







"Great things in business are never done by one person... they're done by a team of people." - Steve Jobs.

While there has been a lot of change in LIC's genetics business, one factor remains the same – the dedication and commitment of the Livestock Sire Selection (LSS) and Genetics Business teams to produce the best possible bulls and bull teams for our farmers.

Our bull acquisition manager tagteam, Simon Worth and Malcolm Ellis, bring a huge amount of enthusiasm and energy, not to mention expertise, to animal selection.

Support from the wider LSS team in Alex, Anne and Sarah (SPS), Greg and Kaye (Data Analysis), Casey, Nick, Sam, and Shelly (sire analysts) ensures the job is done in a way that matches the highest of expectations.

The leadership of genetics
business manager Ariane
Bailey should also be
highlighted, who,
together with April
Barnett and Jo

Burton, rounds out the genetics team – a critical component of LIC's Biological Systems unit.

My role as Biological Systems general manager is still relatively new, but it's been an enjoyable learning curve and one that continues to be extremely rewarding (aside from having to learn a whole new list of acronyms!).

Initiatives this season include a review of the Sire Proving Scheme (SPS), with more emphasis on ownership of the process that identifies phenotypic (defective) variations. This area requires constant vigilance, and while it does not remove all risk, it does further safeguard processes to help customers secure the best possible genetics on-offer.

We wanted to get closer to our SPS farmers, and the expanded staff within genetics has enabled this. Closer contact with SPS farmers helps keep 'our finger on the pulse',

so we're aware of potential issues early; it also helps us identify any high-flying bulls coming through the scheme.

A real positive this season is the re-vamp of the Forward Pack team, which now exclusively includes LIC's Spring bulls. Spring bulls are former genomically-selected sires that have just received their first daughter proof information.

See pp 10-11 for more information on our new-look Forward Pack.

The 'Thank goodness I got the short straw' SGLTM campaign kicked off earlier this month, and is ideal timing for farmers seeking a solution for more days in milk or tighter calving patterns.

With pressure on the payout and very high prices for bulls, short gestation length semen assists in providing a tangible profit to farmers.

Our multiple categories of SGL DairyTM (delivering 10 days advantage), SGL MarkerTM (5 days), SGLTM Beef, and Compact Calving provide an excellent array of solutions for customers. The short gestation length category has a huge future, and there will be a lot of interest regarding its uptake in what is essentially its first year of promotion.

I hope you enjoy reading this instalment of *The Bulletin*.

Geoff Corbett – Biological Systems General Manager

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Protein! Fertility! Udders!

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Running down the days

Simon O'Rourke – LIC Publications Manager

Like the permutations in a deck of cards – during a game in which the stakes are high, technology is one of several variables that might randomly fly a dairy farmer's way during any given dairy season.

And 'latest and greatest' of technologies can rank like a lowly two of spades, through to the heady heights of an ace, or better.

Last year Takaka farmer Corrigan Sowman came across a trump card, and he played it well.

"The latest short gestation length semen has been awesome, and it's going to be a very valuable tool for farmers," Corrigan says.

He's an advocate for good reason.

When entering week-six of calving on September 4, Corrigan was 88 percent done (he had calved 720 of his 820-strong KiwiCross™ herd).

"Compared to the same date two years ago, we've had 120-more cows calved at this point, and we'll be all done by 26 September. We've got 12 percent of the herd left to calve, so we're now doing other things on the farm."

Corrigan puts the tight calving squarely down to his use of LIC short gestation length semen during weeks five, six, and seven of last year's spring mating plan (weeks one to four consisted of replacement AB straws).

"So this year we've seen plenty of instances of cows calving in 265 to 268 days, which is substantially earlier than your standard 282," he says.

"Because it was our first year (using short gestation length semen), we didn't appreciate just how early some of these (cows' calvings) were going to be."

He acknowledges the danger of short gestation length heifer calves becoming mixed up with AB-replacement heifer calves. "For about a 14-day window we had to manage things very carefully."

Along with cross-checking against mating records, separate mobs were run for a time – and having the whole herd DNA-profiled through GeneMark™ provided excellent back-up.

Results have not been perfect however, and Corrigan says it's still a



Corrigan Sowmar

case of learning how to best-play the short gestation card: "I'd say there will be about six (non-replacement) heifers I'm going to have to quit, so there'll be a few unnecessary rearing expenses."

What could he do better?

"If I'd understood just what short gestation semen might do for my calving spread, I'd have made sure I calved with another 50 to 70, or 100kg of average farm cover. So I'd have manipulated that feed supply on start date."

Why?

"Because having cows milking right now (early spring), doing a couple kilos of milksolids a day – purely because that's what they naturally want to do – is a whole lot more efficient than trying to feed well and milk in the last 10 days of May at 1.2 kilos." Days-in-milk have to be kept in context – the cost of buying in supplement to make up shortfalls is a case of 'doing the maths'.

In saying this, Corrigan knows he's making slick progress.

"We're ahead of last season in terms of milk production, and this is great because we're milking about 60 fewer cows... we milked 869 cows last season and this season we'll peak at only about 815 – and that's partly a decision around inputs and stocking rate in relation to profitability.

"The interesting point is that the farm is producing more today than it was on the same day last year, with a substantial reduction in stocking rate – and most of that's to do with the fact cows have calved earlier.

"While we're getting better at condensing things, the key is around matching patterns to feed supply ahead of balance date, and understanding what the implications are."

Corrigan says a low payout year is a good time to do some re-evaluation.

This year he will do all-AB. He will run with enough AB replacement semen to allow him to sell about 150 replacements, netting him an estimated \$100,000 in an alternative revenue stream. He'll swap to the SGL Dairy™ or SGL Marker™ products for weeks 7 to 10 (Corrigan says he would limit AB to seven weeks if he did not have the assisted heat detection system EZ Heat installed).

"It's timely to look at things again – given phasing out of inductions people should look hard at their systems.

"My advice would be to put the tools in place. Half a dozen days running an extra mob in spring – is that really too big a commitment compared to the benefit of getting the extra milk in the vat? I would challenge anyone, particularly those with scale, to say it's too much trouble."

"We're trying to set our system up to be as productive as it can be when the grass starts to grow, and setting our calving date right."

It's a balancing act, but with appropriate use of the right technologies it's a case of tinkering with the cards that are dealt, then playing them at the right time so results come up trumps.

In terms of Breeding Worth (BW) and Production Worth (PW), the Sowman KiwiCross™ herd is in the top five percent nationwide. Corrigan credits his staff with the high six week in-calf rate, meaning the farm is able to cull 10% annually on PW. The farm is a family-run operation run by Corrigan and his brother Sam, with their parents Brian and Glenda still actively involved, along with their respective wives, Ruth and Cara.

Footnote: Short gestation bulls are bred specifically for their gestation length – their BW and TOP traits are not part of the selection criteria – and resulting offspring should not be kept as herd replacements. SGL progeny cannot be used for breeding purposes of any nature by you or any person you may sell, export, loan or lease them to – this includes natural matings. Semen, embryos or other reproductive material cannot be collected or sold from the short gestation offspring either here or overseas. See clause 62a in the LIC Product and Services catalogue for more detailed information.

Alternatively, LIC's Compact Calving bull pack provides the benefit of high index, short gestation bulls that gives you the option to keep heifer replacements and male progeny at your discretion. For more information talk to your local Farm Solutions Manager.



FORGING AHEAD: Short gestation length semen is an increasingly popular method of bringing the tail-end of calving forward.





Observation, observation, observation

The cost to production of missed heats quickly adds up, and 'invented heats' will inevitably lead to unnecessary inseminations – which wastes time, labour, and precious AB replacement straws.



Amy Horrell – LIC Reproduction Solutions Advisor

Get it right the first time, and your entire season is bound to run smoother.

A few best-practice tips:

By the time AB arrives it's important to have considered the following:

- Is everyone trained and experienced enough?
- If someone gets sick/injured, who is the back-up?
- Are paddock checks happening, and who's doing them?
- If we aren't sure who can give us a second opinion?
- How often are we touching up tail paint?
- Do staff have attention to detail?
- Some farms have photos of fullyand partially-activated aids

stuck to shed walls to help keep everyone on the same page.

 Keep the motivation and morale high!

The target number of short returns (2-17 days) is less than 13%.

In reality the average for NZ is 21%, and worryingly, this has increased over recent seasons (the 'if in doubt put her up' mantra can create more short returns than desired).

If you have more than 21% short returns, and most are in the 2-7 day and 13-17 day slots, it's probably time to review practices (it's likely heats are being 'invented').

When it comes to aid application consider how your farm can make best use of the team: What role does each person have/where should they stand? (the most experienced person should be on the placement stand).

It's not ideal to apply aids on a torrentially rainy day; the aids need to stick. Don't overlook instructions – they are clear and well explained, and they will prove beneficial if followed correctly. For example, ensure the aid is the right-way around, and if it needs to be warmed slightly to get the glue tacky, then do so.

