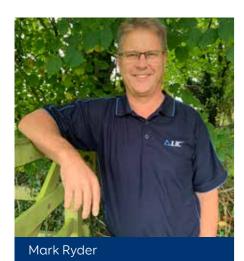




GM INTRO



The past year has given us all challenges to overcome in every aspect of both our business and personal lives. As I write, we're still facing an uncertain future in terms of work and social outlooks, with the Covid-19 pandemic far from over. It seems we will have to learn to live with this and operate within, for many years to come.

LIC continues to strengthen its partnerships with farmer customers. Over the years we have seen many developments that have helped to support our customers, improve the genetics of the dairy herd, boost returns and help to maximise the use of quality grass in the diet.

With the huge advances in genomic evaluation there has been an increasing use of genomic sires in New Zealand to the point that in 2020/21, 60% of LIC's New Zealand customers incorporated genomic bulls along with daughter proven bulls in their breeding plan. LIC Ireland will be giving our Irish customers the opportunity to follow the same approach.

The past 12 months have seen a massive increase in the use of sexed semen in the dairy herd as farmers gain confidence in this method to select the best heifers and cows in their herd to produce replacements and speed up genetic improvement. This demand from Ireland along with other European markets has led us to consider significant investment and changes to our collection policy.

Working closer with Sexing
Technologies at LIC's Awahuri
European Collection Centre in
New Zealand will be a focus, with the
aim of increasing supplies three-fold.
The key to this will be the decision
to extend from a six-week collection
season (in January/February) to
a more full-time processing model
which would allow product to be built
up throughout the year.

Our approach to sexing is that bulls are picked on their merits, allowing customers to improve herd profitability by breeding from the best available. As with any major changes to a business model, there are a lot of complexities involved, including juggling demand from NZ and European farmers as well as the logistics of moving and quarantining bulls.

There will always be supply challenges, but the new plan will enable us to keep our stock levels consistent and our aim is to only sex the best bulls we have available.

Investment into a purpose-built sexing lab at the Awahuri Centre is a priority. Our aim is to ensure we have a long-term optimal supply model for sexed semen to support our customers' needs here in Europe. Included in our sexed offering is The Forwards® bull team, born and bred here in Ireland. These bulls are from daughters of outstanding LIC bred Irish cows and our Premier Club bulls from NZ. This allows LIC to offer our farmers a substantial sexed team with The Forwards® bulls bringing in more diversity. Ordering early does help, but our aim is to build up supplies so stock is readily available.

It'll take a few months for those stocks to be built up, but our new collection process will soon offer us a better long-term solution.

We at LIC, remain very proud that our advice and approach over the past 12 years is now delivering so much value to those that have followed us, and it is extremely heartening to see that the industry is now also echoing our story based on clear evidence.

Having launched our HoofPrint® index, farmers are now provided with accurate insights on bulls born since

January 1, 2009. These bulls have the potential to breed progeny for dairy herds with a lighter environmental footprint. It identifies cows that produce less methane and nitrogen per kg of milk solids. We now also offer the BeefPrint® index, identifying beef sires that will produce the best possible surplus calf from the dairy cow. Taking a holistic view of the environmental impact, this index looks further than just economics and supports our view of solving one issue at the risk of creating another.

At the same time, new trials on methane emissions in New Zealand are under way, providing an opportunity for us to breed more climate friendly cows. This is now one step closer for New Zealand dairy farmers, after a Waikato trial has found a possible link between a bulls' genetics and the amount of methane they produce.

The pilot trial, by artificial breeding companies LIC and CRV, with funding from the New Zealand Agricultural Greenhouse Gas Research Centre, measured feed intake and methane emissions – in the form of burps – from 20 young bulls destined to father the next generation of New Zealand's dairy cows.

The research will progress to a much larger study where operations have scaled up to collect measurements from 300 young bulls, the full intake from LIC and CRV's separate Sire Proving Schemes.

If this genetic link is confirmed, farmers will ultimately be able to breed low methane-emitting cows from low methane-emitting bulls.

All this points to an exciting future and, while none of us know what the 'new normal' will look like in the long term, rest assured that LIC remains committed to working alongside you to help and secure your business and run an efficient and cost-effective operation.

Mark Ryder General Manager LIC Europe

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MORETHAN A CLUB



LIC started the Premier Club so you can access top LIC bulls that have never before been available to Irish farmers. It is about our desire to go the extra mile to support Irish farmers, while protecting the future of LIC's breeding programme. This means we can continue to improve and deliver elite genetics year on year.

As a member you get exclusive access to top LIC genetics and the opportunity to submit your bull calves for LIC's Irish bull breeding programme.

Talk to your LIC breeding advisor about joining the Premier Club.

2

UNDERSTANDING NEW ZEALAND BULL DATA

Across all Breed Evaluation

The bull data in this catalogue is displayed across all breeds; this is in line with how New Zealand Animal Evaluation Limited (NZAEL) and LIC rank New Zealand dairy animals.

Because many LIC customers here in Ireland and around the world select genetics from multiple breeds for optimal herd performance, it is important for farmers to understand how an animal should perform within the whole herd, not just within one breed of the herd.

LIC believe that an across all breed evaluation is the best tool to help you make breeding choices geared toward making your herd the most profitable it can be.

The New Zealand Base Cow is the genetic reference point from which Breeding Worth (BW) and Breeding Values (BV) are measured for all New Zealand dairy cattle.

All of the bull information in this catalogue is recorded relative to the 2005 Base Cow - the average of 21,585 cows born in the year 2005 - whose production and TOP (traits other than production) data has been set to zero. Each cow has been TOP inspected and milk recorded at least four times to deliver an accurate result.

Base Cow Production

Production is reported on their 270-day lactation yields relative to 5T Dry Matter:

Fat kg	218	Volume (litres)	4595
Protein kg	174	Liveweight (kg)	500

Traits Other than Production

Assessing the Animal

Traits Other than Production (TOP) refer to the behaviour, temperament and physical attributes of a cow and are scored separately on a scale from one to nine. The four farmer-scored and 14 inspector-scored TOP traits are considered most important in relation to the overall requirements of dairy farmers. TOP records from two year-old animals are used for sire evaluations.

1	2	3	4	5	6	7	8	9
		← Undesirable		Average		Desirable \longrightarrow		

Data Processing

The raw data is then sent through to the New Zealand Animal Evaluation unit where within herd, region and national comparisons are analysed and processed. This information is then fed into the national data base as breeding values for sires.

The average raw TOP scores of the 2005 base cow are as follows:

FARMER SCORED MANAGEMENT TRAITS Sire Proving farmers score two-year-old heifers on the four farmer traits	Low Score	High Score	Base Cow Average
Adaptability to Milking - describes how soon the heifer settled into the milking routine after calving	slowly	quickly	6.12
Shed Temperament – describes the temperament of the heifer in the farm dairy while being handled and milked	nervous	placid	6.28
Milking Speed - describes the milking speed of the heifer	slow	fast	6.33
Overall Opinion - describes the farmer's overall acceptance of the heifer as a herd member	undesirable	desirable	6.57

INSPECTOR SCORED CONFORMATION TRAITS			
Stature - describes the height at the shoulders of the heifer in five centimetre bands	small	tall	5.75
Capacity - describes depth and width of chest and body in relation to the physical size of the heifer	frail	capacious	6.34
Rump Angle - describes the angle of a line between the centre of the hips and the top of the pins	high pins	sloping	4.79
Rump Width - describes the distance between the pins bones, relative to size of the animal	narrow	wide	6.17
Legs - describes the straightness or curvature of the back legs while the heifer is walking	straight	curved	6.18
$\label{lem:udderSupport-describes} \textbf{Udder Support-} \textbf{describes} \textbf{ the strength of the suspensory ligament, and the udder depth relative to the hocks}$	weak	strong	6.02
Front Udder - describes the attachment of the front udder to the body wall	loose	strong	5.70
Rear Udder - describes the height and width of the rear udder attachment	low	high	5.76
Front Teat Placement - describes the placement of the front teats relative to the centre of the quarters	wide	close	4.53
Rear Teat Placement - describes the placement of the rear teats relative to the centre of the quarters	wide	close	5.84
Teat Length - describes the length of the rear teats from the udder to the tip of the teat	short	long	-
Udder Overall - assesses the desirability of all traits pertaining to the udder	undesirable	desirable	5.71
Dairy Conformation - assesses the desirability of all traits pertaining to dairy conformation, but excluding udder traits	undesirable	desirable	6.45

HOW TO READ A SIRE PAGE

gBW/Rel

414 indicates that per 5T DM eaten, the offspring are expected to generate NZD 414 more net profit than those of a bull of gBW 0. The higher the reliability of gBW, the more data sits behind it and the less likely it is to change with

Milk

A bull milk gBV of 117 litres on average produce 58.5 litres more than a bull of gBV 0 litres. The gBV is across breeds, so Jersey and Crossbred animals may show a negative gBV.

Somatic Cell Count

The lower the SCS BV the better, as you want to reduce the bulk milk somatic cell count. A SCS gBV difference equates to a difference in expected daughter cell count of 37,500 cells/ml.

Fertility

A bull gBV of 4.3% indicates that 2.15% more daughters are expected to calve in the first 42 days of a herds calving period, compared to a bull of gBV 0%. As an industry New Zealand has a tighter calving pattern and shorter calving interval than dairy industries worldwide, with a calving interval of 369 days and average 6-week calving pattern of 83%. Highly fertile cows have been necessary to achieve this. It is generally accepted that the New Zealand genetic base cow is far more fertile than many other countries' genetic base.

Stature

stature across breeds based on a genetic reference population with a gBV of 0. Stature for Jerseys is usually negative and for Holsteins is



JE6805 WALTON **INFERNO**

214/61%

IRELAND VALUES	IRELAND VALUES										
Milk Prod SI	92	Survival	3.21								
Fertility SI	72	Cow Calving Difficulty	1.50								
Calving SI	43	Heifer Calving Difficulty	4,20								
Beef SI	-52	Somatic Cell Count	-ø.09								
Health SI	6	Milk kg	/-177								
Maintenance SI	40	Fat kg/%	12/0.34								
Management SI	12	Protein kg/%	9/0.27								
Calving Interval (days)	-2.54	Pedigree Status	XSR								
NEW ZEALAND DE	TAILS	119 NZ Dauc	hters								

gBW/Rel

0.10

-0.5

0.48

0.50

0.12

0.44

HOWIES CHECKPOINT

Protein

Calvina Diff

Survival

107 Daughters TOP Inspected

0.5

0.5

1.0

0

Functional of

31/4.3



HoofPrint®

o Milk Milkfat Cow Calving Diff -0.60 -0.8/98 Body Condition -8.3

Somatic Cell Count Gestation Fertility 4.3 Liveweight **NZ Evaluation Data** Management

Adapts to Milking

Milking Speed

Overall Opinion

Udder Overall

Shed Temperament

Conformation	BV	-0.5
Stature	-0.03	
Capacity	0.28	
Rump Angle	-0.14	
Rump Width	-0.26	
Legs	-0.06	
Udder Support	0.33	
Front Udder	0.35	
Rear Udder	0.04	
Front Teat Placement	0.52	
Rear Teat Placement	0.72	
Teat Lenath	-0.32	

Dairy Conformation	0.37	
LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1337	1325	A2/A2

0.38

HoofPrint®

New environmental measure. More info on pg 8.



Protein and Milkfat

A bull gBV of 38 kg indicates that the bull will produce daughters which on average. are genetically superior by 19 kg per 5T dry matter of gBV 0kg.

Calving Difficulty

Heifer & Cow CD BVs estimate the expected percentage of assisted calvings when a bull is mated to yearling heifers and to a bull of gBV 0. A bull of BV -1.4 can expect to have 0.7% less assisted calvings than a **?** bull of 0.

Functional Survival

A BV that predicts the average probability of survival from one lactation to the next, compared to a gBV 0. It is reported as a percentage. The progeny of a bull of gBV 2.6 should have 1.3% more daughters survive to the next lactation than a bull of BV 0. The average number of lactations/ cow in New Zealand is 5.5.

Liveweight

A gBV of -2 kg indicates the to have a mature liveweight -1 kg lighter than those of a bull of gBV 0kg. As expected in an across-breed evaluation, Holstein Friesians have a higher lower (negative) gBV.

Shed Temperament

A gBV of 0.00 indicates that the bull will produce daughters which on average, are genetically the same as the genetic base cow. (For example, by using a bull with a shed temperament of 0.50 the raw score for his daughters on average is expected to be 6.28 + 0.25 = 6.53 from a linear score of 9).



BW/gBV are calculated by LIC.

The Forwards® sire team now available in Ireland

LIC are teaming up with Irish farmers to produce bulls from leading LIC bred herds through LIC's genomic selection breeding programme in Ireland.

The Forwards® sire team complement our flagship delivery of high quality daughter-proven New Zealand LIC genetics to European farmers with an LIC genomic bull offering from Ireland.

The young bulls undergo genomic evaluation using LIC's long-standing expertise in both purebred and crossbred animal evaluation, in addition to evaluation on EBI.

Uniquely, these bulls have both aBW and gEBI figures, with the very best picked for The Forwards® team.



Dam of LIC Moorehill Max FR6892



Dam of LIC Kilvoige Stephen FR6823

The Forwards®

Our breeding experts have examined the candidates' pedigree, physical attributes and cow family information to increase the accuracy of delivering genetics to further improve the genetic merit of your herd.

We use both EBI genomic evaluation and LIC's own powerful genomic evaluation tool, the Single Step Animal Model (SSAM), to provide a more reliable estimate of a bull's genetic quality at a young age than from ancestry alone. With both gBW and qEBI to look at, The Forwards® sire team bring you a unique opportunity to fast track genetic gain in your herd.

LIC Ireland proudly presents our European grown team of young sires, The Forwards®. SEE PAGE 48 FOR MORE INFORMATION.

BREEDING WORTH EXPLAINED

National Breeding Objective

The New Zealand dairy industry has set a National Breeding Objective, namely 'to breed dairy cows that are able to efficiently convert feed into profit'.

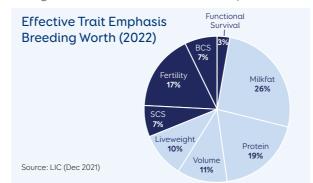
- The index is called Breeding Worth (BW) and the unit of measurement is \$
- It uses genetic merit estimates (BV) and updated economic values (EV)
- It is a balanced index combining 4 production traits and 4 robustness traits
- In April 2022, Udder Overall will be added as an additional trait

BW ranks bulls and cows according to the profit their offspring are expected to generate relative to a genetic reference point, the 'Base Cow' (see page 4), which is set at zero.

BW is calculated by summing the contribution to profit across eight economically important traits, (nine from April 2022). For each contributing trait the breeding value is multiplied by the economic value of that trait.

Breeding Worth traits

The eight traits and their weightings included in Breedina Worth in December 2021 are as follows. Weightings will change when the ninth trait is added in April 2022.



Milkfat, Protein, Milk Volume and Liveweight are categorised as **Production Efficiency** traits. Fat, protein and volume estimate production while liveweight accounts for the efficiency of feed partitioning between body maintenance and production. Production efficiency traits are moderately heritable, and important when measuring cow productivity.

Fertility, Somatic Cell Score (SCS), Functional Survival, Udder Overall and Body Condition Score (BCS) are referred to as **Robustness** traits. The majority of these traits have moderate to low heritability, but are important for cow health and survival in the herd.

The 10-year average rate of genetic gain in NZ is equivalent to BW \$10 per year. Animal efficiency is increasing, as evidenced by the national rise in average per cow production while average liveweight has remained relatively static. Researchers estimate that about 40% of the production efficiency gain is due to genetic improvement.







Breeding Values (BV) are an estimate of a cow or bull's genetic merit for a trait. BVs are updated at least monthly as performance information of the animal and its relatives flows in.

Economic Values (EV) are an estimate of the value of a trait to a dairy farmer. EVs are calculated using economic models accounting for revenue and costs on-farm. They are usually updated annually. Milk prices fluctuate but breeding is a long game so, to create long-term stability, a 5-year rolling average milk price is used, (3 years historic, 1 year current and 1 year forecast). Industry information on the value of stock sales and the cost of rearing replacements, feed and other farm expenses is also included.

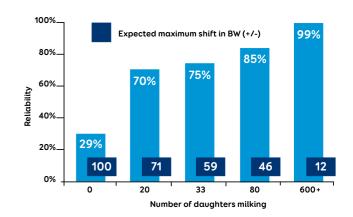
The resulting profit index is reported in relation to the animal, with half its value passed on to offspring. (For example, the offspring of a bull with a BW \$200 and a cow of BW \$100 are expected to make, on average, \$150 more profit per annum than the Base Cow makes.)

EVs determine the relative weighting of each trait within the index - as EVs are updated each year, trait weightings in the index will adjust slightly.

Breeding Worth reliability

An important indication of the accuracy of a BW prediction is the **Reliability** figure. Reliability reflects the degree of certainty that a BW estimation will remain relatively stable if more data is added. The higher the reliability, the more certain we can be that the BW estimation reflects the animal's true genetic merit. Reliability is reported on a scale of 0 to 99%. It increases with the amount of information.

Information sources and BW estimation reliabilities no information (0%), ancestry information (25-35%), genomic information (40-60%) and daughter proof information (70-99%). Proven bulls generally have higher reliability figures than cows, simply because they have many more daughters milking.



Dairy NZ 2021, https://www.dairynz.co.nz/animal/animal-evaluation/interpreting-the-info/all-about-bw/

WHAT IS HOOFPRINT®?

LIC has developed the HoofPrint® index to give you, the farmer, an indication of the predicted environmental footprint of the various genetic products.

Enteric methane emissions and urinary nitrogen excretion from dairy cows are two of the major contributors to the environmental impact of dairy production in New Zealand. It is extremely difficult and expensive to measure and assess actual emissions and excretion from dairy cows in a pasture based system. Therefore, a modelling methodology has been used to quantify the expected emissions and excretion.

How does the model work?

The modelling uses six individual Breeding Values for each animal. These BVs are used to calculate the expected levels of production, calving events, and removal. These BVs are:

- 1. Liveweight
- 2. Milk Volume
- 3. Milkfat
- 4. Protein
- 5. Fertility
- 6. Functional Survival

Calculations for energy requirements, partitioning and emissions were based on the 'Methodology for calculation of New Zealand's agricultural greenhouse gas emissions'.

An understanding of an animal's energy requirements was used to estimate dry matter intake from which emissions and excretion are calculated. In the inventory, energy requirements refers to the amount of energy that is needed for an animal to survive (maintenance) and produce animal products such as milk, meat, and conceptus (pregnancy). The inventory model currently assumes that dairy cattle consume only pasture to satisfy their energy requirements, and no supplementary feed is used.

Reference Base population:

The HoofPrint® ranking system has only been applied to dairy breeding bulls and therefore the base population too is only made up of dairy bulls. To ensure the values reflect the current genetic merit of the breeding animals available we have chosen to use a reference population of breeding bulls registered with NZAEL for AB service, born since 1 January 2009, excluding any beef and short gestation length dairy bulls. For 2020 this has created a reference population of 4415 bulls which are then rated based on their emission and excretion values per kilogram of milksolid.

Ranking system:

The ranking system is from 1 to 10 with 1 being the lowest ranking (highest environmental impact per kg product) and 10 being the highest (lowest environmental impact per kg product). To ensure only the very best bulls are able to achieve a 10 point rating only 2% of bulls in this elite reference population can be awarded a 10 point rating at any point in time. The distribution of ratings for the bulls in the elite reference population can be seen below. The distribution is symmetrical so 50% of the bulls will be ranked 6-10 points and 50% 1-5 points.



10	Top 2 %
9	Top 7.5 %
8	Top 17.5 %
7	Top 32 %
6	Top 50 %
5	Bottom 50 %
4	Bottom 32 %
3	Bottom 17.5 %
2	Bottom 7.5 %
1	Bottom 2 %

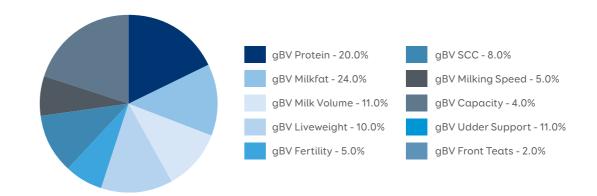
In the example, this bull ranked 7 for both Methane Efficiency and Nitrogen Efficiency. It is in the top 32% of bulls born since January 1st 2009.

ONCE-A-DAY

LIC's Once-A-Day (OAD) index has been developed to help OAD farmers breed cows that persist throughout lactation and have longevity in the herd.

The index has a strong correlation to Breeding Worth (BW) as well as four functional traits that are required in a desirable OAD cow: Capacity, Udder Support, Front Teat Placement and Milking Speed.

The graph shows the weighting of the traits within the OAD Index, in addition to the existing eight traits of BW. Unlike BW & PW, the OAD index does not represent an economic value of the animal's productive performance or ability to breed profitable replacements.



Once-A-Day Team

NZ Bull Code	IRE Al Code	Bull Name	OAD	gBW/Rel	Protein kg	Fat kg	Milk Volume (litres)	Fertility %	Somatic Cell Count	Capacity	Milking Speed	Udder Overall	Page
Holste	Holstein Friesian												
119014	FR7155	BUELIN BM EQUATOR S2F	1276	344/63	30	51	616	6.8	0.13	0.46	0.23	0.52	22
117057	FR6736	MAIRE GL GRADUATE-ET	1259	281/85	36	34	364	-0.6	0.28	-0.01	0.03	0.72	23
115021	FR5920	GORDONS AM LANCELOT S3F	1247	290/98	37	35	526	-0.8	0.06	0.57	0.11	0.30	19
118071	FR7974	GLENMEAD SB TRAPEZE S1F *	1243	296/79	27	28	313	5.4	0.02	0.55	0.12	0.57	20
118068	FR5941	BAGWORTH GI ORIGINAL S3F*	1240	325/81	38	43	546	5.7	-0.12	0.25	0.10	0.33	18
116118	FR5929	LIGHTBURN B MALBEC-ET S3F	1234	256/89	34	30	483	1.2	-0.18	0.75	-0.29	1.18	22
118023	FR7977	TRONNOCO INCA SHAKIR S3F *	1216	266/82	29	42	441	0.9	0.59	0.33	0.18	0.38	19
116124	FR5923	SPRING TRALEE BEAT-ET S1F	1209	270/97	33	30	597	-3.1	0.29	0.33	0.57	-0.08	14
Jersey	/												
318009	TBC	TIRONUI SUPERMAN ET *	1378	449/83	20	54	-161	0.0	-0.10	0.49	0.06	0.68	29
318015	TBC	GLENUI SUPER LAMAR *	1354	438/83	8	47	-153	6.1	-0.62	0.39	0.11	0.83	30
318021	TBC	GLANTON DESI BANFF *	1325	462/83	9	44	-733	5.2	-0.35	0.59	0.11	0.26	28
316039	JE6238	ULMARRATT GALLIVANT *	1300	403/90	13	44	-315	6.7	0.03	0.62	0.06	0.62	28
317060	JE6727	PASPALUM OI LIMELIGHT *	1280	318/84	5	23	-521	2.5	-0.16	0.31	0.15	0.96	31
315009	JE5061	RIVERVIEW AND DEXTER S2J *	1272	335/90	17	26	-119	4.7	-0.23	0.63	0.29	0.68	32
315045	JE4989	GLENUI DEGREE HOSS ET *	1265	348/93	6	27	-504	3.3	-0.45	0.25	0.18	0.66	29
314052	JE4516	CRESCENT EXCELL MISTY ET	1264	358/94	3	33	-898	0.0	-0.43	1.26	0.23	0.37	32
KiwiCr	OSS®												
518038	TBC	WERDERS PREMONITION *	1380	441/82	25	59	29	-1.5	-0.40	0.62	0.32	0.71	43
517055	FR6733	TARAMONT SPRINGTIDE	1340	300/87	42	46	799	-3.7	0.38	0.91	0.27	1.05	34
520048	TBC	BALDRICKS TOUCHDOWN	1330	409/60	24	42	-154	-0.3	-0.22	0.62	0.06	0.57	45
516066	JE6805	WALTON INFERNO	1325	414/90	30	38	117	4.3	-0.60	0.28	0.12	0.38	41
517043	FR6799	GLEN KORU PROCLAIMER-ET	1310	378/91	33	51	300	-5.2	0.15	0.54	0.01	0.20	39
517060	FR6748	KEGZYS REMARKABLE	1305	332/86	31	44	276	-1.6	-0.10	0.46	0.07	0.64	40
520085	TBC	SNOWLINE BENJI *	1300	422/62	26	53	40	3.6	-0.09	0.38	-0.01	0.21	46
516074	FR5989	CROSSANS CRITICAL-ET	1292	313/96	39	36	904	-3.6	-0.34	0.72	0.13	0.54	40
515062	JE5893	DUGGANS GAMEPLAN *	1292	370/91	11	36	-553	3.5	0.02	0.23	0.23	0.62	34
518063	TBC	VAN STRAALENS SAFARI *	1288	317/80	32	32	494	-1.1	-0.25	0.71	0.11	0.76	38
520033	TBC	DOWSON HONENUI-ET*	1288	330/56	20	35	-412	4.2	0.26	0.55	0.07	1.02	45

 $^{^{\}star}$ Sexed semen is offered for Single AI use only. See page 12 for more information.

