GREEN TO GOLD

SPRING 2020

THERE'S ALWAYS ROOM FOR IMPROVEMENT

Hinkley legacy
Finds right balance

Leading the way
Pasture-based farm success!

Breeding for the **Future**

LIC®
LIVESTOCK IMPROVEMENT

CONTENTS

2020 is a year to remember

Mike Rose

As I write this, we have begun a further set of six-week restrictions in Victoria as a result of Covid-19 causing havoc throughout our communities. With all the challenges that Covid-19 has thrown at us, dairy farmers have remained resolute day in, day out, doing what they do, producing high quality safe food to feed people the world over.

Hopefully with all the various lockdowns throughout the world, one silver lining might be that customers now appreciate a safe and reliable food supply is essential to basic survival and life. Even during the pandemic, when most businesses and shops had to close, farmers kept working to ensure people had food. This realisation on how important food production is will hopefully mean society values the contribution of farmers and the food they consume.

We've all had to adjust the way we worked this year, between social distancing, home schooling and too many Zoom calls, it would be nice to get back to some normality. LIC has been working extremely hard behind the scenes to ensure continued supply of genetics and whilst flights and distribution may have been disrupted, to date our supply has not been. I would like to thank our farmers and my LIC team in the field for adjusting the way we are having to work and interact in what is a truly unique situation. Your support throughout these times is valued and we all hope we can get back around the kitchen table having a cuppa and good chat about your upcoming breeding season very soon.

In this edition of Green to Gold we head out to the Western Districts in Victoria, to visit young dairy farmer Paul Hinkley who is kicking goals with his simple but effective farm operation. Our Technical Manager Joyce Voogt offers a closer look at fertility and how LIC is looking towards further improvements, including recent trends. Breeding is a long-term game and Breeding Manager, Simon Worth provides an insight into how LIC is future proofing the breeding scheme so cows are fit for purpose in the years to come. We have plenty more educational and informative topics within this issue, I'm confident you will find these interesting and of value.

Happy farming,

Mike Rose

LIC Australia Sales and Operations Manager

Follow us
@LICAustralia

Over 40 years of working with LIC has helped Dornauf Family Farms achieve 600kg milk solids per cow.

But every year is a fresh challenge.

It's all about finding better, smarter ways of doing things for Dornauf Family Farms, LIC's oldest customers in Australia.

55 years ago they started out with 71 cows averaging 100kg of milk butterfat per season. They soon realised that the traditional Australian cow did not suit their Tasmanian dairy farm. So in the early 1970s the Dornaufs started working with LIC, focusing on breeding long lasting cows with great fertility and production capacity. And they have never looked back. Today their business has grown into four farms, with 2100 cows producing an outstanding 600kg milk solids each per season.

For three generations Dornauf Family Farms have been pushing the boundaries and their business is thriving, but they know there's always room for improvement.

Contact us to learn more about how LIC can help with improvement on your farm.

1800 454 694 | admin@licaus.com.au | licnz.com.au

There's always room for improvement

LIC®
LIVESTOCK IMPROVEMENT

Family, Farming and Footy

By Mike Rose, LIC Australia Sales and Operations Manager

Australian dairy country doesn't get much more traditional than South Purrumbete, located in the Western Districts. Dairy farms have operated in this area for well over 100 years, with top quality soil and an average rainfall of 800ml a year creating the perfect recipe for grass growth and productivity.

Farm Facts	
Name	Paul and Sophie Hinkley
Location	South Purrumbete - Western Districts, Victoria
Busines Structure	Family owned and operated
Farm Area	270 Hectares with a 110 Hectare out paddock
Cow Number	420
Calving	Winter starting 18th May
System Type	Pasture Based, 400kg grain
Production	161,500 kg/ms total, 405ms/ kg/cow
Cost of production	$3.90kg/ms including labour and leases

The Hinkley name is well known in the South West area and has strong dairy connections. Paul Hinkley is continuing the family legacy on their 270 hectare dryland property in the rolling hills of South Purrumbete about 20 mins from Camperdown. Paul's parents farmed on a different property in the area and in 2010 the family purchased the current land, recently expanding further with the acquisition of neighbouring blocks. This has allowed Paul to increase from 400 to 420 milking cows grazing 270 hectares on the home farm with another 110 hectare out paddock used to run the young stock, some dry cows and to grow fodder. They operate the farm with one full time staff member and two casuals with Paul's father, Mick, managing the young stock on the out paddock.

"A big focus is fertility and getting the cows calving at the right time"

In his younger years, Paul moved away from the farm and after finishing school completed a building apprenticeship which eventually lead to time in Geelong with his now wife Sophie, focusing on footy, his building career and travelling overseas. Paul says "I always knew I would come back and although it was good experiencing other things, I have loved coming back to the farm".

The Hinkley's have always focused on a lower input pasture-based system which, most importantly, is a profitable operation. Paul says, "Our focus is really profit over production. We make a profit year in, year out and pride ourselves on a low-cost resilient system. We could produce a lot more milk if we wanted but it might not make any more money and it can lead to a more complex, higher risk system." Paul adds "It's a system that works for us - there are a lot of things you can't control such as the weather and milk price, but you can control your own costs."

