

# GRASSROOTS



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# Top teams at Awahuri produce results for Irish producers



LIC's flagship semen collection centre, Awahuri, could not have been in better hands under the 90-year combined expertise of Susan Paul and Lance Pettigrew.

Lance's retirement earlier this year marked a milestone, and both individuals have taken great pride in supporting LIC's European collections. Likewise, LIC has been privileged to have two of its most experienced employees running the centre.



Awahuri

“ Susan, holding the title of ‘European Union Semen Collection Centre and Laboratory Manager’, commenced employment for the then New Zealand Dairy Board in 1981. This year marks her 42nd anniversary with LIC, an extraordinary testament to the company and people who work there.

“I started working at Newstead, (LIC's main campus) in the semen processing laboratory and was supervising all production until I moved to the Awahuri EU Centre near Palmerston North, New Zealand in 2018. It's only from this centre, that product can be sent to our European markets.

“During my tenure, I've witnessed and been involved with implementing countless new technologies and equipment.”



Susan Paul

She says just one example of this is how frozen semen processing has evolved over the years. Back in the 80's, frozen semen was processed in milk. The standard dose rate contained 30 million sperm cells. This dose rate has been reduced by 50% with advances made in the development of sperm cryopreservation media, improvements to semen processing techniques, and rigorous quality control systems in every aspect of production.

“Over the past 40 years I've also enjoyed working with staff across LIC as well as our business partners at the time, here and around the world. I've been lucky enough to be involved in some exciting projects, technological developments, and challenges, such as: training staff in Genetics Australia on semen processing techniques – so we could prove the young bulls included in our joint venture during the NZ liquid spring mating season, heading to Boston to evaluate and work with a company in the early stages of sexed semen research, and an annual excursion to assist in stag semen production and ET work undertaken.

“But all these things could only have been achieved due to a team effort, and I'm incredibly fortunate to work beside a group of amazing, super skilled and passionate people who work tirelessly for LIC and our farmers both here and overseas.”



EU Semen Processing Laboratory

The Awahuri EU Centre underwent a major refurbishment in 2019. The building's interior was upgraded to create a contiguous EU semen processing and storage facility with a dedicated semen sexing laboratory. Sexing Technologies now operates out of the Awahuri EU Centre year-round to meet the growing demand for this sexed product in Europe.

"I'm proud to lead the staff working in the EU Centre laboratory, as our small team always strives to ensure the very best product is exported while complying with stringent export requirements. We're subject to routine inspections and audits to ensure our on-going compliance by both the NZ government and by the European Commission's Food and Veterinary Office."

A pivotal figure within her team, Lance Pettigrew, the Manawatu farms manager commenced his journey with LIC on June 12 1978, at Awahuri. Back in those days, he held the position of a stockman, and over the years, he transitioned through various roles, including collection officer, maintenance officer, and ultimately, Awahuri supervisor.

In 1995, LIC purchased the 726-acre Feilding farm, with Lance transitioning there to start the development phase, which encompassed activities such as installing fencing, creating races, drainage and so on. Later on in 1998, he moved to Newstead, Hamilton and took on the position of farms manager. Eleven years later he moved back to the Manawatu and Feilding Farm as a senior farm technician.

In 2008, the Feilding farm was sold, with the exception of a single 190 acre block that LIC continues to farm today, in addition to the Awahuri farm of 330 acres.

This presented Lance the opportunity to assume the role of farms manager for Manawatu, overseeing operations in both the Awahuri and Feilding blocks.

Awahuri now runs the EU Centre which splits the farm into 3 areas, EU Quarantine, EU Centre and Awahuri Hold. EU Quarantine is an area used for pre-quarantine isolation and disease testing before bulls can enter the EU Centre.



Dedicated Semen Sexing Laboratory

The EU Centre is where the bulls are farmed for semen collection that is then processed for export.

Awahuri Hold is where LIC bulls are farmed whilst awaiting their daughter proofs.

The Feilding farm is in 2 different areas, the first is Feilding Hold which is for bulls awaiting their proofs. The second is a heifer grazing area where LIC dairy farm replacement stock are run.

"Technology has changed a lot since I started. We used to have to shovel the solids out of the collection barn sumps, onto concrete to drain, and then shovel again onto a trailer and move down to the stop bank to tip off. Today a truck

with a vacuum pump comes along and sucks it out and then spreads it on the pasture. This takes about an hour, compared to a half a day 45 years ago," says Lance.

"I've enjoyed working with a great band of people over the years with LIC, they've been a good company to work for. I enjoy talking to farmers about both their bulls and other LIC bulls, from the point of view of how they work in the collection barn and what turns them on, to get the best quality and volume of semen.

**"It's a job that demands patience and observation skills to watch for signs that the bull is performing as expected, and if not, how to get him going. There are not a lot of us out there doing what we do, and some people cringe when you tell them that you collect semen from bulls as a job. Some then comment... 'and I just shook your hand'..."**

Lance reflects, "Hopefully what I've been doing over the years has helped the New Zealand dairy farmer increase their herd's BW and brought another dollar through the gate."



Interim storeroom filled with LN2 banks of EU product







# David Chin

The LIC Ireland and Eurogene team were delighted to welcome LIC Chief Executive David Chin, Murray King (former Board Chair) and Corrigan Sowman (new LIC Chair), to the Emerald Isle earlier this year when they attended the Moorepark Open Day, the Pasture Summit, as well as the company's offices and the bull rearing unit.

All commented on the similarities between farming in Ireland and in New Zealand, with David believing that the best Irish farmers are comparable to top NZ operators, which has been helped through the sharing of farming knowledge and practices over the years.

"The top producers are heavily focussed on the fundamentals of pasture based dairy farming to ensure success, with plenty of collaboration opportunities between the two countries," adds David.

It was encouraging to report that last year farmers in Ireland received a really good payout. However, David acknowledged there are challenges for the sector including increased input costs and recognition of how quickly environmental regulations are starting to impact farming and the wider industry with the implementation of nitrogen and methane reduction targets. He noted that animal welfare is also high on the agenda, particularly around the treatment of surplus calves and how they're managed.

David suggests, "With all the environmental regulations facing the sector, breeding an efficient cow is more important than ever. Cows that graze pasture, produce high milk solids for every kg of bodyweight and get back in calf quickly, are what farmers need to be milking, in order to be both sustainable and profitable. In this respect I am

encouraged that many of the key R&D programs that we are investing in, such as breeding low-methane cows - will be very applicable in Ireland as well and benefit the sector as a whole.