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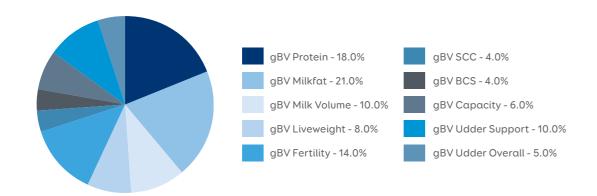


HIGH INPUT

LIC's High Input Index focuses on a range of traits as well as Breeding Worth (BW) to identify animals that are best suited to High Input systems. Those traits include Capacity, Udder Support, Udder Overall and Protein.

The graph shows the weighting of the traits within the High Input Index, in addition to the existing eight traits of BW.

The High Input index allows two animals to be compared based on their suitability to the system. Unlike BW & PW, it does not represent an economic value of the animal's productive performance or ability to breed profitable replacements.



High Input Team

NZ Bull Code	IRE AI Code	Bull Name	High Input	gBW/Rel	Protein kg	Fatkg	Milk Volume (litres)	Fertility%	Somatic Cell Count	Liveweight	Capacity	Udder Overall	Page
Holste	ein Fries	sian											
119014	FR7155	BUELIN BM EQUATOR S2F	1325	344/63	30	51	616	6.8	0.13	55	0.46	0.52	22
116118	FR5929	LIGHTBURN B MALBEC-ET S3F	1296	256/89	34	30	483	1.2	-0.18	62	0.75	1.18	22
118071	FR7974	GLENMEAD SB TRAPEZE S1F *	1285	296/79	27	28	313	5.4	0.02	16	0.55	0.57	20
118068	FR5941	BAGWORTH GI ORIGINAL S3F *	1285	325/81	38	43	546	5.7	-0.12	84	0.25	0.33	18
117057	FR6736	MAIRE GL GRADUATE-ET	1276	281/85	36	34	364	-0.6	0.28	31	-0.01	0.72	23
115021	FR5920	GORDONS AM LANCELOT S3F	1266	290/98	37	35	526	-0.8	0.06	38	0.57	0.30	19
118023	FR7977	TRONNOCO INCA SHAKIR S3F *	1246	266/82	29	42	441	0.9	0.59	44	0.33	0.38	19
Jersey	V												
318009	TBC	TIRONUI SUPERMAN ET*	1384	449/83	20	54	-161	0.0	-0.10	-39	0.49	0.68	29
318015	TBC	GLENUI SUPER LAMAR *	1377	438/83	8	47	-153	6.1	-0.62	-45	0.39	0.83	30
318021	TBC	GLANTON DESI BANFF *	1351	462/83	9	44	-733	5.2	-0.35	-38	0.59	0.26	28
316039	JE6238	ULMARRATT GALLIVANT *	1347	403/90	13	44	-315	6.7	0.03	-14	0.62	0.62	28
315009	JE5061	RIVERVIEW AND DEXTER S2J *	1302	335/90	17	26	-119	4.7	-0.23	-23	0.63	0.68	32
317060	JE6727	PASPALUM OI LIMELIGHT *	1298	318/84	5	23	-521	2.5	-0.16	-66	0.31	0.96	31
314052	JE4516	CRESCENT EXCELL MISTY ET	1296	358/94	3	33	-898	0.0	-0.43	-8	1.26	0.37	32
KiwiCı	ross [®]												
518038	TBC	WERDERS PREMONITION *	1380	441/82	25	59	29	-1.5	-0.40	13	0.62	0.71	43
517055	FR6733	TARAMONT SPRINGTIDE	1357	300/87	42	46	799	-3.7	0.38	33	0.91	1.05	34
520048	TBC	BALDRICKS TOUCHDOWN	1349	409/60	24	42	-154	-0.3	-0.22	-13	0.62	0.57	45
TBC	FR6892	LIC MOOREHILL MAX *	1344	391/59	32	47	547	5.1	-0.10	38	0.60	0.57	50
520033	TBC	DOWSON HONENUI-ET*	1339	330/56	20	35	-412	4.2	0.26	20	0.55	1.02	45
516066	JE6805	WALTON INFERNO	1337	414/90	30	38	117	4.3	-0.60	-2	0.28	0.38	41
520085	TBC	SNOWLINE BENJI *	1332	422/62	26	53	40	3.6	-0.09	28	0.38	0.21	46
520007	TBC	JULIAN STRAIGHT UP	1332	379/61	7	44	-508	3.1	-0.10	4	1.26	0.49	46
518061	TBC	INNOVATION HOMEBREW *	1325	372/80	25	41	-81	1.5	0.40	21	0.64	0.60	34
518017	TBC	HORIZON BARNSTORMER-ET	1323	363/82	30	46	379	6.7	-0.25	42	0.91	0.14	34
517060	FR6748	KEGZYS REMARKABLE	1315	332/86	31	44	276	-1.6	-0.10	24	0.46	0.64	40

^{*} Sexed semen is offered for Single AI use only. See page 12 for more information.

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SHORT GESTATION LENGTH

With a team of bulls selectively bred to shorten gestation length, the SGL product can help you to shorten your calving, increase days in milk, and give your cows longer to recover improving their chances of getting back in calf.

There is a range of SGL products available, one of them includes short gestation Hereford from leading breeders Shrimpton's Hill Herefords. These beef bulls breed white-faced offspring that you can easily identify in the herd. The graphics below display the bulls available along with key BV traits. More information about the breeders can be found



SGL Hereford

LIC and leading Hereford breeders, Shrimpton's Hill Herefords, have developed Hereford bulls with a gestation length up to 9 days shorter than their breed average. These beef bulls breed white-faced offspring that you can easily identify in the herd.



Angus cattle are a black beef breed that can be traced in Scottish history as far back as the 16th century. They are known for finely marbled meat, where the fat is dispersed evenly against the actual cut of meat. The marbling trait of Angus typically creates a tenderer, juicy flavourful meat compared to some other beef breeds. This year's bulls have an average short gestation length of -7.4 days.



SGL plus BW combines genetics for a shorter gestation with sound genetic merit so farmers can keep heifer calves as replacements. These SGL sires have been tested to ensure their traits are passed on to their offspring, with the purpose of improving the overall efficiency of your herd.

Available Bulls

NZ Bull Code	IRE AI Code	Bull Name	Gestation Length	gBW/Rel	Protein kg	Fatkg	Milk Volume (litres)	Fertility %	Cow Calving Difficulty	Somatic Cell Count	Capacity	Udder Overall	Page
Holstein Friesian													
119014	FR7155	BUELIN BM EQUATOR S2F	-7.7	344/63	30	51	616	6.8	1.0/92	0.13	0.46	0.52	22
116036	FR6730	ARKAN MGH BACKDROP-ET S2F*	-6.7	253/97	24	22	118	5.4	0.0/97	0.07	0.36	0.25	20
118071	FR7974	GLENMEAD SB TRAPEZE S1F *	-5.7	296/79	27	28	313	5.4	0.3/94	0.02	0.55	0.57	20
115048	FR4977	ZINKS GFB BACHELOR-ET S1F	-5.3	216/90	30	27	697	4.6	-0.6/71	-0.11	0.61	0.28	14
117035	FR6742	BELLAMYS MH GAMBIT-ET S2F*	-3.9	246/91	34	31	813	2.4	2.1/92	0.05	0.18	0.51	21
118068	FR5941	BAGWORTH GI ORIGINAL S3F *	-3.5	325/81	38	43	546	5.7	0.4/93	-0.12	0.25	0.33	18
116124	FR5923	SPRING TRALEE BEAT-ET S1F	-3.5	270/97	33	30	597	-3.1	0.4/79	0.29	0.33	-0.08	14
Jersey	У												
318021	TBC	GLANTON DESI BANFF *	-7.7	462/83	9	44	-733	5.2	-1.0/95	-0.35	0.59	0.26	28
317034	JE6721	HEUVEN SUPER WISEGUY*	-6.3	348/89	16	31	-358	4.1	-0.7/84	0.18	0.32	0.06	31
314012	JE4259	KAITAKA OI LEOPARD ET	-4.2	284/97	-1	23	-694	2.0	-0.6/97	-0.20	-0.15	0.62	24
KiwiCı	ross®												
517055	FR6733	TARAMONT SPRINGTIDE	-10.3	300/87	42	46	799	-3.7	-0.3/91	0.38	0.91	1.05	34
513074	FR4527	SCHRADERS TUSK	-9.9	197/98	13	14	224	4.7	-1.0/96	-0.18	-0.08	0.14	34
518017	TBC	HORIZON BARNSTORMER-ET	-9.4	363/82	30	46	379	6.7	1.2/91	-0.25	0.91	0.14	34
516066	JE6805	WALTON INFERNO	-8.3	414/90	30	38	117	4.3	-0.8/98	-0.60	0.28	0.38	41
516074	FR5989	CROSSANS CRITICAL-ET	-7.7	313/96	39	36	904	-3.6	-0.2/97	-0.34	0.72	0.54	40
518019	TBC	DIGGS HARDCOPY*	-7.5	387/80	17	35	-157	7.9	-0.7/68	-0.65	0.39	0.20	39
518038	TBC	WERDERS PREMONITION *	-7.4	441/82	25	59	29	-1.5	-0.2/91	-0.40	0.62	0.71	43
518061	TBC	INNOVATION HOMEBREW *	-7.1	372/80	25	41	-81	1.5	-0.1/94	0.40	0.64	0.60	34
515062	JE5893	DUGGANS GAMEPLAN *	-6.6	370/91	11	36	-553	3.5	-0.8/92	0.02	0.23	0.62	34
511011	ZSP	PRIESTS SIERRA *	-6.5	330/99	27	42	316	5.2	0.2/99	-0.15	0.51	0.48	38

 $^{^{\}star}$ Sexed semen is offered for Single AI use only. See page 12 for more information.



SEXED BULLS

NZ Bull Code	IRE AI Code	Bull Name	gBW/Rel	Milk Volume (litres)	Fat Kg	Protein Kg	Fat%	Protein %	Somatic Cell Count	Fertility %	Functional Survival	Heifer CD/Rel	Cow CD/Rel	Liveweight
Holste	in Fries	sian												
118068	FR5941	BAGWORTH GI ORIGINAL S3F	325/81	546	43	38	5.1	4.1	-0.12	5.7	4.2	2.1/36	0.4/93	84
118071	FR7974	GLENMEAD SB TRAPEZE S1F	296/79	313	28	27	5.0	4.1	0.02	5.4	4.2	-1.0/73	0.3/94	16
118023	FR7977	TRONNOCO INCA SHAKIR S3F	266/82	441	42	29	5.2	4.0	0.59	0.9	3.7	4.1/39	1.0/86	44
116036	FR6730	ARKAN MGH BACKDROP-ET S2F	253/97	118	22	24	5.1	4.2	0.07	5.4	4.0	0.0/95	0.0/97	60
117035	FR6742	BELLAMYS MH GAMBIT-ET S2F	246/91	813	31	34	4.6	3.8	0.05	2.4	5.7	1.6/67	2.1/92	60
Jerse	/													
318021	TBC	GLANTON DESI BANFF	462/83	-733	44	9	6.8	4.7	-0.35	5.2	3.5	-2.6/96	-1.0/95	-38
318009	TBC	TIRONUI SUPERMAN ET	449/83	-161	54	20	6.1	4.4	-0.10	0.0	1.7	-1.5/95	0.1/94	-39
318015	TBC	GLENUI SUPER LAMAR	438/83	-153	47	8	6.0	4.1	-0.62	6.1	3.1	-2.0/90	-0.8/89	-45
316039	JE6238	ULMARRA TT GALLIVANT	403/90	-315	44	13	6.1	4.4	0.03	6.7	2.5	-2.5/93	-0.9/94	-14
315045	JE4989	GLENUI DEGREE HOSS ET	348/93	-504	27	6	6.0	4.4	-0.45	3.3	3.4	-1.5/98	-1.0/98	-39
317034	JE6721	HEUVEN SUPER WISEGUY	348/89	-358	31	16	5.9	4.5	0.18	4.1	2.0	-2.7/63	-0.7/84	-37
315009	JE5061	RIVERVIEW AND DEXTER S2J	335/90	-119	26	17	5.5	4.3	-0.23	4.7	4.1	-1.1/97	-0.2/96	-23
317060	JE6727	PASPALUM OI LIMELIGHT	318/84	-521	23	5	5.9	4.4	-0.16	2.5	3.1	-2.7/46	-0.6/70	-66
KiwiCr	OSS®													
520085	TBC	SNOWLINE BENJI	422 / 62	40	53	26	5.8	4.3	-0.09	3.6	2.3	0.5/38	0.3 / 74	28
TBC	FR6892	LIC MOOREHII L MAX	391/59	547	47	32	5.2	4.0	-0.10	5.1	3.9	-0.4/31	-0.1/31	38
TBC	FR6823	LIC KILVOIGE STEPHEN	210 / 57	427	37	22	5.1	3.9	0.05	1.3	0.8	1.7 / 27	0.1 / 27	44
511011	ZSP	PRIESTS SIERRA	330/99	316	42	27	5.3	4.1	-0.15	5.2	3.4	2.4/99	0.2/99	36
518063	TBC	VAN STRAALENS SAFARI	317 / 80	494	32	32	4.9	4.0	-0.25	-1.1	2.5	0.4/79	-0.9/90	-5
518019	TBC	DIGGS HARDCOPY	387 / 80	-157	35	17	5.7	4.3	-0.65	7.9	1.7	-2.9 / 42	-0.7 / 68	-1
518061	TBC	INNOVATION HOMEBREW	372 / 80	-81	41	25	5.7	4.4	0.40	1.5	5.7	0.3/96	-0.1/94	21
517042	FR6793	LUCK-AT-LAST INSPIRED-ET	298 / 91	295	37	23	5.2	4.0	0.08	-3.4	2.4	0.1/98	-0.5/95	-16
517026	FR6790	HOWSES SPRINGFIELD	258 / 91	-526	26	10	6.0	4.5	-0.71	-2.4	2.0	-0.9/98	-0.8/96	10
TBC	JE6898	LIC MOOREHILL GALAXY	220 / 57	15	12	18	5.0	4.2	-0.04	8.6	2.8	-0.5 / 28	0/30	12
518038	TBC	WERDERS PREMONITION	441 / 82	29	59	25	6.0	4.3	-0.40	-1.5	4.2	-0.1 / 97	-0.2 / 91	13
TBC	JE6895	LIC BROOKLAWN MOONLIGHT ECLIPSE	287/58	2	22	23	5.2	4.3	-0.49	2.0	0.4	-0.7 / 31	-0.5/32	-13
TBC	JE7194	LIC NEWBAWN LILY	179 / 53	207	30	15	5.2	3.9	-0.28	-0.4	1.7	0.2/25	0.2/26	66
518072	TBC	DEANS PROFESSIONAL	354/80	235	41	21	5.4	4.0	0.04	3.6	4.2	-0.1/97	0.4/96	8
520033	TBC	DOWSON HONENUI-ET	330 / 56	-412	35	20	6.1	4.6	0.26	4.2	3.8	-2.8 / 75	-1.5 / 86	20
515017	JE6007	LYNBROOK KARTELL	282/88	-2	25	23	5.3	4.3	0.24	2.6	0.8	-0.8/99	-0.8 / 95	-19
TBC	JE6886	LIC KILVOIGE AARON	332/56	-150	41	12	5.8	4.2	0.22	3.6	3.2	-1.7 / 20	-0.5/24	2
515062	JE5893	DUGGANS GAMEPLAN	370 / 91	-553	36	11	6.3	4.6	0.02	3.5	1.0	-2.3/94	-0.8/92	-33

Sexed semen is offered for Single AI use only.

HF and JE bulls ranked according to gBW. KX bulls ranked according to breed split (highest FR content through to lowest)

Capacity	Udder Support	Udder Overall	Dairy Conformation	OAD Index	High Input	EBI/Re1%	Milk Prod SI	Fertility SI	Maintenance SI	Health SI	Mik Kg	Fat Kg	Protein Kg	Fat%	Protein %	Breed Split	A2/A2	Page
0.25	0.36	0.33	0.49	1240	1285	188 / 58	95	78	10	0	51	17	11	0.26	0.16	F16	A1/A2	18
0.55	0.55	0.57	0.36	1243	1285	232/50	88	93	35	4	-162	14	8	0.36	0.24	F16	A2/A2	20
0.33	0.45	0.38	0.43	1216	1246	196 / 61	109	54	17	3	60	20	12	0.31	0.18	F16	A2/A2	19
0.36	0.23	0.25	0.23	1155	1214	214 / 63	112	61	18	0	-44	17	12	0.32	0.24	F15J1	A1/A2	20
0.18	0.49	0.51	0.19	1177	1222	187 / 61	100	47	24	0	316	18	16	0.09	0.08	F16	A2/A2	21
0.59	0.05	0.26	0.53	1325	1351	301/58	110	127	46	9	-550	20	3	0.80	0.42	J16	A2/A2	28
0.49	0.56	0.68	0.53	1378	1384	298 / 59	145	106	35	3	-227	30	11	0.70	0.33	J16	A2/A2	29
0.39	0.68	0.83	0.42	1354	1377	269/58	108	111	39	3	-191	25	6	0.59	0.23	J16	A2/A2	30
0.62	0.34	0.62	0.59	1300	1347	228 / 66	122	67	54	5	-213	27	8	0.64	0.28	J16	A1/A2	28
0.25	0.49	0.66	0.33	1265	1287	243/70	103	90	56	12	-443	20	4	0.70	0.36	J16	A2/A2	29
0.32	0.04	0.06	0.34	1262	1271	220 / 61	129	49	44	-1	-180	22	12	0.52	0.32	J16	A2/A2	31
0.63	0.49	0.68	0.61	1272	1302	200/69	113	44	53	9	-130	19	11	0.42	0.27	J16	A2/A2	32
0.31	0.80	0.96	0.39	1280	1298	134 / 62	100	4	44	1	-304	21	5	0.60	0.28	J16	A1/A2	31
0.38	0.18	0.21	0.44	1300	1332	199 / 48	99	48	43	-2	-77	18	9	0.38	0.21	F12J4	A1/A2	46
0.60	0.65	0.57	0.64	1284	1344	277 / 54	97	127	24	3	-2	18	10	0.32	0.18	F12J4	A2/A2	50
0.30	0.28	0.15	0.32	1178	1196	231/60	104	82	26	1	-92	21	9	0.43	0.21	F12J4	A2/A2	51
0.51	0.53	0.48	0.61	1267	1305	173 / 95	103	43	17	-7	20	20	11	0.34	0.17	F11J5	A2/A2	38
0.71	0.64	0.76	0.67	1288	1305	206/55	94	50	53	13	6	14	11	0.24	0.19	F11J5	A2/A2	38
0.39	0.25	0.20	0.34	1272	1312	299/58	81	138	61	20	-357	14	3	0.52	0.29	F10J6	A2/A2	39
0.64	0.50	0.60	0.57	1281	1325	160 / 44	60	68	31	2	-395	9	1	0.46	0.27	F9J7	A2/A2	34
0.71	0.75	0.73	0.63	1281	1291	190 / 57	106	46	26	-9	20	19	12	0.32	0.19	F9J7	A2/A2	42
0.90	0.62	0.53	0.60	1248	1250	236 / 60	112	67	41	15	-117	20	10	0.43	0.25	F9J7	A2/A2	41
0.32	0.15	0.13	0.16	1144	1185	225 / 53	99	86	33	-2	-61	16	10	0.32	0.22	F9J5	A2/A2	51
0.62	0.65	0.71	0.69	1380	1380	200/56	108	44	49	5	-102	25	8	0.52	0.20	J8F8	A2/A2	43
0.30	0.12	0.15	0.03	1228	1235	245 / 54	107	81	50	10	29	16	13	0.25	0.21	F8J8	A2/A2	51
0.77	0.46	0.53	0.72	1144	1203	265 / 54	111	102	26	12	-53	25	9	0.48	0.19	F8J8	A2/A2	51
0.45	0.28	0.24	0.65	1255	1286	273 / 44	105	123	1	12	-58	21	10	0.41	0.20	J9F7	A2/A2	44
0.55	0.92	1.02	0.59	1288	1339	120 / 34	44	41	3	8	-273	9	0	0.35	0.18	J9F7	A2/A2	45
0.28	0.35	0.53	0.13	1240	1257	240 / 62	106	84	49	0	-144	15	11	0.36	0.28	J8F7	A1/A2	43
0.65	0.19	0.26	0.45	1240	1289	248 / 53	95	103	40	7	-324	19	5	0.58	0.29	J10F6	A1/A2	50
0.23	0.47	0.62	0.29	1292	1315	184 / 69	104	15	58	-2	-410	18	5	0.63	0.36	J12F4	A2/A2	34

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CONSIDERATIONS FOR USING SEXED SEMEN

To get the very best out of sexed semen on your farm, we recommend using a planned approach. Some suggestions include:

- Mate heifers 10 days or more ahead of the main herd.
 You'll get early-born replacements and the returns can be mated again in the next round of Al
- Avoid mix-ups by calving those in-calf to Al bulls separately to those in-calf to stock bulls
- Be certain the cow is on full standing heat. If you're unsure, use a conventional straw
- Use strict cow selection criteria for sexed semen matings. For example, young, high genetic merit, healthy, early-calved and cycling cows have better conception rates
- Mate selected cows ahead of the herd's mating start date, or move the mating start date of the herd forward a day or two if necessary
- Ensure underlying herd fertility performance is at a high level before considering the use of sexed semen and that AI best-practice is followed
- Have plenty of stock bulls on hand to cover returning cows. For example, two teams of one bull to 30 nonpregnant cows if using a two-year-old bull, plus spares
- Follow STgenetics® handling and insemination instructions for SexedULTRA 4M® sexed semen which can be found at lic.ie/products-services/sexed-semen

 Mate yearling heifers to sexed semen, as they have higher conception rates than in-milk cows.
 Choose bulls suitable for yearling mating and pregnancy scan early to identify those in-calf to Al bulls

Contact your local LIC Breeding Advisor for more information. They can work with you to estimate the potential impact of using sexed semen on your herd and create a variety of mating plan options to help achieve your goals.

Single A.I. Use Provision: The customer agrees that each straw of sorted semen purchased or otherwise acquired by LIC shall only be used by the customer for the single use artificial insemination of one female bovine with the intent to produce a single offspring, and not for in vitro fertilization or embryo transfer unless specifically approved on an individual customer basis by Inguran LLC. d/b/a Sexing Technologies® (Navasota, Texas, USA) in writing. STgenetics® and SexedULTRA 4M® are the trademarks of Inguran LLC.