With costs at $3.90ms/kg including labour and lease, Paul has been able to expand when the industry as a whole has been having its challenges.

They currently feed around 400kg of grain mainly throughout the winter. As the stocking rate is 1.5 cows to the hectare, the focus is on growing and utilising as much pasture as possible, and

whilst per cow production is not a big driver they would like to slowly increase this to around 450ms/kg/cow from the current 405kg/ms/cow level.

“We all run pretty low cost seasonal calving systems and having this group of farms to benchmark and bounce ideas off is a great way to know you’re on the right track or need to improve in certain areas.”

Paul keeps in close contact with a group of farmers operating a similar type of system in the area who use farm consultant Kevin Maher to support them.

“A big focus is fertility and getting the cows calving at the right time“ Paul remarks. “The mean calving date is really important for us and we aim for the 16th of June. That sets up our season so we can milk without much supplement and cows are nearly fully fed on grass all the way through.”

The Hinkleys have used LIC genetics for a few years now, starting off with the Holstein-Friesian bulls but most recently moving to more KiwiCross™ bulls. Paul sees genetics as an area he can continue to improve and make gains. “The type of cow we milk in our system is really important, having a cow with big capacity, high components and excellent fertility is key. In the early days when we were changing over to using LIC more and going towards a crossbreed cow you could really see the difference. The original more Holstein type animals just did not forage as aggressively and in turn struggled to get in calf quickly.”

Paul reveals, “Now our overall quality is better and is also being reflected in the components and our in-calf rates, where last season we achieved 72% six-week in calf and 6% empty with almost no intervention. This allows us more options and the chance to do more selective culling, usually selling some of the late calving cows for pretty good money, which in turn keeps our calving pattern tight.”

Paul Hinkley with his herd happily grazing

“We have been using pretty good bulls of late and we are really happy with the results, bulls like Sierra, Hammer, Sovereign, Obsidian and Solaris are being well used and are starting to come through. The Solaris type cow is the kind of cow we are aiming for with huge capacity, around 450kg liveweight, top components and low SCC, they are just really hard working no fuss cows that have great longevity.”

Paul notes, “We know we can still improve our breeding as some of our other discussion group members have been using LIC genetics for longer and are getting better production. With more of these types of genetics and other improvements, our target is to achieve 100% of a cow’s bodyweight in milk solids. This year we may do more herd testing to make sure we are using the best bulls and can then drop out the lower performing cows which will improve the quality even faster”.

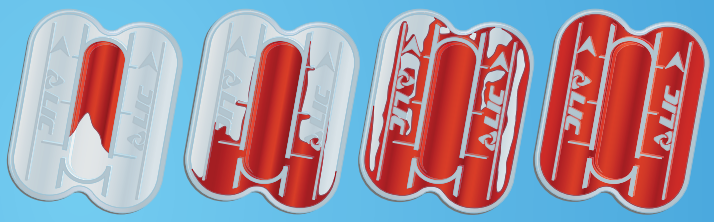
With spring around the corner and the arrival of their new baby girl Holly, Paul and Sophie are looking forward to a little downtime after another busy calving and mating period. The Hinkley name is alive and well in the Western Districts of Victoria and with ‘continued improvement’ the name of the game for Paul, the rewards from all their efforts can be seen not only now but into the future.

Q.

How do I identify more cows on heat this season?

A.

Self-adhesive heat detectors
HEAT PATCH PLUS



2 hours | 5 hours | 8 hours | 11 hours

Peel and stick heat detectors
SCRATCH PATCH

On application | 1 mounting | 3-5 mountings | Over 5 mountings

Easy to apply and secure Gen2 self-adhesive system

No experience required to interpret patch results

Progressive indication of heat cycle duration and activity levels

Design minimises false positives

Highly visible colour - can be seen from any angle

There's always room for improvement

LIC®
LIVESTOCK IMPROVEMENT

Heat Detection

Because you asked for it

Can I use aerosols and other pungent tail paints at the same time cows are being inseminated?

Semen is very sensitive to many chemicals, including things considered safe for humans. In the LIC semen labs staff are not allowed to wear perfumes or some deodorants for this reason. Semen is also very sensitive to sunlight, smoke and chloride fumes (such as the ones given off by Chloride of Lime, which may be used as a dairy shed cleaner).

The effect will depend on the amount of exposure. Whilst exposure may be small because semen is still inside the straw, avoiding the use of aerosol spray at time of AI eliminates all possible effects. If this has to be done, do it after all cows have been inseminated for the day. Once semen is inside the cow, it is unlikely that aerosols will affect sperm survival.

It is best practice that cows should not be tail-painted until the semen is safely in the cow. The same applies to glues used for heat detection aid application. This should not be an issue as it's usually best to wait until the next milking to reapply her heat detection aids, otherwise they may become reactivated prematurely.

