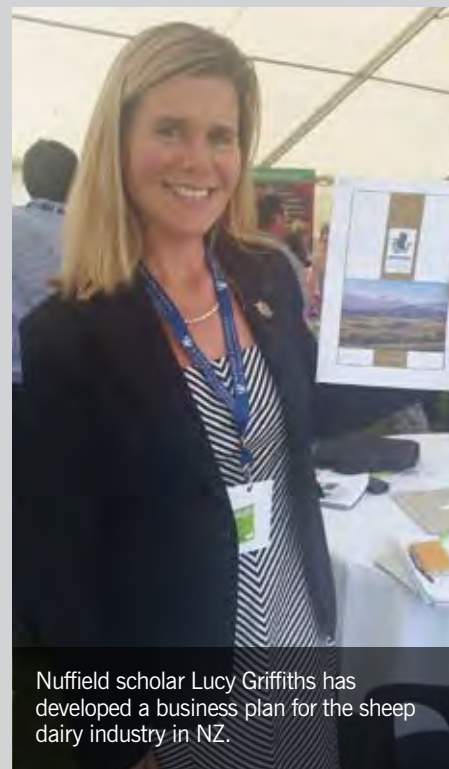
While there had been some interest from sheep farmers, most enquiries came from business people and dairy farmers. Sheep dairy involves more capital than meat and wool farming so it could be an easier concept for dairy farmers to get their heads around.

"It's like most things – people want to see the money first before they're willing to make the adjustment.

"One of the reasons the industry appealed to me is because you can farm smaller numbers of stock and have less money tied up in land. However, milking technology is not cheap."

Griffiths is pursuing her own business opportunities in sheep milking but said one of NZ's major challenges is the limited access to sheep genetics. There are only about 30,000 milking sheep in this country. Most have been snapped up and those that are available are selling for an inflated price.

Griffiths said it was difficult getting new genetics into the country but private



Nuffield scholar Lucy Griffiths has developed a business plan for the sheep dairy industry in NZ.

genetics companies were looking into ways to expand the gene pool.

Another challenge is increasing milk production from each animal. Average production on the farms Griffiths visited overseas was about two litres a day, compared to NZ's current one litre a day.

'The timing is right at present because of high demand from Asia.'

China is the world's largest producer of sheep milk but Griffiths said production was in tiny pockets spread throughout the country often in small, hand-milked herds.

There was still opportunity in the Asian market because NZ's point of difference around quality, safety, farming skills and the pure image were attractive to consumers.

Well schooled

Based in Masterton, Lucy Griffiths represents speciality NZ food producers, including sheep dairy products through her business, Innov8 Aotearoa. She grew up in rural Southland and graduated from Otago University with a double degree in marketing and physical education. She then worked in marketing this country's seafood, wine, honey, meat and dairy products before starting her own business. Griffiths was a 2014 NZ Nuffield scholar.



Businessman Ian MacDonald strongly believes the sheep milk industry needs to be market-led to prevent it becoming yet another commodity.
Photos: Johnny Houston



Breaking down barriers

Sandra Taylor

Ian MacDonald is unequivocally positive about the potential for milking sheep.

The North Canterbury businessman has identified export markets for sheep milk products – now all he has to do is get the suppliers.

He sees lack of sheep milking genetics and investment in bricks and mortar as being the two biggest barriers to the industry and has spent the past few years working to overcome both.

MacDonald, who has a background in animal breeding from germplasm has been crossbreeding East Friesian, Awassi and Dorper genetics to breed a robust milking sheep suitable for New Zealand conditions.

As he says, he is striving to breed a Land Cruiser VX rather than a Ferrari.

To this end he has created his own selection index with the emphasis on milk production (volume), weaning weights and the number of lambs produced.

While he says he is not a geneticist it is an index that works for him and is based on his many years experience in the animal breeding industry, particularly the dairy industry.

Unsurprisingly, he puts a lot of emphasis on udder structure and teat placement including a well-defined central cleft so the udder is well supported. An udder that swings and

Overseas genes

The possibility of being able to import genetics from the European Union in the near future excites sheep milk entrepreneur Ian MacDonald because it opens the door to genetics from well-established sheep milking industries such as those in France and Spain.

He says the Ministry for Primary Industries has been working in this area for some time and while there is no set time-frame for the barriers to come down it does seem likely to happen.

bangs around is more susceptible to mastitis and teat damage.

He has also been selecting animals with dark pigmentation so the udders are not as prone to sunburn. The inclusion of Dorper genetics has meant the breech area is clean and clear of wool.