12

HOLSTEIN FRIESIAN



NZ Bull Code	IRE AI Code	Bull Name	gBW/Rel	Fertility %	Milk Volume (litres)	FatKg	Protein Kg	Fat%	Protein %	Somatic Cell Count	Functional Survival	Heifer CD/Rel	Cow CD/Rel	Liveweight	Body Condition Score	Capacity
Holste	Holstein Friesian															
119014	FR7155	BUELIN BM EQUATOR S2F	344/63	6.8	616	51	30	5.2	3.9	0.13	3.2	5.2/55	1.0/92	55	0.10	0.46
118068	FR5941	BAGWORTH GI ORIGINAL S3F *	325/81	5.7	546	43	38	5.1	4.1	-0.12	4.2	2.1/36	0.4/93	84	0.15	0.25
118071	FR7974	GLENMEAD SB TRAPEZE S1F *	296/79	5.4	313	28	27	5.0	4.1	0.02	4.2	-1.0/73	0.3/94	16	0.12	0.55
115021	FR5920	GORDONS AM LANCELOT S3F	290/98	-0.8	526	35	37	4.9	4.1	0.06	4.2	4.6/80	0.9/99	38	0.14	0.57
117057	FR6736	MAIRE GL GRADUATE-ET	281/85	-0.6	364	34	36	5.1	4.2	0.28	3.6	5.1/35	1.2/90	31	0.00	-0.01
116124	FR5923	SPRING TRALEE BEAT-ET S1F	270/97	-3.1	597	30	33	4.8	4.0	0.29	3.9	1.3/68	0.4/79	6	0.27	0.33
118023	FR7977	TRONNOCO INCA SHAKIR S3F *	266/82	0.9	441	42	29	5.2	4.0	0.59	3.7	4.1/39	1.0/86	44	0.09	0.33
115023	FR5902	TANGLEWOOD MT KAURI S2F	265/89	5.8	185	33	22	5.3	4.1	-0.10	3.0	2.0/30	1.3/76	55	0.20	0.24
116118	FR5929	LIGHTBURN B MALBEC-ET S3F	256/89	1.2	483	30	34	4.9	4.1	-0.18	3.4	2.6/43	4.5/90	62	0.27	0.75
116036	FR6730	ARKAN MGH BACKDROP-ET S2F *	253/97	5.4	118	22	24	5.1	4.2	0.07	4.0	0.0/95	0.0/97	60	0.54	0.36
112032	FR5103	JACLES BOY JAKS S2F	251/98	3.0	522	30	26	4.9	3.9	0.20	3.8	-1.0/98	-0.7/97	17	0.08	0.77
117035	FR6742	BELLAMYS MH GAMBIT-ET S2F *	246/91	2.4	813	31	34	4.6	3.8	0.05	5.7	1.6/67	2.1/92	60	0.37	0.18
113009	FR4543	HAZAEL SH DISTINCT-ET S1F	230/99	5.6	443	21	28	4.7	4.0	-0.04	2.9	-0.4/96	0.1/98	21	0.00	-0.16
111036	FR2089	ARKAN FM BUSTER-ET S2F	224/99	2.4	194	34	19	5.3	4.0	0.28	1.8	1.0/99	0.6/99	34	0.07	0.47
113042	FR4971	CHARLTONS FI FINALCUT S2F	218/99	5.4	47	34	14	5.4	4.1	-0.03	2.7	1.4/70	0.6/89	69	0.22	0.24
115048	FR4977	ZINKS GFB BACHELOR-ET S1F	216/90	4.6	697	27	30	4.6	3.9	-0.11	1.2	3.8/32	-0.6/71	53	0.19	0.61
113046	FR5947	MEANDER ROCKETMAN-ET S1F	199/97	-1.5	109	27	20	5.2	4.1	-0.06	1.5	0.5/86	-0.2/88	31	0.10	0.34
115017	FR5926	LANGEVELDS SRB VALOUR S2F	193/97	0.5	793	36	32	4.7	3.8	0.14	3.3	-0.6/66	0.0/86	79	0.17	0.54
116066	FR5950	DICKSONS GI ESCALADE S3F	165/88	1.6	345	24	24	4.9	4.0	0.11	4.1	2.3/36	2.4/82	63	0.17	0.37
111011	AKK	ASHDALE FM KELSBELLS S1F	140/99	2.7	393	11	28	4.6	4.1	-0.06	4.3	1.6/98	0.7/99	50	0.11	0.30

*Sexed semen is offered for Single AI use only. See page 12 for more information.	
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BAGWORTH GI ORIGINAL S3F *



GLENMEAD SB TRAPEZE S1F *



GORDONS AM LANCELOT S3F





SPRING TRALEE BEAT-ET S1F



TRONNOCO INCA SHAKIR S3F *



TANGLEWOOD MT KAURI S2F



LIGHTBURN B MALBEC-ET S3F



ARKAN MGH BACKDROP-ET S2F *



JACLES BOY JAKS S2F



BELLAMYS MH GAMBIT-ET S2F *



HAZAEL SH DISTINCT-ET S1F



ARKAN FM BUSTER-ET S2F



CHARLTONS FI FINALCUT S2F



ZINKS GFB BACHELOR-ET S1F



MEANDER ROCKETMAN-ET S1F



LANGEVELDS SRB VALOUR S2F



DICKSONS GI ESCALADE S3F



ASHDALE FM KELSBELLS S1F

TOP 5 PERFORMERS

Breeding Worth

NZ Herd Holstein Friesian Average NZD\$82

Bull Code	Name	gBW/Rel%	Page
119014	BUELIN BM EQUATOR S2F	344/63	22
118068	BAGWORTH GI ORIGINAL S3F*	325/81	18
118071	GLENMEAD SB TRAPEZE S1F*	296/79	20
115021	GORDONS AM LANCELOT S3F	290/98	19
117057	MAIRE GL GRADUATE-ET	281/85	23

EBI			
Bull Code	Name	EBI (€)	Page
115023	TANGLEWOOD MT KAURI S2F	278/61	18
113042	CHARLTONS FI FINALCUT S2F	245/72	23
118071	GLENMEAD SB TRAPEZE S1F *	232/50	20
117057	MAIRE GL GRADUATE-ET	217/57	23
116036	ARKAN MGH BACKDROP-ET S2F *	214/63	20

Protein

NZ Herd Holstein Friesian Average 22kg/3.80%

Bull Code	Name	Protein (kg/%)	Page
118068	BAGWORTH GI ORIGINAL S3F*	39/4.1	18
115021	GORDONS AM LANCELOT S3F	37/4.1	19
117057	MAIRE GL GRADUATE-ET	37/4.2	23
117035	BELLAMYS MH GAMBIT-ET S2F*	34/3.8	21
116118	LIGHTBURN B MALBEC-ET S3F	34/4.1	22

Fat

NZ Herd Holstein Friesian Average 15kg/4.52%

Bull Code	Name	Fat (kg/%)	Page
119014	BUELIN BM EQUATOR S2F	51/5.2	22
118068	BAGWORTH GI ORIGINAL S3F*	44/5.1	18
118023	TRONNOCO INCA SHAKIR S3F*	43/5.2	19
115017	LANGEVELDS SRB VALOUR S2F	36/4.7	21
115021	GORDONS AM LANCELOT S3F	35/4.9	19

Fertility

NZ Herd Holstein Friesian Average -0.9%

Bull Code	Name	Fertility (%)	Page
119014	BUELIN BM EQUATOR S2F	6.8	22
115023	TANGLEWOOD MT KAURI S2F	5.8	18
118068	BAGWORTH GI ORIGINAL S3F*	5.7	18
113009	HAZAEL SH DISTINCT-ET S1F	5.6	14
118071	GLENMEAD SB TRAPEZE S1F*	5.4	20

Milk Volume

NZ Herd Holstein Friesian Average 551 litres

Bull Code	Name	Volume (I)	Page
117035	BELLAMYS MH GAMBIT-ET S2F*	813	21
115017	LANGEVELDS SRB VALOUR S2F	793	21
115048	ZINKS GFB BACHELOR-ET S1F	697	14
119014	BUELIN BM EQUATOR S2F	616	22
116124	SPRING TRALEE BEAT-ET S1F	597	14

SCC

NZ Herd Holstein Friesian Average 0.05

Bull Code	Name	scc	Page
116118	LIGHTBURN B MALBEC-ET S3F	-0.18	22
118068	BAGWORTH GI ORIGINAL S3F*	-0.12	18
115048	ZINKS GFB BACHELOR-ET S1F	-0.11	14
115023	TANGLEWOOD MT KAURI S2F	-0.10	18
111011	ASHDALE FM KELSBELLS S1F	-0.06	14

C	ap	a	Ci	ty	
N7					

116036

stein Friesian Average 0.17

Bull Code	Name	Capacity	Page
112032	JACLES BOY JAKS S2F	0.77	14
116118	LIGHTBURN B MALBEC-ET S3F	0.75	22
115048	ZINKS GFB BACHELOR-ET S1F	0.61	14
115021	GORDONS AM LANCELOT S3F	0.57	19
118071	GLENMEAD SBTRAPEZE S1F*	0.55	20

Udder Overall

NZ Herd Holstein Friesian Average 0.22

Bull Code	Name	Udder Overall	Page
116118	LIGHTBURN B MALBEC-ET S3F	1.18	22
113042	CHARLTONS FI FINALCUT S2F	0.77	23
117057	MAIRE GL GRADUATE-ET	0.72	23
118071	GLENMEAD SB TRAPEZE S1F*	0.57	20
116066	DICKSONS GI ESCALADE S3F	0.57	14

Heifer Calving Difficulty NZ Herd Holstein Friesian Average 1.9% Bull Code 118071 GLENMEAD SB TRAPEZE S1F* -1.0/73 20 112032 JACLES BOY JAKS S2F 115017 LANGEVELDS SRB VALOUR S2F -0.6/66 HAZAFI SH DISTINCT-FT S1F -0.4/96 113009

ARKAN MGH BACKDROP-ET S2F

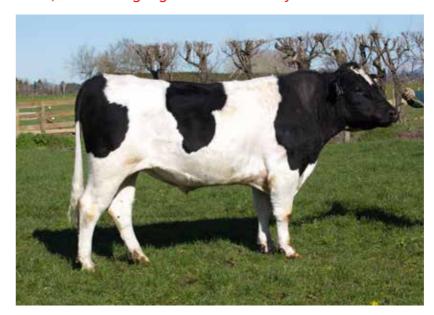




THE POWER & THE PASSION: HOLSTEIN FRIESIANS HOLD FIRM

By Michele van der Aa, LIC sire analyst

Here, Michele highlights some of this year's black & whites that have caught her eye.



118023 Tronnoco Inca Shakir:

It's unlikely to get more wellbalanced than 118023 Tronnoco Inca Shakir S3F, who offers both production (including positive fertility) and well-rounded TOPs. Coming from the well-bred S family of Tony & Keri O'Connor's Tronnoco stud in Timaru, Shakir's great grand dam is the grand dam of the successful Samba. A recent addition to the Forward Pack as a spring bull, this Inca son offers a 266 gBW, is F16, and is A2A2! Complementing this is a capacity gBV of 0.33 and an udder overall gBV of 0.38.

118068 Bagworth GI Original:

Robert and Ann Siddins of the Bagworth Stud in Thames have delivered 118068 Bagworth GI Original. Original comes from a solid producing maternal line and is no stranger to providing sires, with his dam in the middle of her 10th lactation and in all fairness, they have been 10 pretty good ones. At 325 gBW, he's the only A1A2 Friesian bull to be profiled here. Original is balanced in both TOPs and delivers a 546 milk gBV from a liveweight gBV of 84. He also delivers massive fertility of 5.7 and 83 kgs of fat and protein combined.



118071 Glenmead SB Trapeze:



Efficiency is the key word when it comes to Trapeze. An A2A2 Spring Tralee Bass son, low liveweight at 16kgs, making him a safe option for use on well grown heifers. Trapeze's dam is still a contract cow at 7 years old, a great innings and sign of a really strong cow family. Bred by Kevin and Felicity Clark from the Glenmead herd in the Bay of Plenty. Some of Trapeze highlights are a gBW of 296, a fertility gBV of 5.4 and 0.57 in the udder with 62 daughters analysed so far.



^{*} Sexed semen is offered for Single AI use only. See page 12 for more information.



116	Survival	2.95
139	Cow Calving Difficulty	2.60
27	Heifer Calving Difficulty	6.70
-31	Somatic Cell Count	-0.07
4	Milk kg	92
21	Fat kg/%	21/0.31
2	Protein kg/%	14/0.18
-8.12	Pedigree Status	SRM
	139 27 -31 4 21 2	139 Cow Calving Difficulty 27 Heifer Calving Difficulty -31 Somatic Cell Count 4 Milk kg 21 Fat kg/% 2 Protein kg/%

87 NZ Daughters NEW ZEALAND DETAILS

gBW/Rel **265/89%** HoofPrint®

Breeding Details Split F16

Sire MITCHELLS WT TYPHOON S2F MGS SRC LAKESIDE DG MAGIC MGGS SRD JENERAYTIONS BANQUET

Milk	185	Milkfat	34/5.3	Protein	22/4.1
Somatic Cell Count	-0.10	Cow Calving Diff	1.3/76	Heifer Calving Diff	2.0/30
Gestation Length	-0.3	Body Condition	0.20	Functional Survival	3.0
Fertility	5.8	Liveweight	55		

NZ Evaluation Data		72 Da	Jghters '	TOP Inspe	cted
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.31				
Shed Temperament	0.31				
Milking Speed	0.08				
Overall Opinion	0.41				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.74				
Capacity	0.24				
Rump Angle	-0.67				
Rump Width	0.12				
Legs	-0.11				
Udder Support	0.31				
Front Udder	0.24				
Rear Udder	0.35				
Front Teat Placement	-0.05				
Rear Teat Placement	-0.12				
Teat Length	0.50				
Udder Overall	0.31				
Dairy Conformation	0.31				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1230	1185	A1/A2



IRELAND VALUES				
Milk Prod SI	95	Survival	1.54	
Fertility SI	78	Cow Calving Difficulty	3.20	
Calving SI	26	Heifer Calving Difficulty	7.50	
Beef SI	-24	Somatic Cell Count	0.07	
Health SI	0	Milk kg	51	
Maintenance SI	10	Fat kg/%	17/0.26	
Management SI	2	Protein kg/%	11/0.16	
Calving Interval (days)	-4.70	Pedigree Status	SRM	

81 NZ Daughters NEW ZEALAND DETAILS



Breeding Details Split F16 Sire GYDELAND EXCEL INCA S3F MGS FAIRMONT MINT-EDITION MGGS VALDEN HI APPLAUSE-ET S2F

Milk	546	Milkfat	44/5.1	Protein	39/4.1
Somatic Cell Count	-0.12	Cow Calving Diff	0.4/93	Heifer Calving Diff	2.1/36
Gestation Length	-3.5	Body Condition	0.15	Functional Survival	4.2
Fertility	5.7	Liveweight	84		

NZ Evaluation Data		77 Da	ughters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.03				
Shed Temperament	0.01				
Milking Speed	0.10				
Overall Opinion	0.26				
Conformation	BV	-0.5	0	0.5	1.0
Stature	1.33				
Capacity	0.25				
Rump Angle	0.11				
Rump Width	0.38				
Legs	-0.08				
Udder Support	0.36				
Front Udder	0.21				
Rear Udder	0.40				
Front Teat Placement	-0.11				
Rear Teat Placement	-0.15				
Teat Length	0.79				
Udder Overall	0.33				
Dairy Conformation	0.49				

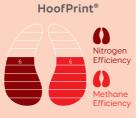
LIC Initiatives			
High Input	Once-A-Day	A2 Protein	
1285	1240	A1/A2	
		_	



SHAKIR S3F 196/61%

IRELAND VALUES					
Milk Prod SI	109	Survival	1.91		
Fertility SI	54	Cow Calving Difficulty	2.74		
Calving SI	28	Heifer Calving Difficulty	6.29		
Beef SI	-22	Somatic Cell Count	0.07		
Health SI	3	Milk kg	60		
Maintenance SI	17	Fat kg/%	20/0.31		
Management SI	8	Protein kg/%	12/0.18		
Calving Interval (days)	-2.39	Pedigree Status	SRM		

112 NZ Daughters NEW ZEALAND DETAILS gBW/Rel **266/82%**



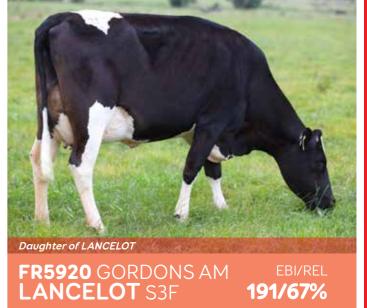
Breeding Details Split F16 Sire GYDELAND EXCEL INCA S3F MGS MOURNE GROVE HOTHOUSE S2F MGGS WESTLAND CL JASPER-ET S1F

Milk	441	Milkfat	43/5.2	Protein	29/4.0
Somatic Cell Count	0.59	Cow Calving Diff	1.0/86	Heifer Calving Diff	4.1/39
Gestation Length	-1.4	Body Condition	0.09	Functional Survival	3.7
Fertility	0.9	Liveweight	44		

NZ Evaluation Data		95 Dai	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.29				
Shed Temperament	0.28				
Milking Speed	0.18				
Overall Opinion	0.49				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.64				
Capacity	0.33				
Rump Angle	0.13				
Rump Width	0.22				
Legs	-0.03				
Udder Support	0.45				
Front Udder	0.36				
Rear Udder	0.46				
Front Teat Placement	-0.07				
Rear Teat Placement	0.26				
Teat Length	-0.26				
Udder Overall	0.38				
Dairy Conformation	0.43				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1246	1216	A2/A2

icof 11/2021



IRELAND VALUES			
Milk Prod SI	108	Survival	2.33
Fertility SI	54	Cow Calving Difficulty	3.00
Calving SI	21	Heifer Calving Difficulty	7.10
Beef SI	-37	Somatic Cell Count	0.05
Health SI	-2	Milk kg	92
Maintenance SI	41	Fat kg/%	17/0.23
Management SI	7	Protein kg/%	14/0.19

NEW ZEALAND DETAILS 2760 NZ Daughters



HoofPrint®

Calving Interval (days) -2.00 Pedigree Status

Breeding Details Split F16 Sire ALJO TEF MAELSTROM-ET S3F MGS MACFARLANES DAUNTLESS MGGS MITCHELLS NOTEWORTHY S1F

Milk	526	Milkfat	35/4.9	Protein	37/4.1
Somatic Cell Count	0.06	Cow Calving Diff	0.9/99	Heifer Calving Diff	4.6/80
Gestation Length	-1.9	Body Condition	0.14	Functional Survival	4.2
Fertility	-0.8	Liveweight	38		

NZ Evaluation Data		137 Da	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.31				
Shed Temperament	0.32				
Milking Speed	0.11				
Overall Opinion	0.23				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.55				
Capacity	0.57				
Rump Angle	0.25				
Rump Width	0.50				
Legs	0.00				
Udder Support	0.47				
Front Udder	0.49				
Rear Udder	0.16				
Front Teat Placement	-0.01				
Rear Teat Placement	0.56				
Teat Length	-1.17				
Udder Overall	0.30				
Dairy Conformation	0.56				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1266	1247	A1/A1

icof 11/2021 DP-INT



10/12/2021 **DP - INT**

icof 11/2021



10/12/2021

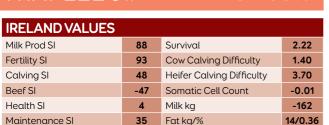
DP-INT

10/12/2021 **DP - INT**

icof 11/2021

10/12/2021





NEW ZEALAND DETAILS 72 NZ Daughters gBW/Rel **296/79%**

9 Protein kg/%

-5.22 Pedigree Status

HoofPrint®

Management SI

Calving Interval (days)

Breeding Details Split F15J1

Sire SPRING TRALEE BASS-ET S2F MGS BUSY BROOK REVITUP-ET S2F MGGS HOWIES CHECKPOINT

8/0.24

SRM

Milk	313	Milkfat	29/5.0	Protein	28/4.1
Somatic Cell Count	0.02	Cow Calving Diff	0.3/94	Heifer Calving Diff	-1.0/73
Gestation Length	-5.7	Body Condition	0.12	Functional Survival	4.2
Fertility	5.4	Liveweight	16		

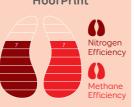
NZ Evaluation Data		62 Dev	, albhara ⁻	TOD In one	
NZ Evaluation Data		62 Dat	Ignters	TOP Insp	ectea
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.26				
Shed Temperament	0.27				
Milking Speed	0.12				
Overall Opinion	0.32				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.09				
Capacity	0.55				
Rump Angle	0.51				
Rump Width	0.22				
Legs	0.08				
Udder Support	0.55				
Front Udder	0.44				
Rear Udder	0.38				
Front Teat Placement	0.40				
Rear Teat Placement	0.69				
Teat Length	-1.11				
Udder Overall	0.57				
Dairy Conformation	0.36				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1285	1243	A2/A2



IRELAND VALUES			
Milk Prod SI	112	Survival	3.05
Fertility SI	61	Cow Calving Difficulty	1.70
Calving SI	42	Heifer Calving Difficulty	2.90
Beef SI	-18	Somatic Cell Count	0
Health SI	0	Milk kg	-44
Maintenance SI	18	Fat kg/%	17/0.32
Management SI	0	Protein kg/%	12/0.24
Calving Interval (days)	-1.82	Pedigree Status	SRM

3491 NZ Daughters NEW ZEALAND DETAILS **HoofPrint®** gBW/Rel **253/97%**



Breeding Details Split F15J1 Sire MOURNE GROVE HOTHOUSE S2F MGS FAIRMONT MINT-EDITION MGGS SRC HIBI SECRET SKELTON

Milk	118	Milkfat	23/5.1	Protein	25/4.2
Somatic Cell Count	0.07	Cow Calving Diff	0.0/97	Heifer Calving Diff	0.0/95
Gestation Length	-6.7	Body Condition	0.54	Functional Survival	4.0
Fertility	5.4	Liveweight	60		

NZ Evaluation Data		122 Da	ughters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.53				
Shed Temperament	0.54				
Milking Speed	0.27				
Overall Opinion	0.59				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.54				
Capacity	0.36				
Rump Angle	-0.11				
Rump Width	-0.05				
Legs	-0.10				
Udder Support	0.23				
Front Udder	0.29				
Rear Udder	-0.02				
Front Teat Placement	0.21				
Rear Teat Placement	0.01				
Teat Length	0.55				
Udder Overall	0.25				
Dairy Conformation	0.23				



GAMBIT-ET S2F 187/61%

IRELAND VALUES						
Milk Prod SI	100	Survival	1.91			
Fertility SI	47	Cow Calving Difficulty	2.30			
Calving SI	38	Heifer Calving Difficulty	5.70			
Beef SI	-21	Somatic Cell Count	-0.01			
Health SI	0	Milk kg	316			
Maintenance SI	24	Fat kg/%	18/0.09			
Management SI	-1	Protein kg/%	16/0.08			
Calving Interval (days)	-1.82	Pedigree Status	SRM			

NEW ZEALAND DETAILS 1541 NZ Daughters gBW/Rel **246/91%** HoofPrint®



Breeding Details Split F16 Sire MOURNE GROVE HOTHOUSE S2F MGS VALDEN HI APPLAUSE-ET S2F MGGS SRC LAKESIDE DG MAGIC

Milk	813	Milkfat	31/4.6	Protein	34/3.8
Somatic Cell Count	0.05	Cow Calving Diff	2.1/92	Heifer Calving Diff	1.6/67
Gestation Length	-3.9	Body Condition	0.37	Functional Survival	5.7
Fertility	2.4	Liveweight	60		

NZ Evaluation Data		96 Daı	ghters	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.49				
Shed Temperament	0.50				
Milking Speed	0.12				
Overall Opinion	0.63				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.63				
Capacity	0.18				
Rump Angle	-0.14				
Rump Width	0.19				
Legs	-0.15				
Udder Support	0.49				
Front Udder	0.33				
Rear Udder	0.40				
Front Teat Placement	0.12				
Rear Teat Placement	-0.10				
Teat Length	-0.08				
Udder Overall	0.51				
Dairy Conformation	0.19				

Once-A-Day	A2 Protein
1177	A2/A2
	•

10/12/2021 **DP - INT**



VALOUR S2F	208/68%
IRFI AND VALUES	

92	Survival	3.77
110	Cow Calving Difficulty	2.70
21	Heifer Calving Difficulty	6.60
-29	Somatic Cell Count	0.08
-7	Milk kg	132
23	Fat kg/%	17/0.20
-2	Protein kg/%	12/0.12
-5.04	Pedigree Status	SRM
	110 21 -29 -7 23 -2	110 Cow Calving Difficulty 21 Heifer Calving Difficulty -29 Somatic Cell Count -7 Milk kg 23 Fat kg/% -2 Protein kg/%





