

Working to **secure your future**

Issue 01 2020

GRASSROOTS



“Whether you love them or hate them, these little Jersey cows at Moorepark are punching well above their weight”

Irish Farmers Journal

Read more on page 2

Picture courtesy of Alfie Shaw

Jerseys deliver the goods

Early results show New Zealand Jersey animals outperforming the top 1% EBI cows in Ireland according to data from the latest on-going trials at the world renowned Teagasc facility at Moorepark in Ireland. In addition FXJ crossbreds were deemed to outperform both the three-way cross and Holsteins at their Clonakilty Research Facility.

The Next Generation herd was established at Moorepark in 2013, and the first phase of the project compared high EBI (elite) Holstein Friesian cows to those that represent the national average EBI. These elite animals are now said to be 10 years ahead of the national average.

A new dimension was added to the study in 2018 when high-EBI purebred Jerseys were included in the study. The Jersey females originated as heifers purchased in Denmark, embryos imported from New Zealand along with females from a small Jersey herd established by Teagasc some years ago, mostly NZ genetics. Looking at

and fertility performances compared to that of previous studies conducted by Teagasc and is reflected by high EBI of the NZ Jersey cows in the study. This reinforces the value of NZJ as eminently suitable for cross breeding with (and complementary to) the HF to generate highly efficient and highly profitable dairy cows, particularly in the context of Ireland's pasture-based production system.

In terms of milk solids, the performance of the NZ Jersey was 12kg/cow less than the elite cows, but there was a difference in liveweight, with the Jersey's weighing an average of 406kg and producing 445kg

weight. Their EBI is almost €40 behind the elite herd, yet they are whipping the socks off both Holstein Friesian groups in terms of production and they have good fertility."

According to a recent article in Irish Farmers Journal, written by Aidan Brennan, while all three breeds performed well, it was the Jersey crossbred that came out on top.

In the same article he presented data available from the Clonakilty study which showed no significant difference in milk solids production per cow between the Jersey-cross at 469kgMS/cow and the Holstein Friesian at 460kgMS/cow. But the three-way crosses produced significantly less than the Jersey-cross at 453kgMS/cow, he wrote. The potential to carry more Jersey-cross cows per ha was not considered, however.

Fertility performance was excellent across all three breeds but was particularly exceptional for the Holstein Friesian who recorded an average of just 3% empty after 23 weeks of breeding with the other two groups recording 7%.

"Despite this excellent performance for the Holstein Friesian, the Jersey crossbred was still more profitable, even on a per cow basis," wrote Aidan. "Where cow numbers are fixed, net profit per cow in the grass and clover swards came out at €938 for the Jersey crossbred, €926 for the Holstein Friesian and €890 for the three-way cross."

"As more and more evidence emerges from the Moorepark trials that the Jersey and crossbred cows are outperforming their high EBI herd mates in Ireland, we're predicting significant growth in demand. And it becomes more and more critical that we're able to service that demand," says LIC Europe general manager Mark Ryder.

"It's refreshing to see some neutral science-based analysis being produced. This is very much in line with what we're seeing on farm in NZ, Ireland and the UK, and won't come as a surprise to our customers but it's great to see this being formally realised by true scientific research.

"We're really pleased to be able to report on this work from such an esteemed research facility as Moorepark. The results confirm what we've been telling Irish and UK farmers for many years, yet some producers have remained concerned about the Jersey influence in their dairy herd. Now they can go ahead and buy Jersey and crossbred semen, conventional or sexed, and use it with total confidence when they're looking to secure their future."



Pictures courtesy of Alfie Shaw

the two strains of Jersey, it soon became apparent that the NZ Jerseys were more suited to the grazing-based system than the Danish Jerseys, with higher milk solids, higher body condition score and better longevity.

In Denmark dairy cows are mainly kept indoors all year round and fed a TMR ration. That's very different to asking a cow to walk to the paddock and graze down to 3 or 4cm every day. It highlights the importance of selecting cows that are bred for the system.

The early findings provide clear evidence of continued additive genetic gain in NZ. This is evidenced by both the production

MS/cow (1.08kgMS/kg LWT) and the elite cows weighing 514kgs and producing 457kg MS (0.88kgMS/kgLWT).

The lighter Jerseys were stocked 9% higher at 3 cows/ha compared with 2.75 cows/ha for the Holstein Friesians. Concentrate levels were the same per cow.

When the production performance is extrapolated to a per hectare basis, the NZ Jerseys come out on top at 1,305kgMS/ha followed by the elite herd at 1,259kgMS/ha.

These results were recently published in Irish Farmers Journal and led the author to comment: "Whether you love them or hate them, these little Jersey cows at Moorepark are punching well above their

Moorepark Next Gen Elite Holstein Friesian v New Zealand Jerseys 2018 Summary

KEY POINTS:

- Elite EBI Holstein Friesians are 150kgs (36%) heavier than Jersey's, but only produce 16kg more Milk Solids
- 5% fewer Jersey's empty after 12 weeks breeding (3% v's 8%)
- Jersey's are 36% more efficient, 1.1 kgs MS/kg BW for Jerseys v's 0.8 kg MS/kg BW for Holstein Friesians
- Jersey's stocked higher @ 3.00/ha v 2.75/ha for Holstein Friesians
- Elite EBI Holstein Friesians have a 25% higher body weight maintenance cost (+300kgs BW per ha).
- Jerseys held a 0.2 higher BCS throughout lactation.
- Jersey's had less mastitis.