MacDonald has been selling his genetic packages but has yet to put a name to his crossbred sheep – although Hooters has been suggested.

The best of his ewes is producing four litres a day but the average is 1.3-1.5 litres a day. The market price for sheep's milk is about \$2 a litre.

This year MacDonald milked his ewes for just two months after he had weaned

the lambs. He explains there are three ways farmers can incorporate lamb production with milking sheep.

First, farmers can follow the dairy industry model and take the lambs off their mothers within 24 hours, hand-rearing the lambs.

The second, a system MacDonald particularly likes is creep feeding where the lambs – from four-days-old – move through a creep grazing gate on to high-quality pasture. The ewes are then taken away for milking.

The third system is where the lambs are weaned and ewes are then taken through for milking twice a day for a couple of months.

MacDonald does wean at what most sheep farmers would consider early at a minimum of 15kg liveweight.

The lambs are run on to good-quality feed and in MacDonald's experience they continue to grow well despite the early weaning.

While lambs can be left on the ewes until they are at a killable weight before the ewes are milked this has been calculated to cost \$60-\$80 in lost milk production.

MacDonald says ewes bred for milk production can produce a lot of milk – more than enough to feed lambs as well as being milked.

Farmers looking to dip their toe in the industry don't need to introduce milking genetics into their flock before they begin



Milk vats in a refrigerated van that pulls the mobile milking unit.



A mobile milking machine that could be used to harvest milk from different flocks within a geographic area.

milking ewes. MacDonald recommends farmers wanting to give milking a go identify potential ewes in their existing flock at weaning.

Determine which ewes have done a good job rearing their lambs then closely evaluate their udders.

"There will be some ewes in every flock that will be suitable for milking."

These ewes can then be trained for milking and while they obviously won't produce significant volumes of milk, it will at least identify those that can be trained and used for milking.

"If you start milking 500 ewes you will find there are about 100 not worth milking."

Those that do prove suitable for milking can then be bred with a milk-breed ram and so the foundations of a milking herd are laid.

"You will very quickly be milking those lambs."

MacDonald says lactation length can be a challenge in NZ sheep flocks because sheep in this country have been inadvertently selected for a short,

sharp lactation period of 50-100 days. Traditional milk breed ewes can lactate for 250 days.

Similarly milk breeds are able to breed over much of the year allowing for continual supply.

MacDonald points out that the ewes are being milked over the driest time of

the year in January, February and March which in itself offers some challenges. While irrigation would obviously drive milk production, he believes there could also be a role for dryland forages such as lucerne and clover to keep the ewes lactating.

>> Blazing a trail p30



It is easy to train ewes to walk on to the milking unit.

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Blazing a trail

The investment required in plant and machinery is possibly an even greater barrier to the industry than the lack of milk genetics.

Businessman Ian MacDonald has worked in conjunction with Read Engineering in Rangiora to build a portable eight-bail milking unit on an old fencing trailer. The unit is towed behind a chiller van kitted out with milk tanks, a cooler unit and recycled hot water washing system – everything you would find in a standard milking shed.

Using this proof-of-concept unit MacDonald has been able to milk 120 ewes an hour. The ewes are enticed on to the trailer by a small amount of meal and a quick-release exit system frees them rapidly while keeping the flow through the milking stand going.

The cups, although similar to those found in a cow dairy shed, pulsate at a much faster rate and emulate the drinking pattern of lambs.

MacDonald says ewes are easy to train to run on and off and adds they very rarely urinate or defecate while they are on the trailer. While he has an effluent collection system in place through a metal mesh floor the quantity collected is minimal. The effluent is collected in a tank under the trailer and can be mixed with the washing water – about 120 litres – and sprayed out on to a paddock.

He points out that there is no code of



In Ian MacDonald's opinion the two biggest barriers to the sheep milking industry are plant and machinery and the lack of milk genetics.

practice for sheep effluent but in practice the quantities are so small it is unlikely to be an issue.

While the unit MacDonald has built is a prototype, he says it will need only the odd minor tweak. This includes building a cover over the unit to help keep it clean when not in use. A 16-aside mobile unit that has the ability to milk 350 ewes an hour is on the drawing board.

'It has to be market-led. Every business needs to start at the market and work backwards.'

MacDonald envisages this portable unit being used to harvest milk from different farms supplying the same market, possibly under a co-operative structure.

While he would not specify exactly what the product is he's hoping to market, it is for export and it's not

cheese. Aged sheep cheese production requires a lot of time and effort and while MacDonald says he has full respect for producers of sheep's milk cheese, it's not a market he is interested in.


What he is adamant about is the need to have markets established before sourcing the product to supply it.