-	ii e e	ung Details
Sp	olit	F15J1
Si	re	SAN RAY FM BEAMER-ET S2F
М	GS	HAZAEL VA RAZZLER-ET S2F
М	GGS	MITCHELLS NOTEWORTHY S1F

Milk	793	Milkfat	36/4.7	Protein	32/3.8
Somatic Cell Count	0.14	Cow Calving Diff	0.0/86	Heifer Calving Diff	-0.6/66
Gestation Length	-1.2	Body Condition	0.17	Functional Survival	3.3
Fertility	0.5	Liveweight	79		

NZ Evaluation Data			85 Daughters TOP Inspected			
BV	-0.5	0	0.5	1.0		
-0.25						
-0.29						
0.44						
0.07						
BV	-0.5	0	0.5	1.0		
0.95						
0.54						
0.18						
0.61						
0.09						
0.42						
0.56						
0.34						
-0.14						
-0.31						
-0.09						
0.40						
0.49						
	-0.25 -0.29 0.44 0.07 BV 0.95 0.54 0.61 0.09 0.42 0.56 0.34 -0.14 -0.31 -0.09	BV -0.5 -0.25 -0.29 0.44 0.07 BV -0.5 0.95 0.54 0.18 0.61 0.09 0.42 0.56 0.34 -0.14 -0.31 -0.09 0.40	BV -0.5 0 -0.25 -0.29 0.44 0.07 BV -0.5 0 0.95 0.54 0.18 0.61 0.09 0.42 0.56 0.34 -0.14 -0.31 -0.09 0.40	BV -0.5 0 0.5 -0.25 -0.29 0.44 0.07 BV -0.5 0 0.5 0.95 0.54 0.18 0.61 0.09 0.42 0.56 0.34 -0.14 -0.31 -0.09 0.40		

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1198	1172	A1/A1
		_

DP-INT





LIC Initiatives High Input



Once-A-Day



A2 Protein A1/A2





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MALBEC-ETS3F

IRELAND VALUES			
Milk Prod SI	107	Survival	2.58
Fertility SI	58	Cow Calving Difficulty	4.00
Calving SI	-6	Heifer Calving Difficulty	11.0
Beef SI	-25	Somatic Cell Count	-0.04
Health SI	2	Milk kg	63
Maintenance SI	15	Fat kg/%	17/0.25
Management SI	4	Protein kg/%	13/0.19
Calving Interval (days)	-2.09	Pedigree Status	SRM

98 NZ Daughters NEW ZEALAND DETAILS

gBW/Rel **256/89%**

Breeding Details



Split F15J1 Sire SAN RAY FM BEAMER-ET S2F MGS WOODCOTE TF MAXIMISER MGGS SRD JENERAYTIONS BANQUET

Milk	483	Milkfat	31/4.9	Protein	34/4.1
Somatic Cell Count	-0.18	Cow Calving Diff	4.5/90	Heifer Calving Diff	2.6/43
Gestation Length	-0.3	Body Condition	0.27	Functional Survival	3.4
Fertility	1.2	Liveweight	62		

NZ Evaluation Data		93 Dai	Jghters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.41				
Shed Temperament	0.44				
Milking Speed	-0.29				
Overall Opinion	0.43				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.79				
Capacity	0.75				
Rump Angle	-0.22				
Rump Width	0.35				
Legs	-0.07				
Udder Support	0.93				
Front Udder	1.05				
Rear Udder	0.84				
Front Teat Placement	0.66				
Rear Teat Placement	0.47				
Teat Length	-0.26				
Udder Overall	1.18				
Dairy Conformation	0.84				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1296	1234	A1/A2

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IRELAND VALUES					
Milk Prod SI	66	Survival	1.28		
Fertility SI	42	Cow Calving Difficulty	2.40		
Calving SI	21	Heifer Calving Difficulty	6.20		
Beef SI	-11	Somatic Cell Count	0.04		
Health SI	1	Milk kg	-56		
Maintenance SI	16	Fat kg/%	17/0.33		
Management SI	2	Protein kg/%	5/0.11		
Calving Interval (days)	-2.10	Pedigree Status	SRM		

NEW ZEALAND DETAILS

0 NZ Daughters gBW/Rel **344/63**%



Breeding Details Split F16 Sire BOTHWELL WT MAXIMA S2F MGS FAIRMONT MINT-EDITION MGGS O-BEEMANFREDJUSTICEETTVTL

Milk	616	Milkfat	51/5.2	Protein	31/3.9
Somatic Cell Count	0.13	Cow Calving Diff	1.0/92	Heifer Calving Diff	5.2/55
Gestation Length	-7.7	Body Condition	0.10	Functional Survival	3.2
Fertility	6.8	Liveweight	55		

NZ Evaluation Data		0 Dai	ughters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.51				
Shed Temperament	0.52				
Milking Speed	0.23				
Overall Opinion	0.60				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.68				
Capacity	0.46				
Rump Angle	-0.09				
Rump Width	0.47				
Legs	-0.15				
Udder Support	0.61				
Front Udder	0.32				
Rear Udder	0.41				
Front Teat Placement	0.18				
Rear Teat Placement	0.42				
Teat Length	-0.20				
Udder Overall	0.52				
Dairy Conformation	0.53				

LIC Initiatives			
High Input	Once-A-Day	A2 Protein	
1325	1276	A1/A2	

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GRADUATE-ET

217/57%

IRELAND VALUES					
Milk Prod SI	104	Survival	1.73		
Fertility SI	70	Cow Calving Difficulty	2.70		
Calving SI	34	Heifer Calving Difficulty	7.20		
Beef SI	-31	Somatic Cell Count	0.03		
Health SI	3	Milk kg	20		
Maintenance SI	31	Fat kg/%	16/0.26		
Management SI	5	Protein kg/%	12/0.21		
Calving Interval (days)	-3.88	Pedigree Status	SRM		

77 NZ Daughters NEW ZEALAND DETAILS

gBW/Rel **281/85**% HoofPrint®



Breeding Details Split F16 Sire GORDONS AM LANCELOT S3F MGS FARSIDE MILLUSTRIOUS S3F MGGS SRD WHINLEA KL ECLIPSE-ET

Milk	364	Milkfat	34/5.1	Protein	37/4.2
Somatic Cell Count	0.28	Cow Calving Diff	1.2/90	Heifer Calving Diff	5.1/35
Gestation Length	-0.2	Body Condition	0.00	Functional Survival	3.6
Fertility	-0.6	Liveweight	31		

NZ Evaluation Data		74 Dai	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.07				
Shed Temperament	0.08				
Milking Speed	0.03				
Overall Opinion	0.05				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.61				
Capacity	-0.01				
Rump Angle	-0.22				
Rump Width	0.17				
Legs	-0.04				
Udder Support	0.82				
Front Udder	0.69				
Rear Udder	0.62				
Front Teat Placement	0.26				
Rear Teat Placement	1.09				
Teat Length	-1.37				
Udder Overall	0.72				
Dairy Conformation	0.17				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1276	1259	A1/A1

Dam of FINALCUT FR4971 CHARLTONS FI FINALCUT S2F 245/72%

IRELAND VALUES			
Milk Prod SI	98	Survival	1.95
Fertility SI	108	Cow Calving Difficulty	2.20
Calving SI	38	Heifer Calving Difficulty	5.40
Beef SI	-25	Somatic Cell Count	-0.04
Health SI	4	Milk kg	-93
Maintenance SI	18	Fat kg/%	21/0.43
Management SI	4	Protein kg/%	8/0.20
Calving Interval (days)	-6.63	Pedigree Status	SRM

3661 NZ Daughters NEW ZEALAND DETAILS

HoofPrint®

Breeding Details Split F16 Sire FARSIDE MILLUSTRIOUS S3F MGS PUKETIRO FROSTMAN S1F MGGS LAKESIDESDMEADOWS

gBW/Rel **218/99%**

Milk	47	Milkfat	35/5.4	Protein	14/4.1
Somatic Cell Count	-0.03	Cow Calving Diff	0.6/89	Heifer Calving Diff	1.4/70
Gestation Length	-3.4	Body Condition	0.22	Functional Survival	2.7
Fertility	5.4	Liveweight	69		

NZ Evaluation Data		93 Dai	ughters ⁻	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.11				
Shed Temperament	0.10				
Milking Speed	0.20				
Overall Opinion	0.32				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.99				
Capacity	0.24				
Rump Angle	-0.66				
Rump Width	0.36				
Legs	-0.33				
Udder Support	0.89				
Front Udder	0.70				
Rear Udder	0.64				
Front Teat Placement	0.09				
Rear Teat Placement	0.40				
Teat Length	-0.54				
Udder Overall	0.77				
Dairy Conformation	0.35				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1238	1183	A1/A2

DP-INT

DP-INT

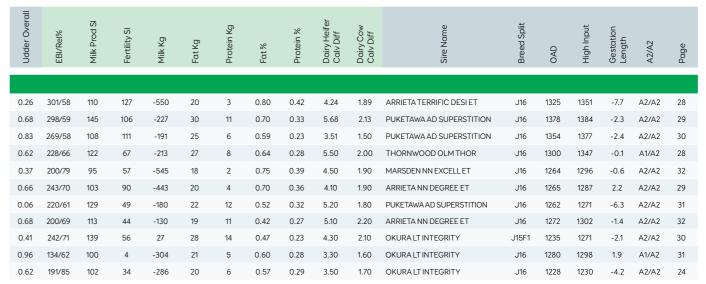
Jersey | Premier Club Bulls

JERSEY DAUGHTER PROVEN



NZ Bull Code	NZ Bull Code IRE AI Code Bull Name		gBW/Rel	Fertility %	Milk Volume (litres)	FatKg	Protein Kg	Fat%	Protein %	Somatic Cell Count	Functional Survival	Heifer CD/Rel	Cow CD/Rel	Liveweight	Body Condition Score	Capacity
Jersey	,															
318021	TBC	GLANTON DESI BANFF *	462/83	5.2	-733	44	9	6.8	4.7	-0.35	3.5	-2.6/96	-1.0/95	-38	0.10	0.59
318009	TBC	TIRONUI SUPERMAN ET *	449/83	0.0	-161	54	20	6.1	4.4	-0.10	1.7	-1.5/95	0.1/94	-39	-0.08	0.49
318015	TBC	GLENUI SUPER LAMAR *	438/83	6.1	-153	48	8	6.0	4.1	-0.62	3.1	-2.0/90	-0.8/89	-45	-0.01	0.39
316039	JE6238	ULMARRATT GALLIVANT*	403/90	6.7	-315	44	13	6.1	4.4	0.03	2.5	-2.5/93	-0.9/94	-14	0.07	0.62
314052	JE4516	CRESCENT EXCELL MISTY ET	358/94	0.0	-898	33	3	6.8	4.8	-0.43	3.9	-2.0/99	-0.8/99	-8	0.41	1.26
315045	JE4989	GLENUI DEGREE HOSS ET *	348/93	3.3	-504	27	6	6.0	4.4	-0.45	3.4	-1.5/98	-1.0/98	-39	0.18	0.25
317034	JE6721	HEUVEN SUPER WISEGUY*	348/89	4.1	-358	31	16	5.9	4.5	0.18	2.0	-2.7/63	-0.7/84	-37	-0.05	0.32
315009	JE5061	RIVERVIEW AND DEXTER S2J *	335/90	4.7	-119	26	17	5.5	4.3	-0.23	4.1	-1.1/97	-0.2/96	-23	0.18	0.63
314004	JE5992	BELLS OI FLOYD S3J	318/98	1.1	3	32	17	5.4	4.2	-0.26	3.7	-1.7/99	-1.2/98	-1	0.29	0.62
317060	JE6727	PASPALUM OI LIMELIGHT*	318/84	2.5	-521	23	5	5.9	4.4	-0.16	3.1	-2.7/46	-0.6/70	-66	0.00	0.31
314012	JE4259	KAITAKA OI LEOPARD ET	284/97	2.0	-694	23	-1	6.2	4.4	-0.20	3.4	-1.8/98	-0.6/97	-60	-0.08	-0.15

 $^{*}\mbox{Sexed}$ semen is offered for Single AI use only. See page 12 for more information.







10/12/2021



GLANTON DESI BANFF *



TIRONUI SUPERMAN ET *



GLENUI SUPER LAMAR *



ULMARRATT GALLIVANT *



CRESCENT EXCELL MISTY ET



GLENUI DEGREE HOSS ET *



HEUVEN SUPER WISEGUY *



RIVERVIEW AND DEXTER S2J *



BELLS OI FLOYD S3J



PASPALUM OI LIMELIGHT *



KAITAKA OI LEOPARD ET

TOP 5 PERFORMERS

Breeding Worth

New Zealand Herd Jersey Average NZD\$176

Bull Code	Name	gBW/Rel%	Page	
318021	GLANTON DESI BANFF *	462/83	28	
318009	TIRONUI SUPERMAN ET *	449/83	29	
318015	GLENUI SUPER LAMAR *	438/83	30	
316039	ULMARRATT GALLIVANT*	403/90	28	
314052	CRESCENT EXCELL MISTY ET	358/94	32	

EBI Bull Code EBI (€) 318021 GLANTON DESI BANFF * 301/58 28 318009 TIRONUI SUPERMAN ET * 298/59 29 GLENUI SUPER LAMAR * 318015 269/58 30 GLENUI DEGREE HOSS ET * 315045 243/70

242/71

Protein

Jersey | TOP 5 Performers

New Zealand Herd Jersey Average -1kg/4.16%

Bull Code	Name	Protein (kg/%)	Page
318009	TIRONUI SUPERMAN ET *	20/4.4	29
315009	RIVERVIEW AND DEXTER S2J *	17/4.3	32
314004	BELLS OI FLOYD S3J	17/4.2	30
317034	HEUVEN SUPER WISEGUY *	16/4.5	31
316039	ULMARRATT GALLIVANT *	13/4.4	28

Fat

314004

New Zealand Herd Jersey Average 9kg/5.47%

BELLS OI FLOYD S3J

Bull Code	Name	Fat (kg/%)	Page
318009	TIRONUI SUPERMAN ET *	54/6.1	29
318015	GLENUI SUPER LAMAR *	48/6.0	30
316039	ULMARRATT GALLIVANT*	45/6.1	28
318021	GLANTON DESI BANFF *	44/6.8	28
314052	CRESCENT EXCELL MISTY ET	33/6.8	32

Fertility

New Zealand Herd Jersey Average 1.2%

Bull Code	Name	Fertility (%)	Page
316039	ULMARRATT GALLIVANT *	6.7	28
318015	GLENUI SUPER LAMAR *	6.1	30
318021	GLANTON DESI BANFF *	5.2	28
315009	RIVERVIEW AND DEXTER S2J *	4.7	32
317034	HEUVEN SUPER WISEGUY*	4.1	31

Milk Volume

New Zealand Herd Jersey Average -438 litres

Bull Code	Name	Volume (I)	Page
314004	BELLS OI FLOYD S3J	3	30
315009	RIVERVIEW AND DEXTER S2J *	-119	32
318015	GLENUI SUPER LAMAR *	-153	30
318009	TIRONUI SUPERMAN ET*	-161	29
316039	ULMARRATT GALLIVANT*	-315	28

SCC

26

New Zealand Herd Jersey Average -0.08

Bull Code	Name	scc	Page
318015	GLENUI SUPER LAMAR *	-0.62	30
315045	GLENUI DEGREE HOSS ET *	-0.45	29
314052	CRESCENT EXCELL MISTY ET	-0.43	32
318021	GLANTON DESI BANFF *	-0.35	28
314004	BELLS OI FLOYD S3J	-0.26	30

Capacity

New Zealand Herd Jersey Average 0.20

Bull Code	Name	Capacity	Page
314052	CRESCENT EXCELL MISTY ET	1.26	32
315009	RIVERVIEW AND DEXTER S2J *	0.63	32
316039	ULMARRATT GALLIVANT *	0.62	28
314004	BELLS OI FLOYD S3J	0.62	30
318021	GLANTON DESI BANFF *	0.59	28

Udder Overall

New Zealand Herd Jersey Average 0.24

Bull Code	Name	Udder Overall	Page
317060	PASPALUM OI LIMELIGHT*	0.96	31
318015	GLENUI SUPER LAMAR *	0.83	30
315009	RIVERVIEW AND DEXTER S2J *	0.68	32
318009	TIRONUI SUPERMAN ET *	0.68	29
315045	GLENUI DEGREE HOSS ET*	0.66	29

Liveweight

New Zealand Herd Jersey Average -50kg

Bull Code	Name	Liveweight	Page	
314004	BELLS OI FLOYD S3J	-1	30	
314052	CRESCENT EXCELL MISTY ET	-8	32	
316039	ULMARRATT GALLIVANT *	-14	28	
315009	RIVERVIEW AND DEXTER S2J *	-23	32	
317034	HEUVEN SUPER WISEGUY*	-37	31	

^{*} Sexed semen is offered for Single AI use only. See page 12 for more information.





JERSEY SUCCESS

by Danie Swart, LIC bull acquisition manager

Spring time is an exciting time for both the Livestock Selection Team and for dairy farmers in general, with many bulls receiving their first daughter proofs based on herd test information, and with traits other-than-production inspections (TOP) done by independent TOP inspectors.

It's also the time when some older bulls add a large number of reproof daughters. These daughters have been herd tested after farmers used each bull's semen following an initial daughter proven graduation a few years earlier. A good example is Monopoly from the Crescent stud who stood the test of time with very positive farmer feedback. Below, I've highlighted some of the top-ranked 18-code bulls who received their first daughter information flowing into their proof in October and continue adding more daughter information every month. They're all now available in LIC Premier Sires teams.

318021 Glanton Desi Banff:

This exciting bull from the Glanton stud of Rob and Alison Thwaites has previously been one of the highest ranked young genomic bulls. To date he's the highest ranked bull, across all daughter proven and young bulls, at an astonishing gBW of 462. Sired by Arrieta Terrific Desi ET, he is out of the well-proven B cow family, a half-brother of Baltic and is also related to Bastille. Noticeable is the super production of this cow family, with his dam Glanton Tana Blysse ET having a PW of 562 and multiple LWs exceeding 600. His grand dam, the matriarch Glanton Mans Blanche, was a super production cow with a highest LW of 717.



Dam of 318009 SUPERMAN

318009 Tironui Superman:

Bred by Murray and Janet Gibb, Superman is a production machine with a whopping gBV of 54kg fat and 20kg protein. Adding to his production he's likely to add good udders, with an udder overall gBV of 0.68. This boy comes from an outstanding cow family with Tironui Integ Meg as his dam; she's a well-proven cow with exceptional production and multiple sons in the Sire Proving Scheme. Superman is a sire of sons and in the Premier Club team.

318015 Glenui Super Lamar:

In Tony and Lesley Lander's Glenui herd there are two prominent successful cow families, the S and L family. Both cow families consistently produce exciting high-ranked bulls, and Lamar is one of them. Lamar is sired by Puketawa AD Superstition, and is out of a high production Goldie cow. This sire of sons is a production champion with fat gBV at 48kgs. Positive fertility and good size are further attributes of this bull, and he's available in the Premier Club team.



JE6238 ULMARRATT GALLIVANT

IRELAND VALUES				
Milk Prod SI	122	Survival	2.86	
Fertility SI	67	Cow Calving Difficulty	2.00	
Calving SI	33	Heifer Calving Difficulty	5.50	
Beef SI	-58	Somatic Cell Count	0.03	
Health SI	5	Milk kg	-213	
Maintenance SI	54	Fat kg/%	27/0.64	
Management SI	5	Protein kg/%	8/0.28	
Calving Interval (days)	-2.48	Pedigree Status	PED	

137 NZ Daughters NEW ZEALAND DETAILS

gBW/Rel **403/90%** HoofPrint®

Breeding Details

Split	J16
Sire	THORNWOOD OLM THOR
MGS	MARSDEN NN EXCELL ET
MGGS	GLENHAVEN TGM GENIUS S3J

Milk	-315	Milkfat	45/6.1	Protein	13/4.4
Somatic Cell Count	0.03	Cow Calving Diff	-0.9/94	Heifer Calving Diff	-2.5/93
Gestation Length	-0.1	Body Condition	0.07	Functional Survival	2.5
Fertility	6.7	Liveweight	-14		

NZ Evaluation Data		117 Da	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.31				
Shed Temperament	0.32				
Milking Speed	0.06				
Overall Opinion	0.38				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.29				
Capacity	0.62				
Rump Angle	-0.19				
Rump Width	-0.06				
Legs	0.11				
Udder Support	0.34				
Front Udder	0.72				
Rear Udder	0.75				
Front Teat Placement	0.10				
Rear Teat Placement	-0.05				
Teat Length	0.28				
Udder Overall	0.62				
Dairy Conformation	0.59				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1347	1300	A1/A2

10/12/2021 **DP - INT**



IRELAND VALUES			
Milk Prod SI	110	Survival	5.28
Fertility SI	127	Cow Calving Difficulty	1.89
Calving SI	41	Heifer Calving Difficulty	4.24
Beef SI	-43	Somatic Cell Count	-0.01
Health SI	9	Milk kg	-550
Maintenance SI	46	Fat kg/%	20/0.80
Management SI	12	Protein kg/%	3/0.42
Calvina Interval (days)	-4.86	Dadiaraa Status	DED

146 NZ Daughters **NEW ZEALAND DETAILS**



Breeding Details		
Split	J16	
Sire	ARRIETA TERRIFIC DESI ET	
MGS	TAWA GROVE KRC TANA	
MGGS	OKURA MANHATTAN ET SJ3	

Milk	-733	Milkfat	44/6.8	Protein	9/4.7
Somatic Cell Count	-0.35	Cow Calving Diff	-1.0/95	Heifer Calving Diff	-2.6/96
Gestation Length	-7.7	Body Condition	0.10	Functional Survival	3.5
Fertility	5.2	Liveweight	-38		

NZ Evaluation Data		113 Daı	ughters [*]	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.45				
Shed Temperament	0.46				
Milking Speed	0.11				
Overall Opinion	0.48				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.71				
Capacity	0.59				
Rump Angle	-0.26				
Rump Width	0.30				
Legs	0.04				
Udder Support	0.05				
Front Udder	0.29				
Rear Udder	0.40				
Front Teat Placement	-0.11				
Rear Teat Placement	-0.69				
Teat Length	-0.12				
Udder Overall	0.26				
Dairy Conformation	0.53				

LIC Initiatives			
High Input	Once-A-Day	A2 Protein	
1351	1325	A2/A2	
		_	

icof 11/2021

10/12/2021



TBC TIRONUI SUPERMAN ET

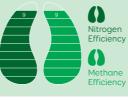
298/59%

IRELAND VALUES			
Milk Prod SI	145	Survival	5.94
Fertility SI	106	Cow Calving Difficulty	2.13
Calving SI	43	Heifer Calving Difficulty	5.68
Beef SI	-39	Somatic Cell Count	0.05
Health SI	3	Milk kg	-227
Maintenance SI	35	Fat kg/%	30/0.70
Management SI	6	Protein kg/%	11/0.33
Calving Interval (days)	-2.57	Pedigree Status	PED

157 NZ Daughters NEW ZEALAND DETAILS

HoofPrint®

gBW/Rel **449/83**%



n cy	Bree	ding Details
	Split	J16
	Sire	PUKETAWA AD SUPERSTITION
е	MGS	OKURA LT INTEGRITY
су	MGGS	NOAKES NEVVY S3J

Milk	-161	Milkfat	54/6.1	Protein	20/4.4
Somatic Cell Count	-0.10	Cow Calving Diff	0.1/94	Heifer Calving Diff	-1.5/95
Gestation Length	-2.3	Body Condition	-0.08	Functional Survival	1.7
Fertility	0.0	Liveweight	-39		

NZ Evaluation Data		85 Dai	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.21				
Shed Temperament	0.21				
Milking Speed	0.06				
Overall Opinion	0.29				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.59				
Capacity	0.49				
Rump Angle	-0.90				
Rump Width	0.44				
Legs	0.11				
Udder Support	0.56				
Front Udder	0.49				
Rear Udder	0.87				
Front Teat Placement	0.05				
Rear Teat Placement	0.13				
Teat Length	0.00				
Udder Overall	0.68				
Dairy Conformation	0.53				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1384	1378	A2/A2
		_

icof 11/2021

DP-INT

10/12/2021 **DP - INT**



JE4989 GLENUI	DEGREE EBI/REL
HOSS ET	243/70%

RELAND VALUES			
Milk Prod SI	103	Survival	2.99
ertility SI	90	Cow Calving Difficulty	1.90
Calving SI	21	Heifer Calving Difficulty	4.10
Beef SI	-40	Somatic Cell Count	-0.04
lealth SI	12	Milk kg	-443
Maintenance SI	56	Fat kg/%	20/0.7
Management SI	1	Protein kg/%	4/0.36
Calving Interval (days)	-4.21	Pedigree Status	PED
Management SI	1	Protein kg/%	4,