Figures from Seamus O'Loughlin





“The key to milk producers securing a profitable and sustainable future will be careful planning and cost-effective investment in their businesses”

Mike Green

Addressing your future challenges

The editor of British Dairying looks ahead at the next 12 months and tells Grass Roots what challenges he feels face the dairy industry.

"The key to milk producers securing a profitable and sustainable future will be careful planning and cost-effective investment in their businesses. To do this, they need to look at using the information and technology available to face the future.

There are going to be lots of changes continually affecting dairy farmers—including fluctuating milk prices, updated milk contract terms and conditions, commodity market movements, loss of the Single Farm Payment, Brexit, and both political and consumer demands.

But there's very little individual farmers can do to influence these changes, so concentration has to go onto factors that are within their control.

For most this will mean doing more of the same but doing it better. All farm businesses can make improvements, but the priority is identifying the key areas that will make the biggest difference. Improving herd efficiency and attention to detail will be the key here.

Some of the factors that will gain prominence in the future include benchmarking and using technology to monitor and manage cows more effectively.

Benchmarking

Benchmarking will become of increasing importance. Farmers must assess where they are now, where improvements can be made and then monitor these changes. The key target for businesses is to be in the top 25% of producers—certainly above average—to ensure future sustainability.

The ultimate is to be part of a benchmarking group that meets regularly and discusses all aspects of the business and performance. And there are plenty of places farmers can find basic benchmarking figures, including websites such as AHDB Dairy, or publications such as British Dairying.

One of the best measures of overall performance to monitor is Daily Lifetime Yield (DLY) of each cow and the herd average. This is influenced by many factors including production, health and fertility, breeding, age at first calving and longevity.

Body condition scoring

The recognition and importance of dairy cow body condition is increasing



Precision feeding whether grazed cows or housed, will take on an even more vital role.

all the time. Meeting target BCS is vital throughout the lactation. This will have benefits on herd health and fertility—so using technology to treat cows in the herd as individuals will be important.

Many farmers have adopted mobility scoring and seen the advantage in doing this in terms of early treatment options, reduced lameness and the associated benefits. Now we are seeing technology developing to constantly monitor mobility.

The same trends are starting to happen with body condition scoring with more farmers undertaking regular monitoring. Again, automated systems to measure BCS are being developed and these could bring big and positive benefits to herd management as well as and health and productivity.

Monitoring cows

Cow monitoring will get more hi-tech and accurate to help manage cows and herd health.

Probably one of the most cost-effective investments farmers have made over the last decade has been in activity monitors. These have brought considerable improvements in herd fertility, with additional benefits for cow health.

These systems are becoming more sophisticated as the equipment develops and computer algorithms to monitor cows become more precise. Parameters such as activity, lying times, dry matter intakes, temperature and rumen pH will become increasingly important in managing cows as individuals.

At the same time, monitoring milk for constituents and cell counts is

common. This will be extended to further help monitor cow nutrition and health, including instant alerts for identifying fertility status, metabolic problems and diseases.

Automated feeding

TMR systems and feeder wagons is another area that has become more sophisticated and accurate over the past decade. A viable option to consider in future will be automated feeding systems that offer benefits such as precision nutrition, consistency to the diet and better utilisation of homegrown forages—which will all bring improved herd health and productivity.

Other advantages include the ability to target feed a large number of cow and heifer groups, delivering fresh feed regularly, and labour savings.

Factors that will be key to a sustainable future include embracing the benefits of genetics, and the use of genomic proofs and sexed semen. Producing more milk from homegrown crops, particularly grass, should continue to be a priority.

Do you agree with Mike's vision of the future?

Go to our Facebook page to tell us and win the chance to grab an LIC baseball cap

Milk solids boost from NZ genetics

New Zealand Friesians have boosted milk solids and offered Tipperary producer Donal Maher a leaner aggressive grazing animal that thrives on his farm in Thurles.



Donal started with LIC genetics some eight or nine years ago, when he decided to explore other genetic options for his herd of British Friesians.

"I'm very happy with where I am today," he says. "Our land is quite heavy and we needed a lighter grazing animal. Before we started with the NZ Friesians our cows weighed between 620kgs and 640kgs – now we've got the weights down to between 520kgs and 530kgs and the cows are fit, not fat."

Donal has a grazing platform of 138ha for his 210 milkers, some permanent pasture but mostly three- or five-year leys. He also has 10ha allocated to grow barley for winter feed. With a very dry spring suiting his farm he has made the most of his land by retaining all of his 210 cows.

Recently he's cut cow numbers back a little, from 210 to 170, as he's installing robots in November and wants to make the move easier on himself and the cows. He plans to increase again to around 220 next year, which'll be ideal for the three De Laval robots being fitted.

"Labour is a big reason for the move to robotics, and the second is the amount of information I can get from the system to help me manage the cows more

efficiently. It's a family run farm employing one labour unit."

Donal is aiming to match the weight of his cows to the amount of solids produced, and since the switch to NZ genetics has seen solids increase from around 450kgs to 530kgs, which has resulted in far better returns and profit.

"I feel we can go even further," he says, "so over the next few years I'll be looking for more by choosing bulls delivering high solids, fertility and good udder placement." With the move to robotics he'll also be looking at milking speed. This year he's used Mandate, Hustler, Cairo, Malbec and Valour.

Along with the move to NZ genetics has come the need for better grassland management to ensure maximum utilization. All growth is measured now, with a stocking rate of between 3 and 3.5 cows/ha.

He currently rears all his heifer replacements and has 74 on farm at 18 months old, along with 97 replacement calves. All beef calves are sold off the farm.