"It has to be market-led. Every business needs to start at the market and work backwards."

MacDonald says he like the co-operative mentality and cites the Dairy Goat Co-operative as being a fantastic model to copy.

He says the goat milking industry has been well controlled and is very much market driven. The co-operative won't take on any new suppliers unless they have a market for the milk.

They also have strict guidelines around animal welfare and sustainability, which MacDonald believes is important for the markets he is considering supplying.

MacDonald has travelled widely investigating the sheep milk industry and is confident there are markets for sheep milk products. 

Ensuring value

Numerous cultures, many of whom are lactose-intolerant, have been consuming sheep's milk for hundreds of years. In various countries it is seen as a nutraceutical and has many health attributes. The cholesterol, for example, is the healthy variety similar to that found in avocado and olive oil.

While there is certainly a lot of interest in sheep milk, North Canterbury businessman Ian MacDonald would hate to see it become yet another commodity NZ produces.

"I don't want to get into this business if it's going to become a commodity. I'm not scared of the market – what scares me is other Kiwis."

He believes with the industry being at such an early stage everyone needs to be working together to ensure sheep's milk and its related products are of high value.



Say cheese

Anne Calcinai

Every new business venture has its challenges.

Funding, compliance, brand recognition and sourcing the right genetics have been some of the biggies for Miles and Janet King.

When the couple started milking sheep 17 years ago the dairy sheep industry was almost non-existent in New Zealand. With few examples to follow, they learnt many lessons the hard way.

The Kings initially planned to build only a milking shed, selling milk from their East Friesian flock. When a potential milk buyer fell through, they decided to go all out – building their own cheese factory too.

The banks were reluctant to fund the investment – \$40,000 for the 10-aside herringbone milking shed and \$130,000 initially for the factory.

“Our inability to persuade banks and potential investors of the viability of our new project was a difficulty early on. Farmers were wary of this different form of dairying.”

In hindsight, the couple said they should have gone out earlier and found a business partner who was passionate about the idea and willing to invest.



Miles King kept working full time as a farm manager until the Kingsmeade dairy sheep and cheese business was established. Photos by Mark Coote and Paul McCredie.



Ovine ovations

When Miles and Janet King went into the cheese business, they quickly realised the importance of brand recognition.

After investing and borrowing to build their sheep milking shed and cheese factory, there was little money left over to promote Kingsmeade Artisan Cheese.

The couple have built their brand name through perseverance and by taking every opportunity for exposure.

Janet makes the most of public speaking opportunities and welcomes visitors to their cheese shop in Masterton.

"After opening the cheese shop I entertained budding chefs from culinary schools, many community groups and school students keen to do assignments on dairy sheep."

They raised Kingsmeade's profile by entering competitions and winning categories in the Ballance Farm Environment Awards, Taste magazine dairy producer of the year, MiNDFOOD supplier showcase most sustainable business (twice), MiNDFOOD supplier showcase supreme award and many cheese award medals.

Television appearances have included Country Calendar, Rural Delivery and the Topp Twins' Topp Country.

Their marketing is geared to top-end consumers looking for artisan products with a grass-to-plate story behind them.



"We finally convinced the banks that we were serious and we were going to do our darnedest to make it work," Janet said.

The Kings borrowed 45% of the total funds required. When they needed to spend another \$400,000 to expand the cheese factory five years ago, their debt increased to about 70%.

As a farm manager, accommodation had always been provided with the job for Miles and his family.

They wanted some security so bought an 11ha bare lifestyle block near Masterton. A house was built and they moved on to their land. Miles kept working full-time as a farm manager and Janet as a supermarket personnel manager.

Miles developed and fenced the

block in his spare time, harbouring a keen interest in intensive sheep farming.

When East Friesian sheep were released from quarantine into NZ in 1996, the Kings were eager to make their dream a reality.

They couldn't afford to buy actual animals, making do with semen to artificially inseminate their flock of Coopworth and Border Leicester-Romney ewes.

They started milking two years later. With little information available on sheep milking or cheese making, Miles had to create his own recipes, which fortunately resulted in some unique products.

"We should have travelled to France or Spain and learnt first-hand. Instead we made mistakes early on."

Once Kingsmeade Artisan Cheese became operational, the couple still couldn't afford to give up their day jobs.

Miles would milk the sheep in the morning and afternoon, making cheese in the evenings, while Janet worked on building brand recognition for their new business.

"It was pretty tough starting a new business while working two jobs each, raising a family and building a house and the milking shed, factory, shelter belts and fencing on an empty lifestyle block.