Do I need to trim the hair before I put a Scratch Patch or Heat Patch Plus (HPP) patch on, and how much do I take off? When should I do this?

It is not recommended that you trim hair before applying these aids, but do remove any loose hair, dirt or dust from the application site 24 hours prior to application. However, do not do this too vigorously to avoid oils coming to the surface and please refer to the enclosed user instructions. In extreme cases where the winter coat is still present then the excess hair may be removed.

My Heat Patch Plus (HPP) was eaten by my yearlings. What should I do?

The dye in LIC HPP has a sweet taste to it and young stock can develop a liking to this. This behaviour should stop when they grow older, however you can purchase a spray from your local farm supply store or vets that is a foul-tasting, anti-biting spray that you can apply over the aid.

Should I reapply tail paint or heat detection aids straight after/ during insemination, or should I wait until the next milking?

Fumes can kill semen, so don't tail paint while there are loaded pipettes not yet inseminated. As long as the AI session is complete, cows can be tail painted, but you may need to retouch the paint on the girls still riding the next day. An alternative is to do them later in the day or the next day – whichever works best for you. Heat detection aids will need to be applied once the cow is fully off heat.

"We definitely love the LIC Heat Patch Plus patches. So much less frustration about when to AI, and whether they are off or not, unlike other heat detectors, which can drive a person mad."

Errol and Julie Gerber
Clarendon, Queensland

Why do I have cows with tail paint rubbed off, but the Heat Patch Plus (HPP) has not been activated?

Tail paint can wear off for a number of reasons and early disappearance may simply be due to poor application or maintenance. It is possible for a cow to be on heat without both aids being activated, so either way further investigation is warranted. Look for other signs of heat. Draft her out (the sexually active group drafted for mating may help with identifying whether she is on heat). Check the position of the HPP and the condition of the tail paint when making a decision. If the HPP position is incorrect then it may pay to inseminate. If the HPP is in the correct position then look for other signs of heat carefully before inseminating, especially if she has been inseminated previously.

Which works the best: Heat Patch Plus (HPP) or Scratch Patch?

Both are good and it really comes down to individual farmer preference. The mechanisms of the two devices are different with one being pressure activated and the other friction activated. LIC HPP patches have a built-in mechanism that requires a firm standing mount of at least 3 seconds to activate, and give a clear indication when this has occurred. Scratch Patch's are a friction activated aid which can add another level of interpretation due to the friction occurring over multiple mounts. With any aid success depends on correct application, maintenance and interpretation. Practice in the pre-mating heat period to ensure you are familiar with the aid you choose to use and make sure your staff are all fully trained.

Scientific references can be made available on request.

Check out '5 signs of Heat' Video
youtube.com/watch?v=T1UHmFvJLvU

Simon Worth

Breeding for the future

by Simon Worth, LIC Livestock Selection Manager

There's a sustained determination amongst the breeding team here at LIC's Head Office in Hamilton, New Zealand, to ensure our farmers get access to the most-elite genetics that both deliver on the national breeding objective and last within the herd.

While the motivation is to create herds that are more efficient converters of feed-to-profit, we're always mindful that a balanced approach is paramount.

The balanced approach to breeding not only delivers profit on farm, but ensures that resulting cows have good workability traits, the physical capacity to compete (i.e. get their share of feed), and an ability to walk, get in calf, and last in the herd. Over the years farmers consistently ask LIC to breed bulls that focus on this balance. To help achieve this, LIC incorporates an internal index called the Livestock Selection Index (LSI) within our already robust breeding programme to ensure we graduate just such bulls.

The LSI is highly-correlated to breeding worth (BW), but it allows the selection team to allocate weightings differently across specific traits – such as a heavier focus on udder conformation, for example. It is also used in conjunction with other data that allows the breeding team to focus on quality cow families, consistent maternal performance, conformation, and longevity traits.

Ultimately the LSI assists in the delivery of the elite genetics our customers or farmers want and expect.

The application of the LSI index can be powerful.

To illustrate this point, and to show how powerful the application of LIC's genomic selection tool really is, a snapshot of LIC's Sire Proving Scheme with respect to (i)

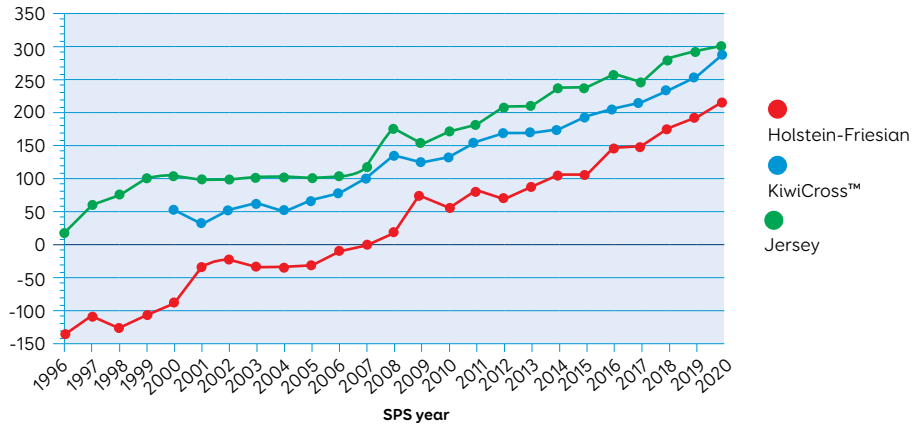
Below are a few examples of bulls available through Premier Sires and / or Alpha this year. These are the sorts of bulls that epitomise our breeding philosophies - more profit from quality cows:

Date 22/05/2020

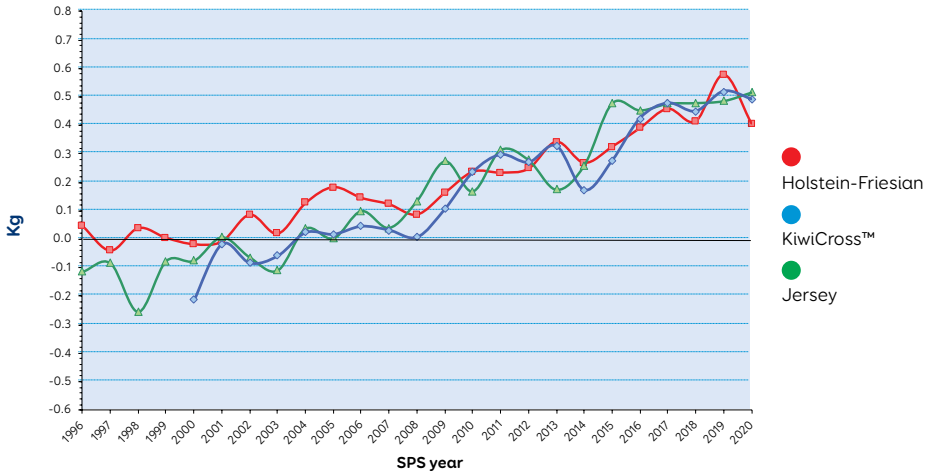
AB code	Name	BW	Fat	Protein	Longevity	Overall Opinion	Udder Overall	Dairy Confirmation	Sire Name
516043	ARKANS BOOMBOX-ET	250	26	34	509	0.49	1.14	0.82	KRAAKMANS JAYDIE
114057	MAIRE FI GOLDDIGGER	175	45	42	355	0.59	1.13	0.97	FARSIDE M ILLUSTRIOUS S3F
515025	SPEAKES SLIPSTREAM ET	308	37	15	654	0.35	1.10	0.54	PUKEROA TGM MANZELLO
314012	KAITAKA OI LEOPARD ET	311	30	6	403	0.34	0.80	0.26	OKURA LT INTERGRITY

The LSI weightings reflect this desire, as indicated by the trend lines over time:

Sire Proving Scheme genetic trend:
Breeding Worth (Feb 2020 REVs)



Sire Proving Scheme genetic trend:
Udder Overall BV



BW and (ii)udder overall are represented in the graphs above.

Not only do these graphs reflect a great story with an impressive trend line in BW over time, but they are also an excellent example of the influence of LIC listening to our 'farmer voice'.

If we consider liveweight, the majority of LIC customers express their ideal cow as a medium-sized Holstein Friesian, a consistent KiwiCross™ bull, and a larger Jersey cow.

Taking a long-term view, the LSI is continually reviewed to align with the changing needs and wants of farmers. It takes ten long years and a large investment of $40,000, from initial contract mating, to daughters of the resulting proven and marketed sire being widely milked in customers' herds. A lot can change over this period of time, and we need to be thinking well in advance to make sure these bulls are fit for purpose when farmers milk their daughters in years to come.

In addition to the LSI the team also use genomic evaluation in the mix, giving them a formidable tool-kit. Genomic advances continue to add real value to the breeding scheme. The new genomic model now utilised by LIC is state-of-the-art and we have the utmost confidence in the tool.

Genomics continues to progress worldwide and having this 'step-change' improvement in the technology should allow the industry to move at a faster rate. It's interesting to note, for example, that LIC now purchases more young bulls sired by genomic sires than those sired by daughter proven genetics.

With spring calving underway, the newest bulls' daughters are now milking, and it is not long now before we get the first good look at the next crop of graduates to take their place on the leader board. Exciting times as we look to the future – bring it on!

LIC Australia Sales and Operations Manager Mike Rose, finds the LSI tool also gives him the edge when deciding which LIC bulls will be the very best to bring forward to Australian farmers. "The LSI gives greater weighting to traits that Australian farmers really value, like udders and capacity. Bulls that have a higher LSI are generally the ones that are popular in Australia, this especially applies to genomic sires which don't have reliability of data behind them".

Breeding for fertility in the modern dairy cow

By Joyce Voogt, LIC Technical Manager

Every herd has a range of cow types and performance within it. Every year brings forward a new crop of calves and an offering of elite bulls for joining. The herd's 'cycle of life' gives an annual opportunity to improve important genetic traits, herd quality and farm profitability and sustainability.