NEW ZEALAND DETAILS 552 NZ Daughters gBW/Rel **348/93**%

HoofPrint[®]

n	Bree	ding Details
су	Split	J16
	Sire	ARRIETA NN DEGREE ET
ie	MGS	KONUI GLEN ELMOS BOWIE
СУ	MGGS	LOSTAHILL FOREVERS BLAKE

Milk	-504	Milkfat	28/6.0	Protein	7/4.4
Somatic Cell Count	-0.45	Cow Calving Diff	-1.0/98	Heifer Calving Diff	-1.5/98
Gestation Length	2.2	Body Condition	0.18	Functional Survival	3.4
Fertility	3.3	Liveweight	-39		

NZ Evaluation Data		115 Daı	ughters '	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	-0.06				
Shed Temperament	-0.08				
Milking Speed	0.18				
Overall Opinion	0.15				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.66				
Capacity	0.25				
Rump Angle	0.01				
Rump Width	-0.03				
Legs	0.09				
Udder Support	0.49				
Front Udder	0.47				
Rear Udder	0.71				
Front Teat Placement	0.19				
Rear Teat Placement	-0.04				
Teat Length	0.01				
Udder Overall	0.66				
Dairy Conformation	0.33				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1287	1265	A2/A2

icof 11/2021

10/12/2021



269/58%

LAMAK	1AK 209/30/0				
IRELAND VALUES					
Milk Prod SI	108	Survival	5.69		
Fertility SI	111	Cow Calving Difficulty	1.50		
Calving SI	46	Heifer Calving Difficulty	3.51		
Beef SI	-46	Somatic Cell Count	-0.02		
Health SI	3	Milk kg	-191		
Maintenance SI	39	Fat kg/%	25/0.59		
Management SI	9	Protein kg/%	6/0.23		
Calvina Interval (days)	-3.16	Pediaree Status	PED		

155 NZ Daughters NEW ZEALAND DETAILS

HoofPrint®

gBW/Rel **438/83**%

Breeding Details Split J16 Sire PUKETAWA AD SUPERSTITION MGS PUHIPUHI CAPS GOLDIE S3J MGGS OKURALT INTEGRITY

Milk	-153	Milkfat	48/6.0	Protein	9/4.1
Somatic Cell Count	-0.62	Cow Calving Diff	-0.8/89	Heifer Calving Diff	-2/90
Gestation Length	-2.4	Body Condition	-0.01	Functional Survival	3.1
Fertility	6.1	Liveweight	-45		

NZ Evaluation Data		119 Daı	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.30				
Shed Temperament	0.31				
Milking Speed	0.11				
Overall Opinion	0.28				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.75				
Capacity	0.39				
Rump Angle	-0.52				
Rump Width	0.48				
Legs	0.15				
Udder Support	0.68				
Front Udder	0.61				
Rear Udder	0.85				
Front Teat Placement	0.35				
Rear Teat Placement	0.53				
Teat Length	-0.65				
Udder Overall	0.83				
Dairy Conformation	0.42				

Daughter of FLOYD JE5992 BELLS OI

FLOYD S3J

242/71%

IRELAND VALUES					
Milk Prod SI	139	Survival	2.87		
Fertility SI	56	Cow Calving Difficulty	2.10		
Calving SI	40	Heifer Calving Difficulty	4.30		
Beef SI	-55	Somatic Cell Count	-0.01		
Health SI	2	Milk kg	27		
Maintenance SI	52	Fat kg/%	28/0.47		
Management SI	7	Protein kg/%	14/0.23		
Calving Interval (days)	-1.65	Pedigree Status	SRM		

NEW ZEALAND DETAILS 5624 NZ Daughters

HoofPrint®



	gBW	/Rel 318/98 %
rogen	Bree	ding Details
ciency	Split	J15F1
	Sire	OKURA LT INTEGRITY
thane ciency	MGS	SHALENDY IDEAL ASCENTS
	MGGS	DAYSH'S LANDMARK GR

Breeding Details					
Split	J15F1				
Sire	OKURA LT INTEGRITY				
MGS	SHALENDY IDEAL ASCENT S3J				
MGGS	DAYSH'S LANDMARK GR				

Milk	3	Milkfat	33/5.4	Protein	17/4.2
Somatic Cell Count	-0.26	Cow Calving Diff	-1.2/98	Heifer Calving Diff	-1.7/99
Gestation Length	-2.1	Body Condition	0.29	Functional Survival	3.7
Fertility	1.1	Liveweight	-1		

NZ Evaluation Data		353 Da	ughters [*]	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.14				
Shed Temperament	0.14				
Milking Speed	-0.06				
Overall Opinion	0.31				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.13				
Capacity	0.62				
Rump Angle	0.25				
Rump Width	0.43				
Legs	-0.08				
Udder Support	0.43				
Front Udder	0.23				
Rear Udder	0.65				
Front Teat Placement	-0.19				
Rear Teat Placement	-0.13				
Teat Length	-0.01				
Udder Overall	0.41				
Dairy Conformation	0.58				



IRELAND VALUES			
Milk Prod SI	100	Survival	1.69
Fertility SI	4	Cow Calving Difficulty	1.60
Calving SI	33	Heifer Calving Difficulty	3.30
Beef SI	-53	Somatic Cell Count	0.03
Health SI	1	Milk kg	-304
Maintenance SI	44	Fat kg/%	21/0.6
Management SI	6	Protein kg/%	5/0.28
Calving Interval (days)	1.37	Pedigree Status	PED

NEW ZEALAND DETAILS **78 NZ Daughters**

HoofPrint®



Bree	ding Details
Split	J16
Sire	OKURA LT INTEGRITY
MGS	GLENHAVEN TGM GENIUS S3.
MGGS	OKURA MANHATTAN ET SJ3

Milk	-521	Milkfat	23/5.9	Protein	6/4.4
Somatic Cell Count	-0.16	Cow Calving Diff	-0.6/70	Heifer Calving Diff	-2.7/46
Gestation Length	1.9	Body Condition	0.00	Functional Survival	3.1
Fertility	2.5	Liveweight	-66		

NZ Evaluation Data		53 Dai	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.53				
Shed Temperament	0.55				
Milking Speed	0.15				
Overall Opinion	0.53				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-1.05				
Capacity	0.31				
Rump Angle	-0.16				
Rump Width	-0.14				
Legs	0.07				
Udder Support	0.80				
Front Udder	0.74				
Rear Udder	1.00				
Front Teat Placement	0.31				
Rear Teat Placement	0.39				
Teat Length	-0.79				
Udder Overall	0.96				
Dairy Conformation	0.39				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1298	1280	A1/A2



IRELAND VALUES			
Milk Prod SI	129	Survival	1.67
Fertility SI	49	Cow Calving Difficulty	1.80
Calving SI	41	Heifer Calving Difficulty	5.20
Beef SI	-47	Somatic Cell Count	0.09
Health SI	-1	Milk kg	-180
Maintenance SI	44	Fat kg/%	22/0.52
Management SI	6	Protein kg/%	12/0.32
Calving Interval (days)	-2.26	Pedigree Status	SRM





gBW/Rel **348/89% Breeding Details** Split J16

		М	GGS MAGH	ERACANON D	ODDY GR
Milk	-358	Milkfat	32/5.9	Protein	16/4.5
Somatic ell Count	0.18	Cow Calving Diff	-0.7/84	Heifer Calving Diff	-2.7/63
estation	-6.3	Body	-0.05	Functional	2.0

NZ Evaluation Data		94 Dai	ughters '	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.43				
Shed Temperament	0.43				
Milking Speed	0.33				
Overall Opinion	0.44				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.59				
Capacity	0.32				
Rump Angle	-0.32				
Rump Width	-0.09				
Legs	0.02				
Udder Support	0.04				
Front Udder	-0.10				
Rear Udder	0.27				
Front Teat Placement	-0.13				
Rear Teat Placement	-0.20				
Teat Length	-0.09				
Udder Overall	0.06				
Dairy Conformation	0.34				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1271	1262	A2/A2

DP-INT

LIC Initiatives High Input

icof 11/2021

Once-A-Day

1354



A2 Protein

A2/A2

10/12/2021

DP - INT

LIC Initiatives

High Input



Once-A-Day

1235



A2 Protein

A2/A2

DP-INT

icof 11/2021

10/12/2021 **DP - INT**

icof 11/2021

10/12/2021



JE5061 RIVERVIEW AND **DEXTER** S2J 200/69%

IRELAND VALUES										
Milk Prod SI	113	Survival	3.07							
Fertility SI	44	Cow Calving Difficulty	2.20							
Calving SI	22	Heifer Calving Difficulty	5.10							
Beef SI	-48	Somatic Cell Count	-0.05							
Health SI	9	Milk kg	-130							
Maintenance SI	53	Fat kg/%	19/0.42							
Management SI	6	Protein kg/%	11/0.27							
Calving Interval (days)	-0.45	Pedigree Status	SRM							

NEW ZEALAND DETAILS 99 NZ Daughters gBW/Rel **335/90%**







Milk	-119	Milkfat	26/5.5	Protein	17/4.3
Somatic Cell Count	-0.23	Cow Calving Diff	-0.2/96	Heifer Calving Diff	-1.1/97
Gestation Length	-1.4	Body Condition	0.18	Functional Survival	4.1
Fertility	4.7	Liveweight	-23		

NZ Evaluation Data		93 Da	93 Daughters TOP Inspec						
Management	BV	-0.5	0	0.5	1.0				
Adapts to Milking	0.09								
Shed Temperament	0.08								
Milking Speed	0.29								
Overall Opinion	0.30								
Conformation	BV	-0.5	0	0.5	1.0				
Stature	-0.48								
Capacity	0.63								
Rump Angle	-0.10								
Rump Width	0.34								
Legs	-0.01								
Udder Support	0.49								
Front Udder	0.62								
Rear Udder	0.33								
Front Teat Placement	0.68								
Rear Teat Placement	0.72								
Teat Length	0.17								
Udder Overall	0.68								
Dairy Conformation	0.61								

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1302	1272	A2/A2



MISTY ET 200/79%

IRELAND VALUES			
Milk Prod SI	95	Survival	2.68
Fertility SI	57	Cow Calving Difficulty	1.90
Calving SI	33	Heifer Calving Difficulty	4.50
Beef SI	-38	Somatic Cell Count	-0.14
Health SI	13	Milk kg	-545
Maintenance SI	33	Fat kg/%	18/0.75
Management SI	6	Protein kg/%	2/0.39
Calving Interval (days)	-1.92	Pedigree Status	PED

NEW ZEALAND DETAILS 7982 NZ Daughters





Bree	ding Details
Split	J16
Sire	MARSDEN NN EXCELL ET
MGS	RIVERINA GREENMAN
MGGS	TAWA GROVE MAUNGA ET SJ3

4/4.8

-2/99

3.9

Milk	-898	Milkfat	33/6.8	Protein
Somatic Cell Count	-0.43	Cow Calving Diff	-0.8/99	Heifer Calving Di
Gestation Length	-0.6	Body Condition	0.41	Function Surviva
Fertility	0.0	Liveweight	-8	

NZ Evaluation Data	613 Daughters TOP Inspected									
Management	BV	-0.5	0	0.5	1.0					
Adapts to Milking	0.20									
Shed Temperament	0.19									
Milking Speed	0.23									
Overall Opinion	0.30									
Conformation	BV	-0.5	0	0.5	1.0					
Stature	-0.35									
Capacity	1.26									
Rump Angle	0.24									
Rump Width	-0.21									
Legs	0.02									
Udder Support	0.21									
Front Udder	0.62									
Rear Udder	0.22									
Front Teat Placement	0.04									
Rear Teat Placement	-0.44									
Teat Length	0.51									
Udder Overall	0.37									
Dairy Conformation	0.81									

WHAT'S NEXT FOR THE INDUSTRY'S NATIONAL ANIMAL EVALUATION SYSTEM?

By Rachel Bloxham, LIC herd improvement technical manager



Numerous enhancements are being made to improve the national animal evaluation system, with the majority of these coming into effect in December 2021. Animal indices will change following the December update, providing increased accuracy in genetic evaluations and allowing for better breeding decisions for farmers' herds.

The December updates include a major upgrade of evaluation processes, models, and genetic evaluation software.

Evaluations will be a little different for all traits, but the most significant enhancements focus on fertility and survival.

With any update to animal evaluation, all new models and processes are rigorously tested and internationally peer-reviewed before final sign-off by the New Zealand Animal Evaluation (NZAEL) Board.

Further detail was released in December, and covered the following key points:

Fertility BV: The enhanced fertility index has increased emphasis on key fertility phenotypes, calving. and insemination. There will be less reliance on 'predictor traits' (traits that have a strong corelationship with fertility).

The new model will utilise data from seven fertility traits recorded on first-calving cows (heifer calving)



to fourth-calving cows (calving and insemination data).

The definition for fertility BV will remain as CR42 (% calving within 42 days from the planned start of calving).

The results of the National Breeding Objective survey reinforced the importance of this trait to dairy farmers.

Work is already planned beyond December 2021 to investigate and apply further enhancements to the Fertility BV, including the utilisation of pregnancy diagnosis.

Functional Survival BV: Residual Survival will be somewhat overhauled, and will be re-named 'Functional Survival'.

Like Residual Survival, it excludes culling reasons associated with fertility and milk production and is focused on other reasons why an animal leaves the herd.

The key change is the utilisation of actual phenotypic records, and knowledge of an animal surviving from one lactation to the next (a good reminder of the importance of accuracy when it comes to the recording of why an animal leaves the herd).

Given the nature of the trait, and the length of time it takes to obtain phenotypic records, (i.e. an animal surviving to fifth lactation), certain predictor traits are used to provide an early indication of functional survival. These traits include the breeding values for BCS (body

condition score), legs, udder overall, and milking speed.

The definition for this new trait is the average probability of survival from one lactation to the next (for reasons other than fertility and production). The trait BV will be reported as a percentage.

Economic Values update:

Economic Values (EVs) used in the calculation of breeding worth (BW) are a key consideration in all NZAEL updates, and this year is no different. Economic weightings will be updated in December to reflect the changing economic circumstance on farm and in the global marketplace, and to generate EVs for the new fertility and functional survival BVs.

With the above changes occurring in December 2021, animal indices (both males and females) will change, and animals are likely to re-rank.

Remember, these enhancements are about improving the national animal evaluation system to provide increased accuracy in genetic evaluations - information that will allow farmers to make better breeding decisions for their herd.

To keep aligned with the changes NZAEL has been working on, LIC's Research & Development team has been working to ensure changes are replicated in its genomic evaluation system, which incorporates the Single Step Animal Model (SSAM). Reranking is therefore expected to be observed in the outputs of LIC's genomic evaluation system.



DP-INT

LIC Initiatives

High Input



Once-A-Day

1264



A2 Protein

A2/A2

10/12/2021

33

KIWICROSS® DAUGHTER PROVEN



NZ Bull Code	IRE Al Code	Bull Name	Breed Split	gBW/Rel	Fertility%	Milk Volume (litres)	FatKg	Protein Kg	Fat%	Protein %	Somatic Cell Count	Functional Survival	Heifer CD/Rel	Cow CD/Rel	Liveweight	Body Condition Score
KiwiC	cross®															
520085	TBC	SNOWLINE BENJI *	F12J4	422/62	3.6	40	53	26	5.8	4.3	-0.09	2.3	0.5/38	0.3 / 74	28	0.19
517043	FR6799	GLEN KORU PROCLAIMER-ET	F11J5	378 / 91	-5.2	300	51	33	5.5	4.2	0.15	2.9	1.3 / 88	0.0/97	1	0.05
511011	ZSP	PRIESTS SIERRA *	F11J5	329/98	5.2	316	42	27	5.3	4.1	-0.15	3.4	2.4/99	0.2/99	36	0.05
518063	TBC	VAN STRAALENS SAFARI *	F11J5	317 / 80	-1.1	494	32	32	4.9	4.0	-0.25	2.5	0.4/79	-0.9/90	-5	0.13
518019	TBC	DIGGS HARDCOPY *	F10J6	387/80	7.9	-157	35	17	5.7	4.3	-0.65	1.7	-2.9/42	-0.7/68	-1	0.16
517060	FR6748	KEGZYS REMARKABLE	F10J6	332/86	-1.6	276	44	31	5.4	4.2	-0.10	2.6	-0.5/45	0.1/81	24	0.02
516074	FR5989	CROSSANS CRITICAL-ET	F10J6	313 / 96	-3.6	904	36	39	4.6	3.9	-0.34	2.2	-0.9/99	-0.2/	0	0.10
517055	FR6733	TARAMONT SPRINGTIDE	F10J6	300/87	-3.7	799	46	42	4.9	4.0	0.38	1.4	-0.5/	-0.3	33	0.00
516066	JE6805	WALTON INFERNO	F9J7	414/90	4.3	117	38	30	5.4	4.3	-0.60	2.6	-1.4/99	-0.8/	-2	0.10
520048	TBC	BALDRICKS TOUCHDOWN	F9J7	409/60	-0.3	-154	42	24	5.9	4.5	-0.22	2.7	1.5 / 34	-0.8/	-13	0.18
518061	TBC	INNOVATION HOMEBREW *	F9J7	372 / 80	1.5	-81	41	25	5.7	4.4	0.40	5.7	0.3/96	-0.1/	21	0.35
517042	FR6793	LUCK-AT-LAST INSPIRED-ET*	F9J7	298/91	-3.4	295	37	23	5.2	4.0	0.08	2.4	0.1/98	-0.5/	-16	0.10
515068	FR4965	WOODWARDS SPOT ON	F9J7	297/88	1.2	80	35	20	5.4	4.1	0.01	3.1	-0.6/	-0.5/	7	0.15
517026	FR6790	HOWSES SPRINGFIELD *	F9J7	258 / 91	-2.4	-526	26	10	6.0	4.5	-0.71	2.0	-0.9/	-0.8/	10	0.11
513074	FR4527	SCHRADERS TUSK	F9J7	197 / 98	4.7	224	14	13	4.8	3.9	-0.18	1.4	-1.6 /	-1.0 /	-29	-0.05
518038	TBC	WERDERS PREMONITION *	J8F8	441/82	-1.5	29	59	25	6.0	4.3	-0.40	4.2	-0.1/	-0.2	13	0.06
518017	TBC	HORIZON BARNSTORMER-ET	F8J8	363/82	6.7	379	46	30	5.3	4.1	-0.25	2.5	1.2/90	1.2 / 91	42	0.05
518072	TBC	DEANS PROFESSIONAL*	J9F7	354/80	3.6	235	41	21	5.4	4.0	0.04	4.2	-0.1/	0.4/96	8	0.27
520033	TBC	DOWSON HONENUI-ET *	J9F7	330/56	4.2	-412	35	20	6.1	4.6	0.26	3.8	-2.8/	-1.5/	20	0.09
514018	JE4509	GLEN KORU EPIC	J9F7	232 / 97	0.6	37	19	24	5.1	4.3	-0.12	1.6	-1.2 /	-0.7/	3	0.00
515017	JE6007	LYNBROOK KARTELL*	J8F7	282/88	2.6	-2	25	23	5.3	4.3	0.24	0.8	-0.8/	-0.8/	-19	-0.03
515066	JE6745	VAN STRAALENS DUEL	J10F6	309/90	2.7	-81	37	20	5.7	4.3	0.06	0.8	0.1 / 61	-0.5/	17	0.12
515059	JE5001	TAUNTS REVENGE	J10F6	283/90	5.7	97	37	23	5.4	4.2	0.45	0.8	-2.4/	0.9/68	27	0.01
520007	TBC	JULIAN STRAIGHT UP	J11F5	379 / 61	3.1	-508	44	7	6.4	4.4	-0.10	3.3	-1.4/	-0.6	4	0.33
515062	JE5893	DUGGANS GAMEPLAN*	J12F4	370 / 91	3.5	-553	36	11	6.3	4.6	0.02	1.0	-2.3 /	-0.8/	-33	0.03
Irish	Breed	ing Bulls														
TBC	FR6892	LIC MOOREHILL MAX *	F12J4	391/59	5.1	547	47	32	5.2	4.0	-0.10	3.9	-0.4/31	-0.1/31	38	0.33
TBC	FR6823	LIC KILVOIGE STEPHEN *	F12J4	210/57	1.3	427	37	22	5.1	3.9	0.05	0.8	1.7/27	0.1/27	44	-0.02
TBC	JE6898	LIC MOOREHILL GALAXY*	F9J5	220/57	8.6	15	12	18	5.0	4.2	-0.04	2.8	-0.5/28	0/30	12	0.15
TBC	JE6895	LIC BROOKLAWN MOONLIGHTECLIPS *	F8J8	287/58	2.0	2	22	23	5.2	4.3	-0.49	0.4	-0.7/31	-0.5/32	-13	0.00
TBC	JE7194	LIC NEWBAWN LILY *	F8J8	179/53	-0.4	207	30	15	5.2	3.9	-0.28	1.7	0.2/25	0.2/26	66	0.36
TBC	JE6886	LIC KILVOIGE AARON *	J10F6	332/56	3.6	-150	41	12	5.8	4.2	0.22	3.2	-1.7/20	-0.5/24	2	0.20

*Sexed semen is offered for Single AI use only. See page 12 for more information.