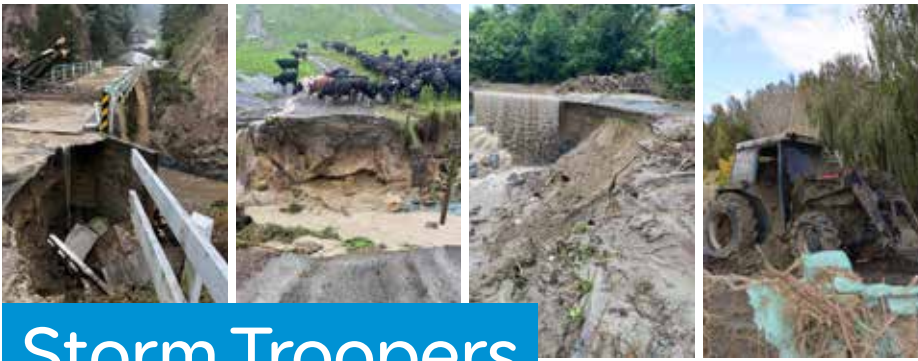
"I found the farming practices were very similar to those in NZ, with cows grazed on grass and calved down predominantly in spring. The focus of increasing the amount of clover in the sward was a good move. This will help fix nitrogen in the soil and reduce the impact of fewer nitrogen fertilisers on soil fertility. I also found it interesting viewing the wintering barns.

"This is a practice that is starting to emerge in NZ especially in the lower South Island where the environmental regulations around wintering are very strict.

**"The genetics used are also very similar, and there appears to be a lot of engagement with the scientific community. The large attendance at the Pasture Summit workshop sessions confirmed this, and I firmly believe this is helping with the advancement of their industry."**







# Storm Troopers

**LIC re-visits shareholder-farmers Greg & Gail Mitchell in the Hawke's Bay, who endured Cyclone Gabrielle's wrath - but are determined to stick to their long-term goals, and for now are focusing on starting the new season afresh. This is their story.**

"That day it had been raining, so in the evening we saw the overnight forecast was for a couple of hundred millimetres of rain and we thought 'it's ok, it's not going to be too bad', and then we had no power, so we went to bed as usual.

"But we woke up to devastation. The measurements the next day showed in our district along here got between 500mm and 700mm of rain that night. I woke up at 3.30am to help milk, and it was a mess."

Greg Mitchell is a matter-of-fact, if understated, sort of a guy.

He and wife Gail own three Patoka, Hawke's Bay, dairy properties (including a 230ha run-off). Combined, the farms are home to 27 staff and their families, as well as 2400 milking cows, 600 rising two-year-old replacements, and 25 beef animals.

Similar to recent years, the farms - High Rd and Kaweka - were this season on-track to do nearly 1 million kilograms of milksolids, until cyclone Gabrielle struck.

"I got up at 3.30am and immediately I knew water was bad," Greg says.

"There was 3 or 4 inches of water floating around our house. And the driveway down to the road was like a river, and the water got worse as you got closer to the cowshed.

"The most bizarre thing was the booming noises around us, like avalanches, which was basically all the hills in the district just giving way, just coming down. At that stage it was 'boom, boom' ... we didn't know what was going on ... then, daylight, we saw it - it was incredible, just seeing the last of them (scarred hills) simply falling into the gorges and rivers... trees, debris, land, all just falling away."

Although power had been down all night, communications were initially ok, and back at the house, Gail began realising the magnitude of what had hit Hawke's Bay via a Facebook page: "Greg came back from the shed at 6am and said 'holy s\*\*t, this is big.'

"I contacted our sons in Napier and they were ok. It's then I realised how many bridges had been taken out. Then the cellphones went down at 7.30am."

Back at the shed, Greg was able to use a diesel generator for power: "The first thing we did was stay-put, and we knew we just

had to get the cows milked. We then made sure all the rest of the stock were safe, and we had to make a plan for the people to keep them secure, fed, and looked-after."

Greg's other dairy farm, Kaweka, was 10km away. He initially jumped in the ute to visit the farm, but didn't get more than 1km, as road access had been wiped out. He returned home to get a chainsaw.

"It took me the entire day to get to our other farm and back. I tried going down the road, I tried in the ute, I tried on my motorbike, I tried on my tractor... then I just had to walk.

"At certain stages I'd take a neighbour's motorbike, so I was able to ride part of it. I had no idea how bad it might have been at Kaweka, but we've got four staff there as well as their families, and I had to check they were all safe... it was the only way I could find out."

In the following few days, the skies were abuzz with helicopters and light planes, visiting the surrounding district to drop-in food and medical supplies. Greg and Gail hosted their staff and families at their converted B&B-style woolshed for dinner most evenings.

"Our bank manager arranged a helicopter to get us food. Then someone helicoptered in a vet to pregnancy-test all the cows, and they also brought in enough drycow product to dry them all off... so that was a big job for several days, operating in such wet conditions to get them all sorted - to go from good production to drying them all off within a couple of days in wet conditions.

"And we had no electric fences to keep cows all together, so essentially we had no paddocks. It was a challenge to dry them off and prevent them from making a mess all around the farm, and to keep them safe."

It was two weeks before access to the farm was open via road, and six weeks before the main bridge to Patoka at Rissington was restored (Greg jokes the previous 'temporary' bridge stood for 98 years before being washed away, and wonders if the new 'temporary' one will make a century).

Seven weeks on, by mid-April, the Mitchells had all but completed the replacement

## Greg & Gail Mitchell, Patoka:

Winners of Farm Environment Awards 2023, Hawke's Bay -East Coast region.

**Three farms:** High Rd (470 ha effective, 1500 crossbred cows); Kaweka (300 ha effective, 900 crossbred cows); and the nearby run-off, 230 ha.

**Goals:** To break through the 1 million kgMS barrier via genetic gain and improved pasture, and to break-in to the top 5% BW herds nationally (currently just outside).

**Genetics:** All-AB, except heifers. Premier Sires Forward Pack six weeks to top-85% of herd; followed by Speckle Park/Charolais and small number of Belgian Blue beef three weeks, and; SGL Dairy two weeks.