Placement is the most important step, not all cows are the same – the spot where a cow's brisket is going to contact is the best place for an aid.

Using tail paint and an aid the whole way through AB could prove beneficial – research shows the practice picks up more heats.

Watch the girls

In the emerging age of good quality aids, EZ Heat cameras, and P4 tests, don't fall into complacency and fail to observe!

Spend time with the cows two hours after milking, when they are happy and content in their paddock (this is the best time to identify cows on heat).

This time also provides a lot more daylight, as opposed to picking cows in a shed before sunrise.

Find the sexually active group (SAG), which is often found around water-troughs or near trees.

Observe the group and write down the numbers of the cows standing to be ridden. This is also a great time to observe the younger cows who may not show heats as strongly as the older, more dominant cows (they are often found around the fringes of a SAG).

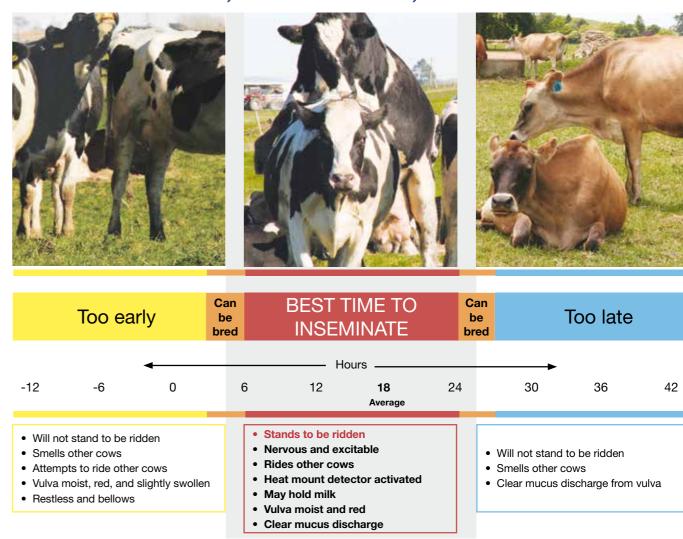
If a cow isn't pregnant after a mating, staff could expect to see her back on heat 18-24 days later.

If she seems on heat 3-17 days after being mated, it's worth reviewing things.

Heat detection can be mentally draining, but after a few days the triggers will be easier to spot and you'll be more attuned to the right signs.

• Heat detection is vitally important, so take it seriously every day

Cow behaviour, observation, and heat detection



Inseminate at first available time after observation of definitive signs of heat

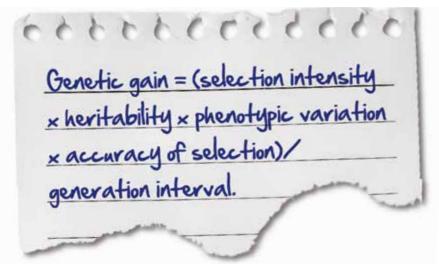
- Attention to detail is the difference between the top operators and the average operators.
- Heat detection fatigue is increasingly common as herd sizes throughout the country grow.
- If the assigned heat detector can be given some time off before mating starts, do it. Heat detection is so important that it should be the 'one task' for the assigned person to do in the shed, with no distraction.
- If a rotational policy works for your farm, use it. Use the honesty policy too; if you're falling asleep in the shed, let the manager know!
- Be clear with staff that there is no target number of cows per day.
 The main focus needs to be: 'Am I putting up the right cows?'
- Ensure mated cows are put back in the paddock to allow opportunities for other cows to join the sexually active groups – that way the cows will do the work for you.

- Keep monitoring your submission rate and the number of returns.
- If you have any concerns call in your vet or trusted rural advisor.
- At the end of mating carry out a review meeting and identify where there is room for improvement.



ALIC

Chomping at the bit



"Selection intensity is our big target," Malcolm Ellis says with bullish conviction, "that's where I know good strides can be made – good strides not in 5, 10, or 20 years, but now."

About 18 months ago the bull acquisition manager at LIC saw an opportunity to rachet-up the genetic gain equation, and he went for it.

"I knew we had to do something more with our young, most elite, animals while the science of genomics was given time to develop," Malcolm says.

The genetic gain equation, which had served him well in developing the Hillstar and Te Aranga jersey herds (during his previous 20 years on farm), was Malcolm's mantra.

"I wanted to put the hammer down with respect to the components we can control... I said to myself 'let's do more with generation interval, let's do more with selection intensity, and the things that really drive the rate of genetic gain'."

The outcome is that, on behalf of the country's leading breeders of dairy animals, LIC has for the second consecutive year selected and organised for the top 50 female yearlings (in each of the three major breeds) to be transported to Animal Breeding Services (ABS) in Te Awamutu.

The young females arrive at ABS to go through an intensive 10-week-long embryo transfer programme (the latest round finished last month).

Like last year, the result of the work was the extraction, from the yearlings, of multiple microscopic oocytes (unfertilised eggs) that are then fertilised with elite bull semen to produce embryos in a laboratory environment.

The programme targets the production of about 2500 embryos, which can then be used fresh (immediately) or frozen (later), for transplant in to recipient cows during the mating season.

With an approximate hold-rate of 40-50 percent, about 450-500 bull calves and 450-500 heifers from the programme should be born next calving season.

The animals, akin to dairy royalty, will remain under ownership of the breeder – though LIC will have first-pick of resulting bull calves for its Sire Proving Scheme.

Because the same work was done last year, the first of the programme's



Malcolm Ellis – Jersey Bull Acquisition Manager

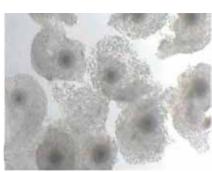
'embryo transfer (ET) calves' began hitting the ground in July this year.

"I had a call this week from one of the breeders who had a heifer in the programme in 2013," Malcolm says.

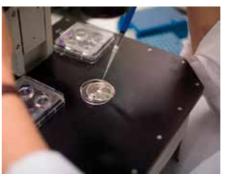
"The breeder said he'd got his first herd test results back. Naturally, his top two-year-old heifers caught his eye, and, hey presto, he'd discovered his second-ranked heifer was a 2013 participant in the programme. That heifer had produced a bull calf naturally during calving – but even better – because she had been involved in the ET work, she had also produced four heifer calves and another four bull calves.

"So the upshot is that he's discovered this young female has already produced a lifetime's reproduction!

"It's really exciting for the breeder because he's got all these excellent



Oocytes extracted from a heifer.



ET process up close

heifers coming through to his herd with enormous potential – but from my point of view, as a bull acquisition manager, I'll be soon waiting on genomic evaluations to come back on not zero or one of her sons, but five!

"With five young hopefuls sired by four different bulls, we are maximising this young elite female's potential, and offering our selection process choice like never before."

Another spin-off for breeders has been the remarkable prices they've fetched as a result of their animals' participation in the ET programme. Some animals were recently sold as in-calf heifers (ie. post-embryo production) for between \$11,000 and \$12,000.

And resulting calves from the ET programme have consistently



Some of the yearlings involved in last season's ET programme

sold for \$5500 to \$8500, igniting new waves of activity and interest for the new owners.

Malcolm says the scale of the ET programme is unprecedented, and it's intensifying selection choice like never before.

"Imagine next year – from each breed we're going to be picking from the general population, plus 200 heifers produced from this work."

"We are putting huge amount of breeding intensity into the very elite animals in the population, which is accelerating our ability to pick champion bulls of the future."

Genetic diversity is maintained because of the range of mating sires selected, Malcolm says.

He points out that the programme is supporting, not replacing, current activity. Considerable ET activity is still happening on-farm, and individual cow contract mating is still an inherent part of LIC's selection process.

"The genetic-gain game is about precision and pace, and the ET programme gives any given heifer an even-chance of producing five bull calves and five heifer calves next season – and that's before she's even produced one litre of milk!"

A further advantage of the embryo transfer programme is its ability to maximise the use of a limited, though potentially extremely valuable, resource.

A good example is LIC-owned KiwiCross™ bull Kraakmans Jaydie (510043), whose proof information showed TOP traits and BW that put him in the same league as Howie's Checkpoint.

But nature dealt a blow, meaning just 280 straws were collected from Jaydie (of the required standard set by our farm quality assurance and laboratory teams).

Fast facts – LIC's embryo transfer programme at Animal Breeding Services

- Owners of the animals have a direct commercial arrangement with ABS, but LIC benefits because it gets first access to screen bull calves with first opportunity to purchase.
- Any heifers calves produced are born with no breeding restrictions.
- Malcolm expects greater rates of genetic gain throughout LIC's bull teams, and subsequently, better rates of gain through the national dairy herd, which should result in a significant on farm productivity gains.

"Normally with 280 straws you'd get maybe 160 cows in-calf,"
Malcolm says.