VAN STRAALENS DUEL







JULIAN STRAIGHT UP *





Capacity	Udder Overall	EBI/Rel%	Milk Prod SI	Fertility SI	Milk Kg	FatKg	Protein Kg	Fat%	Protein %	Dairy Heifer Calv Diff	Dairy Cow Calv Diff	Sire Name	OAD	High Input	Gestation Length	A2/A2	Page
0.38	0.21	199 / 48	99	48	-77	18	9	0.38	0.21	4.19	2.41	GLEN KORU ETHOS-ET S1F	1300	1332	-5.9	A1/A2	46
0.54	0.20	183 / 62	141	24	101	26	16	0.38	0.22	5.80	2.50	GYDELAND EXCEL INCA S3F	1310	1301	2.1	A2/A2	39
0.51	0.48	173 / 95	103	43	20	20	11	0.34	0.17	5.90	2.40	FAIRMONT MINT-EDITION	1267	1305	-6.5	A2/A2	38
0.71	0.76	206/	94	50	6	14	11	0.24	0.19	5.57	1.89	MOORBYS FM GRANITE S2F	1288	1305	-0.7	A2/A2	38
0.39	0.20	299 /	81	138	-357	14	3	0.52	0.29	4.43	1.57	DRYSDALES SOVEREIGN	1272	1312	-7.5	A2/A2	39
0.46	0.64	184 / 59	85	60	-219	15	6	0.42	0.24	4.20	2.00	DRYSDALES SOVEREIGN	1305	1315	-1.3	A1/A2	40
0.72	0.54	210 / 64	105	55	244	19	15	0.16	0.11	4.30	1.90	KRAAKMANS JAYDIE	1292	1288	-7.7	A2/A2	40
0.91	1.05	134/60	114	-6	132	16	16	0.18	0.19	3.80	2.00	DRYSDALES SOVEREIGN	1340	1357	-10.3	A2/A2	34
0.28	0.38	214 / 61	92	72	-177	12	9	0.34	0.27	4.20	1.50	PRIESTS SOLARIS-ET	1325	1337	-8.3	A2/A2	41
0.62	0.57	172 / 45	121	20	-74	22	11	0.45	0.25	5.84	2.12	GLEN KORU PROCLAIMER-ET	1330	1349	1.6	A1/A2	45
0.64	0.60	160 /	60	68	-395	9	1	0.46	0.27	5.18	1.92	ARRIETA BRANSON-ET	1281	1325	-7.1	A2/A2	34
0.71	0.73	190 / 57	106	46	20	19	12	0.32	0.19	5.50	1.70	SAN RAY FM BEAMER-ET S2F	1281	1291	-6.1	A2/A2	42
1.17	0.24	196 / 64	115	66	24	22	12	0.36	0.2	5.90	2.30	VANSTRAALENS VIBE	1244	1275	2.0	A2/A2	42
0.90	0.53	236/60	112	67	-117	20	10	0.43	0.25	4.30	1.90	DRYSDALES SOVEREIGN	1248	1250	-2.1	A2/A2	41
-0.08	0.14	225/69	84	75	0	15	9	0.27	0.16	4.10	1.80	WAIWIRA WARLORD	1148	1161	-9.9	A1/A2	34
0.62	0.71	200/	108	44	-102	25	8	0.52	0.20	4.94	1.90	PRIESTS SIERRA	1380	1380	-7.4	A2/A2	43
0.91	0.14	217/60	90	74	-77	16	9	0.33	0.20	5.04	2.22	PRIESTS SIERRA	1283	1323	-9.4	A2/A2	34
0.45	0.24	273 / 44	105	123	-58	21	10	0.41	0.20	6.67	2.10	TIRONUI LT BESIEGE ET	1255	1286	-3.2	A2/A2	44
0.55	1.02	120/34	44	41	-273	9	0	0.35	0.18	5.30	1.95	GREENWELL BLACKHAWK	1288	1339	0.6	A2/A2	45
0.36	0.33	195 / 77	102	65	-26	14	12	0.26	0.22	5.10	2.00	SERPENTINE CRUSADER	1206	1212	1.0	A2/A2	34
0.28	0.53	240 / 62	106	84	-144	15	11	0.36	0.28	4.40	2.10	HOWIES ARKAN RAMADA ET	1240	1257	-4.5	A1/A2	43
0.78	0.51	197 / 57	122	32	-160	22	11	0.50	0.29	4.70	2.20	PILSENS TITAN	1261	1303	-6.4	A1/A2	44
0.70	0.38	201/68	120	42	-57	22	12	0.43	0.24	4.90	2.10	PUKEROA TGM MANZELLO	1229	1273	-3.5	A2/A2	34
1.26	0.49	155 / 51	68	63	-321	14	2	0.50	0.23	6.03	1.99	CRESCENT EXCELL MISTY ET	1278	1332	0.2	A2/A2	46
0.23	0.62	184/69	104	15	-410	18	5	0.63	0.36	4.30	1.90	PUKEROA TGM MANZELLO	1292	1315	-6.6	A2/A2	34
0.60	0.57	277/54	97	127	-2	18	10	0.32	0.18	4.30	1.70	CARSONS FM CAIRO S3F	1284	1344	-4.9	A2/A2	50
0.30	0.15	231/60	104	82	-92	21	9	0.43	0.21	5.40	2.50	PRIESTS SIERRA	1178	1196	-4.1	A2/A2	51
0.32	0.13	225/53	99	86	-61	16	10	0.32	0.22	5.60	2.00	GLEN KORU EPIC	1144	1185	-1.1	A2/A2	51
0.30	0.15	245/54	107	81	29	16	13	0.25	0.21	4.10	2.10	GLEN KORU EPIC	1228	1235	-0.3	A2/A2	51
0.77	0.53	265/54	111	102	-53	25	9	0.48	0.19	5.30	1.90	CRESCENT EXCELL MISTY ET	1144	1203	-1.0	A2/A2	51
0.65	0.26	248/53	95	103	-324	19	5	0.58	0.29	5.80	2.20	VAN STRAALENS G-FORCE	1240	1289	-1.9	A1/A2	50
													iohf	11/2021		7	V12 V2O21





























DUGGANS GAMEPLAN *

TOP 5 PERFORMERS

Breeding Worth

New Zealand herd crossbred average NZD\$138

Bull Code	Name	gBW/Rel%	Page
518038	WERDERS PREMONITION *	441/82	43
520085	SNOWLINE BENJI *	422/62	46
516066	WALTON INFERNO	414/90	41
520048	BALDRICKS TOUCHDOWN	409/60	45
FR6892	LIC MOOREHILL MAX *	391/59	50

EBI

Bull Code	Name	EBI (€)	Page
518019	DIGGS HARDCOPY*	299/58	39
FR6892	LIC MOOREHILL MAX *	277/54	50
518072	DEANS PROFESSIONAL*	273/44	44
JE7194	LIC NEWBAWN LILY *	265/54	51
JE6886	LIC KILVOIGE AARON *	248/53	50

Protein

New Zealand herd crossbred average 15kg/3.96%

Bull Code	Name	Protein (kg/%)	Page
517055	TARAMONT SPRINGTIDE	43/4.0	34
516074	CROSSANS CRITICAL-ET	39/3.9	40
517043	GLEN KORU PROCLAIMER-ET	33/4.2	39
FR6892	LIC MOOREHILL MAX *	32/4.0	50
518063	VAN STRAALENS SAFARI*	32/4.0	38

Fat

New Zealand herd crossbred average 15kg/4.88%

Bull Code Name		Fat (kg/%)	Page
518038	038 WERDERS PREMONITION * 59/6.0		43
520085	SNOWLINE BENJI *	53/5.8	46
517043	GLEN KORU PROCLAIMER-ET	51/5.5	39
FR6892	LIC MOOREHILL MAX *	47/5.2	50
517055	TARAMONT SPRINGTIDE	46/4.9	34

Fertility

New Zealand herd crossbred average 0.1%

Bull Code	Name	Fertility (%)	Page
JE6898	LIC MOOREHILL GALAXY*	8.6	51
518019	DIGGS HARDCOPY*	7.9	39
518017	HORIZON BARNSTORMER-ET	6.7	34
515059	TAUNTS REVENGE	5.7	34
511011	PRIESTS SIERRA *	5.2	38

Milk Volume

New Zealand herd crossbred average 169 litres

Bull Code	Name	Volume (I)	Page
516074	CROSSANS CRITICAL-ET	904	40
517055	TARAMONT SPRINGTIDE	799	34
FR6892	LIC MOOREHILL MAX *	547	50
518063	VAN STRAALENS SAFARI*	494	38
FR6823	LIC KILVOIGE STEPHEN *	427	51

SCC

New Zealand herd crossbred average 0.00

Bull Code	Name	scc	Page
517026	HOWSES SPRINGFIELD	-0.71	41
518019	DIGGS HARDCOPY*	-0.65	39
516066	WALTON INFERNO	-0.60	41
JE6895	LIC BROOKLAWN MOONLIGHT ECLIPS *	-0.49	51
518038	WERDERS PREMONITION *	-0.40	43

Capacity

JE6886

New Zealand herd crossbred average 0.21

Bull Code	e Name Capacity		Page
520007	JULIAN STRAIGHT UP	1.26	46
515068	WOODWARDS SPOT ON	1.17	42
518017	HORIZON BARNSTORMER-ET	0.91	34
517055	TARAMONT SPRINGTIDE	0.91	34
517026	HOWSES SPRINGFIELD	0.90	41

Udder Overall

New Zealand herd crossbred average 0.18

Bull Code	Name	Udder Overall	Page
517055	TARAMONT SPRINGTIDE	1.05	34
520033	DOWSON HONENUI-ET	1.02	45
518063	VAN STRAALENS SAFARI *	0.76	38
517042	LUCK-AT-LAST INSPIRED-ET	0.73	42
518038	WERDERS PREMONITION *	0.71	43

Heifer Calving Difficulty New Zealand herd crossbred average 0.0

Bull Code	Name	Calving Difficulty	Page
518019	DIGGS HARDCOPY*	-2.9/42	39
520033	DOWSON HONENUI-ET	-2.8/75	45
515059	TAUNTS REVENGE	-2.4/53	34
515062	DUGGANS GAMEPLAN *	-2.3/94	34

LIC KILVOIGE AARON





KIWICROSS® - GRADUATION TIME

by Adrian Young, LIC senior sire analyst

The past two Animal Evaluation runs have been extremely satisfying for LIC's livestock selection team.

In the KiwiCross space, we've seen some great performances in the daughters of our bulls. Of the top 20 crossbred graduates on BW, 18 have come from the LIC stable. Outlined below are a selection of outstanding graduates. Using the Forward Pack and Sexed teams is an excellent opportunity to access the bulls, which are especially chosen based on their genomic potential. Now that we have daughter proofs this simply reinforces the extra BW points that are on offer throughout these teams.

518038 Werders Premonition:

Topping the RAS List, and bred by Thomas & Courtney Werder of Patea, this bull was profiled in the last edition of The Bulletin, and it appears he's come good on his potential. Now with 132 herd tested daughters and 87 TOP (traits other than production) daughter inspections done, Premonition has an udder overall gBV of 0.71 and capacity gBV of 0.62. Sitting at 441gBW, Premonition is part of the KiwiCross Forward Pack and KiwiCross yearling friendly team. A Priests Sierra son, he looks set for a considerable stint on the RAS list, with rock-solid cows in his back pedigree.





518061 Innovation Homebrew:

Homebrew has 90 daughters herd tested and 85 TOP tested daughters. At 66kgs of milksolids, he provides an excellent return, and this helps usher Homebrew into the Premier Club Team. Homebrew's dam is now in her fifth lactation and during that time her Lactation Worth (LW) has not dipped below 420. She remains a contract mate cow and has two daughters who are also contracted for 2021. There have been great expectations of Homebrew, and they've never disappointed.

-1.7/20

^{*} Sexed semen is offered for Single AI use only. See page 12 for more information.



ZSP PRIESTS SIERRA

173/95%

	SexedULTRA 4M°. The most advanced sex-sorted semen
Half Sister of SAFARI	
TBC VAN STRAALENS	EBI/REL

SAFARI

206/55%

IRELAND VALUES			
Milk Prod SI	103	Survival	1.20
Fertility SI	43	Cow Calving Difficulty	2.40
Calving SI	42	Heifer Calving Difficulty	5.90
Beef SI	-31	Somatic Cell Count	0.02
Health SI	-7	Milk kg	20
Maintenance SI	17	Fat kg/%	20/0.34
Management SI	6	Protein kg/%	11/0.17
Calving Interval (days)	-2.24	Pedigree Status	SRM

NEW ZEALAND DETAILS 84038 NZ Daughters

gBW/Rel **329/98%** HoofPrint®



Bree	ding Details
Split	F11J5
Sire	FAIRMONT MINT-EDITION
MGS	INGRAMS RAMROD
MGGS	AMADEUS JC12

Milk	316	Milkfat	42/5.3	Protein	27/4.1
Somatic Cell Count	-0.15	Cow Calving Diff	0.2/99	Heifer Calving Diff	2.4/99
Gestation Length	-6.5	Body Condition	0.05	Functional Survival	3.4
Fertility	5.2	Liveweight	36		

NZ Evaluation Data		548 Dai	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.59				
Shed Temperament	0.62				
Milking Speed	0.02				
Overall Opinion	0.51				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.57				
Capacity	0.51				
Rump Angle	-0.02				
Rump Width	0.05				
Legs	0.11				
Udder Support	0.53				
Front Udder	0.39				
Rear Udder	0.53				
Front Teat Placement	0.22				
Rear Teat Placement	1.03				
Teat Length	-0.77				
Udder Overall	0.48				
Dairy Conformation	0.61				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1305	1267	A2/A2

11/2021

IRELAND VALUES Milk Prod SI 94 Survival 1.21 Fertility SI 50 Cow Calving Difficulty Calving SI Heifer Calving Difficulty 5.57 Beef SI -53 Somatic Cell Count -0.15 Health SI 13 Milk kg 6 Maintenance SI **53** Fat kg/% 14/0.24 Management SI 9 Protein kg/% 11/0.19 Calving Interval (days) -2.78 Pedigree Status

NEW ZEALAND DETAILS 95 NZ Daughters gBW/Rel **317/80**%

HoofPrint®

	Bree	ding Details
	Split	F11J5
	Sire	MOORBYS FM GRANITE S2F
	MGS	ARKANS PROMOTER
	MGGS	EWINGS IMPERIAL
,		7 0 0

Milk	494	Milkfat	33/4.9	Protein	32/4.0
Somatic Cell Count	-0.25	Cow Calving Diff	-0.9/90	Heifer Calving Diff	0.4/79
Gestation Length	-0.7	Body Condition	0.13	Functional Survival	2.5
Fertility	-1.1	Liveweight	-5		

NZ Evaluation Data			gnters	TOP Insp	
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.22				
Shed Temperament	0.22				
Milking Speed	0.11				
Overall Opinion	0.31				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.36				
Capacity	0.71				
Rump Angle	-0.17				
Rump Width	0.56				
Legs	0.15				
Udder Support	0.64				
Front Udder	0.54				
Rear Udder	0.71				
Front Teat Placement	0.33				
Rear Teat Placement	0.38				
Teat Length	-0.87				
Udder Overall	0.76				
Dairy Conformation	0.67				

	LIC Initiatives		
A2 Protein	High Input	Once-A-Day	A2 Protein
A2/A2	1305	1288	A2/A2
10/12/2021	DP - INT	icof 11/2021	10/12/2021



FR6799 GLEN KORU PROCLAIMER-ET

183/62%

IRELAND VALUES			
Milk Prod SI	141	Survival	1.42
Fertility SI	24	Cow Calving Difficulty	2.50
Calving SI	31	Heifer Calving Difficulty	5.80
Beef SI	-35	Somatic Cell Count	0.13
Health SI	-4	Milk kg	101
Maintenance SI	23	Fat kg/%	26/0.38
Management SI	3	Protein kg/%	16/0.22
Calving Interval (days)	-0.50	Pedigree Status	-

NEW ZEALAND DETAILS 2191 NZ Daughters gBW/Rel **378/91%**

HoofPrint®

	Bree	ding Details
y	Split	F11J5
	Sire	GYDELAND EXCEL INCA S3F
	MGS	NEVRON SHOWMAN
y	MGGS	SCOTTS NORTHSEA

Milk	300	Milkfat	51/5.5	Protein	33/4.2
Somatic Cell Count	0.15	Cow Calving Diff	0/97	Heifer Calving Diff	1.3/88
Gestation Length	2.1	Body Condition	0.05	Functional Survival	2.9
Fertility	-5.2	Liveweight	1		

NZ Evaluation Data		113 Daughters TOP Inspected			
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.43				
Shed Temperament	0.44				
Milking Speed	0.01				
Overall Opinion	0.52				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.11				
Capacity	0.54				
Rump Angle	0.11				
Rump Width	-0.47				
Legs	0.04				
Udder Support	0.21				
Front Udder	0.09				
Rear Udder	0.30				
Front Teat Placement	-0.03				
Rear Teat Placement	0.08				
Teat Length	-0.06				
Udder Overall	0.20				
Dairy Conformation	0.49				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1301	1310	A2/A2

DP-INT



TBC DIGGS HARDCOPY

299/58%

81	Survival	2.32
138	Cow Calving Difficulty	1.57
45	Heifer Calving Difficulty	4.43
-57	Somatic Cell Count	-0.13
20	Milk kg	-357
61	Fat kg/%	14/0.52
12	Protein kg/%	3/0.29
-8.69	Pedigree Status	-
	138 45 -57 20 61 12	138 Cow Calving Difficulty 45 Heifer Calving Difficulty -57 Somatic Cell Count 20 Milk kg 61 Fat kg/% 12 Protein kg/%

NEW ZEALAND DETAILS 85 NZ Daughters gBW/Rel **387/80%** HoofPrint[®]

Breeding Details					
Су	Split	F10J6			
	Sire	DRYSDALES SOVEREIGN			
е	MGS	ANNALYSER			
СУ	MGGS	BAGWORTH LEADERSHIP			

Milk	-157	Milkfat	35/5.7	Protein	18/4.3
Somatic Cell Count	-0.65	Cow Calving Diff	-0.7/68	Heifer Calving Diff	-2.9/42
Gestation Length	-7.5	Body Condition	0.16	Functional Survival	1.7
Fertility	7.9	Liveweight	-1		

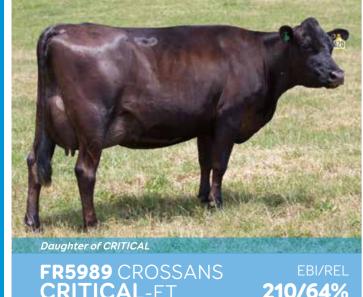
NZ Evaluation Data		78 Dai	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.27				
Shed Temperament	0.28				
Milking Speed	-0.05				
Overall Opinion	0.30				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.36				
Capacity	0.39				
Rump Angle	-0.58				
Rump Width	-0.19				
Legs	0.09				
Udder Support	0.25				
Front Udder	0.14				
Rear Udder	0.10				
Front Teat Placement	-0.02				
Rear Teat Placement	-0.23				
Teat Length	0.42				
Udder Overall	0.20				
Dairy Conformation	0.34				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1312	1272	A2/A2
		_

10/12/2021 **DP - INT** icof 11/2021

icof 11/2021

DP-IRE



CRITICAL-ET

IRELAND VALUES

Milk Prod SI

Fertility SI

Calving SI

Health SI

Maintenance SI

Management SI

Calving Interval (days)

Beef SI

210/64%

1.90

4.30

-0.05

244

19/0.16

15/0.11

10/12/2021 **DP - INT**

	1000
	A
	1
WO	
The Viewson A	Historia and Saller
Daughter of REMARKABLE	
FR6748 KEGZY'S	EBI/REL

DEMADKARIE

REMARKABLE 104/39%					
IRELAND VALUES					
Milk Prod SI	85	Survival	0.73		
Fertility SI	60	Cow Calving Difficulty	2.00		
Calving SI	45	Heifer Calving Difficulty	4.20		
Beef SI	-41	Somatic Cell Count	0.01		
Health SI	-2	Milk kg	-219		
Maintenance SI	33	Fat kg/%	15/0.42		
Management SI	4	Protein kg/%	6/0.24		
Calving Interval (days)	-4.06	Pedigree Status	-		

2814 NZ Daughters **NEW ZEALAND DETAILS**

105 Survival

7

55 Cow Calving Difficulty

-64 Somatic Cell Count

Milk kg

13 Protein kg/%

-1.60 Pedigree Status

49 Fat kg/%

46 Heifer Calving Difficulty

HoofPrint®

Breeding Details Split F10J6

Sire KRAAKMANS JAYDIE MGS ALCAMENO COMMANDER MGGS DAYSH'S LANDMARK GR

gBW/Rel **313/96**%

Milk	904	Milkfat	37/4.6	Protein	39/3.9
Somatic Cell Count	-0.34	Cow Calving Diff	-0.2/97	Heifer Calving Diff	-0.9/99
Gestation Length	-7.7	Body Condition	0.10	Functional Survival	2.2
Fertility	-3.6	Liveweight	0		

NZ Evaluation Data		111 Da	ughters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.38				
Shed Temperament	0.39				
Milking Speed	0.13				
Overall Opinion	0.43				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.42				
Capacity	0.72				
Rump Angle	0.00				
Rump Width	-0.34				
Legs	0.17				
Udder Support	0.49				
Front Udder	0.47				
Rear Udder	0.42				
Front Teat Placement	0.40				
Rear Teat Placement	0.89				
Teat Length	0.06				
Udder Overall	0.54				
Dairy Conformation	0.55				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1288	1292	A2/A2

11/2021

NEW ZEALAND DETAILS

91 NZ Daughters gBW/Rel **332/86**%



Breeding Details			
Split	F10J6		
Sire	DRYSDALES SOVEREIGN		
MGS	FAIRMONT MINT-EDITION		
MGGS	OKURA MANHATTAN ET SJ3		

Milk	276	Milkfat	44/5.4	Protein	32/4.2
Somatic Cell Count	-0.10	Cow Calving Diff	0.1/81	Heifer Calving Diff	-0.5/45
Gestation Length	-1.3	Body Condition	0.02	Functional Survival	2.6
Fertility	-1.6	Liveweight	24		

NZ Evaluation Data		86 Dai	ughters '	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.40				
Shed Temperament	0.41				
Milking Speed	0.07				
Overall Opinion	0.49				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.37				
Capacity	0.46				
Rump Angle	0.12				
Rump Width	0.36				
Legs	0.04				
Udder Support	0.75				
Front Udder	0.57				
Rear Udder	0.36				
Front Teat Placement	0.17				
Rear Teat Placement	0.24				
Teat Length	0.00				
Udder Overall	0.64				
Dairy Conformation	0.49				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1315	1305	A1/A2

icof 11/2021

10/12/2021

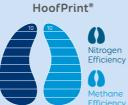
Daughter of INFERNO **JE6805** WALTON

INFERNO

214/61%

IRELAND VALUES			
Milk Prod SI	92	Survival	3.21
Fertility SI	72	Cow Calving Difficulty	1.50
Calving SI	43	Heifer Calving Difficulty	4.20
Beef SI	-52	Somatic Cell Count	-0.09
Health SI	6	Milk kg	-177
Maintenance SI	40	Fat kg/%	12/0.34
Management SI	12	Protein kg/%	9/0.27
Calving Interval (days)	-2.54	Pedigree Status	-

NEW ZEALAND DETAILS 119 NZ Daughters gBW/Rel **414/90**%



Breeding Details Split F9J7 PRIESTS SOLARIS-ET MGS HOWIES CHECKPOINT MGGS WOODCOTE TF MAXIMISER

Milk	117	Milkfat	38/5.4	Protein	31/4.3
Somatic Cell Count	-0.60	Cow Calving Diff	-0.8/98	Heifer Calving Diff	-1.4/99
Gestation Length	-8.3	Body Condition	0.10	Functional Survival	2.6
Fertility	4.3	Liveweight	-2		

NZ Evaluation Data		107 Dai	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.48				
Shed Temperament	0.50				
Milking Speed	0.12				
Overall Opinion	0.44				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.03				
Capacity	0.28				
Rump Angle	-0.14				
Rump Width	-0.26				
Legs	-0.06				
Udder Support	0.33				
Front Udder	0.35				
Rear Udder	0.04				
Front Teat Placement	0.52				
Rear Teat Placement	0.72				
Teat Length	-0.32				
Udder Overall	0.38				
Dairy Conformation	0.37				

LIC Initiatives						
High Input	Once-A-Day	A2 Protein				
1337	1325	A2/A2				

DP-INT



SPRINGFIELD

236/60%

IRELAND VALUES			
Milk Prod SI	112	Survival	1.41
Fertility SI	67	Cow Calving Difficulty	1.90
Calving SI	48	Heifer Calving Difficulty	4.30
Beef SI	-48	Somatic Cell Count	-0.19
Health SI	15	Milk kg	-117
Maintenance SI	41	Fat kg/%	20/0.43
Management SI	2	Protein kg/%	10/0.25
Calving Interval (days)	-3.95	Pedigree Status	-

NEW ZEALAND DETAILS 1998 NZ Daughters

HoofPrint[®]

gBW/Rel **258/91%**

Breeding Details Nitrogen Efficiency Split F9J7 Sire DRYSDALES SOVEREIGN MGS ARKANS BOOMTOWN MGGS FAIRMONT MINT-EDITION

Milk	-526	Milkfat	27/6.0	Protein	11/4.5
Somatic Cell Count	-0.71	Cow Calving Diff	-0.8/96	Heifer Calving Diff	-0.9/98
Gestation Length	-2.1	Body Condition	0.11	Functional Survival	2.0
Fertility	-2.4	Liveweight	10		

NZ Evaluation Data		98 Dai	ughters T	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.25				
Shed Temperament	0.25				
Milking Speed	0.09				
Overall Opinion	0.35				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.03				
Capacity	0.90				
Rump Angle	0.46				
Rump Width	0.22				
Legs	0.28				
Udder Support	0.62				
Front Udder	0.53				
Rear Udder	0.22				
Front Teat Placement	0.36				
Rear Teat Placement	0.78				
Teat Length	-0.83				
Udder Overall	0.53				
Dairy Conformation	0.60				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1250	1248	A2/A2

icof 11/2021 10/12/2021 **DP - INT**

icof 11/2021

10/12/2021

DP-INT



IRELAND VALUES						
Milk Prod SI	106	Survival	1.52			
Fertility SI	46	Cow Calving Difficulty	1.70			
Calving SI	45	Heifer Calving Difficulty	5.50			
Beef SI	-27	Somatic Cell Count	0.12			
Health SI	-9	Milk kg	20			
Maintenance SI	26	Fat kg/%	19/0.32			
Management SI	2	Protein kg/%	12/0.19			

gBW/Rel

Split F9J7

38/5.2

-0.5/95

0.10

Breeding Details

Sire SAN RAY FM BEAMER-ET S2F

MGS LYNBROOK RG TERRIFIC ET

Protein

Calving Diff

Functional

MGGS SCOTTS NORTHSEA

1908 NZ Daughters

298/91%

23/4.0

0.1/98

2.4

Calving Interval (days) -2.15 Pedigree Status

Milkfat

Cow Calving Diff

Body Condition

NEW ZEALAND DETAILS

HoofPrint®

295

0.08

Milk

Somatic Cell Count

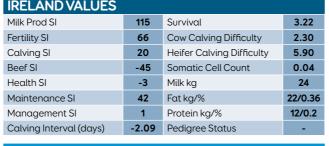
Gestation

IRELAND VALUES Milk Prod SI 115 Survival 3.22 Fertility SI 66 Cow Calving Difficulty 2.30 Calving SI 20 Heifer Calving Difficulty 5.90 Beef SI -45 Somatic Cell Count 0.04 Health SI -3 Milk kg 24 Maintenance SI 42 Fat kg/% 22/0.36 Management SI 1 Protein kg/% 12/0.2 Calving Interval (days) -2.09 Pedigree Status