Selling 40 older cows to bring cow numbers down, he now has a young

herd to move forward, and after some heavy culling for fertility and mastitis, he's looking forward to the longevity his new cows will offer. "Ideally I'm looking for cows to last 8 or 9 years, to balance the cost of replacements, and I don't see any problems in achieving this with these genetics.

At the moment the herd is spring calving, but Donal is considering moving to year-round milking. He is of the opinion that NZ genetics will be suitable for this changeover.

"I believe I can get the improved milk solids I want from the NZ Friesian, and the figures support this. Fats have improved significantly, in 2019 the average fat and protein were 4.42% and 3.69% respectively. To date this year the figures are showing a further increase already which in turn reflects a higher milk price paid by Glanbia.

"I'm very happy we've moved across to the NZ Friesian."



Crossbreds are the future

Co.Wexford dairy farmer Peter Hill says New Zealand crossbreds are the best, and can't wait for his whole herd to consist of these high solids cows. His problem today? He doesn't have enough of them in his 110-head herd.

"I'm not claiming to be clever, but my results speak for themselves," says Peter who farms at Tubberneering, Gorey. "I spent too long listening to the establishment in the 80s when we were being told the Holstein was the next perfect cow. I got into Holsteins and it turned out to be a disaster.

"I had lots of fertility problems, certainly got lots of milk, but it came at a high cost of feed.

"I took on a NZ consultant three years ago and he's opened my eyes to the type of cow I need here to be profitable into the future. We had some Friesian blood but had tall and narrow cows that weren't delivering on solids. I've gone with the NZ crossbred, not the Irish, and not looked back since."

Peter gets paid bonuses for fat and protein above the base price, so hitting those targets is vital for him to make a profit. Before he switched his breeding to the crossbreds, he was struggling to hit the base price offered by his buyer. But this June he got a bonus of 4.5cents/litre and will get 5 cents/litre for July milk.

"That's worth a lot to me over the year," he says. "And if we get into another period with a low milk price, I feel I will be in a much better place to get through to the other side."

Saying he doesn't have enough crossbreds in his herd today he's doing all he can to increase their influence. That, coupled to measuring and managing grass better, has put him in a much better position for the future.

"The cows are a lot smaller, mostly 550kgs or below, whereas the Holsteins

were 650-700kgs. We've seen a drop in overall yield, but our solids have increased. Bigger cows need more feed, and you have to question whether you are buying yield, and at what cost."

He's selecting for a smaller cow, good feet and big capacity, and says fat and protein have a major bearing on his breeding decisions. He's used Sierra and PSQ, both of which he describes as 'outstanding'. Now average solids are 494kgs/cow and he's aiming to get them nearer 550kgs in the next year or so.

His aim is to get as much milk from grass as he can, so aggressive grazers, that utilize grass efficiently, are key to his system. "Grass is the cheapest feed I can get, and all comes from my 42ha of grazing, so I try to limit concentrate feed, aiming to use just 500-600kgs/cow/year." He aims for 5.5tonnes fresh grass/cow a year.

Most of his cows are black or brown now, and he says they're a 'nice bunch to look at'. While calf prices are terrible

at the moment, Peter says due to a vast oversupply in Ireland, the return he gets for beef calves sold off the farm is in its greatest sense 'irrelevant'.

"When you do the sums the increase in milk solids more than compensates for a lower calf price," he says. "More farmers need to look at these figures and realise a higher price for a bull calf is not beating the higher price return for increased milk solids. Too many just look at the cheque without realizing what it has cost."

Looking ahead he says breeding is evolving all the time, and his only complaint is he can't get where he wants to be fast enough.

Historically he's suffered with poor fertility in the herd, but has got this down to between 7 and 8% from 15-20%, and says he can now be much tougher on his culling regime.

"All I want is a simple system, good robust cows that are aggressive grazers, and high milk solids to earn bonuses. The NZ crossbred is giving me all of that and more... and I wish I'd taken this road a lot earlier."





LIC Herd Improvement Tool helps breed the best

LIC's UK sales manager Sally Pocock is certain we all want to breed the very best cows, in the first of two articles she talks us through a new LIC tool that can help make sure we do just that.



Having easy care cows that last in the herd, are healthy and hassle free, produce well and get in calf every year without intervention are key goals for any element of herd improvement.

I was once told 'It takes a very long time to breed out a poor decision at mating time.'

Herd improvement certainly takes time, the progeny from your breeding plan this autumn won't be realised until the autumn of 2022 when those cows come into milk.

So, getting it right first time round with sound and supported decision-making is very important.

How can LIC help with your herd improvement planning?

By keeping it simple and following the 3 Bs: Breed from the best and beef to the rest.

LIC has a fantastic new herd improvement tool available that produces a herd improvement report to help you make strategic breeding decisions to ensure continued herd improvement and profitability for your herd, generation after generation.

It's essential to have a clear idea of the type of cow you want to be milking at the start, and then to tailor your breeding plan to replicate this type of cow in your herd.

Data

Every day across the UK, herd data and information is being recorded on farm and used in many different ways.

What are you doing with your data? LIC can bring your relevant data together into one report which can be used to provide a strategic breeding plan for you.

We'll utilise production information from milk recording to identify the animals that are producing and the maximum output for your milk contract. Their individual fertility, days in milk, health information and using liveweights will rank their efficiency in converting grass into milk and ensure that your most efficient and profitable cows are identified to produce your next generation replacements.