"But much of Jaydie's semen was instead set aside for this programme. For each of his straws we're using, we're producing up to five offspring – because we're able to put pools of eggs together to use his individual straws more effectively."

Most breeders are desperate to be involved in the programme, Malcolm says.

"Farmers are realising we're pushing the envelope on what can be done with an individual animal. With this programme ticking so many of the fundamentals of genetic gain, it has the ability to deliver unprecedented levels of herd improvement and cow productivity."

What kind of levels are we talking about?

"Watch this space – it'll be quantified on the wall chart."





Heifers — do them justice!

Joyce Voogt – LIC Reproduction Solutions Manager

New crops of calves are likely to be the highest genetic merit animals in any herd, and R2 heifers will not be far behind.

If farmers are able to grow heifers to liveweight targets throughout the first two years of life, excellent benefits can be expected in production, reproduction, and ultimately survival.

The closer to the liveweight BV-based target a heifer is at calving, the better; recent research suggest for every percentage point nearer the target, the additional benefit is up to 1.6kg MS during the first and second lactations in the herd.

Heifers that meet liveweight targets will also calve quicker in their first lactation, and they can be expected to submit better in their second mating while increasing their chances of achieving a higher 6 week in-calf rate.

The above translates to better lifetime performance and survival.

The likely economic benefits of reaching *InCalf* recommended target liveweights can be calculated with a farmer's own heifers through using the *InCalf Heifer Rearing Tool* (however, growing heifers to target has other financial implications: feeding and monitoring play significant roles).

What's required?

Farmers should ensure heifers arrive at grazing at appropriate weights, with all proper health treatments in



KEEP WEIGHT ON WHEN THE WAIT IS ON: Heifers are likely to represent the best genetics in the herd, so getting them to liveweight targets will ensure they hit the herd at their peak when milking finally begins.

place (otherwise grazing farmers are being asked pick up the tab for the shortfall).

Since the introduction of MINDATM Weights there has been a noticeable improvement, perhaps because 'the first dot' on the MINDA Weights graph is clearly indicative of the condition in which heifers arrive.

The modern dairy cow is gradually getting larger.

The average predicted mature liveweights for 2013-born heifers were:

Friesian	532kg
Friesian Jersey Cross	500kg

Jersey

DairyNZ figures state that a total feed requirement (@11 MJ ME/kg DM) to take a 500kg mature liveweight heifer from 3 months to 22 months requires 3930kg DM.

The value of that dry matter will vary from property to property (and season to season); that's why there is no set, or standard, grazing rate. It will be up to the grazier to assess a value on the feed, which will be based on their grazing and related overhead costs.

Owners will then need to make their own assessment: Does the quoted rate represent good value, compared to alternatives.

The bottom line should be that heifers be returned at 22 months

Expected gains in performance when gaps are closed to liveweight target					
	Growth from 80 to 100% of target liveweight	Growth from 90 to 100% of target liveweight			
Milksolids	35.4 kg	16.3 kg			
Calving date	-4.3 days	-2.0 days			
3week submission rate	5 %	1.7 %			
6week incalf rate	4 %	1.3 %			

457ka

McNaughton 2014

in ideal condition to enter the milking herd.

A best practice target is 90% of projected mature liveweight at 22 months (for example, 450kg for the average 2013-born Friesian Jersey Cross).

The devil is in the detail, however. Each animal has its own liveweight breeding value that should be used to estimate predicted mature liveweight. Note Friesian-Jersey cross animals can vary by up to 60 plus kg of mature liveweight – depending on breed make up.

Assessing heifer progress.

MINDA Weights assesses heifer progress against individual liveweight BV-based targets (outlined in DairyNZ's *InCalf book*, p 43).

A few points to note when using MINDA Weights:

- Entry of liveweight data is still through MINDApro.
- The target is a 'weight-for-age' figure for the animals on the day of weighing (ie. not a recommended growth curve).
- The target for the group, as displayed on the line graph, is valid (parentage errors do not impact this).
- Targets at an individual level are valid for cases in which parentage verification (to sire and dam) is done. Note: studies indicate that, on average, about 25% of animals have mis-identified parentage.
- Dam liveweight detail improves the accuracy of the BV assigned to its calf.
- MINDA Weights pegs the target to the planned-start-of-mating, or calving of the herd the heifer is currently recorded in (ie. lateborn calves need to grow faster to meet target).

LIVEWEIGHT Breeding Values (BVs) - HOW ACCURATE ARE THEY?

The accuracy (or reliability) of a Liveweight BV is dependent on the amount of information available for estimating the trait. The lower the reliability the more likely the estimated BV will fluctuate as more information is obtained.

A reliable proof for an AB sire is acquired by weighing their two-year-old daughters in progeny test herds (rarely would there be a weight recorded against a dam).

Liveweight is a highly heritable trait: The recording of one liveweight record for a two-year-old can increase the reliability of her BV from approximately 13% to 36% (this means progeny reared from this animal will have a more accurate target mature liveweight).

Across the country the volume of liveweight data received from older cows is small, and this limits the accuracy of predictions for liveweight breeding values. New Zealand Animal Evaluation Limited is investigating this concern, collecting more data by weighing mature cows and doing a review of the AE liveweight model.

RECOMMENDATIONS

The monitoring of heifer weights should start before weaning.

Animals that arrive at the grazier ahead of target are easier to grow out.

MINDA Weights allows the farmer to check the status of their new crop of calves before the animals are sent to grazing.

Farmers should ensure calves are up-to-target when sent to the grazier: Have clear agreement about both targets and rewards before grazing begins. Ensure records are as accurate as possible; check the trends of the mob over time. At the individual level, have a look at the animals in the 'Action group' to see if they need extra attention.

Nationally, regionally, and across breeds, there are now clear examples of heifers achieving liveweight targets – and owners are reaping the benefits!

- The Manage Animals tab enables graziers to identify the efficacy of their management system (drift of 'the dots' to the left indicate a drop off in growth rates, a drift to the right shows an increase in growth rates). Animals below the horizontal axis are below target on weigh-day, while those above the axis are at, or above, target.
- The Manage Animals graph shows current liveweight and growth rate against target (requires two weigh events to be entered to display).

- Beware of errors (incorrect recording, weigh scales not calibrated, inaccurate weigh event, and parentage mis-identification).
- Ensure planned start-of-mating date is accurate – it can make a significant difference in relationship to target weight.

You can't afford to let heifers slide: Every day a heifer fails to grow, she'll need to grow twice her daily target rate on another day!





"Best of the best" – Forward Pack



Forward Pack's unique concept offering the 'best of the best' ensures customers get the pick of the top Daughter Proven bulls, the new spring bulls, together with the most-promising young bulls.

Among farmers throughout the country, there's already a good deal of excitement about what's emerging – especially now that spring bulls are hitting the *Ranking of Active Sires* (RAS) *List*.

The reward for Forward Pack customers is that these four-yearold bulls are only available in the Forward Pack teams.

Boasting some exciting new bulls, this year's Forward Pack teams have a bit of an edge and the teams are showing differentials above their Daughter Proven counterparts.

Forward Pack is now stronger, with increased reliability among the young spring bulls.

Of course all Forward Pack bulls are excellent performers, but some are worth highlighting.

The Holstein-Friesian team is spearheaded by *Lamont*. With huge production traits, Lamont is the first bull to crack the 350BW barrier! (at 353 BW). This guy is simply outstanding!

Meanwhile, *Illustrious* is one of our most widely used young sires, and with some very solid proof information coming through his high plaudits are indeed proving their worth.

Tommo is also worth a mention; sporting a great balance of traits throughout, the fact he is Mint-Edition-free offers up some exciting differences, and we're therefore sure he'll create huge interest.

The Jersey team is led out by three outstanding Daughter Proven bulls, averaging an impressive 0.24 through the management traits, 0.56 for capacity, and 0.85 for udder overall.



110042 Morris TF Lamont S1F

The trio is joined by a selection of outstanding genomically-selected prospects that descend from tremendously strong cow families – with the dams of the bulls averaging a BW of 268 and a PW of 411.

The spring inclusion of *Leader* and *Integrity* ensure the 2014 Jersey Forward Pack is indeed the 'best of the best'.

The KiwiCross™ Forward Pack team is typically strong, led of course by *Checkpoint*. With more than 3300 daughters, Checkpoint is the real deal at 327 BW. And new spring bull *Riley* is also well worth keeping an eye on; with great balance and huge production, he's definitely one worth serious consideration this season.

More information on the individual spring bulls can be found in pages 12-17 of this *Bulletin*.

Positive changes for Forward Pack

Changes to Forward Pack this year (spring bulls being exclusive to Forward Pack customers, and the removal of yearlings, for example) are designed to enhance the product while staying true to the 'best of the best' philosophy.