"I think the genomic technology is improving all the time and there's a lot more reliability these days so you're not getting as many young bulls dropping out. There's definitely better genetic gain going on in our herd, and it's ramping up... we're now close to the top 5% in the country and our goal is to get inside that." - Greg Mitchell.

**Heat Detection:** Collar technology.

**Sheds:** Rotary x 2 fitted with Protrack. An old converted herringbone acts as a specialist vet and AB facility.

**Breeding philosophy:** Going for a smaller crossbred cow, utilising KiwiCross and Jersey bulls.

Farm currently has three LIC-contracted cows, one is being utilised for embryo transfer work. Whole Herd Parentage verification (GeneMark).

**Herd Testing:** Four per season.



Gail and Greg Mitchell on their farm

of 10km of destroyed fencing around their properties.

Tonnes of dirt has been shifted to fill-in culverts complete with new 1.5m pipes, and Greg and Gail will continue with their programme of planting up to 12,000 natives on farm each year, despite losing hundreds of recently planted trees and shrubs in the storm.

While several calves had been washed away that night, the farms didn't lose any milking stock to Gabrielle:

"But we've lost three cows since that night - all of them have slipped or fallen in to big tomos caused by the storm."

In terms of remediation work to the land, there's a long road ahead:

"It's not so much the slips on the hills that are the problem, it's what they've done to the flats," Greg says. "It's just silted-up the pasture, and we've got a lot of flat land that needs fixing."

Fonterra is compensating the Mitchells for their lost production until end of the 22/23 season, and the goal is to begin the new season afresh in July.





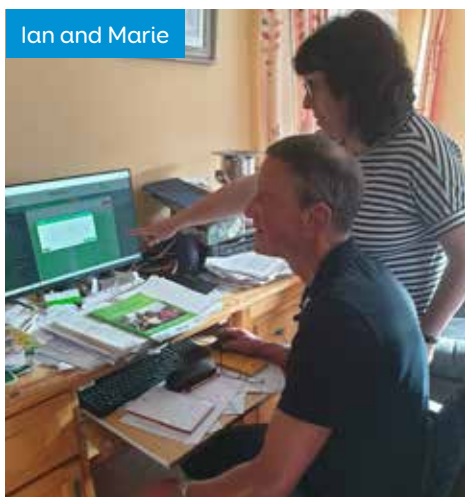
## Quality work, quality grass and quality cows help earn the Carbery Milk Quality award

**Keeping it simple and doing everything to a high standard. That's the ethos behind Ian Kingston's farming business, where the emphasis is on growing and utilising as much grass as possible.**



Ian and his family farm at Sillertane, Dunmanway in County Cork and were recent winners of the Carbery milk quality and sustainability awards. Farming on a high, exposed farm, running from 440 to 850 feet above sea level and with an average rainfall always above two metres, brings its own challenges, but they have learnt to live with them and love the natural environment that surrounds this unit.

"My grandfather bought the farm in 1911. My father took over from him, and I took over fully in 2008, although my parents live just down the road and still take a very active interest in what happens here," he explains.



Ian and Marie

Ian started farming in 1987 after completing his Green Certificate from Clonakilty Agricultural College. Over the years the farm has expanded quite a bit, with milk quota purchased to allow the herd to expand, and neighbouring land leased. Starting with just 50 cows, numbers had increased to 110 by the early 2000s and today there are 187 crossbreds that graze the 83ha milking block. They farm 96ha in total and replacement youngstock are also reared on the farm.

"We were constantly improving the land we owned - putting in drainage, doing more reclamation and boosting soil fertility, as well as investing in the cows we milked," he says. "We embraced the EBI when it came into being over 20 years ago - at the time New Zealand bulls were ranked high on EBI and we have pretty well stuck with these genetics over the years, choosing New Zealand bulls based on milk solids and fertility. I have attended a lot of grazing group meetings, and from other producers soon picked up the value these bulls were adding to Irish herds.

"Our aim is to produce efficient, fertile and healthy cows able to convert our grass into profitable milk - and sometimes that has been quite a challenge. We've bred a herd of cows that suit our system of farming rather than the cows dictating how the farm is managed."

Ian aims to have a cow bodyweight of between 480 and 520 kgs, believing a larger animal would not suit his land type. "I feel she would use more of her feed intake maintaining herself rather than producing the milk solids I want."

But fertility is key, as without it he will see losses in overall days in milk, so his number one priority is to get as many cows inside a tight six-week calving block as possible. This year he achieved 85% of calvings within that window, and the whole herd was calved within 13 weeks, with the first producing from the start of February.

His system runs on minimal labour with both his wife Marie and son Dylan looking after the calf rearing along with help from Ian's mother Kathleen and a part time employee. Dylan at 16 years of age, is already showing a lot of interest in carrying on the farming tradition and enjoys checking the cows daily and getting involved in milking. Ian also employs a milker three evenings per week throughout the main season.

The farm has a mixed soil type, consisting of both dry and heavy soils, and with additional land purchased over the years, up to half the farm has been reclaimed. Soil sampling is done every three years and the fertility programme followed has led to an improved pH as well as P and K levels, vital for a farm relying on growing and utilising high-quality grass.

In 2022 the farm grew an excellent 11.7 tonnes/ha of grass and Ian believes that grass measuring throughout the season helps tremendously, allowing him to budget grass in both the spring and autumn. He targets a closing cover of 600kg/DM on December 1.



His target is to get the cows out to grass as soon after calving as possible, so they have access to high quality swards. If the weather is suitable, they will go out three or four days after calving and are left out for a couple of hours in the morning and a further two hours after milking in the evening.

With growing pressure on nitrogen usage, more clover is being added to his swards.

"We have to be mindful of the growing environmental constraints we are going to be farming under," he says. Last year he included 2kgs white clover and 2kgs red clover into his grass mix and he is already seeing a benefit by managing to reduce his nitrogen usage.

His replacement rate is around 18-20% so he aims to keep 35 heifer calves each year, using sexed semen on his best cows. He's been using sexed for two years now and is happy with his conception rates which are in the high 50s. Last year he used 78 sexed straws and got 37 heifer calves and three bulls.

Using LIC genetics, he has chosen for fertility first and gone for Friesians Kauri and Backdrop, and Jerseys Lamar and Gallivant. He has also used some Norwegian Red to put more hybrid vigour into the cows and is happy with the results.