Our report will identify the cows that are best suited to your system and provide a recommended sire match to ensure your cow's traits are enhanced in their progeny.

This may sound complicated, but rest assured it isn't. Our reports can be tailored to suit your specific requirements, from simply identifying the poorer performing cows for a beef breeding option to offering an in-depth report focussed at individual cow level.

In order for herd improvement to work, you need to have established these fundamentals for identifying the right cow. (see right)

Reproduction - Why this is important?

Reproduction is the method through which you generate your replacements providing greater choice and better quality stock.

There are many ways to measure repro success:

- 6 week in-calf rate (6WICR)
- 6 week calved rate
- Conception rates
- Empty rate
- Not in-calf rate
- Submission rates
- Straws to pregnancy

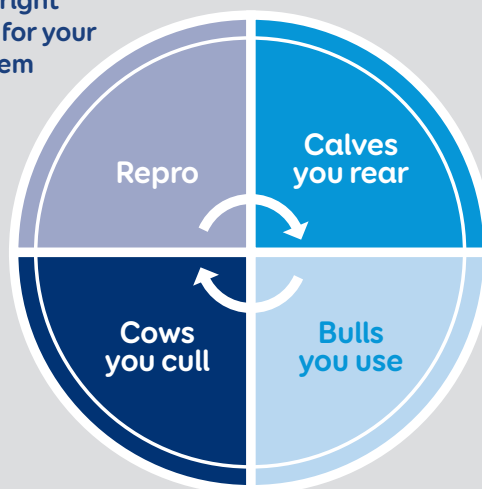
Whichever measure you're using to record this information be sure you review the data to improve your results year-on-year.

For both block and all-year-round, more cows that are in-calf early equals more days in milk and greater profitability.

In the next issue of Grass Roots we'll be talking to a producer already using the herd improvement tool, looking at the calves you rear, the cows you cull, and bulls you select.



The right cow for your system



Learn more about our herd improvement tool in September and see how it's helping one LIC customer improve his herd

Please give the team at LIC a call on **01725 553008** to discuss how we can work with you on a plan to ensure your next generation of calves are securing your future profitability.

Longevity is a key to maintain profitability

By Joyce Voogt,
LIC's technical manager

“Long-lived, highly productive cows constitute an ideal herd for dairy farmers all over the world.

Good cow longevity delivers financial, social and environmental benefits on farm. With high fertility, longevity and productivity, lifetime yield and profit can be maximised through lower replacement rates, increased stock sales, and more room for discretionary culling. On top of the gains in herd quality, we should mention the immense sense of satisfaction gained from working with great cows for many years.

What contributes to cow longevity?

Longevity is complex: the result of both genetic, environmental and management factors.

It varies from farm to farm, so understanding the reasons for removal from the herd is a good starting point. This can vary between cow groups within herds, across herds, farm systems or countries. Within herds, issues impacting longevity may include production, health or functional traits.

Recent research¹ into cow longevity in New Zealand revealed the following:

- 1 Cow longevity in herds is high by international standards, averaging over 4.5 lactations/cow.
- 2 Mortality rate is low (2.1%) and not increasing, in contrast to other modern dairying countries. This could in part be due to the outdoor farming systems and the high proportion of Friesian x Jersey animals.
- 3 Annual replacement rate is about 20%. Of the cows replaced, the study classified 20-40% as discretionary culls and 60-80% as involuntary. Top reasons for involuntary culls included reproduction (37%), health disorders (31%) and udder health (11%).

How can farmers boost cow longevity?

Genetics plays a part, but heritability of



Dam of 62112037 Te Poi

longevity is low (5.5%). More than 90% of total longevity is due to factors other than additive genetics, so both management and breeding strategies are required to increase herd life.

On the breeding side, strategies include using:

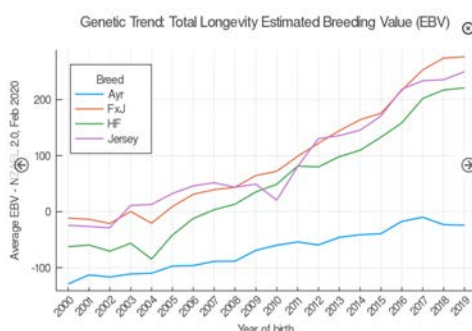
- sires with high genetic merit for contributing traits
- crossbreeding for an immediate longevity boost
- mating plans to minimise inbreeding depression and genomic evaluation for more reliable longevity estimations.

On the management side, important focus areas include pre-calving body condition score, transition nutrition, calving period, health, breeding period, management, heifer rearing and disease control.

Breeding strategies:

1 Use high genetic merit sires:

Additive genetics plays a part in cow survival and survival makes up 9% of Breeding Worth (BW). Current trends for longevity in LIC sires are strongly positive across the main breeds, gaining 4-7 days per year.



Source: NZAEL, June 2020 <https://www.dairynz.co.nz/animal/animal-evaluation/animal-and-herd-averages/#category=sires&breed=all&status=ras>

2 Hybrid vigour boost with crossbreeding:

Numerous studies report that crossbreeding allows farmers across all farm systems to enjoy the complementary traits of the parent breeds and a performance boost from heterosis. It notably improves fertility and longevity as

well as production, and the crossbred is now the most common dairy cow in New Zealand.

The first cross daughter of a NZ Friesian and a NZ Jersey, on average, produces 20kgs more milk solids, has 4-5% higher fertility and achieves a 220-day longer herd life than expected from her parent average. Because of genetic distance, the Holstein x NZ Friesian cross can expect to see a heterosis boost of around 30% of that seen in the NZF x NZJ first cross.