The changes have improved reliability, reduced risk, and



508077 Howies Checkpoint

Daughter Proven Vs Forward Pack 13th October 2014

	Reliability %	Protein BV (kg)	Milkfat BV (kg)	Milk BV (litres)	Liveweight BV (kg)	Fertility BV %	Somatic Cell Score BV
Holstein Friesian Forward Pack 10	98	37.7	32.7	983	34	1.8	-0.04
Holstein Friesian Daughter Proven 25	99	35.9	28.4	879	36	1.4	-0.04
Jersey Forward Pack 24	98	9.2	21.6	-213	-44	1.8	-0.13
Jersey Daughter Proven	99	9.0	20.8	-263	-34	1.5	-0.09
KiwiCross Forward Pack 21	70 98	29.2	33.7	607	9	2.2	-0.03
KiwiCross Daughter Proven 24	49 98	20.4	28.8	181	1	2.4	-0.14

PREMIER SIRES

maintained the unique essence of LIC's Forward Pack.

FORWARD

Improved reliability is based on bringing the early spring bulls (ie. with partial-proofs) through sooner, offering considerably more information than ancestry and genomics alone.

Minimising risk for our shareholding farmers is imperative. Given that, prior to widespread use, the yearling bulls had no calving difficulty information, or had no opportunity to sire calves in the Sire Proving herds (where good monitoring of defects is undertaken), the decision was made to remove this age group from the mix.

"Boasting some exciting new bulls, this year's Forward Pack teams have a bit of an edge and the teams are showing differentials above their Daughter Proven counterparts."

Removal of this highest merit cohort from the Forward Pack teams had little impact on the team's BW (a minor BW advantage was not worth the risk when balanced against the marginal reward).

Removal of yearlings also makes it a little easier for the bull farm (getting equal distribution and dealing with variability in collections of these young animals is challenging). The genetics team believes new-look Forward Pack is an excellent offering, and we're enthusiastic about its ability to deliver something special for those farmers seeking 'a bit of difference'.







SPRING PAK

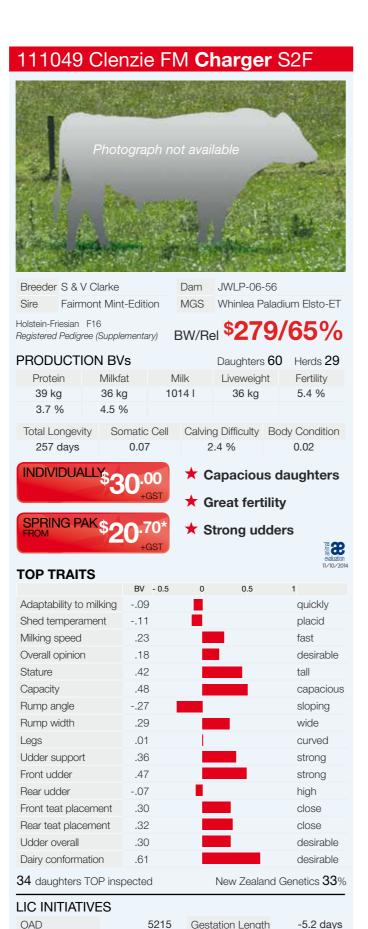
An Alpha™ Spring Pak allows you to fast track your genetic gain with the very latest Daughter Proven genetics available — top up your order today.

- Minimum of two bulls equal quantities of each
- Minimum order of 20 straws
- Can mix breeds
- InvestaMate discounts and volume discounts may apply



For more information, please phone your LIC Farm Solutions Manager or visit www.lic.co.nz/alpha





High Input

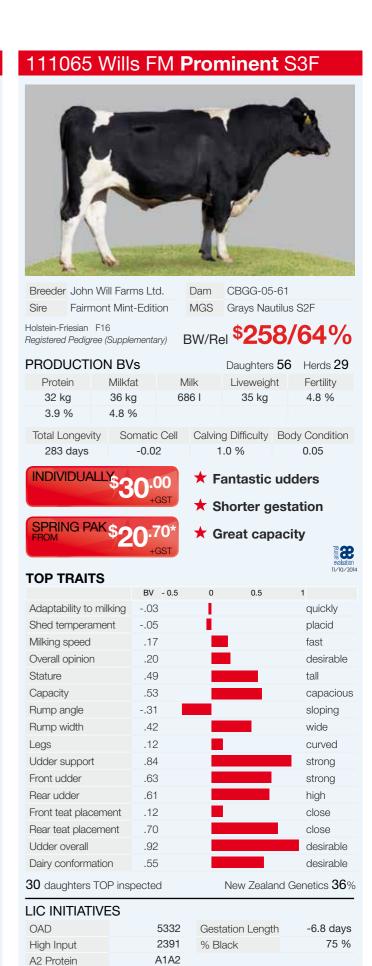
A2 Protein

2341

A1A1

% Black

111055 Deltop FM Harlequin S2F Photograph not available Breeder M & C Moffatt Dam Deltop 06-70 S1F Grays Nautilus S2F Fairmont Mint-Edition Holstein-Friesian F16 BW/Rel \$266/66% Registered Pedigree (Supplementary) PRODUCTION BVs Daughters 65 Herds 29 Protein Liveweight Fertility 41 kg 29 kg 1188 I 3.0 % 3.7 % 4.3 % Somatic Cell Calving Difficulty Body Condition Total Longevity 297 days 0.00 0.15 1.6 % High protein Great udders ★ Well-liked by farmers **TOP TRAITS** Adaptability to milking .19 quickly Shed temperament placid Milking speed -.18 fast Overall opinion .27 desirable .61 Stature tall Capacity -.08 capacious Rump angle -.20 sloping .15 Rump width wide .16 Udder support .46 strona .47 Front udder strong Rear udder .42 high Front teat placement close Rear teat placement .29 close Udder overall .69 desirable Dairy conformation desirable 27 daughters TOP inspected New Zealand Genetics 23% LIC INITIATIVES OAD 4583 -0.6 days Gestation Length 2354 High Input 15 % A1A2 A2 Protein



2 13

80 %











Sire	Fairmont Mint-Edition						
Holstein-Friesian F16							
Registered	d Pedigree (Supplementary)						

Dam Kotuku Daunt Matrix MGS MacFarlanes Dauntless BW/Rel \$255/64%

PRODUCT	ION BVs	Daughters 46	Herds 26	
Protein	Milkfat	Milk	Liveweight	Fertility
40 kg	36 kg	1204 I	36 kg	2.2 %
3.6 %	4.4 %			

Total Longevity Somatic Cell Calving Difficulty Body Condition 188 days -0.03 2.1 %



★ Strong udders



a

★ Good production

TOP TRAITS

LIC INITIATIVES

OAD

14

High Input

A2 Protein



4294

2383

A1A2

Gestation Length

% Black

-1.7 days

85 %

111037 San Ray FM Beamer-ET S2F



Sire	Fairmont Mint-Edition						
Holstein-Friesian F14J2							
Registered Pedigree (Supplementary)							

SRC Hibi Secret Skelton BW/Rel \$278/67%

PRODUCT	ION BVs	Daughters 60	Herds 31	
Protein	Milkfat	Milk	Liveweight	Fertility
41 kg	40 kg	938 I	47 kg	4.5 %
3.8 %	4.7 %			

Total Longevity	Somatic Cell	Calving Difficulty	Body Condition	
191 days	0.02	-1.0 %	0.07	



★ Great fertility

Capacious daughters

★ Outstanding udders 8

TOP TRAITS



LIC INITIATIVES

OAD	5150	Gestation Length	-6.1 day
High Input	2726	% Black	60 %
A2 Protein	A1A2		

311013 Okura LT Integrity



eeder	L & L Beehre	Dam	Okura Lika I-Charmaine
e	Lynbrook Terrific ET S3J	MGS	Mitchells Likabull SJ3

Registered Pedigree			DVV/III		/ - / - / -
PRODUCTION BVs				aughters 988	Herds 405
	Protein	Milkfat	Milk	Liveweight	Fertility
	8 kg	19 kg	-180 I	-42 kg	0.8 %
	4.1 %	5.4 %			

Total Longevity	Somatic Cell	Calving Difficulty	Body Condition
271 days	-0.13	-2.4 %	0.06



* Excellent udders

RW/Rel \$218/83%

★ Great longevity

★ Capacious daughters

TOP TRAITS

SPRING PAK

Sire

Jersey J16



1732

Gestation Length

311016 Okura Trail Leader



Sire	Lynbrook Opium Trail	MGS	Okura Manhatter	ET SJ3
Jersey &	J16 ed Pedigree	BW/R	Rel \$243/0	64%
PROD	OUCTION BVs		Daughters 62	Herds 28

THODOCHON DVS				Daugitters 02	110103 20
	Protein	Milkfat	Milk	Liveweight	Fertility
	12 kg	20 kg	-175 I	-49 kg	0.6 %
	4.2 %	5.4 %			

Total Longevity	Somatic Cell	Calving Difficulty	Body Condition
134 days	0.12	-4.1 %	-0.21