Daughter of SPOT ON

SPOT ON

FR4965 WOODWARDS



196/64%

3.1

Functional Survival



			2577 0070						
		litrogen	Breeding Details						
		fficiency	Sp	lit	F9J7				
			Si	re	VANST	RAALENS VIE	BE		
		Methane Efficiency	M	GS	SCOTT	TS NORTHSEA			
			M	GGS	HAZAE	L EMINENCE	DANO-ET		
Milk	80	Milkfo	ıt	35	5/5.4	Protein	20/4.1		
Somatic Cell Count	0.01	Cow Calving I	Diff	-0	.5/96	Heifer Calving Diff	-0.6/99		

NZ Evaluati		85 Daughters TOP Inspected					
Management			BV	-0.5	0	0.5	1.0
Adapts to Milking	9		0.29				
Shed Temperame	ent		0.30				
Milking Speed			0.11				
Overall Opinion			0.33				
Conformation			BV	-0.5	0	0.5	1.0
Stature			-0.18				
Capacity			1.17				
Rump Angle			-0.35				
Rump Width			0.09				
Legs			0.02				
Udder Support			0.32				
Front Udder			0.30				
Rear Udder			0.28				
Front Teat Place	ment		-0.10				
Rear Teat Placer	nent		0.21				
Teat Length			0.05				
Udder Overall			0.24				
Dairy Conformat	ion		0.88				



IRELAND VALUES					
Milk Prod SI	108	Survival	1.54		
Fertility SI	44	Cow Calving Difficulty	1.90		
Calving SI	37	Heifer Calving Difficulty	4.94		
Beef SI	-49	Somatic Cell Count	-0.03		
Health SI	5	Milk kg	-102		
Maintenance SI	49	Fat kg/%	25/0.52		
Management SI	7	Protein kg/%	8/0.20		
Calving Interval (days)	-2.01	Pedigree Status	-		
3 , , ,		3			

132 NZ Daughters

gBW/Rel 441/82%

PRIESTS SIERRA

MGS MARSDEN NN EXCELL ET

Protein

Calving Diff

Functional Survival

87 Daughters TOP Inspected

26/4.3

-0.1/97

4.2

MGGS ADAMS ROCKHARD-ET

Breeding Details

Split J8F8

59/6.0

-0.2/91

0.06

13

Sire

Milkfat

Cow Calving Diff

Body Condition

Liveweight

NEW ZEALAND DETAILS

29

-0 40

-7.4

-1.5

NZ Evaluation Data

HoofPrint®

Milk

Somatic Cell Count

Gestation

Management

Milkina Speed

Overall Opinion

Conformation

Stature

Capacity

Rump Angle

Rump Width

Udder Support

Front Teat Placemen

Rear Teat Placement

Dairy Conformation

LIC Initiatives

High Input

1380

Front Udder

Rear Udder

Teat Length

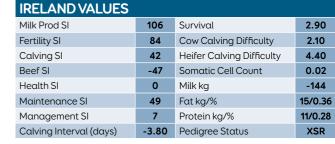
DP-INT

Udder Overall

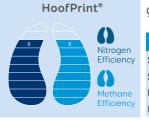
Legs

Adapts to Milkina

Shed Temperament





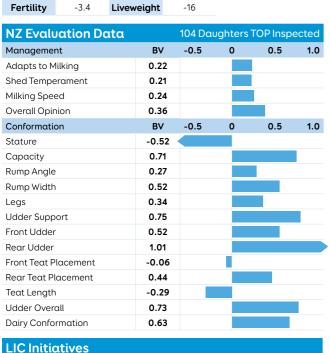


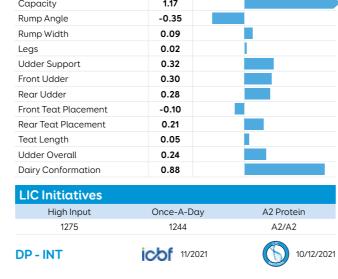
8	8	() Nitrogen	Bı
		Efficiency	Sp
		Δ	Sir
		Methane	MG
		Efficiency	MG

Breeding Details				
Split	J8F7			
Sire	HOWIES ARKAN RAMADA ET			
MGS	OKURA LIKA MURMUR S3J			
MGGS	SCOTTS NORTHSEA			
	Split Sire MGS			

Milk	-2	Milkfat	26/5.3	Protein	23/4.3
Somatic Cell Count	0.24	Cow Calving Diff	-0.8/95	Heifer Calving Diff	-0.8/99
Gestation Length	-4.5	Body Condition	-0.03	Functional Survival	0.8
Fertility	2.6	Liveweight	-19		

NZ Evaluation Data		/3 Dai	igniers	TOP Insp	ect
Management	BV	-0.5	0	0.5	
Adapts to Milking	0.23				
Shed Temperament	0.22				
Milking Speed	0.33				
Overall Opinion	0.28				
Conformation	BV	-0.5	0	0.5	
Stature	-0.56				
Capacity	0.28				
Rump Angle	0.08				
Rump Width	0.41				
Legs	0.29				
Udder Support	0.35				
Front Udder	0.62				
Rear Udder	0.66				
Front Teat Placement	0.04				
Rear Teat Placement	-0.01				
Teat Length	-0.03				
Udder Overall	0.53				
Dairy Conformation	0.13				







1257

DP-INT

High Input

1291

Once-A-Day

1281

A2 Protein

A2/A2

1380



A2/A2



1240

A1/A2



TBC DEANS **PROFESSIONAL**

IRELAND VALUES

Milk Prod SI

Fertility SI

Calving SI

Beef SI

Health SI

Maintenance SI

Management SI

Calving Interval (days)

273/44%

7.70

2.10

6.67

-0.06

-58

21/0.41

10/0.20



IRELAND VALUES 122 Survival 1.35 32 Cow Calving Difficulty 2.20 Heifer Calving Difficulty 4.70 -37 Somatic Cell Count 0.09

Milk Prod SI Fertility SI Calving SI Beef SI Health SI -1 Milk kg -160 Maintenance SI **25** Fat kg/% 22/0.5 Management SI 9 Protein kg/% 11/0.29 Calving Interval (days) -1.22 Pedigree Status **NEW ZEALAND DETAILS** 101 NZ Daughters

NEW ZEALAND DETAILS 96 NZ Daughters HoofPrint® gBW/Rel **354/80%**

105 Survival

Milk kg

Protein kg/%

-2.14 Pedigree Status

1 Fat kg/%

27

0

12

5

123 Cow Calving Difficulty

Somatic Cell Count

Heifer Calving Difficulty



Breeding Details

Split J9F7 Sire TIRONUI LT BESIEGE ET MGS WHINLEA PF ESTEEM-ET S2F MGGS FAIRMONT MINT-EDITION

Milk	235	Milkfat	42/5.4	Protein	22/4.0
Somatic Cell Count	0.04	Cow Calving Diff	0.4/96	Heifer Calving Diff	-0.1/97
Gestation Length	-3.2	Body Condition	0.27	Functional Survival	4.2
Fertility	3.6	Liveweight	8		

NZ Evaluation Data		87 Dai	ughters	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.28				
Shed Temperament	0.27				
Milking Speed	0.35				
Overall Opinion	0.42				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.09				
Capacity	0.45				
Rump Angle	-0.08				
Rump Width	0.38				
Legs	-0.02				
Udder Support	0.28				
Front Udder	0.18				
Rear Udder	0.28				
Front Teat Placement	-0.10				
Rear Teat Placement	-0.14				
Teat Length	0.58				
Udder Overall	0.24				
Dairy Conformation	0.65				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1286	1255	A2/A2

11/2021

HoofPrint® gBW/Rel **309/90%**

		Nitrogen Efficiency Methane Efficiency
Milk	-81	Milkf

Gestation

10/12/2021 **DP - INT**

	Sire PILSENS TITAN							
	MGS KIRKS RI CHARISMA ET GR							
y	MGGS SRB CORBOYS LIGHTENING							
fa	t	38	8/5.7	Protein	20/4.3			
		.5/76	Heifer Calving Diff	0.1/61				

Functional Survival

0.8

10/12/2021

Breeding Details

Split J10F6

NZ Evaluation Data		97 Da	ughters [*]	TOP Inspe	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.21				
Shed Temperament	0.21				
Milking Speed	0.06				
Overall Opinion	0.24				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.07				
Capacity	0.78				
Rump Angle	-0.21				
Rump Width	-0.08				
Legs	0.28				
Udder Support	0.62				
Front Udder	0.67				
Rear Udder	0.59				
Front Teat Placement	-0.17				
Rear Teat Placement	0.37				
Teat Length	-0.37				
Udder Overall	0.51				
Dairy Conformation	0.66				

LIC Initiatives			
High Input	Once-A-Day	A2 Protein	
1303	1261	A1/A2	
		_	

icof 11/2021



TBC BALDRICKS **TOUCHDOWN**

172/45%

IRELAND VALUES			
Milk Prod SI	121	Survival	1.75
Fertility SI	20	Cow Calving Difficulty	2.12
Calving SI	31	Heifer Calving Difficulty	5.84
Beef SI	-47	Somatic Cell Count	0.06
Health SI	3	Milk kg	-74
Maintenance SI	43	Fat kg/%	22/0.45
Management SI	1	Protein kg/%	11/0.25
Calving Interval (days)	0.12	Pedigree Status	-

O NZ Daughters NEW ZEALAND DETAILS gBW/Rel 409/60% HoofPrint®



Breeding Details Split F9J7

GLEN KORU PROCLAIMER-ET MGS LYNBROOK RG TERRIFIC ET MGGS HOWIES ARKAN RAMADA ET

Milk	-154	Milkfat	43/5.9	Protein	24/4.5
Somatic Cell Count	-0.22	Cow Calving Diff	-0.8/69	Heifer Calving Diff	1.5/34
Gestation Length	1.6	Body Condition	0.18	Functional Survival	2.7
Fertility	-0.3	Liveweight	-13		

NZ Evaluation Data		0 Dai	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.31				
Shed Temperament	0.32				
Milking Speed	0.06				
Overall Opinion	0.34				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.26				
Capacity	0.62				
Rump Angle	-0.16				
Rump Width	-0.07				
Legs	0.05				
Udder Support	0.50				
Front Udder	0.35				
Rear Udder	0.61				
Front Teat Placement	0.15				
Rear Teat Placement	0.13				
Teat Length	-0.03				
Udder Overall	0.57				
Dairy Conformation	0.62				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1349	1330	A1/A2



HONENUI-ET

120/34%

IRELAND VALUES			
Milk Prod SI	44	Survival	1.75
Fertility SI	41	Cow Calving Difficulty	1.95
Calving SI	24	Heifer Calving Difficulty	5.30
Beef SI	-1	Somatic Cell Count	-0.03
Health SI	8	Milk kg	-273
Maintenance SI	3	Fat kg/%	9/0.35
Management SI	1	Protein kg/%	0/0.18
Calving Interval (days)	-1.56	Pedigree Status	-

NEW ZEALAND DETAILS

HoofPrint®

ONZ Daughters gBW/Rel **330/56**%

Breeding Details Split J9F7 Sire GREENWELL BLACKHAWK

MGS BRADENE MANZ TRUMPET-ET MGGS TIRONUI MUR KELSTON S3J

Milk	-412	Milkfat	35/6.1	Protein	20/4.6
Somatic Cell Count	0.26	Cow Calving Diff	-1.5/86	Heifer Calving Diff	-2.8/75
Gestation Length	0.6	Body Condition	0.09	Functional Survival	3.8
Fertility	4.2	Liveweight	20		

NZ Evaluation Data		0 Dai	ghters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.28				
Shed Temperament	0.28				
Milking Speed	0.07				
Overall Opinion	0.36				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.26				
Capacity	0.55				
Rump Angle	0.21				
Rump Width	0.09				
Legs	0.04				
Udder Support	0.92				
Front Udder	1.04				
Rear Udder	0.75				
Front Teat Placement	0.44				
Rear Teat Placement	0.63				
Teat Length	0.22				
Udder Overall	1.02				
Dairy Conformation	0.59				

Once-A-Day	A2 Protein
1288	A2/A2
	•

icof 11/2021



icof 11/2021



DP-INT



TBC SNOWLINE BENJI

199/48%

IRELAND VALUES			
Milk Prod SI	99	Survival	0.36
Fertility SI	48	Cow Calving Difficulty	2.41
Calving SI	45	Heifer Calving Difficulty	4.19
Beef SI	-45	Somatic Cell Count	0.05
Health SI	-2	Milk kg	-77
Maintenance SI	43	Fat kg/%	18/0.38
Management SI	12	Protein kg/%	9/0.21
Calving Interval (days)	-3.47	Pedigree Status	-

NEW ZEALAND DETAILS 0 NZ Daughters

gBW/Rel **422/62%** HoofPrint®





breeding Details			
Split	F12J4		
Sire	GLEN KORU ETHOS-ET S1F		
MGS	ARKANS PERSPECTIVE-ET		
MGGS	MAIRE PF GOLDEN BOY S2F		

Milk	40	Milkfat	53/5.8	Protein	27/4.3
Somatic Cell Count	-0.09	Cow Calving Diff	0.3/74	Heifer Calving Diff	0.5/38
Gestation Length	-5.9	Body Condition	0.19	Functional Survival	2.3
Fertility	3.6	Liveweight	28		

	_				
NZ Evaluation Data		0 Da	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.01				
Shed Temperament	0.01				
Milking Speed	-0.01				
Overall Opinion	-0.03				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.30				
Capacity	0.38				
Rump Angle	0.65				
Rump Width	0.05				
Legs	-0.07				
Udder Support	0.18				
Front Udder	0.25				
Rear Udder	0.21				
Front Teat Placement	0.02				
Rear Teat Placement	0.07				
Teat Length	0.02				
Udder Overall	0.21				
Dairy Conformation	0.44				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1332	1300	A1/A2





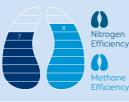
TBC JULIAN STRAIGHT UP

155/51%

IRELAND VALUES										
Milk Prod SI	68	Survival	1.97							
Fertility SI	63	Cow Calving Difficulty	1.99							
Calving SI	30	Heifer Calving Difficulty	6.03							
Beef SI	-29	Somatic Cell Count	0.02							
Health SI	3	Milk kg	-321							
Maintenance SI	21	Fat kg/%	14/0.50							
Management SI	0	Protein kg/%	2/0.23							
Calving Interval (days)	-3.07	Pedigree Status	-							

NEW ZEALAND DETAILS HoofPrint®

0 NZ Daughters gBW/Rel **379/61**%





	Bree	ding Details
у	Split	J11F5
	Sire	CRESCENT EXCELL MISTY ET
	MGS	SAN RAY FM BEAMER S2F
y	MGGS	OKURA LIKA MURMUR S3J

Milk	-508	Milkfat	45/6.4	Protein	8/4.4
Somatic Cell Count	-0.10	Cow Calving Diff	-0.6/72	Heifer Calving Diff	-1.4/34
Gestation Length	0.2	Body Condition	0.33	Functional Survival	3.3
Fertility	3.1	Liveweight	4		

NZ Evaluation Data		0 Dai	ughters ⁻	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.06				
Shed Temperament	0.06				
Milking Speed	0.06				
Overall Opinion	0.17				
Conformation	BV	-0.5	0	0.5	1.0
Stature	-0.28				
Capacity	1.26				
Rump Angle	0.35				
Rump Width	0.00				
Legs	0.23				
Udder Support	0.32				
Front Udder	0.54				
Rear Udder	0.56				
Front Teat Placement	0.03				
Rear Teat Placement	-0.22				
Teat Length	0.19				
Udder Overall	0.49				
Dairy Conformation	0.89				

LIC Initiatives			
High Input	Once-A-Day	A2 Protein	
1332	1278	A2/A2	

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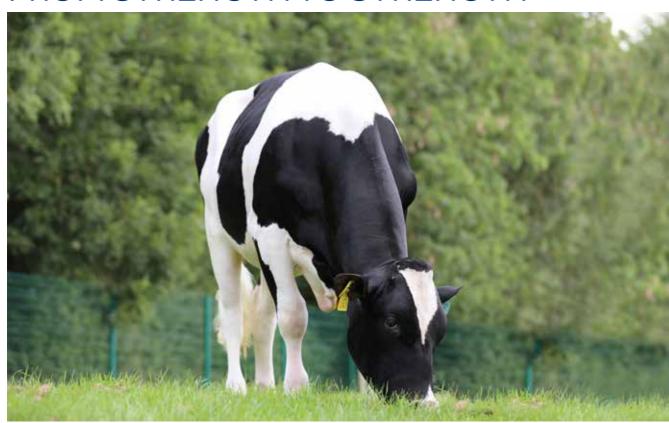
CLASSIC BULLS

NZ Bull Code	IREAlCode	Bull Name	EBI/Re!%	Milk Prod SI	Fertility SI	Maintenance SI	Health SI	Milk Kg	FatKg	Fat%	Protein Kg	Protein %	Dairy Heifer Calv Diff	Dairy Cow Calv Diff	High Input	A2/A2	gBW/Rel
Hol	stein Fr	iesian															
10823	5 MWW	MORTENSENS WE AWE-ET S3F	238/96	62	110	32	8	220	9	0.00	11	0.06	6.10	2.40	1093	A1/A1	104/99
11200	5 GGP	GOINGS MECCA PRIDE S1F	238/95	86	84	26	4	236	10	0.01	15	0.12	4.50	2.00	1126	A1/A2	150/98
11000	6 BGJ	BAGWORTH PF GRANDEUR S1F	233/98	69	100	21	10	124	16	0.19	8	0.07	5.20	2.20	1206	A2/A2	195/99
11105	0 LKL	LASHS MS LEGION S1F	224/86	78	108	11	-2	280	11	0.00	14	0.07	4.30	1.90	1098	A2/A2	81/62
10821	4 BGU	BAGWORTH RM ARASMUS S2F	202/93	66	88	19	4	136	7	0.04	11	0.10	5.80	2.20	1121	A2/A2	129/90
11006	3 GFS	MAIRE PF GOLDEN BOY S2F	182/95	73	58	29	10	224	14	0.09	11	0.05	5.00	2.00	1165	A1/A2	169/99
11103	8 AKZ	ARKAN GH HORIZON S2F	178/96	90	51	9	3	-23	14	0.26	10	0.19	6.80	2.80	1177	A2/A2	139/98
10621	9 WDS	WHINLEA DAN SUPERSONIC-ET	175/98	83	72	7	6	404	13	-0.05	16	0.03	6.00	2.50	1121	A2/A2	77/99
11205	0 DGW	VOWLES DREAM GLIDER S2F	152/89	76	43	18	-11	50	18	0.28	7	0.10	5.80	2.00	1187	A1/A2	201/72
Jer	sev																
31205		LYNBROOK GG QUICKSILVER	227/70	98	71	59	10	-516	19	0.74	2	0.38	3.20	1.60	1269	A2/A2	329/99
31305	55 JE2049	GLENUI 5-STAR HARRY ET	222/85	92	74	46	15	-423	16	0.60	4	0.34	2.80	1.40	1236	A2/A2	255/95
31301	7 JE4502	BONACORD MURMURS BOSWELL	211/67	75	55	67	9	-348	16	0.54	2	0.25	2.90	1.40	1209	A2/A2	277/90
31101	9 JJS	SOUTH LAND JERICHO ET S3J	192/92	79	59	48	5	-180	10	0.30	7	0.24	3.00	1.40	1128	A2/A2	152/99
31201	4 YKF	CHARDONNAY FRANKIE	182/87	94	55	44	10	-323	13	0.48	6	0.32	4.30	1.90	1183	A2/A2	261/99
31302	0 JE4504	CRESCENT OLM ROSCO ET	145/69	76	16	62	7	-136	14	0.34	6	0.19	2.40	1.40	1109	A2/A2	125/96
31102	2 FCW	HILLSTAR TERRIFIC 5-STAR	134/85	83	1	53	6	-137	11	0.29	8	0.23	3.60	1.70	1163	A2/A2	156/99
Kiw	riCross [©]																
50814		HOWIES EASYRIDER	204/96	84	59	45	6	-250	17	0.49	5	0.24	3.30	1.60	1240	A1/A2	285/99
51104		IL VERO AMORE POWER	181/95	105	40	26	-8	114	14	0.15	15	0.18	4.40	1.90	1182	A1/A2	168/99
51100		CASTLEGRACE MAKO	172/96	87	41	29	1	-264	11	0.39	7	0.29	4.80	2.00	1149	A2/A2	158/99
51105		MOODYS EXECUTIVE	163/97	89	28	35	1	105	12	0.13	13	0.16	4.68	2.07	1169	A2/A2	196/99
51400	01 FR2467	OKURA ZIPPA	152/78	93	41	44	0	16	15	0.26	11	0.18	4.90	2.10	1167	A2/A2	230/89

icof 11/2021



THE FORWARDS® SIRE TEAM: GOING FROM STRENGTH TO STRENGTH



We are now in the fourth year of the Irish Bull Breeding (IBB) program and have been working with farmers all over Ireland to produce the next generation of The Forwards® bulls. During this time, we have seen a lot of exceptional cows doing in excess of 600-700kg milk solids from less than 0.5T of meal. These cows are still calving down in the first 3 weeks giving the holy grail of fertility and milk with no compromise.

Breeding these proven cows with top-ranked proven sires gives the best chance of producing some very good young bulls for selection as sires.

IBB genomic bulls stand out from the others:

- The Forwards bulls are a genomic team sired by top LIC daughterproven bulls.
- Genomic selection advances in New Zealand allow us to screen the DNA of our Irish bulls against the NZ reference population in a single step model to obtain a unique genomic BW (gBW). This gives us confidence in the bulls we secure for our program.
- gBW assesses fertility differently, using phenotypes that are more relevant in seasonal calving

systems, where early-calving cows are highly valued. Instead of calving interval, the 6-week calving rate (CR42) is currently used and further enhancements to fertility genetic evaluation are coming soon. This is more appropriate because calving interval can potentially penalise the early-calved fertile COW.1

Bull Name	IREAlcode	EBI/Rel%	Milk SI	Fertility SI	Calving	Milk kg	Fat kg/%	Protein kg/%	Dairy Heifer Calv Diff	Dairy Cow Calv Diff
LIC BOPURU BRO	-	278/55	113	124	28	129	25/0.33	12/0.14	7.4	3.0
LIC CLOHANE CRACKER	JEX128	272/54	99	116	28	-186	20/0.49	7/0.24	6.6	2.6
LIC MOOREHILL KAIA	-	263/53	74	126	48	-169	12/0.33	6/0.21	4.4	2.3
LIC MOOREHILL EUPHORIA	-	253/51	95	102	45	-110	18/0.41	8/0.21	3.9	1.8
LIC NEXT GEN IMPOSSIBLE	JE7971	251/55	106	100	29	-248	20/0.54	7/0.28	3.3	1.4
LIC BROOKLAWN TORNADO EX	-	247/55	101	122	36	-28	20/0.37	10/0.19	5.2	2.7
LIC TINNASHRULE TROJAN	JEX122	239/50	97	87	36	-237	20/0.53	6/0.25	5.4	2.4
LIC MUINEMOR DOWLIN	JEX125	238/53	140	66	42	23	30/0.51	14/0.22	5.0	1.3
LIC HILLCAP REBEL	JE7845	214/52	98	78	26	-353	22/0.66	4/0.29	2.9	2.0

Stachowicz, Berry, Cromie and others addressed this issue in their 2018 paper 'Changes to the Genetic Evaluation of Fertility in Irish Dairy Cattle'1, which concluded - 'For seasonal herds, the introduction of calving rate and conception rate traits offers an opportunity to further enhance the fertility evaluation by better extracting information from calving and mating date phenotypes in seasonal calving herds.'