Strong additive genetic merit trends for longevity in both NZ Friesian and NZ Jersey breeds means the farmer crossing these is in the enviable position of gaining from both additive genetic merit and heterosis.

Introducing third breeds can be challenging; the third breed should be of comparable genetic merit to the other two. Heterosis gains should not come at the expense of reduced genetic merit for desirable traits, or the farmer could ultimately be worse off.

3 Manage inbreeding depression risk:

Inbreeding depression occurs when animals share DNA from a common ancestor that reduces performance. Inbred animals risk being less fertile and productive, smaller, have a shorter lifespan or display genetic defects. For survival alone, a 2007 study² indicated a 0.3% decrease in cow survival from first to second lactation per 1% increase of inbreeding, while another study estimated increases in dystocia and stillbirths of 0.2-0.42% per 1% increase³.

Crossbreeding removes the effects of inbreeding and is a good strategy for herds running into inbreeding risk problems.

To limit inbreeding, as a minimum, farmers should keep detailed records of matings and calvings, and can use DNA parentage testing of calves for more accuracy. They can seek help from their farm solutions manager to develop a mating plan that will identify the best bulls for their cows.

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Finding those synergies on farm

Pasture to Profit consultant Sean Chubb looks at how combining activities can deliver a greater outcome



“It’s my firm belief that synergies should be sought on every farm, as pulling mutual elements together will always result in a better combined result rather than treating each individually. As a farmer’s aim is to secure his future moving forwards, this is a key consideration.

Every farm is different and will have different opportunities available to it. One available to all, irrespective of the system that’s being run, is the chance to combine milk recording with bull selection for greater herd improvement.

Too often I see farmers undertaking milk recording for Johnes and SCC to find the cows for discretionary culling. And then selecting bulls to be used for the first six weeks of mating on any cow that cycles in this period.

Much like a rising tide that lifts all boats, this practice will provide some improvement to your herd over time, but the full potential of herd improvement will never happen.

For me, there are three key elements essential to achieve your full potential:

- Ensure you are using the best bull for your farm and milk contract
- Keep the calves from your best cows
- Ensure your heifers meet their weight targets

Of course, all of this can only be achieved when the cows and bulls are underpinned

with good fertility which allows for selective pressure... and culling within the herd.

And to truly know which are your best cows, you need to be taking at least four full milk recordings a year, as well as weighing your cows mid-lactation every year.

Perhaps milk recording may not seem important to you when you’re looking at the profitability of your entire herd, but you might change your mind when you start working out the profitability of each cow. If we take the milk solids production of the herd in the table (see figure 1) we have an average milk solids per cow of 420kgs/MS with the highest at 762kgs/MS and the lowest at 230kgs/MS.

When we combine this, the average comparable farm profit (CFP) per cow is £540 and the kgs/MS (£1.064/kgs/MS) from the 2019 LIC CFP dataset. We see that the highest producing cow contributed a total of £903.89 and the lowest just £337.84 of CFP farm profit.

Remember that the CFP excludes rent, interest and principal. These profits could drop by £200 accounting for rent (£500/ha with a stocking rate of 2.5/ha). When your rearing costs are likely to be around £800, this means that the lowest producing cow needs to remain in the herd for almost six years to pay off her rearing costs.

To help farmers ensure they are putting the best bulls over the £903.89 profit

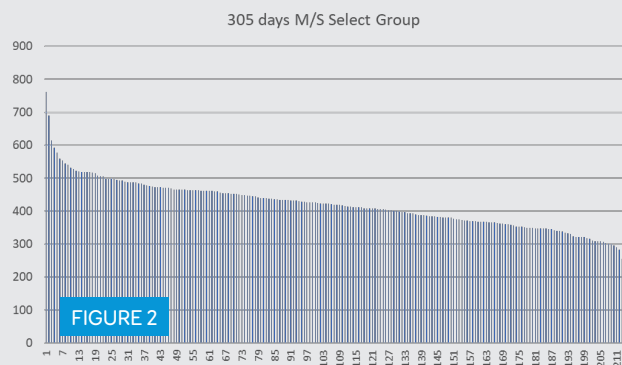
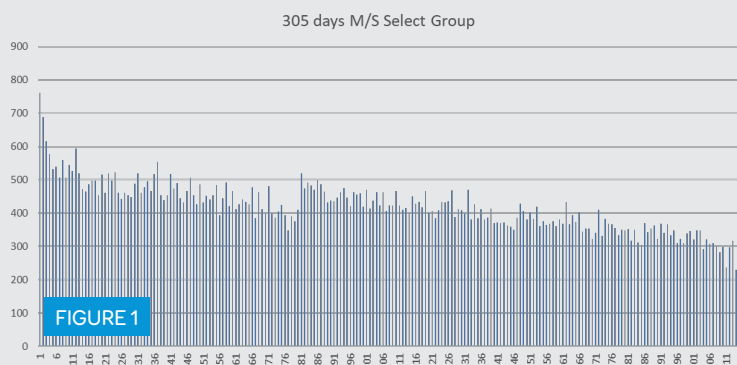
cows, and are putting beef over the £337.84 profit cows. LIC has developed a herd selection tool which looks at the profitability of the milk and the efficiency of the cow – aimed at ranking the cow as shown in the second table (see figure 2)

The tool places different values on the production of fat and protein, much as your milk contract does, and can be changed to replicate your milk contract. This information allows for a more targeted breeding for the likes of sexed semen and herd liveweight.