Traits important to farmers commonly include; production, fertility, longevity and workability traits. Not all traits are equally heritable but those with sufficient genetic variation provide scope to improve. Research demonstrates that even in low heritability traits such as fertility, annual gains are cumulative and can make a significant difference over time.

For detailed information on genetic fertility refer to page 95 of the 2017 InCalf book for Australian Dairy Farmers (www.dairyaustralia.com.au/farm/animal-management/fertility/incalf-books) The principles apply everywhere, including across the ditch, so let's take a look at what's been going on in New Zealand.

NZ Research Update:

Recent research by Dairy NZ has focussed on understanding the performance and physiology of cows with divergent fertility breeding values (BV), with the aim to accelerate genetic fertility through improved accuracy of prediction. The research has confirmed that the fertility BV does work in practice. Initial findings include:

- Large differences in 3-week submission rate, 6 week in-calf rate and not in-calf rate in the purpose-bred research animals made up of two extreme fertility BVs groups (BV +5 and -5).

6-week In-Calf rate and Not In Calf rate by Fertility BV

(Source LIC 2020)

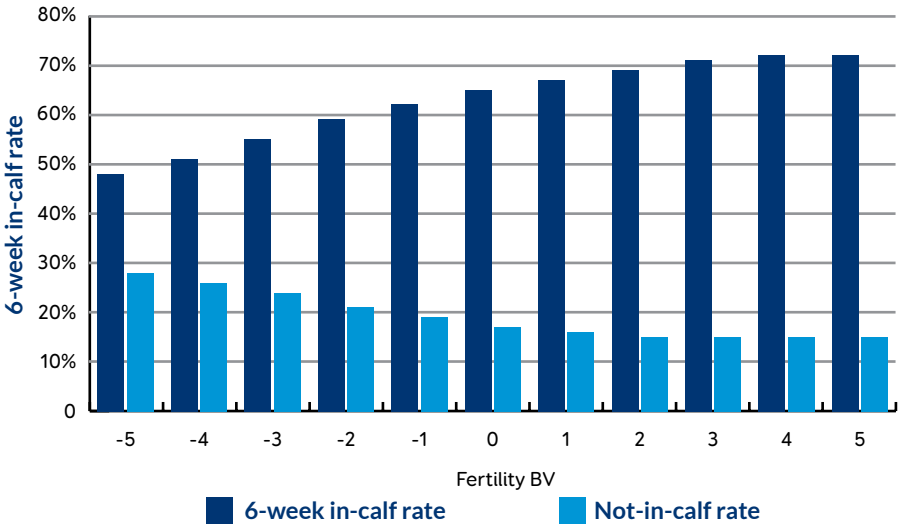


Figure 1. 6 week ICR and Not ICR by Fertility BV based on 2.3M NZ cows with detailed FFR

- Discernible differences were seen between the two groups as yearling heifers. High fertility BV heifers achieved puberty earlier and at a lower percentage of their own expected mature liveweight.
- Modelling research also suggested that genetic fertility delivers more benefit in lower-performing herd environments.
- And in a bid to find ways of identifying high genetic fertility animals earlier in life, new candidate predictor traits are being investigated.

But what about commercial herds?

At an individual cow BV level, figures from over 2.3 million cows with early aged pregnancy testing results support the research herd findings. Figure 1 shows a significant difference in performance at the extremes of cow fertility; BVs of +5 and - 5. It appears from this dataset that the relationship is not linear. Gains in 6 week-in-calf rate appear to taper off as BVs increase, particularly at BV +3 and beyond.

It is important to keep things in context as well. Few cows have extreme +/-5 BVs in the NZ national herd, as illustrated in Figure 2 which plots the Fertility BV distribution of the 2.38 M cows analysed. The majority of cow Fertility BVs sit between -1 and + 2. The figure also shows the average fertility BVs of balanced index LIC bull teams marketed in the same year. This illustrates, at a national level, the potential scope for improvement of cow genetic fertility while keeping focus on other important traits. The scope within individual herds will depend on the herd's own spread of BVs. While creating and maintaining a high herd level of genetic fertility is important, the impacts of increasing BV may eventually taper off.

Farmers with high fertility herds may wish to set minimum thresholds for bull teams or to focus effort on their lowest fertility BV cows.

This information aligns with the key messages from InCalf Australia, which encourages farmers to make use of bulls with good Fertility ABVs (over 105 for HF and over 103 for Jersey sires). Of the things you can influence on farm, picking the right straw is the easiest to implement.

Use ABVs or NZ Fertility BVs to enhance genetic fertility and underpin your herd reproductive performance as you implement the other 6 key management areas; calf and heifer management, body condition and nutrition, heat detection, AI practices and mating strategies, cow health and stock bull management.