★ Well-liked by farmers

A2A2

-6.4 days



★ Shorter gestation

★ High Protein

TOP TRAITS

LIC INITIATIVES

OAD

High Input

-1.3 days

8

Adaptability to milking quickly Shed temperament .44 placid Milking speed .41 fast .37 Overall opinion desirable Stature -1.07 tall Capacity -.06 capacious Rump angle -.16 sloping Rump width -.59 wide .14 Legs curved -.17 Udder support strong .13 Front udder strong -.02 Rear udder high .14 Front teat placement close Rear teat placement -.23 close Udder overall .12 desirable Dairy conformation desirable .03 26 daughters TOP inspected New Zealand Genetics 73%

7430

1746

A2 Protein

Gestation Length

15

High Input









311027 Te Aranga PCG **Jingo**



Breeder	M & J Ellis	Dam	Hillstar Bowies Jingle
Sire	Puhipuhi Caps Goldie S3J	MGS	Konui Glen Elmos Bowie

Jersey J16		DW/Da	\$223	/82%
Registered Pedig	ree	DVV/R6		02 /0
PRODUCT	ION BVs	D	aughters 824	Herds 361
Protein	Milkfat	Milk	Liveweight	Fertility
7 kg	22 kg	-301 I	-44 kg	0.4 %
4.2 %	5.7 %			
+		0 " 0 1 1	D.101 11 D	

Total Longevity	Somatic Cell	Calving Difficulty	Body Condition
221 days	-0.28	-2.3 %	0.01



★ Excellent capacity

2

A2A2

-2.6 days

OAD

High Input

★ Low somatic cells



★ Good longevity

	BV - 0.5	0	0.5	1
Adaptability to milking	25			quickly
Shed temperament	21			placid
Milking speed	.18			fast
Overall opinion	09			desirable
Stature	-1.11			tall
Capacity	.58			capaciou
Rump angle	10			sloping
Rump width	11			wide
Legs	.13			curved
Udder support	.13			strong
Front udder	.11			strong
Rear udder	.32			high
Front teat placement	40			close
Rear teat placement	24			close
Udder overall	.31			desirable
Dairy conformation	.44			desirable
0 daughters TOP insp	nected	N	ew Zealand	d Genetics 79

7822

1662

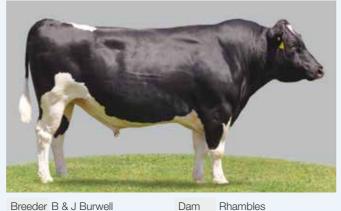
OAD

High Input

A2 Protein

Gestation Length

511015 Burwells Riley



Breeder	B & J Burwell	Dam	Rhambles
Sire	Fairmont Mint-Edition	MGS	Okura Manhatten ET SJ3

ïwiCross™ F12J4	BW/Rel \$272/69 9	
-----------------	--------------------------	--

PRODUCT	ION BVs		Daughters 84	Herds 37
Protein	Milkfat	Milk	Liveweight	Fertility
38 kg	39 kg	962 I	28 kg	2.5 %
4.0 %	5.2 %			

Total Longevity	Somatic Cell	Calving Difficulty	Body Condition
178 days	0.13	1.4 %	0.02



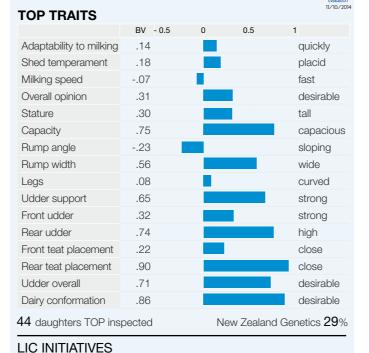
* Extreme type

Great fertility

8

★ Larger KiwiCross

SPRING PAK \$20.70*



5645

2497

A2 Protein

Gestation Length

511026 Arkans Beaut ET



eeder	S & K Anderson	Dam	Arkan Beautiful
re	Nevron Showman	MGS	Telesis Euon Firenze

KiwiCross™ F9J7

Sir

BW/Rel **\$255/84%**

PRODUCT	ION BVs	Da	ughters 1599	Herds 542
Protein	Milkfat	Milk	Liveweight	Fertility
30 kg	28 kg	612 I	8 kg	1.2 %
3.9 %	4.7 %			

Total Longevity Somatic Cell Calving Difficulty Body Condition 177 days -0.03 0.0 % 0.01

INDIVIDUALLY 30.00

- High protein
- ★ Capacious daughters

8

11/10/2014

A1A2

-7.9 days

★ Good udders

TOP TRAITS



LIC INITIATIVES	
0.45	,

OAD 5764 A2 Protein
High Input 2212 Gestation Length

511053 Howies Arkan Ramada ET



Breeder	S & K Anderson/G & G Howie	Da
Sire	Fairmont Mint-Edition	MG

HHTT-99-2
Gloaming SS Forever GR

KiwiCross™ F11J5

BW/Rel \$288/71%

PRODUCTION BVs

Protein Milkfat Milk Liveweight Fertility
28 kg 29 kg 617 l -13 kg 4.6 %
3.8 % 4.8 %

Total Longevity Somatic Cell Calving Difficulty Body Condition 217 days -0.13 -0.8 % -0.05

INDIVIDUALLY 30.00

★ Strong udders

3

11/10/2014

- ★ Great fertility
- y Well-liked by farmers

TOP TRAITS



OAD OAD

OAD 7292 A2 Protein A1A1
High Input 2354 Gestation Length -2.2 days

Fertility1 carrier

16 17

A1A2

-10.8 days







HOLSTEIN-FRIESIAN TEAM DAUGHTER PROVEN

BW/REL **257/99**

AB Code	Bull Name	BW	Rel %	Protein BV (kg)	Milkfat BV (kg)	Milk BV (litres)	Liveweight BV (kg)	Fertility BV %	Somatic Cell Score BV	Total Longevity BV (days)	Protein % BV	Milkfat % BV	Overall Opinion BV	Udder Overall BV	Dairy Conformation BV	Calving Difficulty BV %	Gestation Length	A2	Sire
110042	MORRIS TF LAMONT S1F	351	84	48.1	37.2	994	31	-1.1	0.21	309	3.9	4.6	0.44	0.00	0.64	2.3	-4.7	A1A2	TELESIS EUON FIRENZE
110077	WHINLEA PF ESTEEM-ET S2F	305	80	44.9	43.9	1552	40	-0.1	-0.35	457	3.5	4.3	-0.15	0.37	0.26	-0.5	-3.3	A2A2	PUKETIRO FROSTMAN S1F
110072	TRALEE HD RIPPA-ET S3F #	285	83	30.0	47.5	614	11	0.0	-0.01	307	3.9	5.1	0.27	-0.09	0.30	-1.8	-2.9	A1A2	HAZAEL NAUT DECREE-ET S3F
108237	GREENWELL TF BLITZ-ET S3F	267	98	42.7	28.9	982	46	0.0	-0.06	193	3.8	4.4	0.08	0.47	0.44	-0.6	-5.1	A1A2	TELESIS EUON FIRENZE
110009	BAGWORTH PF LAUNCHPAD S1F	264	77	36.6	32.0	1078	18	0.2	0.17	314	3.7	4.4	0.22	0.74	0.59	-0.1	-3.2	A2A2	PUKETIRO FROSTMAN S1F
110052	GYDELAND EXCEL INCA S3F	262	81	37.7	29.4	778	70	2.9	0.03	563	3.9	4.6	0.35	0.44	0.30	2.0	3.2	A1A2	WHINLEA NAUT EXCEL-ET S3F
109068	RABARTS TF TOP DOG S2F	258	85	43.1	23.2	1230	54	1.5	-0.13	375	3.7	4.1	0.18	0.26	0.61	1.9	2.9	A1A2	TELESIS EUON FIRENZE
106227	EDWARDS BANQ OVATION S3F #	254	99	33.3	8.2	741	19	1.6	-0.07	369	3.8	4.2	0.09	0.48	-0.06	1.7	2.7	A2A2	SRD JENERAYTIONS BANQUET
109124	KINGSDOWN A BENCHMARK S1F	248	86	36.2	29.7	652	56	1.5	0.27	385	4.0	4.7	0.09	-0.03	0.25	0.1	-5.5	A1A1	VALDEN HI APPLAUSE-ET S2F
110016	GREENWELLS HF BONZA S3F	245	98	33.4	20.6	988	19	3.5	-0.43	218	3.7	4.3	0.17	0.29	0.06	-1.6	-1.0	A2A2	HIGGINS FORMAT
109052	WOODCOTE TF MAXIMISER	232	98	40.9	33.3	1069	47	-3.3	0.29	239	3.7	4.4	0.38	0.58	0.56	3.6	1.6	A1A2	TELESIS EUON FIRENZE
108187	WHINLEA GN EXPRESS-ET S3F #	231	86	29.0	22.0	723	30	4.1	-0.15	375	3.8	4.5	0.20	0.35	0.12	-0.6	-1.7	A1A2	GRAYS NAUTILUS S2F
110063	MAIRE PF GOLDEN BOY S2F *	231	98	31.3	29.1	934	32	2.1	-0.44	313	3.7	4.5	0.40	0.32	0.53	0.3	-4.0	A1A2	PUKETIRO FROSTMAN S1F
107015	GREENWELL MD BRUTUS S3F	226	98	29.6	11.4	708	32	4.2	-0.39	365	3.8	4.3	0.13	0.29	0.06	-2.1	0.2	A2A2	MACFARLANES DAUNTLESS
110049	SAVANNAHS HF HAMMER S1F	226	92	29.9	24.8	800	27	4.2	-0.28	236	3.7	4.5	0.26	0.54	0.36	1.6	-3.9	A2A2	HIGGINS FORMAT
110056	TRALEE PF ALPHA-ET S1F *	223	80	29.6	22.8	792	23	1.4	0.21	379	3.7	4.5	0.55	0.58	0.28	1.7	-5.6	A1A2	PUKETIRO FROSTMAN S1F
110006	BAGWORTH PF GRANDEUR S1F	222	80	30.0	42.6	822	57	1.3	-0.39	456	3.7	4.8	-0.13	1.02	0.64	-1.3	-4.9	A2A2	PUKETIRO FROSTMAN S1F
109142	VAN HEUVENS VA REMEDY S1F	215	84	28.8	44.7	277	66	0.4	0.00	292	4.1	5.4	0.22	0.58	0.38	0.8	-7.3	A2A2	VALDEN HI APPLAUSE-ET S2F
110005	MARCHEL MP JOCK S3F	209	98	37.8	30.2	1107	34	1.2	0.43	87	3.7	4.4	0.20	0.51	0.09	0.1	-6.0	A2A2	MAIRE EX PRESSO
110045	UPTONS MAGIC UPGRADE S2F #	208	81	27.9	33.2	724	51	2.7	-0.03	481	3.7	4.7	0.48	0.06	0.31	1.9	-0.4	A2A2	SRC LAKESIDE DG MAGIC
110065	WILLS RC RAYMOND S2F	204	81	27.9	18.3	776	39	5.3	-0.27	365	3.7	4.4	-0.01	0.56	0.46	1.1	-4.0	A1A1	ROYSON ELSTO CONAN-ET S3F
110064	MAIRE PF GOLDIE S1F	203	87	30.4	27.7	944	43	3.0	-0.49	286	3.6	4.4	0.31	-0.09	0.53	1.5	-1.1	A1A2	PUKETIRO FROSTMAN S1F
107075	GOOCHS LM HEROIC S2F	194	92	27.3	19.7	590	45	4.7	-0.24	285	3.8	4.6	0.31	0.49	0.46	3.4	-0.4	A1A1	LAKESIDE S D MEADOWS
106083	HAZAEL MN SWEETDREAM S2F	193	99	24.2	19.0	493	31	4.7	0.49	407	3.8	4.7	0.08	0.46	0.26	-0.5	-2.5	A1A2	MITCHELLS NOTEWORTHY S1F
Expected	l team weighted average	257	99	35.9	28.4	879	36	1.4	-0.04	338	3.8	4.5	0.23	0.36	0.36	0.6			THE CONTRACTOR OF THE CONTRACT