It could also highlight the need or value of using bulls that might not have been on your radar in the past year for what value they can add to your milk cheque.

To get the most robust breeding plan, supplying your milk recording information and cow weights to your LIC advisor before a discussion on which bulls to use this autumn or next spring, will enable us to work with you to rank your herd and get this right.

Are you realising the full potential of your herd? Look again at the tools that are there to help you... there really is no reason to hold back.



Small can be beautiful and profitable

With a smallholding in Co.Clare, John Hehir is proving that with the right genetics you can be profitable regardless of the size of your unit, and can add to your farm by financing the purchase of additional land.



John Hehir

Farming at Cranny, Kilrush, John has a home block of 22ha and an outlying farm of 14ha that's 5 miles away, so while he can't graze his dairy cows there he can rear his replacements and cut and cart two cuts of round bale silage.

"I managed to buy the other land four years ago," he says. "Ideally I would have liked it closer, but I couldn't see that happening, so this was an opportunity I couldn't miss."

Before this John was buying surplus grass from neighbouring farms but the nitrogen directive put paid to that. Luckily the new land came up for sale at just the right time, otherwise he would have had to cut his cow numbers.

Today he's milking 71 cows and keeping 14 replacements, selling surplus in-calf heifers to boost his income. He's spring calving with 76% of the herd calving in the first 4 weeks.

His herd is a mixture of Friesians and Jerseys, with some crossbreds. He puts the Friesians to a Jersey, the Jerseys to a Friesian and the crossbred cows to a KiwiCross® bull. For the heifers he looks for easy calving, milk solids and longevity in the traits.

Running a one-man operation, with his son who's a design engineer helping out

at weekends, John says it's vital that he has a simple system from start to finish. He wants cows that calve easily once a year and smaller animals that can make the most from his heavy land.

"I'm very reliant on good grass, and keep concentrate feeding to a minimum. That's why the LIC genetics suit me so well. I have aggressive grazers that really know how to turn grass into milk and, at the same time, deliver high solids production. I wouldn't go anywhere else." This means that John doesn't mow his paddocks or even own a topper.

Taking over his father's farm in 1982, he made the decision to switch from beef to dairy just before the introduction of quotas that then made it hard for him to build the cow numbers as fast as he wanted.

"It's been tough at times, and in many ways this is a smaller than average farm, but with the right genetics it's possible to make profits and invest. I see lots of farmers increasing cow numbers by leasing extra land, but the lease might be 10 years or less. What happens if that land isn't available at the end? By having my own land, I have security."

John is very reliant on grass, and this year got his cows out in March. Depending on

the weather it can be April or even May, but he describes this year as 'a good one' up to now. "The longer the cows are out the more my workload reduces and the more profitable I can become."

Milk solids have been increasing each year and now stand at 3.70% for protein and 4.50% for fat. He says grass management is also vital, matching cow numbers to grass growth rates, and making sure his cattle graze down each paddock to hit the right residuals.

"If you can graze the grass as it grows you can make a good profit per litre and profit per hectare. Profit per litre can be manipulated, it's the profit per hectare that matters."

"You need to utilize all you have, all your own resources. When you get a bad year, with a short grazing season, you just take it on the chin and move on. You can't have hang ups."

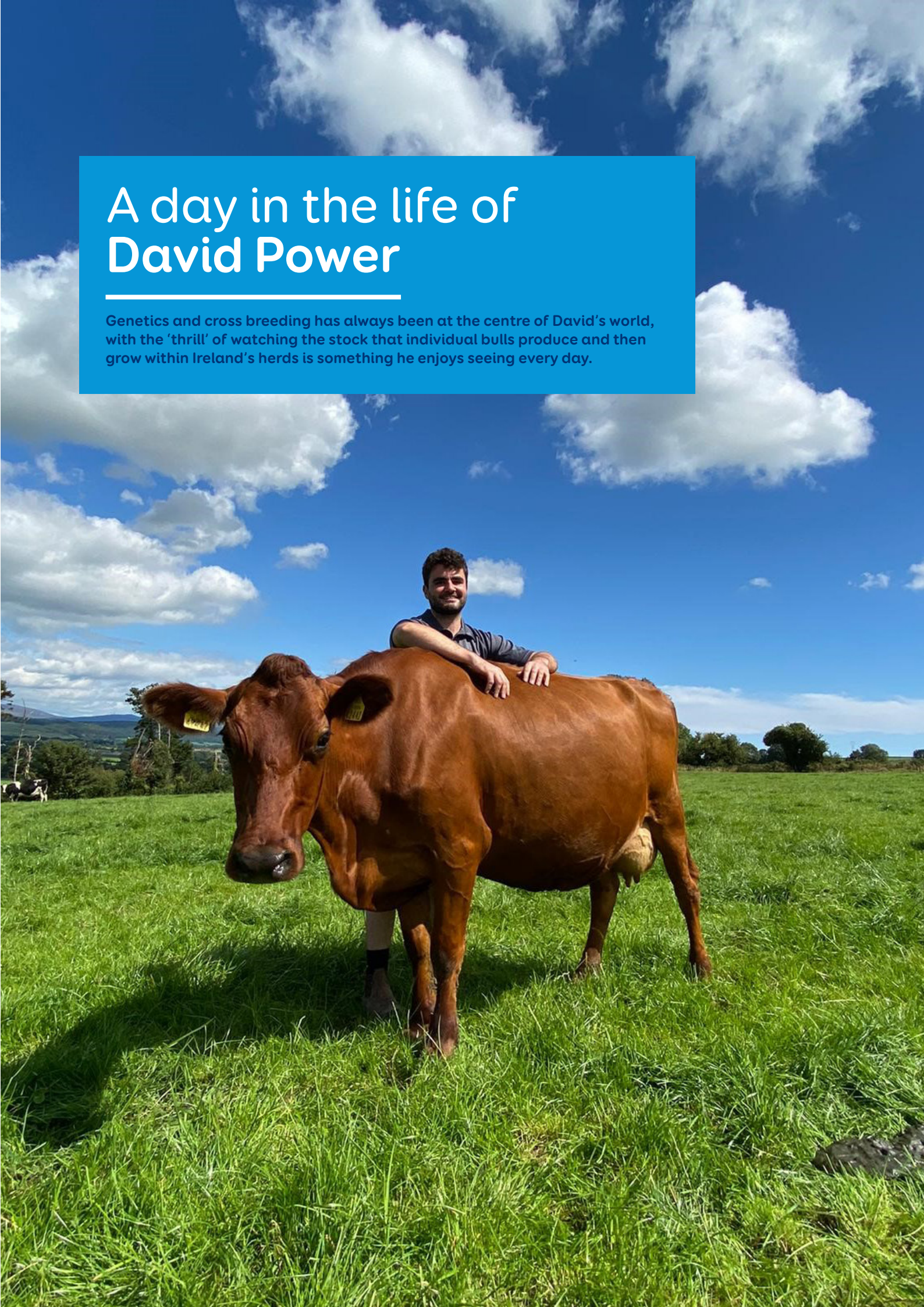
"I'm very happy with where I am today. Using LIC genetics has made my unit profitable, and I've got both flexibility and security moving forwards. I close up each December and January, and that gives me a good break, that's why I have to have crossbred cows that suit this system."