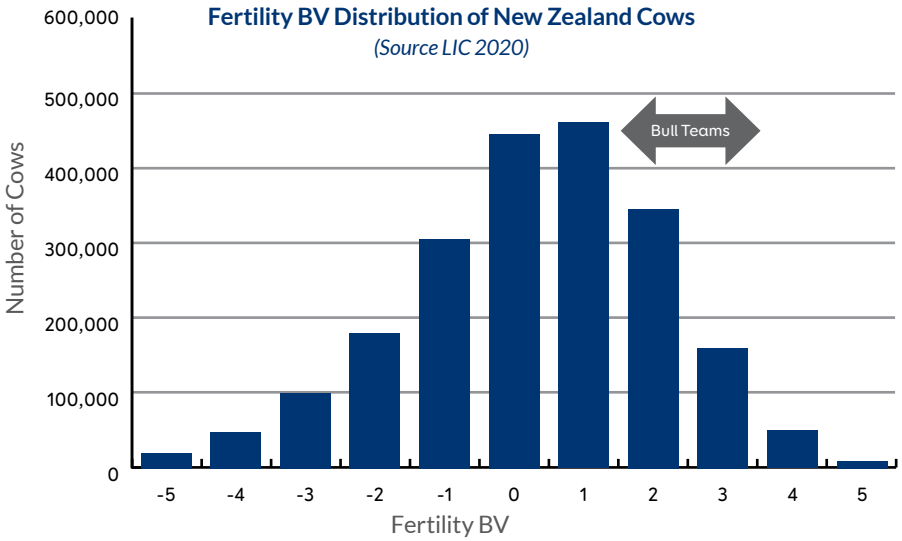


Figure 2. Fertility BV distribution of 2.3 million NZ cows with detailed FFR.

Latest NZ national stats set new records

Latest industry stats from NZ show genetic fertility and phenotypic reproductive performance are trending positively in the national herd. Fertility Focus report-based statistics are setting a few new records since monitoring started 10 years ago.

By breed, genetic daughter fertility BV remains high for Jerseys and it is pleasing to see both HF and F X J cows now closing the gap as high fertility BV bull teams make an impact. (see figure 3)

On the phenotypic side, the national 6 week in-calf rate hit another high point in 2019 at 67.8% 6 week in-calf rate. This increase followed on from gains in the previous 2 seasons.

Average total joining length has now reduced to 10.7 weeks, the shortest on record.

These latest season's repro results are based on 2,377,370 cow records in 4430 seasonal calving herds throughout New Zealand with a detailed Fertility Focus Report in LIC's MINDA™ herd recording software.

Your LIC sales team can advise on the bulls available and their fertility BVs in both New Zealand and Australia. Because fertility takes time to be expressed, the genomic information included in LIC's bull evaluations improves the reliability of fertility BVs significantly in younger bulls.