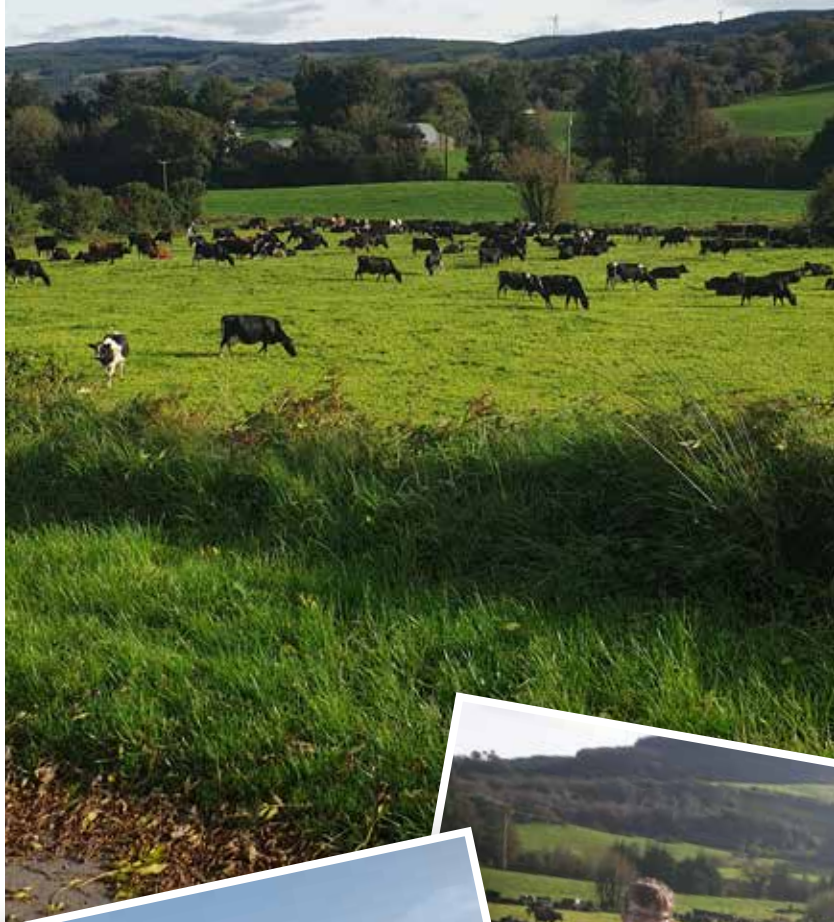
"Using LIC genetics I've seen a steady improvement in my fat and protein figures," he says, "There is still some room for further improvement, so considering solids production in my bull choice is still very important."

In 1982 the milk composition was 3.50% fat and 3.16% protein. This improved to 3.78% fat and 3.39% protein by 2002. In 2012 it had increased to more than 4.34% fat and 3.46% protein and in September this year increased even further to 5.01% fat and 4.08% protein.

"My target is an annual result of 5% and higher for fat, and 4% and higher for protein" he says. "Of course, I want the same weight, or higher, of solids married to the weight of my cows."

Finally, Ian says the physical conditions on his farm are his main constraint moving forwards. While he's now growing an average of 11.7 tonnes/ha of grass compared with 9 tonnes/ha, thanks to all his improvement work, his stocking rate is as high as it can be for the land.

**"I'd like to move up to 200 cows from the 187 we milk today, but unless we can get more neighbouring land, either bought or leased, or grow more grass - we can't. Despite the growing constraints we face I'm very positive about the future of dairy in Ireland - and I'm hoping to continue running a unit that will stay in the family for years to come."**



Ian with his cows



Ian's son Dylan



# Bull choice

## The teams' top picks

Our team are always out and about on Irish farms looking at cows and evaluating their progeny. Here they each tell you which bulls are top of their list and why...



SHARPE ARENA SHORTLIST



DOWSON HONENUI

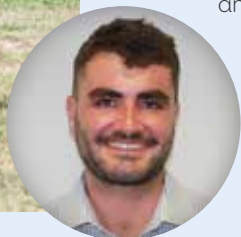
### David Power

#### "SHARPE ARENA SHORTLIST

is a well-balanced Holstein Friesian bull, coming in at 557kg liveweight. His exceptional attributes include an outstanding 102kg solids, derived from high percentages of 5.1% fat and 4.1% protein, including a moderate volume of 792kg.

With Meander MG Arena as his sire - a bull renowned for high production and a strong udder overall - Shortlist showcases an extremely strong pedigree on both his maternal and paternal side. Tracing the lineage back to esteemed dams like Meander Beam Ash and Meander FMI April, stalwarts of the Meander herd in Otago, as well as Kegzy ME Pansy, who has two bulls purchased by LIC in the past, it's evident there's an emphasis of strong cow families in Shortlist's pedigree.

On top of his strong production and pedigree, Shortlist is also extremely strong in the udder, with an udder overall of 0.54 and udder support of 0.58. Considering the sires in his pedigree you'd expect these genomic traits to hold through.



"DOWSON HONENUI was initially brought into Ireland in 2021 as a high genomic BW bull. Two years later and his genomic proof has held through.

Bred from a J13 Braedene Manz Trumpet dam averaging 6.5% fat and 4.6% protein, it's easy to see where Honenui gets his high 70kgs of solids averaging 6.3% fat and 4.6% protein from. On top of his excellent solids, his genomic TOP traits seemed to have held up. Currently with 28 daughters that have been TOP inspected, his udder overall BV's are coming in at 0.91, close to his initial genomic BV of 1.0.

On top of his high solids and excellent udders, Honenui daughters are expected to be moderately-sized at around 540kg liveweight with excellent fertility of 5.2%.

Honenui's full brother, Whakatupu, who is being proven this year, is showing tremendous promise at 371 gBW with similar solids and udder traits. It's exciting to see these two exceptional bulls come through sire proving from this excellent dam."

### Jeremiah Daly

"ULLMARRA TT GALLIVANT has been a revelation to the Jersey breed, both in New Zealand and here in Ireland.

The top producing cows in the herd Gallivant was bred from, are all related to his dam.