"We battled constant tiredness. We should have taken a holiday in order to gain perspective."

The Kings started off selecting more robust sheep that could handle NZ conditions and experimented with a number of management techniques.

Their selection criteria is different to other East Friesian farmers, most of

Miles and Janet King can only now afford to install milk meters in their dairy shed to measure individual ewe performance and help with selection.



Kingsmeade sheep have been producing enough milk to make an average of 24kg of cheese/ewe/year.



Miles King with some of the Kingsmeade flock in the milking shed yard.



whom are not milking sheep, so sourcing new genetics can be difficult.

Lactation length – now extended to eight months – and temperament are their main selection criteria and ewes must lamb as hoggets to make it into the milking flock.

“We found that training hoggets is much easier than training bolshie teenage two-tooths.”

Hoggets lamb between 140-150%. The main ewe flock lambs 180-200%.

Lambs are born in August or September and stay on mum for up to six weeks before being weaned on to feed.

Extra land is leased for running ewe replacements and lambs and some supplement is fed out during spring. Sheep are also fed in the milking shed – adding some extra minerals to their diet and luring them in for milking.

Most ewes are milked from mid-September to April.

Milking was recently reduced to once-a-day to help manage the increasing workload in the cheese factory.

Until now, the Kings could not afford milk meters so all information about their milk production and ewe performance was based on averages.

‘We should have travelled to France or Spain and learnt first-hand. Instead we made mistakes early on.’

They are just now in the process of installing meters, which will provide individual animal data and help refine their ewe selection policy.

Compliance added significant costs to the business. There was a lot to learn, not just for the Kings but also for the officials monitoring compliance because sheep milking was outside the norm.

“Compliance is a cost that doesn’t vary whether you make one kilogram or 1000kg,” Miles said.

“We have always looked upon the compliance system as a tool to help us produce a safe product and not a hindrance.”

Kingsmeade also lacked the volume to reduce production costs, as a larger company could. Production costs 50% of the wholesale value of their cheese, which ranges between \$30-\$50/kg. Average annual production is 24kg of cheese per ewe.

“Sheep milk products with their nutritional advantage

command a premium, which is lucky for us as it costs a lot of money to get milk out of a sheep and build a business.”

The Kings have a market for what they can produce and more. This year they will start taking milk from another sheep farmer.

Kingsmeade employs three permanent staff at the shop, farm and in the factory, plus casuals during the milking season.

Janet runs the shop in town, which doubles as a distribution centre.

Kingsmeade produces seven sheep and seven cow cheeses. Their best sellers are Tinui Blue, Sunset Blue and Ngawi Brie, all with local names providing a regional identity that has helped with marketing. Milk for cow’s cheese is sourced from a dairy herd at Carterton.

Cheese is manufactured, salted, painted, matured and

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Miles King with freshly made blue cheese from cow milk.

packaged in their factory onfarm and delivered to the shop where it is labelled, date stamped, invoiced and orders sent out to customers.

The shop also sells retail portions of cheese and cheese gift baskets.

Kingsmeade cheese is sold mainly through the North Island at selected supermarkets, delis and restaurants and some Auckland retailers, including Nosh and Farro Fresh.

There are also selected outlets in Christchurch, Nelson and Queenstown including some luxury lodges.



When East Friesian sheep were released into New Zealand, the Kings could not afford to buy any animals so had to start their milking flock with artificial insemination.

The cheeses are also popular in regional farmers markets.

Exporting might be an expansion opportunity to consider in the future.

Miles said the business would not have succeeded if he and Janet had not continued working full-time for the first five years.

They are paying off debt, but only started making a significant dent in debt during the past year with building the business being the main priority.

"It has been an amazing 17 years. My only regret is that we could not progress faster," Miles said.

"Our learning curve was far greater than that of our sheep. They always knew how to make milk – it was our management that had to catch up."



Kingsmeade dairy sheep are now milked once a day.



Kingsmeade lacks the volume to reduce production costs which are 50% of the wholesale cheese price which ranges between \$30-\$50/kg.

Yellow gold

Miles and Janet King have a no-sentiment policy in their sheep milking business. A sign on the milking shed wall reads: "To all sheep, give us your milk or visit the works – the choice is yours."

Yellow 70, an East Friesian ewe who died this year aged 13, made herself an exception to this rule.

Born from a set of quads, Yellow 70 produced four sets of twins, five sets of triplets and three sets of quads – a total of 35 lambs.

Two of her ram lambs sold for \$1500 each, and another six for \$600. Her milk produced about 288kg of cheese, earning a total income during her lifetime of more than \$15,000.