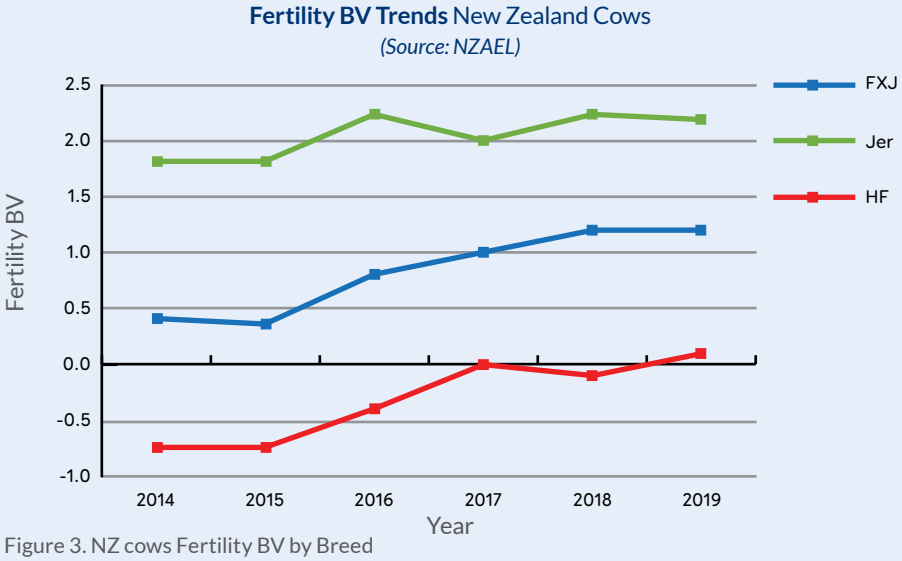


Figure 3. NZ cows Fertility BV by Breed

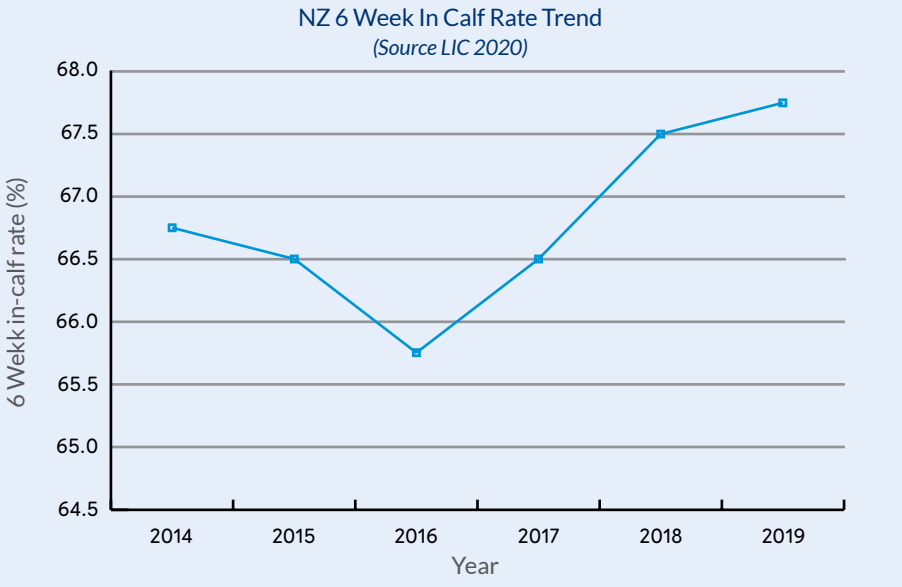


Figure 4. 6 week ICR by year, NZ herds with detailed FFR

In with the new

German pasture-based farm success!

LIC Europe is working with New Zealand companies; Gallagher and Waikato Milking Systems on a unique project started by Irish farmers, Paul and Stephen Costello, who invested in a 1600ha unit just south of Brandenburg, Germany.

The RealGrass Group purchased the farm back in 2014, with the aim of producing pasture-based milk for local consumers. With the milk quota system about to be abolished in 2015, Paul's view was that the dairy industry would become open to market fluctuations.

"We decided to take a different approach – we found based on the experiences gained in Ireland and New Zealand, the grass based system could work." Paul adds "We also felt that using a grass based system in Germany would be seen as a niche market – pasture fed product was in demand, and we could supply the market to Berlin which was less than an hour away from our farm."

Starting with 400 cows, six years on the Costello's have now completely remodelled the herd and are milking just over 900 cows that graze outdoors most of the year. For the remaining couple of months they eat conserved grass silage and it is the only dairy milking operation in Germany where cows are outside 365 day of the year.

The Costellos' first point of focus was on grassland management, working to match the cows lactation curve to the grass growing curve over the year.

"The cow in my opinion is the most important, therefore we decided to go for genetics from LIC."

"The crossbred cow in our opinion is the best suited to our system, offering advantages in grass conversion, fertility, health and they are also very flexible."

Paul comments, "A crossbred cow can adapt in both directions – for example if you feed them more they produce more milk or if market conditions are tough you can feed them with a cheaper diet without sacrificing the animals health or condition."

Other advantages they found came in terms of higher fat and protein, adding value to the quality of the milk.

Pairing the existing herd of 400 Holstein cows with purebred jersey bulls from LIC produced the perfect Holstein and Jersey crossbred cows. They also bought a lot of crossbred calves and heifers from Ireland that had already been bred using LIC KiwiCross™ bull genetics.

When they first bought the farm there were about 100 hectares inside a nature reserve with the remaining 300 hectares in very poor condition, with no infrastructure, like fencing or water. Paul remarks, "Basically if cows broke out they could run all the way to Poland without stopping."

This led to the important step of mapping the farm in detail before proceeding with fencing and installing water and roadways. Gallagher, a New Zealand manufacturing firm well renowned for high quality fencing equipment, supplied the full package. In spring 2019, another New Zealand firm, Waikato Milking Systems installed a 60 bail Centrus Composite Rotary platform, a 'first of its kind' for Germany.

The farm is hoping to showcase the technology being used to make the system work and to prove pasture based farming can be done profitably in that region of Germany.

Milked twice a day, the cows are producing 5-6000 litres, with milk supplied to a large producer with small bonuses for fat and protein. "This country is more prepared for our type of milk, with pasture-based products achieving higher prices, similar to organic." Paul observes, "Pasture based in a nutshell satisfies public demand in forms of quality, taste, environmental impact, animal welfare and sustainability"

LIC Pasture to Profit consultant, Sean Chubb, has been working with the RealGrass Group to ensure grass growth and quality is managed efficiently to feed the 900 cows on farm in Germany for most of the year.

Although this farm aims to graze the cows all-year-round, this isn't essential. Many farms across Europe will find they can extend their grazing period and gradually transition their cows to a more grass-based system.

LIC are thrilled to give an extensive overview of progress on the farm via regular podcasts. We invite you to join us for these informative updates where owner Paul Costello and LIC consultant Sean Chubb provide an indepth look behind this incredible project.

Listen to the podcast series today at therealgrassgroupnetzen.podbean.com/

Cream Fertility Winner

In the UK, Cornish herd manager and LIC High Fertility Award winner at the recent Cream Awards, James Major, believes a cross- bred 'rally car' and attention to detail provide the perfect combination for fertility success.

Adopting a more consistent breeding policy to reduce cow size and produce 'easy care', highly fertile, small cross-bred cows has been his focus over the past five years.