Bulls highlighted in red have less than 16 parts Friesian: 110042 MORRIS TF LAMONT S1F - F15J1, 109068 RABARTS TF TOP DOG S2F - F15J1, 106227 # Red Factor Carrier. * Small Calf Syndrome Carrier. Please be aware that 110077 WHINLEA PF ESTEEM-ET S2F is deemed short supply bull and his frequency of delivery will

EDWARDS BANQ OVATION S3F - F15O1, 110049 SAVANNAHS HF HAMMER S1F - F15J1 be limited.

evaluation 11/10/2014

HOLSTEIN-FRIESIAN TEAM FORWARD PACK

BW/gBW/REL **267/98**

AB Code	Bull Name	BW/gBW	Rel %	Protein BV/gBV (kg)	Milkfat BV/gBV (kg)	Milk BV/gBV (litres)	Liveweight BV/gBV (kg)	Fertility BV/gBV %	Somatic Cell Score BV/gBV	Total Longevity BV/gBV (days)	Protein % BV/gBV	Milkfat % BV/gBV	Overall Opinion BV/gBV	Udder Overall BV/gBV	Dairy Conformation BV/gBV	Calving Difficulty BV/gBV %	Gestation Length	A2	Sire
110042	MORRIS TF LAMONT S1F	351	84	48.1	37.2	994	31	-1.1	0.21	309	3.9	4.6	0.44	0.00	0.64	2.3	-4.7	A1A2	TELESIS EUON FIRENZE
110077	WHINLEA PF ESTEEM-ET S2F	305	80	44.9	43.9	1552	40	-0.1	-0.35	457	3.5	4.3	-0.15	0.37	0.26	-0.5	-3.3	A2A2	PUKETIRO FROSTMAN S1F
110072	TRALEE HD RIPPA-ET S3F #	285	83	30.0	47.5	614	11	0.0	-0.01	307	3.9	5.1	0.27	-0.09	0.30	-1.8	-2.9	A1A2	HAZAEL NAUT DECREE-ET S3F
108237	GREENWELL TF BLITZ-ET S3F	267	98	42.7	28.9	982	46	0.0	-0.06	193	3.8	4.4	0.08	0.47	0.44	-0.6	-5.1	A1A2	TELESIS EUON FIRENZE
110009	BAGWORTH PF LAUNCHPAD S1F	264	77	36.6	32.0	1078	18	0.2	0.17	314	3.7	4.4	0.22	0.74	0.59	-0.1	-3.2	A2A2	PUKETIRO FROSTMAN S1F
110052	GYDELAND EXCEL INCA S3F	262	81	37.7	29.4	778	70	2.9	0.03	563	3.9	4.6	0.35	0.44	0.30	2.0	3.2	A1A2	WHINLEA NAUT EXCEL-ET S3F
109068	RABARTS TF TOP DOG S2F	258	85	43.1	23.2	1230	54	1.5	-0.13	375	3.7	4.1	0.18	0.26	0.61	1.9	2.9	A1A2	TELESIS EUON FIRENZE
106227	EDWARDS BANQ OVATION S3F #	254	99	33.3	8.2	741	19	1.6	-0.07	369	3.8	4.2	0.09	0.48	-0.06	1.7	2.7	A2A2	SRD JENERAYTIONS BANQUET
111049	CLENZIE FM CHARGER S2F	279	65	38.9	36.1	1014	36	5.4	0.07	257	3.7	4.5	0.18	0.30	0.61	2.4	-5.2	A1A1	FAIRMONT MINT-EDITION
113114	RIVERHEIGHTS GB ROGUE S3F	277	61	36.0	32.0	971	25	1.6	-0.36	309	3.7	4.5	0.15	0.22	0.12	-0.5	-1.0	A2A2	GREENWELLS HF BONZA S3F
111055	DELTOP FM HARLEQUIN S2F	266	66	41.0	28.6	1188	36	3.0	0.15	297	3.7	4.3	0.27	0.69	0.23	1.6	-0.6	A1A2	FAIRMONT MINT-EDITION
113026	TELESIS GB BENTLEY S2F	265	60	33.5	34.3	820	24	3.1	-0.04	264	3.8	4.7	0.25	0.43	0.25	0.0	-2.3	A2A2	GREENWELLS HF BONZA S3F
113070	GREENWELL FI BLADE S3F	261	60	37.1	31.0	844	49	4.1	-0.07	331	3.8	4.5	0.15	0.43	0.43	2.6	-4.5	A1A2	FARSIDE M ILLUSTRIOUS S3F
111082	HAZAEL FM MAJESTIC-ET	255	64	40.2	36.3	1204	36	2.2	-0.03	188	3.6	4.4	0.34	0.64	0.27	2.1	-1.7	A1A2	FAIRMONT MINT-EDITION
113129	PASSMORE SH VISIONARY S1F	255	58	37.6	25.0	1012	37	2.9	-0.13	301	3.7	4.5	0.25	0.42	0.47	2.2	-4.4	A1A2	SAVANNAHS HF HAMMER S1F
111044	WAIAU MAX TOMMO S3F	254	67	36.1	31.0	935	33	0.8	-0.06	295	3.8	4.5	0.33	0.58	0.69	3.5	-0.8	A1A2	WOODCOTE TF MAXIMISER
113013	SPRING TRALEE BOOM-ET S3F #	252	61	35.9	23.4	817	36	3.0	0.08	293	3.8	4.6	0.11	0.42	0.26	1.0	-0.3	A2A2	EDWARDS BANQ OVATION S3F
111012	FARSIDE M ILLUSTRIOUS S3F	252	84	37.5	37.5	939	37	1.6	-0.15	139	3.8	4.6	0.20	0.63	0.31	4.5	-8.9	A1A2	FAIRMONT MINT-EDITION
113120	BOTHWELL WT MAXIMA S2F	251	55	31.2	37.5	752	23	1.4	0.00	275	3.8	4.7	0.10	0.33	0.27	2.5	-0.9	A1A2	WAIAU MAX TOMMO S3F
112040	KAHURANGI GB TOPGUN S2F	244	64	30.7	24.7	1044	12	2.3	-0.45	327	3.6	4.3	0.13	0.32	0.06	-2.0	-4.1	A2A2	GREENWELLS HF BONZA S3F
113053	MITCHELLS WT TYPHOON S2F	244	55	33.5	38.0	777	36	-0.6	0.06	306	3.8	4.7	0.17	0.26	0.34	2.1	-2.3	A1A2	WAIAU MAX TOMMO S3F
Expected	d team weighted average	267	98	37.7	32.7	983	34	1.8	-0.04	290	3.7	4.5	0.18	0.37	0.33	1.6			

Spring Bull Shaded bulls are daughter proven with AEU BW & BV's 11/10/2014 Non shaded bulls are genomically selected with LIC gBW & gBV's. # Red Factor Carrier.