- gBW includes NZ genomic information, which increases reliability of later-expressed traits such as fertility and longevity.
- LIC breeding experts examine the candidate bull's pedigree, physical attributes and cow family information to increase the accuracy of delivering genetics to further improve the genetic merit of your herd.

The 2020 intake:

The 2020 intake of bulls has been well received by farmers not just in Ireland but also the UK, France and beyond. Farmers are showing confidence in our genomic evaluation and selection process via demand for The Forwards sexed semen product.

In 2022. The Forwards bull team will be available in sexed for the Irish market, including Moorehill Max (F12J4) with 391 gBW and 277 gEBI. Max is sired by the well-known Carsons FM Cairo (FR4507), he is impressive on fertility at 5.1 gBV. His dam's six-year Cl average is 371 days. In addition, we will be providing data profiles of other bulls from The Forwards team on pages 50 & 51 including Kilvoige Aaron, Newbawn Lily, Brooklawn M Eclipse,

Kilvoige Stephen and Moorehill Galaxy.

LIC Ireland proudly presents the latest test bulls to join The Forwards team with this year's new recruits shaping up nicely and some exciting new bulls are coming on-stream. For the first time the 2021 intake will have something for everyone, offering Holstein Friesian, Jersey and KiwiCross sires to choose from. Again, these bulls are from herds that are doing the business on farms reflective of the typical grass-based, spring calving herds of Ireland and New Zealand.

So, let's take a look at these bulls:

Holstein Friesian:

Martin Kinane's herd outside Tipp town has been the home to the one of the highest EBI herds in Ireland for a long number of years. Martin Kinane has been using LIC genetics for decades, so it is no wonder he has a bull like LIC Bopuru Bro coming through. The prefix for this bull is what The Forwards and Martin's herd are all about. Bopuru is made of Bo (Irish for cow) and Puru (Maori for bull). The dam itself is Martin's favourite cow and he calls her "superb". This cow has achieved 645kgms/yr and 359-day Cl over 8 lactations. Bopuru Bro himself sired by Cairo has an €278 gEBI with Milk €113 and Fert €124 and \$383 gBW with a 7.5 Fert BV. Solids are high for the F15 bull. At 540kg liveweight, this bull will fit into any breeding program.

KiwiCross[®]:

LIC Clohane Cracker's dam has been on the radar for the last two years, as she had all the attributes of a bull mother that you would like to see. She is a hardworking cow in a large commercial herd and doing the production with no special treatment. The 536kg liveweight dam is producing 600kgms/ lactation on average over the last 6 lactations, while still achieving 364 Cl. And now to top it off, this West Cork cow has bred Clohane Cracker. Sired by Riverview and Dexter, Cracker has an €272 gEBI with Milk €99 and Fert €116, and \$318 gBW with 3.4 Fert gBV.

Jersey:

The NZ Jerseys have been making noise since they arrived in Moorepark in 2018. Nextgen Hillstar Penny is the dam of LIC Next Gen Impossible. Penny by name but pounds by production, Penny has produced 505kgms/lactation as a mature 454kg cow while holding onto a 369-day CI. Impossible will increase your solids without increasing litres over the Irish base cow and is ideal for farmers who want more solids but want to supply less litres. Sired by Irish favourite Gallivant.

Just a taste of the bulls coming through our breeding programme and the values that drive our selection process.

For advice on how to use The Forwards bulls as part of your breeding programme or to order, contact your LIC Ireland breeding advisor.

1. Stachowicz, K., Jenkins, G.M., Amer, P.R., Berry, D.P., Kelleher, M.M., Kearney, F.F., Evans, R.D., and Cromie, A.R. 2018. Changes to Genetic evaluation if Fertility in Irish Dairy Cattle. Proceedings of the Interbull Meeting in Auckland, New Zealand. February 10-12 2018. Interbull Bulletin 53, 57-62

gBW/Rel%	Fertility BV	Milk Volume BV (I)	Fat BV (kg/%)	Protein (kg/%)	SCC BV	Heifer Calving Diff BV	Cow Calving Diff BV	Functional Survival	Liveweight BV	Sire Name	A2 Status
383/59	7.5	404	47/5.3	28/4.0	-0.27	0.5	-0.1	3.1	38	CARSONS FM CAIRO S3F	A1/A2
318/57	3.4	135	36/5.4	21/4.1	-0.36	0.2	0.2	4.3	21	RIVERVIEW AND DEXTER	A2/A2
251/54	4.8	-8	20/5.2	18/4.2	-0.18	-1.0	-0.7	1.0	4	LYNBROOK KARTELL	A2/A2
288/56	0.7	12	31/5.4	16/4.1	0.13	-1.0	-0.6	1.0	-34	LYNBROOK KARTELL	A1/A2
273/57	6.0	-391	22/5.7	8/4.3	0.29	-2.2	-1.0	-0.6	-35	ULMARRA TT GALLIVANT	A2/A2
238/59	1.2	163	30/5.2	17/4.0	-0.34	1.2	0.1	4.0	39	HYJINKS SNAPPER	A2/A2
378/56	8.1	220	46/5.5	24/4.1	-0.21	-1.6	-0.4	2.5	28	ULMARRA TT GALLIVANT	A1/A2
328/58	3.1	25	42/5.6	21/4.2	0.09	-0.6	-0.5	3.2	33	ULMARRATT GALLIVANT	A1/A2
318/56	5.6	-279	32/5.8	8/4.2	0.19	-1.9	-0.9	1.7	-31	ULMARRA TT GALLIVANT	A2/A2

11/2021





MAX 277/54%

IRELAND VALUES			
Milk Prod SI	97	Survival	2.91
Fertility SI	127	Cow Calving Difficulty	1.70
Calving SI	52	Heifer Calving Difficulty	4.30
Beef SI	-29	Somatic Cell Count	-0.09
Health SI	3	Milk kg	-2
Maintenance SI	24	Fat kg/%	18/0.32
Management SI	2	Protein kg/%	10/0.18
Calving Interval (days)	-7.19	Pedigree Status	-

0 NZ Daughters NEW ZEALAND DETAILS

HoofPrint®



Breeding Details

Split	F12J4
Sire	CARSONS FM CAIRO S3F
MGS	ST PETERS OBSIDIAN
MGGS	SHALENDY ABRAXAS

Milk	547	Milkfat	47/5.2	Protein	32/4.0
Somatic Cell Count	-0.10	Cow Calving Diff	-0.1/31	Heifer Calving Diff	-0.4/31
Gestation Length	-4.9	Body Condition	0.33	Functional Survival	3.9
Fertility	5.1	Liveweight	38		

NZ Evaluation Data		0 Dai	ughters	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.29				
Shed Temperament	0.30				
Milking Speed	-0.13				
Overall Opinion	0.34				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.31				
Capacity	0.60				
Rump Angle	-0.21				
Rump Width	0.25				
Legs	-0.02				
Udder Support	0.65				
Front Udder	0.51				
Rear Udder	0.67				
Front Teat Placement	0.01				
Rear Teat Placement	0.63				
Teat Length	-0.22				
Udder Overall	0.57				
Dairy Conformation	0.64				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1344	1284	A2/A2



IRELAND VALUES			
Milk Prod SI	95	Survival	3.06
Fertility SI	103	Cow Calving Difficulty	2.20
Calving SI	43	Heifer Calving Difficulty	5.80
Beef SI	-43	Somatic Cell Count	-0.01
Health SI	7	Milk kg	-324
Maintenance SI	40	Fat kg/%	19/0.58
Management SI	3	Protein kg/%	5/0.29
Calving Interval (days)	-5.13	Pedigree Status	XSR

0 NZ Daughters NEW ZEALAND DETAILS

gBW/Rel **332/56**% HoofPrint®



Bree	ding Details
Split	J10F6
Sire	VAN STRAALENS G-FORCE
MGS	BRADENE PAS TRIPLESTAR
MGGS	CURRA ALLSTAR

Milk	-150	Milkfat	41/5.8	Protein	12/4.2
Somatic Cell Count	0.22	Cow Calving Diff	-0.5/24	Heifer Calving Diff	-1.7/20
Gestation Length	-1.9	Body Condition	0.20	Functional Survival	3.2
Fertility	3.6	Liveweight	2		

NZ Evaluation Data		0 Dai	ughters'	TOP Insp	ected
Management	BV	-0.5	0	0.5	1.0
Adapts to Milking	0.27				
Shed Temperament	0.27				
Milking Speed	0.12				
Overall Opinion	0.36				
Conformation	BV	-0.5	0	0.5	1.0
Stature	0.01				
Capacity	0.65				
Rump Angle	0.32				
Rump Width	0.15				
Legs	0.15				
Udder Support	0.19				
Front Udder	0.34				
Rear Udder	0.26				
Front Teat Placement	-0.01				
Rear Teat Placement	-0.14				
Teat Length	-0.11				
Udder Overall	0.26				
Dairy Conformation	0.45				

LIC Initiatives		
High Input	Once-A-Day	A2 Protein
1289	1240	A1/A2

10/12/2021

JE7194 LIC NEWBAWN 265/54%



Breeding Details

Split F8J8

Sire CRESCENT EXCELL MISTY ET MGS (IG) KNOCKCAIS TOSSY MGGS LISDUFF MANFRED ET

IRELAND VALUES			
Milk Prod SI	111	Survival	2.57
Fertility SI	102	Cow Calving Difficulty	1.90
Calving SI	34	Heifer Calving Difficulty	5.30
Beef SI	-24	Somatic Cell Count	-0.12
Health SI	12	Milk kg	-53
Maintenance SI	26	Fat kg/%	25/0.48
Management SI	4	Protein kg/%	9/0.19
Calving Interval (days)	-5.59	Pedigree Status	_

NZ Evaluation Data 0 Daug			ughters TOP	Inspected	
Milk	207	Milkfat	30/5.2	Protein	15/3.9
Somatic Cell Count	-0.28	Cow Calving Diff	0.2/26	Heifer Calving Diff	0.2/25
Gestation Length	-1.0	Body Condition	0.36	Functional Survival	1.7
Fertility	-0.4	Liveweight	66		
TOP traits		BV	-0.5	0	0.5 1.0

TOP traits	BV	-0.5	0	0.5	1.0
Overall Opinion	0.19				
Capacity	0.77				
Udder Overall	0.53				
Dairy Conformation	0.72				

FR6823 LIC KILVOIGE STEPHEN 231/60%

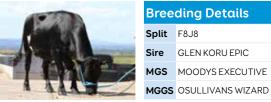


Bree	eding Details
Split	F12J4
Sire	PRIESTS SIERRA
MGS	PARKDUV MARK
MGGS	ABR TUNGSTEN STEEL S3.1

IRELAND VALUES						
Milk Prod SI	104	Survival	2.53			
Fertility SI	82	Cow Calving Difficulty	2.50			
Calving SI	38	Heifer Calving Difficulty	5.40			
Beef SI	-30	Somatic Cell Count	-0.03			
Health SI	1	Milk kg	-92			
Maintenance SI	26	Fat kg/%	21/0.43			
Management SI	10	Protein kg/%	9/0.21			
Calving Interval (days)	-3.98	Pedigree Status	-			

NZ Evalı	vation D	ata		0 Daughters TOP Inspected				
Milk	427	Milk	fat	37/5.1	Prote	in	22/	3.9
Somatic Cell Count	0.05	Co Calvin		0.1/27	Heife Calving		1.7	/27
Gestation Length	-4.1	Boo Cond		-0.02	Function		0	.8
Fertility	1.3	Livew	eight	44				
TOP traits			BV	-0.5	0	(0.5	1.0
Overall Opin	nion		0.20					
Capacity			0.30					
Udder Over	all		0.15					
Dairy Confo	rmation		0.32					

JE6895 LIC BROOKLAWN EBI/REL MOONLIGHT ECLIPSE 245/54%



Breeding Details Split F8J8 Sire GLEN KORU EPIC MGS MOODYS EXECUTIVE

IRELAND VALUES							
Milk Prod SI	107	Survival	2.60				
Fertility SI	81	Cow Calving Difficulty	2.10				
Calving SI	35	Heifer Calving Difficulty	4.10				
Beef SI	-42	Somatic Cell Count	-0.07				
Health SI	10	Milk kg	29				
Maintenance SI	50	Fat kg/%	16/0.25				
Management SI	4	Protein kg/%	13/0.21				
Calving Interval (days)	-3.90	Pedigree Status	-				

NZ Evaluation Data				U Da	ugnters	10P insp	ectea
Milk	2	Mill	(fat	22/5.2	Prote	in 23	3/4.3
Somatic Cell Count	-0.49	Calvin		-0.5/32	Heife Calving		.7/31
Gestation Length	-0.3	Bo Cond		0.00	Functio Surviv		0.4
Fertility	2.0	Livew	eight	-13			
TOP traits			BV	-0.5	0	0.5	1.0
TOP traits			DV	-0.5	U	0.5	1.0
Overall Opin	nion		0.2	6			
Capacity			0.3	0			
Udder Overall			0.1	5			
Dairy Confo	rmation		0.0	3			

JE6898 LIC MOOREHILL EBI/REL **GALAXY** 225/53%



Breeding Details					
Split	F9J5				
Sire	GLEN KORU EPIC				
MGS	GOINGS MECCA PRIDE S1F				
MGGS	VELSVIK				

IRELAND VALUES			
Milk Prod SI	99	Survival	2.83
Fertility SI	86	Cow Calving Difficulty	2.00
Calving SI	35	Heifer Calving Difficulty	5.60
Beef SI	-37	Somatic Cell Count	0.06
Health SI	-2	Milk kg	-61
Maintenance SI	33	Fat kg/%	16/0.32
Management SI	10	Protein kg/%	10/0.22
Calving Interval (days)	-4.00	Pedigree Status	-

NZ Evalu	NZ Evaluation Data			0 Daughters TOP Inspected				
Milk	15	Milkfat	12/5.0	Protein	18/4.2			
Somatic Cell Count	-0.04	Cow Calving Diff	0/30	Heifer Calving Diff	-0.5/28			
Gestation Length	-1.1	Body Condition	0.15	Functional Survival	2.8			
Fertility	8.6	Liveweight	12					
TOP traits		BV	-0.5	0	0.5 1.0			

TOP traits	ΒV	-0.5	U	0.5	1.0
Overall Opinion	0.26				
Capacity	0.32				
Udder Overall	0.13				
Dairy Conformation	0.16				





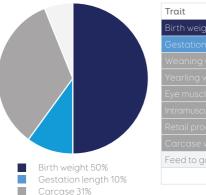




BEEF SELECTION INDEX (BSI)

Selection indices simplify sire selection by combining a number of key traits into one value - higher values indicating more suitable sires.

LIC's BSI places emphasis on traits that are relevant to the dairy-beef supply chain, from the dairy farmer through to the consumer. The power in this index is that it can be compared across a number of beef breeds - Angus, Simmental, Charolais, and the composite Profit Maker.



Trait	Weigh	ntings		
Birth weight	50%	50%		
	10%			
	9%			
Feed to gain	9%	9%		
	100	00%		

BSI is a selection index, not an economic index



Feed to gain 9%

Bulls in Rissington Cattle Company's GrowSafe system

Across-breed or multi-breed evaluations are superior to within-breed analyses because direct comparisons between bulls of different breeds become possible. NZAEL operates a multi-breed evaluation for its dairy sires which allows Friesian, Crossbred, and Jersey sires to be directly compared with each other. Multi-breed analyses are uncommon in the beef world, which has historically made it difficult for dairy farmers trying to pick the easiest calving or highest growth rate beef sires irrespective of breed.

Global multi-breed beef evaluation:

LIC's BSI traits are outputs from a global multi-breed, genomically-enhanced evaluation run by Leachman Cattle of Colorado and Zoetis. With over 1 million animals globally across different operating systems, climates, and pressures, the combination of phenotype and genotype information in the evaluation produces robust, applicable outputs that beef seedstock producers are applying worldwide to fine tune their breeding programmes.

The New Zealand arm of the Leachman multi-breed evaluation is operated by Rissington Cattle Company in Hawkes Bay, who have been partners and close friends of the Leachman operation for over 30 years. LIC's ongoing collaboration with Rissington Cattle Company enables the publishing of the analysis' outputs and use of it to source beef bulls that are suitable for dairy use.

A unique output from the multi-breed evaluation is the trait 'feed to gain'. This trait is an indicator of feed efficiency, which is highly relevant with respect to environmental pressures and operating costs. Natural variation within the feed to gain trait has enabled selection for improved feed efficiency, and Rissington Cattle Company have increased their accuracy of selection by installing a GrowSafe system to measure feed intake and weight gain for their bulls.

BEEF OPTIONS

Short Gestation Length (SGL) Hereford

Supplied exclusively from the South Island, New Zealand stud Shrimpton's Hill Herefords are the trait leaders for short gestation length across Australasia.

Shrimpton's Hill Hereford stud have dedicated the last 20 years to breeding the dairy farmer must have - short gestation length and calving ease.

The bonus of utilising SGL Hereford as opposed to the average Hereford bull is additional days in milk while still delivering a well marked, saleable beef calf.

SGL Anaus

Rissington Cattle Company's Angus semen is selected for known traits that can make a real difference in cow herd profitability. All animals are recorded on Breedplan and Leachman multibreed database of over one million animals.

Rissington herd was the first Angus herd in New Zealand to be fully genotyped, enhancing the accuracy of information. A number of the Rissington Cattle Company Angus sires have performed at the top of the Beef+Lamb NZ Progeny test scheme against the best Angus bulls from USA, Australia and New Zealand.





				The second second		THE RESERVE OF THE PARTY OF THE
Code	Name	Calving Ease DIR	Birth Weight	Gestation Length	Yearling Weight	Carcass Weight
HE7317	SHRIMPTONS HILL 180034	11.5	1.8	-10.4	39	35
		Top 5%	Top 15%	Top 1%	Top 95%	Top 95%
HE7314	SHRIMPTONS HILL 180038	11.3	2.2	-9.0	44	41
		Top 5%	Top 20%	Top 1%	Top 85%	Top 80%







Code	Name	Calving Ease DIR	Birth Weight	Gestation Length	Yearling Weight	Carcass Weight
AA7662	RISSINGTON ADVANCE P117	6.5	0.6	-8.2	85	56
		Top 20%	Top 5%	Top 5%	Top 25%	Top 30%
AA7596	RISSINGTON 180073	7.4	1.5	-7.2	82	64
		Top 15%	Top 10%	Top 10%	Top 30%	Top 15%
AA7935	RISSINGTON 180091	9.3	-0.2	-6.8	78	55
		Top 5%	Top 1%	Top 10%	Top 45%	Top 35%



Speckle Park

Speckle Park originates from British White Park crossed with a Shorthorn/Angus, with over 60 years of breeding.

They are polled, medium framed (mature cow 650-800kg and mature bull 1000-1200kg) animals. Speckle Park mature early and have an incredible yielding carcass with impressive weight gains targeting 18 month markets. Freddy Flint is from the Kilbarry Speckle Park herd in Co. Cork.

Code	Name	DBI Dairy Beef Index (€)	Culving -	Dairy Heifer Calving - Difficulty %t	Gestation - Days	Carcass Weights - Kgs
SP6394	4 KILBARRY FREDDY FLINT	9	4.3	9.0	0.53	-5



Belaian Blue

Originating in Belgium during the 19th Century, the Belgian Blues are from the Kilmainham herd in Co. Laois.

Belgian Blues over any other dairy breed, can enhance the carcass quality of your calf, and will also colour mark progeny.

Code	Name	DBI Dairy Beef Index (€)	Calving -	Dairy Heifer Calving - Difficulty %t	Gestation - Days	Carcass Weights - Kgs
BB5584	KILMAINHAM MITCH	83	8.2	11.7	0.78	26.2
BB5587	KILMAINHAM MADMAN	33	9.7	15.1	0.25	23.8

52 53

ENVIRONMENTAL EFFICIENCY ON DAIRY FARMS

Are you concerned about the footprint your dairy cows are leaving on the environment? LIC has been working hard to develop a modelling system that can be used to quantify emissions and excretion, the result is their HoofPrint® index.

Tony Fransen, environment and welfare manager, explains how it works:

Enteric methane and urinary nitrogen loss from a dairy farm to the environment is inefficient. It can be damaging to water courses, contributes to greenhouse gas emissions and has a negative impact on the community and consumer perception of agriculture, wherever you farm in the world.

Enteric methane makes up around three quarters of agricultural greenhouse gas emissions on a pastoral dairy farm.

Enteric methane is directly proportional to the amount of feed consumed by the animal. This means to drive efficiency for methane, we want to maximise milk production for every kilogram of feed consumed on farm.

Managing nitrogen, particularly in a high quality, high nitrogen pasture diet enjoyed by cattle in Ireland, the UK or in New Zealand for example, has challenges. There are times of the year when the high nitrogen content of pasture means that the cow's nitrogen intake significantly exceeds her physiological demands, and the excess is excreted, primarily through her urine.

Nitrogen cannot be created or destroyed by the cow, whatever she ingests must be either partitioned into productive outputs or excreted. Nitrogen enters the cow through her diet. Over a full season, a lactating cow on average partitions approximately 50% in urine, 20% in milk and 30% in her dung.

Across the year the daily level of nitrogen intake and output will change as pasture protein and cow milk production levels fluctuate.



Maintaining the balance between N in and N out is important.

Increasing N use efficiency and reducing urinary nitrogen leaching is a key goal for the dairy sector, and much current research, including Dairy NZ's seven-year Low Nitrogen Livestock programme is looking at ways to help achieve this.

The main focus areas for NZ research are:

- Dietary changes to balance nitrogen intake
- Breed to partition or distribute nitrogen with lower risk to the environment
- Methods to manage the urine patch after deposition

LIC's new HoofPrint® index will, for the first time, provide farmers with accurate insights for bulls on the relative lifetime urinary nitrogen and



enteric methane efficiency of their progeny. This index was included in the European bull catalogue for the first time in 2021 and was an exciting development.

Using genetic information and recognised agricultural greenhouse gas emissions modelling methodology, LIC can assess and rank bulls for the expected environmental impact of their progeny in this index. This will, alongside LIC's leading genetic options and management tools, help farmers to reduce their environmental impact per kg of milk solids while maintaining productivity.

It's a 10-point rating system based on the modelled lifetime production, relative to lifetime emissions and excretion generated.



10 Top 2 %
9 Top 7.5 %
8 Top 17.5 %
7 Top 32 %
6 Top 50 %
5 Bottom 50 %
4 Bottom 32 %
3 Bottom 17.5 %
2 Bottom 7.5 %
1 Bottom 2 %

This system models the predicted lifetime environmental footprint for all AE enrolled AI dairy bulls born since 1 January 2009. In 2020 this represents 4415 bulls.

Working across all dairy breeds, it gives accurate insights to help farmers breed cows with a lighter environmental footprint, and to produce less methane and nitrogen per kg milk solids.

Six individual breeding values are used to calculate the expected levels of production, growth, calving events, and the removal of each animal. These are liveweight, milk volume, milkfat, protein, fertility and total longevity.

Higher genetic merit animals, on average, perform better when ranked under the HoofPrint® index and the modelling has been based on the 'Methodology for calculation of New Zealand's agricultural greenhouse gas emissions' developed by NZ scientists in line with the Kyoto protocol requirements.

The ranking system is from 10 to 1 with 10 being the highest ranking (lowest environmental impact per kg product) and 1 being the lowest (highest environmental impact per kg product). And to ensure only the very best bulls are able to achieve a 10 point ranking, only 2% of all bulls in this elite reference population can be awarded a 10 point rating at any one time.

It's worth pointing out that increases in BW correlate with lower methane and urinary nitrogen output per kg of milk solids produced. Genetic gain has already delivered significant environmental efficiency benefits to the sector. For example, every NZ\$10BW increase gives 1.7g less urinary N/KgMS and 2.0g less methane/KgMS.

Over 30 years of LIC Premier Sires has created a 13% reduction in methane/KgMS and 16% reduction in urinary N/KgMS.



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