Farm advisors have questioned such an approach, suggesting instead a move to higher yielding, larger cows to cover the costs of an autumn system, where cows are housed at peak. However, James is adamant that his animals are more efficient.

The 700-cow herd yields 5817 litres a cow a year, and he believes the smaller size means they make less mess out at grass. They can also be stocked at a higher rate. The aim is 2 cows per hectare on the grazing platform, but this is currently 2.4 cows/ha due to TB issues.

James is farm manager at Hole Farm, Egloskerry, for A L Sayers and the Carswell Group. The farm is on an organic, Arla Garden contract.

The Friesian and Holstein cow base has gradually been bred to KiwiCross™ bulls, with the gains in herd uniformity coming through this year. "They don't get lame, they don't get mastitis and they just turn grass into milk, whether that's grazed or as silage," he adds.

His perfect cow is deep bodied, with short legs, black feet and a 'tidy udder'. Strong feet is a must considering the furthest paddock is 3km from the parlour. Four KiwiCross™ LIC bulls are used with varying proportions of Jersey and Friesian. They are chosen for good somatic cell counts, milk fat and protein, legs, feet and teat placement.

"Breeding is pretty important for fertility," he explains. "I just want to get more cows calving in the first three weeks, and certainly in six weeks - and get those replacements born as early as possible to maximise days in milk."

In the last five years, empty rate has halved from 14-15% at the end of the service period, to 7% and the block has condensed from 14-16 weeks. Without the ongoing challenges of TB, Mr Major thinks this would be closer to 8-9 weeks.

The tightening of the block has been achieved by breeding replacements from the most fertile cows and also by culling for fertility. "You've just got to be ruthless," says Mr Major.

At breeding time, James admits the team are 'pretty strict' when it comes to heat detection. Everyone has a notebook to record cows seen bulling, while a Whatsapp group enables the team to take a photo of a freeze brand so James knows which cows to check.

Tail paint is used for heat detection with orange tail tape also being put on any cow seen bulling so they're easier to pullout for service.

"Our organic status means we've got to be onto it to make sure cows are healthy and cycling. It's front loading the block and making sure cows have 2-3 cycles before mating," James adds.

Maintaining and monitoring cow body condition is also seen as another influencer to cow fertility. "Body condition is very important for fertility. If they're too lean, they'll be working too hard. If they're too fat, they're lazy."

In numbers	
Average milk yields (per cow per year) Litres	5,817 litres a cow a year
Milk fat % and Milk protein %	4.62% fat and 3.75% protein
Average milk from forage per cow per year (litres)	3,804 litres a cow a year
Grain use per cow per year (kg)	1 tonne per cow per year
Cows eligible to serve on day 1 of the service period	95%
Submission Rate	96% in first 25 days
Six week in calf rate	90%
Nine week in calf rate	97%
Conception rates in first 3 weeks	74%
Cows and heifers calved within the first six weeks of calving.	84% (50% calved in first 14 days)
Milk solids/cow/year	481kg per cow per year

Out standing in their fields

A couple of powerful Gauntlet yearlings at Rob and Carly Jenning's in Gormandale, Gippsland

Milly Ryan helping out with the calf rearing at John and Lauren Ryan's in Denison, Gippsland

Elvis is alive! Ayrshire Bull Elvis' daughter at Hamish Bill's in Leongatha

Cows at Evelyn Park, Mt Schank, South Australia - getting stuck into their fresh pasture.

2020 NZ farm tour seeing a top performing Jersey herd in a dry Waikato.

Statesman daughter at Sean Burke's property, Terang

Fireup daughter at Paul Cockshedge's farm in Gippsland. She is his number one BPI cow at 313 and in the top few PI cows at 132 doing 538kgMS in 305 days

"Can I have some privacy please, I'm off to the ladies," photo courtesy of Vicki Fitzpatrick, Western Australia

Sierra heifers close to calving at Brian and Michelle Lawrence's farm, Tasmania

Isla Finlay with Hotshot daughter

Contact Us

Livestock Improvement Pty Ltd

PO Box 1129
Echuca, Victoria 3564
Australia

Freephone 1800 454 694
T +61 499 900 612

MIKE ROSE
Sales & Operations Manager
District Manager **New South Wales, Queensland & Northern Victoria**
M +61 407 708 677
E mrose@licaus.com.au

LIZ MCVEY
Office Manager
District Manager **Northern Victoria**
M +61 428 344 454
E lmcvey@licaus.com.au

MIKE WAITE
District Manager **Western Victoria, South Australia & Western Australia**
M +61 428 566 362
E mwaite@licaus.com.au

COLLEEN MOURIE
District Manager **Gippsland**
M +61 429 944 169
E cmourie@licaus.com.au

ANDREW SAVAGE
District Manager
Tasmania & King Island
M +61 428 144 111
E asavage@licaus.com.au

SHARON MCEWAN
Administration Assistant
E admin@licaus.com.au

For the latest information and bull teams visit our website:
www.licnz.com.au

LIC®
LIVESTOCK IMPROVEMENT