Bulls highlighted in red have less than 16 parts Friesian: 110042 MORRIS TF LAMONT S1F - F15J1, 109068 RABARTS TF TOP DOG S2F - F15J1, 106227

EDWARDS BANQ OVATION S3F - F15O1, 113013 SPRING TRALEE BOOM-ET S3F - F15J1, 112040 KAHURANGI GB TOPGUN S2F - F15J1







JERSEY TEAM DAUGHTER PROVEN

BW/REL **233/99**

AB Code	Bull Name	BW	Rel %	Protein BV (kg)	Milkfat BV (kg)	Milk BV (litres)	Liveweight BV (kg)	Fertility BV %	Somatic Cell Score BV	Total Longevity BV (days)	Protein % BV	Milkfat % BV	Overall Opinion BV	Udder Overall BV	Dairy Conformation BV	Calving Difficulty BV %	Gestation Length	A2	Sire
310034	WILLAND SIA DUETTO	255	90	9.5	28.5	-305	-50	0.6	-0.01	190	4.2	5.8	0.05	0.27	0.40	-1.2	-3.8	A2A2	SHALENDY IDEAL ASCENT S3J
309084	LYNBROOK TERRIFIC ET S3J	251	98	7.7	14.1	-340	-38	3.6	-0.03	455	4.2	5.5	0.55	1.33	0.57	-1.7	-3.8	A2A2	FERNAIG ADMIRAL SJ3
309012	KELLAND KC SPEEDWAY	242	82	13.7	21.8	-79	-20	1.9	-0.16	345	4.1	5.4	0.39	0.95	0.55	-1.5	-4.0	A2A2	KIRKS RI CHARISMA ET GR
307055	TIRONUI MEGANEV	221	94	7.4	31.6	-145	-43	-0.1	-0.12	225	4.0	5.7	0.13	0.26	0.17	-2.6	-1.7	A1A2	NOAKES NEVVY S3J
308128	HILLSTAR LOT JESTER S3J	214	83	8.8	15.4	-263	-21	1.1	-0.33	348	4.2	5.4	0.03	0.29	0.11	-2.7	-0.7	A1A2	LYNBROOK OM TITAN ET S3J
309030	TAWA GROVE KRC TANA ^	202	84	2.2	9.9	-661	-46	1.4	0.11	254	4.4	5.9	0.35	0.82	0.65	-2.4	-4.6	A2A2	KIRKS RI CHARISMA ET GR
309090	KERSTENS KRC RONALDO ^	199	94	9.4	22.8	-278	-27	-0.4	0.15	194	4.2	5.6	0.45	0.50	0.65	-2.7	-7.2	A2A2	KIRKS RI CHARISMA ET GR
310047	UPLAND PARK HTA MALI S3J	195	97	3.8	11.1	-293	-36	2.6	-0.29	348	4.1	5.4	0.22	0.78	0.18	-1.0	-6.3	A2A2	HAYWARDS TGM AIM S3J
Expected	team weighted average	233	99	9.0	20.8	-263	-34	1.5	-0.09	302	4.2	5.6	0.28	0.69	0.44	-1.8			

[^] Fertility 1 Gene Carrier.

JERSEY TEAM FORWARD PACK

BW/gBW/REL **248/98**

AB Code	Bull Name	BW/gBW	Rel %	Protein BV/gBV (kg)	Milkfat BV/gBV (kg)	Milk BV/gBV (litres)	Liveweight BV/gBV (kg)	Fertility BV/gBV %	Somatic Cell Score BV/gBV	Total Longevity BV/gBV (days)	Protein % BV/gBV	Milkfat % BV/gBV	Overall Opinion BV/gBV	Udder Overall BV/gBV	Dairy Conformation BV/gBV	Calving Difficulty BV/gBV %	Gestation Length	A2	Sire
310034	WILLAND SIA DUETTO	255	90	9.5	28.5	-305	-50	0.6	-0.01	190	4.2	5.8	0.05	0.27	0.40	-1.2	-3.8	A2A2	SHALENDY IDEAL ASCENT S3J
309084	LYNBROOK TERRIFIC ET S3J	251	98	7.7	14.1	-340	-38	3.6	-0.03	455	4.2	5.5	0.55	1.33	0.57	-1.7	-3.8	A2A2	PERNAIG ADMIRAL SJ3
309012	KELLAND KC SPEEDWAY	242	82	13.7	21.8	-79	-20	1.9	-0.16	345	4.1	5.4	0.39	0.95	0.55	-1.5	-4.0	A2A2	KIRKS RI CHARISMA ET GR
313016	BONACORD MURMUR BOLT	264	65	9.8	24.0	-204	-51	1.5	-0.22	276	4.1	5.5	0.09	0.42	0.22	-1.8	1.5	A2A2	OKURA LIKA MURMUR S3J
313047	EVLEEN INTEGRITY LARSON	262	61	11.8	26.0	-106	-39	2.3	-0.06	330	4.1	5.4	0.25	0.50	0.32	-2.4	-2.5	A2A2	OKURA LT INTEGRITY
313031	BOURNES DUETTO BISHOP	260	61	7.2	28.7	-332	-50	1.3	-0.21	292	4.2	5.7	0.04	0.30	0.25	-2.0	-1.0	A2A2	WILLAND SIA DUETTO
313056	BELLS 5-STAR FREDDY S3J	253	60	12.4	23.4	71	-45	2.2	-0.10	312	3.9	5.4	0.22	0.35	0.19	-2.0	-2.7	A2A2	HILLSTAR TERRIFIC 5-STAR
312060	KAITAKA MURMUR LEO ET	251	64	7.4	21.5	-243	-52	1.9	-0.29	289	4.1	5.5	0.20	0.39	0.15	-2.3	-4.8	A2A2	OKURA LIKA MURMUR S3J
313029	WILLIAMS MURMUR MAITLAND	246	65	7.1	21.6	-358	-48	1.9	-0.19	256	4.2	5.5	0.09	0.49	0.30	-2.5	-2.4	A2A2	OKURA LIKA MURMUR S3J
313046	OKURA OLM KAINO ET	244	66	7.7	23.1	-166	-47	2.1	-0.31	299	4.1	5.6	0.01	0.67	0.38	-2.8	-1.5	A2A2	OKURA LIKA MURMUR S3J
313009	GREENMILE JINGO FAGAN	244	60	6.5	18.2	-328	-49	2.2	-0.19	314	4.2	5.6	0.08	0.25	0.33	-2.7	-4.8	A2A2	TE ARANGA PCG JINGO
311016	OKURA TRAIL LEADER	243	64	12.4	19.8	-175	-49	0.6	0.12	134	4.2	5.4	0.37	0.12	0.03	-4.1	-6.4	A2A2	LYNBROOK OPIUM TRAIL
313020	CRESCENT OLM ROSCO ET	231	64	6.9	12.6	-192	-56	1.8	-0.12	286	4.1	5.4	0.05	0.46	0.25	-2.8	-3.0	A2A2	OKURA LIKA MURMUR S3J
311013	OKURA LT INTEGRITY	218	83	7.8	18.9	-180	-42	0.8	-0.13	271	4.1	5.4	0.12	0.75	0.51	-2.4	-1.3	A1A2	LYNBROOK TERRIFIC ET S3J
Expected	d team weighted average	248	98	9.2	21.6	-213	-44	1.8	-0.13	294	4.1	5.5	0.20	0.55	0.34	-2.2			

Spring Bull Shaded bulls are Daughter Proven with BW and BVs 11/10/2014 Non-shaded bulls are genomically selected with LIC gBW and gBVs.