"Selling surplus stock that the market wants gives me a second valuable income, and LIC's valuable genetics have given me a herd of cows that perform across the board."



A day in the life of David Power

Genetics and cross breeding has always been at the centre of David's world, with the 'thrill' of watching the stock that individual bulls produce and then grow within Ireland's herds is something he enjoys seeing every day.



"I grew up spending time on my uncle's farm in Waterford," David says. "We have 185 cows, all crossbreds, and the farm was a trial unit for Moorepark. From the age of six I spent all the time I could there, eventually managing the unit while he took a two- to three-week holiday each summer. It's where my passion for everything to do with breeding started."

A love of seeing cows that produced milk from grass led him to spend three months in Chile where he worked on a 350-head dairy. Returning to Ireland to help out with calving, he then went to Canterbury in the South Island of New Zealand for an eight-month stint on an 870-head all grass farm.

"While I was there the job with LIC came up, and I just went for it. In a way it was a dream job, combining everything I love about farming."

"If I had to pick an ideal bull that we offer it would be Integrity. His daughters are, in my view, what the perfect cow should look like. That's the cow you don't notice in the herd, the invisible cow, the one that's always grazing with a wide mouth, great capacity, an excellent udder and a size of between 480 and 520kgs."

He says every day in his role as breeding advisor is different and, if he takes one of the busiest months, April, as an example, his morning starts bright and early as he helps his uncle through milking before getting on the road by 08:30.

His area is vast, from Waterford to Tipperary and from Wexford and Kilkenny to Carlow, Laois, Kildare, Wicklow and Dublin. From his home to the farthest tip of his patch is two and a



half hours in any direction and in a year his journeys total over 50,000kms.

"I enjoy my time in the car, and usually spend it talking to farmers or listening to podcasts. You can always keep learning and long car journeys offer me an ideal opportunity to stay ahead."

He tries to avoid being on farm at milking as he wants his customers to be relaxed and enjoy his visit, and usually fits in between four and eight calls a day. Some farmers want four or five bulls picked to suit their herd, others want sire advice and others want a full breeding plan.

"It's roughly a third, a third and a third," he says. "But I'm there to help in the best way I can, and when I get home in the evening, usually by around 5.30pm, I'll work on breeding plans and paperwork."

"When I arrive on farm I like to walk out with the cows, set some targets and understand where the customer wants to go with his herd. All want to improve solids, but what else do they want?"

"Improved fertility, greater capacity, black feet, lighter weights, better

udders or more capacious cows, for example?"

David's other passion is rugby. He's a massive Munster fan and says every game is great to watch. Last year he went out to Japan for the World Cup and was lucky to have tickets to see Ireland v Samoa and the quarter finals where Ireland sadly lost to New Zealand.

"Japan was just fantastic," he says. "I took the bullet train which travels at 200mph, visited major cities including Tokyo, Hiroshima, Kyoto and Osaka. Everything runs perfectly, the people are incredibly friendly, and you experience incredibly different cultures."

But back to farming and David says he has never seen it as a job. "Getting out on farm, talking to farmers, seeing how their herds improve, and helping them hit their targets is what I love," he says. "And I hope I'll be doing it for many years to come."



A dream becomes a European reality

Irish brothers Paul and Stephen Costello had a dream... a dream that is fast becoming reality.



Their dream?

To set up a pasture-based dairy system in an area of Germany not known for year-round grazing of cows. Using NZ genetics and grassland management systems they're now producing millions of litres of quality pasture-fed milk for the discerning German household, and the farm is attracting visitors from across Europe, all keen to see how this system works.