He has over 300 daughters from nearly 100 herds in Ireland that have been milk recorded, producing over 5% fat and 4% protein. Gallivant's daughters exhibit outstanding fertility, huge capacity, and strong udder attachment and central ligament, all contributing to long-lasting, resilient cows. Available in sexed for the past three years in Ireland, he's been the first bull to sell out continuously.

#### RIVERVIEW AND DEXTER S2J,

born in 2014, boasts a substantial number of daughters, with more than 1,600 in Ireland alone.

Having observed his progeny, they tend to be of medium size, with huge capacity, excellent feet and legs, and impressive udders with a strong willingness to milk. Viewing this bull in the stud last autumn we were struck by how youthful he still looks. His daughters are extremely placid in the shed and parlour, as his TOP traits suggests. His milk is A2A2 and this bulls is considered a pedigree Jersey in Ireland."



ULLMARRA TT GALLIVANT



RIVERVIEW AND DEXTER S2J







**Aiden  
Cunningham**

**"BUELIN BM  
EQUATOR S2F**

has proven to be a popular bull in Ireland, making it difficult to overlook his exceptional pedigree and daughter proof. His dam, Glen Koru Erica, boasts an exceptional 1100 plus kgMS at 5.6% fat and 4% protein in her fourth and fifth lactations. With Equator's BV for fat and protein totalling a whopping 90kg, it's hard to leave him out of any team. Traditionally, even crossbred herds have utilised him, therefore he's expected to be extensively used in the upcoming 2024 breeding season.

**BELLAMYS DM GALANT-ET** S1F is also among the top bull selections for the upcoming season. New to Ireland in 2024, this 19-code bull already has more than 500 daughters milking in NZ with a number of them entering their second lactation, increasing the reliability behind him. His fat and protein BV's are something to behold at 5.6% fat and 4.3% protein, with a combined total of 80kgs of milksolids. This F16 bull would rival any KiwiCross® bull, not to mention his TOP scores with an exceptionally high 0.77 score for capacity. Once again, this would compete with any KiwiCross® bull and is certain to find favour among Irish farmers sticking to black and white genetics, as well as those who engage in crossbreeding."



**BUELIN BM EQUATOR S2F**



**BELLAMYS DM GALANT-ET**



**LYNBROOK KARTELL**



**PRIESTS SIERRA**

**Leonard Gavin**

**"LYNBROOK KARTELL** was bred in the Lynbrook Herd in Temuka, New Zealand. Breeder Steven Ireland is renowned for his ability to produce top-quality bulls, and Kartell has been in high demand since making his debut in the Irish market. He currently has 680 daughters in their first lactation here, predicted to do 3.9% protein and 4.8% butter fat.

The heifers are a nice size, well put together with good feet and legs and a wide rump. Their temperament is excellent, and they are easy to train for the milking parlour. Among the heifers I currently milk in my own herd, they stand out as the nicest.

Kartell is greatly suited for use on crossbred herds when you are looking to achieve medium sized cows with excellent production, although he will fit well in any bull team looking to breed efficient cows.

**PRIESTS SIERRA**

My other choice is Priests Sierra, I'm milking 18 daughters in my own herd and what I like about them the most is their docility. I've never had a problem with any of them, they're great to work with, and not one of them has so much as lifted a leg when I've put the clusters on.

They have really good udders and are strong cows with good rump width and carry a good condition score, making it easy to get cows back into calf. They're good producers and excellent to use on both Jerseys and Friesians."



**Eoin Kennedy**

**"ARKAN MGH BACKDROP-ET S2F**

Backdrop is a bull that's been hugely popular in Ireland for a number of years. For me, he's been the standout black and white (B&W) bull in the LIC catalogue since being active. He produces daughters that display everything the Irish market looks for in a B&W bull: huge components (BVs of 4.2% protein and 5% fat), exceptional fertility and longevity with good udder quality. Backdrop breeds smaller type Friesian cows with great depth and capacity. He can be used to manage the breed split in crossbred cows, or to use on B&W cows to reduce the size of the cow and improve components. In a grass-based system, he'll breed efficient cows capable of producing high kg of milk solids. Bulls slated for the upcoming year will fit this mould and Backdrop himself will be available, and undoubtedly remain in high demand.

**DIGGS HARDCOPY**

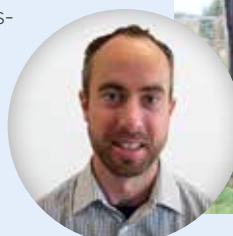
Hardcopy was arguably the most in-demand KiwiCross® bull in 2023. This bull possesses every quality that's needed for a crossbred bull. The F10 J6 split produces smaller-framed daughters that offer huge capacity. Balanced for milk (BV of 4.2% protein and 5.4% fat) with excellent fertility traits, this bull was sought after by most farmers in 2023 with his sexed semen selling out very quickly. With an EBI over €380 at present, there's no doubt this bull will be in demand for the coming year once again. If you were to select a bull that epitomizes the ideal grass-based bull, this would be the one. He has the potential to achieve the same level of popularity as KiwiCross® bulls Solaris and Sierra. My advice? Get your orders in early for 2024."



**ARKAN MGH BACKDROP-ET S2F**



**DIGGS HARDCOPY**







## Crossbred cows are the best on this County Cavan farm

Environmental constraints in his grass growing county is the biggest issue that concerns Co. Cavan dairy farmer Seamus Cullen at the moment.

“His farm size, and cow numbers, are increasing but he lacks a degree of confidence in the future, saying that while Ireland can produce each kilogram of protein more efficiently than any other country in Europe, it doesn't get the credit for its green credentials.

“With the average age of dairy farmers here over 60, and our price based on the world market when we have a growing population, the future can look worrying for the younger generation,” he says. “We're under pressure to do all we can to reduce carbon emissions and sometimes I feel it's easy to blame farmers rather than some of the other major contributors to climate change.”

Seamus farms at Mountarden, Drumkeerin, near Cornafean in Co. Cavan and finds himself now owning the farm he grew up on, having had the opportunity to buy the unit in 2019.

The farm is a total of 61 hectares split between 40 owned and 21 leased. He's

milking 120 crossbred cows this year with the aim of increasing to 140 in 2024. He also runs 40 heifers up to one year old on the farm and has 36 in-calf heifers with 18 contract reared and the rest on his unit.

**“It's quite a high stocking rate, and in order to increase herd numbers all the heifers will be contract reared from next year onwards,” he says. “It's a young herd, as I bought in heifers in 2020, so the oldest cow is now in her fourth lactation.**

“I bought most from two farmers and I was looking for crossbred stock with high solids and good fertility. That led me to select LIC genetics, and have found these cows ideal for my situation here.” At the moment Seamus runs the farm single-handedly, but admits he could



do with some help, especially as cow numbers increase, but says getting the right staff is a big issue.

The bulls used over the past two years include Gallivant, Backdrop, Kauri, Integrity, Sierra, Solaris and Springfield.



Seamus with his cows





Some of Seamus's cattle

He's looking for cows with an eventual weight of 500 to 550kgs giving milk solids of the same weight. His ideal cow would weigh 525kgs, producing 550kgs in solids "I know a lot of farmers who would like that result," he says. Last year's herd average was 520kgs/cow and he is hoping to reach the higher figure over the next year or so.

The in-calf heifers not retained in the herd as replacements give him some additional cash flow. Last year, he was reaching prices of 1600 euros. However, this year, due to expansion, he has no heifers to sell, which is fortunate since prices have dropped.

Fertility is key at Mountarden, given that the spring calving herd has 86% calved within a six-week window. Seamus says fertility is his main driver, followed by performance. Calving starts from February 1 each year and carries on until early April - with very few falling into this month.

"The cows go out to grass five days after calving in groups of 20 or so. When the weather is good, they go out for 12 hours to start, and then come back in, but if it's wet and cold they stay out for three hours. I play it a bit by ear, it's very weather dependent."

**"I like to keep them out until late October, then they come in at night until around November 10. So they're only inside all the time for about three months."**

The first cut of silage is usually taken between May 20 and 25, but again

this is weather dependent. Quantity decreased this year due to the region experiencing an unusually wet spring. The cows are fed around two tonnes of dry matter per head over the winter period, topped up with a 14% protein cake in the summer and an 18% protein cake in the winter. He aims to make enough silage to allow between 2.5 and 3 tonnes, to ensure some is on hand if turnout is late, or a poor backend to the year stops early grazing.

"That's made up of probably 60% good quality silage which I would like to see at 75% dry matter and around 11.5 MJME, this would be for the youngstock and milking cows. The remainder would be poorer quality with more stem, so higher in fibre but lower in energy. This would be between 65% and 70% dry matter and would be targeted at the dry cows."

"There's quite a bit of walking here, on stone tracks, sometimes over a kilometre, but we have very little lameness and no mastitis problems with cell counts around 75,000."

His grazing system during the main part of the season is paddock based, with each set up for three hours with a strip wire keeping a small fresh break for the last grazing, to keep them content. At the shoulders the cows are back fenced and given 12-hour allocations, so as to not damage the ground. For the past couple of years he's grown around 18 tonnes/ha DM, a yield he is very happy to report.

Seamus always wanted to be a farmer, an interest that began as a child growing up on the very farm that circumstances eventually enabled him to purchase. He describes his farm as his passion, and has shown a significant commitment

by investing heavily in getting the farm where it is today.

As well as starting from scratch with his dairy herd, he invested in a new 20 side-by-side herringbone milking parlour, silage storage, a new cubicle shed, roadways and water upgrades to every field. He has also reseeded all the fields, allowing for a stocking rate of 4 units/ha, carried out drainage work and new silage clamps.

"I more or less started again," he says.

The higher milk price in 2022 allowed him to look at a profit of between 1500 to 2000 euros per cow. "That's close to where I want to be," he says. "Grass utilisation is key, and if you can get that right then profitability will follow."

With drops in the price across 2023, he believes he'll be looking at between 1300 and 1500 euro this year. And, with borrowings to finance the new farm set up, and interest rates doubling from 3.5% to 7%, he's concerned about the future but still planning to expand.

"The higher prices last year allowed me to pay off a lot of my bank borrowings, but I need to invest more. Improvements never stop!"

Talking about the make-up of his cows, he reiterates that New Zealand genetics suit his grazing system.

"They're absolutely the right cow for me," he says. "They suit our grazing system, they're hardy and robust, and combine excellent fertility with great solids production. They're more adaptable than other cows I've worked with, and I would definitely suggest to farmers who are trying to utilise grass efficiently to give them a go and include them in their breeding programme."





# Knowledgeable Irish farmers, community events and pints of Guinness

Glen Koru stud farmers in New Zealand, David and Karen Camp talk about their recent visit to Ireland for a spell of artificial breeding and also about their journey as breeders of elite dairy sires.

“Our Irish experience started back in 2021 when we attended an LIC breeders evening in Hamilton, New Zealand.” David says. “We were seated next to Adrian Young, who worked for LIC and hails from Ireland. Karen had been inseminating our herd for 25 years, but recently completed her LIC Artificial Breeding (AB) Technician Apprenticeship, so we enquired about AB runs in Ireland.”

After the event, David Power from LIC in Ireland made contact with the Camps and suggested that an AB run in 2022 was viable depending on COVID restrictions. “He also advised us that a lot of Glen Koru bred progeny were on the ground, namely Epic and Proclaimer who was LIC Ireland’s top selling bull this year.

“It wasn’t until 2023 we revisited the idea. The proposal included a run starting at the end of April, consisting of 3 farms, totalling approximately



1,200 cows. We had to decide quickly, so David Power and Ger Deely of Eurogene connected us with Marc Tullford, a New Zealand technician who had been doing a run in Ireland for the last 20 years. David remarks: ‘This alleviated some of our fears of the unknown.’

Arriving in Dublin on April 25 2023 David and Karen made their way to Cahir (Co. Tipperary), to meet with other NZ technicians at Eurogene to learn protocols and data entry on the mobile app. “The following day we were given our gear and I must’ve had a funny look on my face when I only received 5 pistolettes because the store person then went back to get me another 2 (we would normally get 12 in our kit in New Zealand). Following that we were driven 1.5 hours up to Naas to pick up our rental car and then continued for another 1.5 hours to arrive at Lisbeg Farm,” says Karen.

“We had a little stone cottage organised for us (15 minutes from Bahnaher, Co. Galway), it was an old stone gatehouse which had been refurbished, we were then ready for our start on the first farm on April 29.”

Two of the farms they visited were newly converted (first year milking), with the third a recent conversion in the last 4-5 years. One farm had over 800 cows, the other two had around 160-180 cows, all within 15 minutes of each other. David says, “The herds were all crossbreds,







whereas the biggest percentage of dairy farms we had noticed in Ireland were Friesian or Holstein Friesian.