The Netzen farm, south of Brandenburg, is 1600ha and carries 900 dairy cows. When they aren't grazing grass, they're eating conserved grass, silage, and they remain outdoors 365 days a year. The farming practice is centred around the growth of grass when determining cow numbers, when the cows calve, the introduction of any supplement feeds and the drying off process.

The aim?

To maximise quality milk production from grass.

While this farm aims to graze the cows all year-round, this isn't essential. Many farms across Europe are interested in extending the grazing period and to gradually transition cows to a more grass-based system. And it's much easier to take incremental steps rather than jump straight in at the deep end.

When the Netzen farm was purchased in 2014, Paul took on a herd of 400 high-yielding Holstein cows on an all-year-round calving system with all stock housed every day of the year. The cows were fed large amounts of concentrates and maize silage with very small amounts of grass silage and no grazed grass in the system. The herd was in very poor

condition with health, yield, reproduction and costs all in a bad way.

"Our view was that this type of system wasn't sustainable or profitable and to move forward we would need large investments in sheds, cows and infrastructure to sort out these issues," says Paul.

"In 2015 the quota system was ending and we felt that the milk market would become more volatile with no cap on production. We believed the big would get bigger to stay in the same place and only the fittest and most efficient farmers would do well. We didn't really fit into either of those brackets. We had to change and look for a niche market for our product, or get out of dairy altogether."

This led the brothers to look at the New Zealand and Irish systems and ask whether such a system could be successful in East Germany... and they decided it would.

They began to switch to a grass based system of seasonal – spring – calving, to

change genetics to breed a crossbred cow much smaller and more suited to grass, and to start to produce a quality grass fed product with high animal welfare and environmental benefits that was both sustainable and economically viable.

"Our view is that a successful grazing system in Germany needs to work across three key areas – first with the correct cow, then the correct calving pattern (making sure you match the grass growth curve to the lactation of the cow) and thirdly to ensure you have the correct grassland management.

"The cow is the most important which is why we decided to go with genetics from LIC. The crossbred cows are undoubtedly best suited to this system. They offer advantages in size, grass conversion, fertility and health. They're flexible, able to adapt to systems in both directions... feed them and they can milk more or reduce feed costs when necessary without sacrificing the animal's health and condition.

"The genetics we used were pure Jersey on the initial herd to produce F1 crossbreds. We focused our selection based on fat and protein and fertility as we knew the Holstein would bring milk volume. Bulls we've been using include Integrity, Conrad, Misty and Jericho.

"Finally we bought a lot of crossbred cows and heifers from Ireland from farms already using LIC genetics for many years. These animals were by Moody's Executive, Solaris, Easyrider and others."

For Paul and Stephen the journey has really only just begun. They still have a lot to learn, are working more and more closely with the retail side of their sales business and looking at how to roll out their concept across other European countries.



To learn more about Netzen and what they are busy trying to accomplish please go to:
<https://therealgrassgroupnetzen.podbean.com/>
to listen to some podcasts with the team.

OPEN DAY

There are plans, Covid-19 restrictions allowing, to do an open day to be held on the farm late spring or early summer 2021.

To register your interest in attending, and to be kept informed about how the farm is progressing, please email
realgrassmilk@gmail.com

Longevity is a key to maintain profitability

(continued from page 9)

4 Genomic evaluation for more reliable longevity estimations:

Farmers desire as much certainty as possible when choosing bulls. Longevity, by definition, takes many years to express, so for young bulls the breeding value is less reliable.

Genomic evaluation helps by lifting reliability for early estimations from the ancestry-based 20-30% to over 50-65%.

LIC includes genomic information in their bull genetic estimations, even when the bulls are daughter proven. This boosts BV reliability, as daughter fertility and longevity results continue to flow in.

What's next with longevity?

Longevity, health and fertility are the focus of much research, including two large New Zealand projects - 'Pillars of a new dairy system' and 'Resilient Dairy: Innovative breeding for a sustainable future'.

Dairy NZ is leading the eight-year 'Pillars' research programme to further boost longevity through genetic and management solutions. The research is wide-ranging, reflecting the complex nature of cow survival. Findings to date have demonstrated the benefit of using high fertility-BV bulls, updated colostrum management recommendations and a new 'functional survival' trait to be included in BW within 12 months.

LIC is leading the seven-year 'Resilient Dairy' research programme to enhance the health and wellbeing of the national dairy herd through disease management

technologies and genomic advances.

The research includes understanding the bacterial and viral composition of milk and its impact on cow health; developing a range of new health and welfare-related genomic BVs; and improving the genomic evaluation models for New Zealand's pastoral dairy herds.

Farmers should benefit from new animal health and welfare BVs, using the power of genomic evaluation to increase rates of genetic gain. Cow longevity should increase as genetics delivers healthier, ever-more resilient cows with a reduction in clinical infections, associated treatment costs and involuntary losses to the herd.

1 Compton, (2018),

2 McParland et. al (2007),

3 Adamac et.al (2006)



Joyce Voogt

Opportunities to meet our clients and friends have been few and far between due to the Covid-19 restrictions this year. We hope you have all stayed well and will continue to do so. All being well we are hoping to hold a series of roadshows early in 2021. Keep an eye on our Facebook and Twitter pages for the details once they are announced. We hope to see you there.

GET YOUR ORDER IN TODAY

In spring this year, all the LIC Jersey sexed semen sold-out. To secure your order for spring 2021, make sure you pre-order NOW. Call David Power 0879372553 or Leonard Gavin 0861428830 to discuss your needs and make your selection today. Our new catalogue will come out at the end of the year, but they can help you with your selection now.



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