"All were very competent farmers and on par with the best in New Zealand." Two were former Irish Farmers of the Year. "They embraced technology, with two of the farms already using collars for heat detection. The farms were all pasture-based and fed in-shed meal with housing through the winter months. The need to harvest vast amounts of silage was apparent.

"We had six weeks of good weather but were frequently told that was very unusual. All three of the farmers had been to New Zealand for some aspect of farming and knew who we were and the bulls we bred."

David also noted: **"It was pleasing to see that progeny from our bulls were being milked on all three farms and the farmers were happy with them."**

"We would inseminate the larger herd during milking, saving time to get to the two remaining farms. We learned that having an assistant was helpful as the farmers were basically hands off, cows

would be cut out and left in the yards for us to inseminate and then let go to the paddock. Each cow was served in a head bale and farmers requested AM and PM service. We had use of a mating sheet or notes left in the sheds or a handheld app with bulls to use daily.

David compares: **"Last season in New Zealand we inseminated approximately 4,500 cows across 14 farms."**

"We had to provide our own lube and wipes and were required to change gloves between every cow. Karen felt well supported by Eurogene and found the Irish people easy going and helpful, we soon learned that lunchtime could mean 3pm and deliveries could be made as late as 11:30pm at night. But that only happened once.

"We noted it was common to have a higher ratio of workers per head of stock in Ireland. We thought this could be because the payout appeared to be much better and perhaps the farm management was more labour intensive. Grants and subsidies from the EU were hard to understand as everything in New Zealand is market led with no government assistance."

Karen reflects: "We loved the experience and Dave enjoyed conversing with farmers and found them very knowledgeable. We would get out during the day and do some local sightseeing. We joined in with community events including Bingo, we saw some bands (which start playing at 10:30pm) and savoured a quiet Guinness at both our local pubs. We also enjoyed the long days with plenty of daylight (4:30am - 10:30pm) and did not miss the bad weather reported to us from NZ."



## Bull breeding journey

**The Camp's bull breeding journey started in 1985, when they purchased their first herd of 120 unrecorded cows, helping to secure a sharemilking job for David.**

David had always herd tested and mated heifers to AI and despite any economic downturn, never gave up on these two practices. One of his first aims when he started sharemilking was to breed a contract cow.

Four 50:50 sharemilking jobs followed over the next 12 years, increasing cow numbers with each move. "We would always buy the best heifers that Dave could find and were able to cull heavily, due to the farm owners allowing us to keep any extra heifer calves. After purchasing a farm, we were financially able to undertake embryo transplant work," adds Karen.

"We bred our first contract cow in the early 2000's and over the years have sent in many bull calves to LIC's Sire Proving Scheme. Karen confirms, "Our first bull to make the Premier Sires team was Broadside in 2012. In 2017/18, we had four bulls (Epic, Proclaimer, Ethos and Beckon) then make it through the selection process. Proclaimer was selected as a genomic bull, and the other three were daughter proven.

"Our early breeding philosophy was to breed Friesian to Jersey (big to little) or Jersey to Friesian (little to big) by using daughter proven bulls." Karen explains. "Later, we began using an LIC mating program. We ended up with 44 contract cows to LIC in a herd of 160. A lot were bred from genomic bulls that we would never have chosen ourselves, yet LIC were prepared to take on the challenge for the opportunity to get the jump on genetic gain."





# A day in the life of... Tom Lyng

Tom Lyng is one of the latest members to join the LIC/Eurogene team, and lives in Convoy near Letterkenny, County Donegal.



Tom out on farm in county Cavan



Tom with his growing family



Tom (L) with his twin brother



Over the past year in his new role, Tom has covered Donegal, Cavan, Monaghan, Longford, and Leitrim, and says the best part of his role is meeting farmers and talking cows.

Tom's childhood was all about farming. One of five children - three boys and two girls - Tom and his twin brother Sean have many memories of working and helping on the farm. The farm was a mixed Dairy / Beef and small tillage enterprise, but is now mostly dairy.

**“Our home farm is driven by achieving high kgs of solids per cow from grass. My interest in farming came from growing up on a farm. Milking, feeding, and bedding animals were some of many daily tasks that led me to gain such a passion at an early age.”**

During his youth, hurling was his big sport, and he played for his local GAA club (The Rower - Instioge) up to under-21 level. Along with hurling, he enjoyed watching Gaelic Football and soccer and doing some fishing when he had time with his twin.

“Farming was everything when I was young,” he says. “I was married to it. I never had a single thought about doing anything else.”

After completing his Leaving Certificate, Tom left the Christian Brothers Secondary School in 2008 and went to Kildalton Agricultural College where he completed his Green Certificate. Two years later, he took a position on the Greenfield Dairy Farm, a commercial dairy farm made up of three shareholders, two of these being Glanbia and the Irish Farmers Journal.

Tom's first position was working as the farm's Assistant Farm Manager.

“That's when I saw the real benefits of grass and super genetics,” he says. Our objective at the time was to both grow and utilize as much quality grass as we could, aiming to grow 16-18 tonnes of dry matter per hectare. The use of New Zealand genetics on this farm allowed us to produce robust animals capable of producing high-quality milk comprising of high fat and protein percentages. We started to see the massive benefits of heterosis when we crossed Jersey genetics back on our Holstein Friesian animals.

“Irish dairy farms using LIC bulls are predominantly made up of compact



Spring calving systems, maximizing the benefits of our climate to grow lots of grass. This offers a fantastic opportunity to talk about New Zealand bulls and their amazing efficiency within similar systems in our sector," he says.

In 2013 he progressed to farm manager and stayed in that role until 2017, at which point he left to set up a dairy farm in Wellingtonbridge in Co. Wexford.

"My new role involved managing the transition of a tillage farm into a dairy farm. The farm comprised of approximately 550 farmable acres. We put in a 50-bail Waikato rotary, added new roadways and wintering facilities. The whole farm was put into grass consisting of two varieties in each sward (60% Tetraploid & 40% Diploid). A new watering system was installed and approximately 400 heifers were purchased. All livestock purchased were predominantly LIC New Zealand genetics."

Tom and his wife Siún moved to Donegal in 2019. Siún is a secondary school teacher in Falcarragh, Co. Donegal, and today they have four children, Tommy James (11), Charlie (8), Merida (6), and Saoirse (1). It was also this year that Tom took the big leap back into education and attended ATU Letterkenny campus where he completed his BSc (Hons) in Animal and Crop Production. Education is something that Tom feels very strongly about, and although he had a wealth of experience in the dairy industry, he felt the urge to back this up with a degree. Tom graduated with 1st class Hons in 2022, and didn't stop there. During his first year with Eurogene/LIC, he achieved 1st class Hons in his Master's - MSc (Hons) in AgInnovation at the University of Galway.



The day he graduated



"I was on campus once a month, but online each Thursday night for 11 months. It was something I wanted to achieve, and I gained so much from this course."

With plenty of customers to see each week, Tom is in the office one day per week, planning his trips, and then on the road for the other four days, often starting early.

"I would easily cover 1000 km per week, and as I mentioned earlier, I love the chance to talk to farmers with so many different systems, hopes, and beliefs. It can be inspiring to see how they grow and make plans."

He says the past two years have seen a big swing towards the use of sexed semen and he reckons that 75% of his sales comprise of sexed semen, with 25% conventional semen.

His KiwiCross® bull choice would be Diggs Hardcopy and Premonition, with both bulls displaying a great balance of fertility, production, and Breeding Worth.

His New Zealand Friesian bull choices are Backdrop, Equator, and Kauri for super production, strength, and for their track record of producing many super daughters in both New Zealand and Ireland. His Jersey bull choice is Gallivant and Marco, with Gallivant being the best Jersey bull he's used in his opinion, with great liveweight. Tom feels that Gallivant's daughters are really pleasing farmers due to their great yields, solids, and strength. He also believes that when crossed with black and white cows, he produces

super crossbreds with great a balance of production, health, fertility and stature.

"Marco is an exciting bull that I see as a firm favourite on many farms in the future.

"When I'm in the office, I'm chatting to clients on the phone, working on breeding plans, answering their questions, and recommending different approaches. I find most of my customers are happy to talk and look at new bulls that meet the changing marketplace.

**"I can't imagine doing anything else right now. As long as I am contributing to the dairy industry, I'm happy. Would I like to farm myself? Yes, perhaps in the future should the right opportunity and the finance arise, but right now I am very satisfied in my current Eurogene/LIC position and am looking forward to growing my client base and seeing the results of the bulls I recommend producing quality grazing cows on Irish farms."**







# Selecting Super Beef Sires for Dairy

by Paul Charteris, LIC beef genetics product lead

LIC's breeding team selects sires whose trait information indicates they are genetically-superior in calving ease, have a moderate gestation length, and have lower-than-average birth weights.

The selection decisions are largely based on Estimated Breeding Values (EBVs) for these traits - with most emphasis placed on calving ease and birth weight.

In general, LIC selects sires that will not increase gestation length above that of the average New Zealand dairy cow (282 days). Both the Hereford and the Angus SGL offerings in LIC's beef catalogue consist of sires that sit comfortably in the top 1% of their breed for gestation length.

Once the bulls enter widespread use, LIC's genetics and sire selection teams review MINDA data to monitor trends in calving ease and gestation length for LIC sires.

In the Beef+Lamb NZ Dairy Beef Progeny Test, there is a wealth of data on how the progeny of individual beef sires perform when mated over dairy crossbred cows.



More than one-third of calves entering the beef industry each year were born on dairy farms. For the rearer and finisher, beef crossed over dairy cattle need to grow well, finish before their second winter, and yield.

Other than traits of dairy importance, sires with superior EBVs for weaning and yearling weight, carcass weight, eye muscle area (an indicator of yield), and intramuscular fat (or marbling) are LIC's main selection criteria. Sires from Rissington Cattle Company have feed efficiency data, so LIC is able to select individuals that are genetically superior for this trait.

The ability of sires to colour-mark beef crossed over dairy calves is also considered by LIC's breeding team.

In the animal welfare and health space, LIC puts additional selection pressure on the selection of Polled sires within the Beef offering.

Less than a handful of beef sires in this year's LIC Genetics Catalogue (beef) are heterozygous polled (i.e. the sires have one copy of the horned gene). In future, LIC will target a 100% homozygous polled for its catalogue.

## Round and about



by Aiden Cunningham

"LIC Ireland and Eurogene attended this year's ploughing championships, in Rathniska. Even though it was a wet and mucky few days, it was great to meet up with our clients. A special thanks to everyone that joined us for some tea and biscuits, to discuss the new potential bulls in our lineup for 2024. As an added bonus for coming to see us at the show, we also ran a prize draw for 10 sexed straws of Paynes Specialist, and we are excited to announce that the winner was Martin Carew, from Bridgefield Farms in Limerick.

I was lucky enough to travel to the Sommet De l'Evage in France in October. As Europe's largest livestock show, it's truly worth the journey for anyone contemplating attending. A wide variety of both dairy and beef cattle were showcased. Additionally, the event covered an extensive area featuring merchants, vendors, sales teams, and a diverse range of agricultural products and machinery. Gaining free entry to the event, international visitors were very well looked after with exclusive access to a lounge area for refreshments, along with many organised tours taking you from the show to a variety of local farms. Getting to meet Thierry Lamanda of Progenes France, LIC Europe's partner in France, was definitely one of the highlights for me. I have heard such great things about the work Thierry has been doing to promote grazing systems and New Zealand genetics in France. What I also came to realise was that my French needs significant improvement!"

Lastly, LIC and Eurogene participated in the National Dairy Show at the Green Glens arena Millstreet, an important day on the calendar of any pedigree Holstein and Jersey breeder. Once more, this provided us with a chance to meet up with our farmers. The LIC / Eurogene tent saw a considerable number of visitors and interest, sparking engaging conversations. We extend our heartfelt thanks to all our loyal customers who took the time to drop by and say hello and savour some delicious chocolates!"



Email: [admin@Liceurope.com](mailto:admin@Liceurope.com)

Tel: 052 744 2517

[www.lic.ie](http://www.lic.ie)

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LIC Ireland Ltd Carrigeen Commercial Park  
Cahir, Co Tipperary, Ireland

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Carrigeen Commercial Park  
Cahir, Co Tipperary, Ireland

Tel: 052 744 2517