Bulls highlighted in green have less than 16 parts Jersey: 313056 BELLS 5-STAR FREDDY S3J - J15F1







KIWICROSS™ TEAM DAUGHTER PROVEN

BW/REL **249/98**

508077	HOWIES CHECKPOINT*	Breed Split	BW/BW	Rel %	Protein BV (kg)	Milkfat BV (kg)	Milk BV (litres)	Liveweight BV (kg)	Fertility BV %	Somatic Cell Score BV	Total Longevity BV (days)	Protein % BV	Milkfat % BV	Overall Opinion BV	Udder Overall BV	Dairy Conformation BV	Calving Difficulty BV %	Gestation Length	A2	Sire
508077	HOWIES CHECKPOINT*	F9J7	328	93	30.1	43.1	497	-2	1.4	-0.22	344	4.0	5.2	0.07	0.42	0.05	-2.2	-5.9	A2A2	SHALENDY AMOROUS-ET
510048	JERSEYDALES SHOO-IN	F11J5	273	76	27.5	38.5	478	15	1.0	0.01	398	3.9	5.1	0.27	-0.06	0.15	1.4	-1.5	A2A2	WOODCOTE GR METEOR-ET S3F
510057	EWINGS IVORY	F6J10	247	82	22.5	36.3	68	7	0.7	0.56	290	4.2	5.5	0.05	0.47	0.66	-0.4	-3.4	A1A2	HOWIES EASYRIDER
508154	PRIESTS SOLARIS-ET ^	F6J10	246	99	18.5	21.3	226	2	4.1	-0.97	307	3.9	5.0	0.22	0.43	0.96	-1.8	-7.2	A2A2	INGRAMS RAMROD
506063	CUTFORTHS LORD BRIAN	F5J7A4	241	99	18.2	20.9	22	3	1.5	-0.38	362	4.1	5.2	-0.11	0.34	0.12	-2.3	-0.6	A1A1	NUMANS LORD NELSON
510003	ARKANS PROMOTER	F7J9	226	98	13.6	26.1	-82	-23	2.2	0.15	204	4.1	5.5	0.00	0.35	0.24	-1.7	-6.8	A1A2	HOWIES EASYRIDER
508140	HOWIES EASYRIDER ^	F7J9	224	99	10.4	32.8	-194	-8	5.8	0.25	359	4.1	5.8	0.07	0.31	0.50	-1.7	-4.8	A1A2	INGRAMS RAMROD
510016	ST PETERS OBSIDIAN ^	F5J11	222	99	16.4	25.8	232	-12	3.3	-0.39	197	3.9	5.1	0.01	0.44	0.49	-1.0	-11.8	A2A2	PRIESTS SOLARIS-ET
510002	ARKANS ASTOUND	F8J8	217	79	25.3	22.0	552	25	1.7	-0.58	297	3.8	4.7	-0.01	0.51	0.43	1.5	-5.7	A2A2	HAYWARDS TGM AIM S3J
509025	WERDERS EXCELLENCE	F7J9	216	89	8.1	15.5	-611	-6	4.3	0.23	378	4.5	5.9	0.26	0.16	0.08	-2.3	4.4	A1A2	WILLIAMS MINSTREL
506104	NEVRON SHOWMAN	F6J10	211	99	22.8	13.8	303	1	0.2	-0.13	169	4.0	4.8	0.00	0.54	0.34	-1.0	1.2	A1A2	OKURA MANHATTEN ET SJ3
510033	ARRIETA NOMAD	F12J4	206	98	16.9	14.8	261	4	5.9	-0.28	328	3.9	4.8	0.22	0.10	0.05	-2.1	-5.1	A2A2	PUKETIRO FROSTMAN S1F
Expected	team weighted average		249	98	20.4	28.8	181	1	2.4	-0.14	311	4.0	5.2	0.09	0.33	0.28	-1.1			

[^] Fertility 1 Carrier. * Small Calf Syndrome Carrier.

KIWICROSS™ TEAM FORWARD PACK

BW/gBW/REL **270/98**

AB Code	Bull Name	Breed Split	BW/gBW	Rel %	Protein BV/gBV (kg)	Milkfat BV/gBV (kg)	Milk BV/gBV (litres)	Liveweight BV/gBV (kg)	Fertility BV/gBV %	Somatic Cell Score BV/ gBV	Total Longevity BV/gBV (days)	Protein % BV/gBV	Milkfat % BV/gBV	Overall Opinion BV/gBV	Udder Overall BV/ gBV	Dairy Conformation BV/gBV	Calving Difficulty BV/gBV %	Gestation Length	A2 Sire
508077	HOWIES CHECKPOINT *	F9J7	328	93	30.1	43.1	497	-2	1.4	-0.22	344	4.0	5.2	0.07	0.42	0.05	-2.2	-5.9	A2A2 SHALENDY AMOROUS-ET
510048	JERSEYDALES SHOO-IN	F11J5	273	76	27.5	38.5	478	15	1.0	0.01	398	3.9	5.1	0.27	-0.06	0.15	1.4	-1.5	A2A2 WOODCOTE GR METEOR-ET S3F
510057	EWINGS IVORY	F6J10	247	82	22.5	36.3	68	7	0.7	0.56	290	4.2	5.5	0.05	0.47	0.66	-0.4	-3.4	A1A2 HOWIES EASYRIDER
508154	PRIESTS SOLARIS-ET ^	F6J10	246	99	18.5	21.3	226	2	4.1	-0.97	307	3.9	5.0	0.22	0.43	0.96	-1.8	-7.2	A2A2 INGRAMS RAMROD
506063	CUTFORTHS LORD BRIAN	F5J7A4	241	99	18.2	20.9	22	3	1.5	-0.38	362	4.1	5.2	-0.11	0.34	0.12	-2.3	-0.6	A1A1 NUMANS LORD NELSON
510003	ARKANS PROMOTER	F7J9	226	98	13.6	26.1	-82	-23	2.2	0.15	204	4.1	5.5	0.00	0.35	0.24	-1.7	-6.8	A1A2 HOWIES EASYRIDER
510002	ARKANS ASTOUND	F8J8	217	79	25.3	22.0	552	25	1.7	-0.58	297	3.8	4.7	-0.01	0.51	0.43	1.5	-5.7	A2A2 HAYWARDS TGM AIM S3J
511053	HOWIES ARKAN RAMADA ET ^	F11J5	288	71	27.9	29.2	617	-13	4.6	-0.13	217	3.8	4.8	0.21	0.51	-0.13	-0.8	-2.2	A1A1 FAIRMONT MINT-EDITION
513096	MARSHALLS PHOENIX	F11J5	274	58	30.9	34.5	545	16	1.7	0.00	262	3.9	4.9	0.15	0.45	0.25	1.1	-7.7	A2A2 FARSIDE M ILLUSTRIOUS S3F
511015	BURWELLS RILEY	F12J4	272	69	38.0	39.5	962	28	2.5	0.13	178	3.8	4.6	0.31	0.71	0.86	1.4	-10.8	A1A2 FAIRMONT MINT-EDITION
513002	ARKANS KARMA	F9J7	266	58	26.0	33.7	524	-4	1.9	0.07	279	3.9	4.8	0.09	0.30	0.41	-0.9	-6.3	A2A2 ARKANS BEAUT ET
513098	ARKANS BOUNTY	F5J11	263	60	22.8	30.8	394	-12	0.9	0.18	355	3.9	5.0	0.25	0.64	0.47	-0.3	-1.5	A1A2 OKURA LT INTEGRITY
513068	HEATHTONS QUIET RIOT	F13J3	263	58	30.2	30.0	697	15	2.6	-0.08	308	3.8	4.8	0.03	0.22	0.33	-0.1	-5.6	A1A2 ARKAN FM BRILLIANT-ET S2F
513099	ARKANS BEACON	F11J5	262	58	29.1	33.8	687	13	3.2	0.00	316	3.8	4.8	0.19	0.41	0.18	1.0	-5.5	A1A2 FARSIDE M ILLUSTRIOUS S3F
513100	OKAERIA BATTLEPAINT	F13J3	261	58	29.9	37.2	660	22	2.8	0.09	337	3.8	4.9	0.05	0.30	0.36	-0.2	-4.1	A1A2 BUSY BROOK ROBUST-ET S3F
513094	REYLANDS REAL DEAL	F13J3	259	61	37.7	33.6	1036	31	2.6	0.04	229	3.7	4.6	0.35	0.51	0.48	0.4	-4.4	A1A2 FAIRMONT MINT-EDITION
511026	ARKANS BEAUT ET	F9J7	255	90	30.2	27.7	612	8	1.2	-0.03	177	3.9	4.7	0.04	0.52	0.49	0.0	-7.9	A1A2 NEVRON SHOWMAN
513055	PILSENS TITAN	F7J9	248	58	23.9	28.0	529	-4	2.2	-0.15	278	3.8	5.0	-0.01	0.31	0.27	-0.9	-4.7	A1A1 IL VERO AMORE POWER
Expected	team weighted average		270	98	29.2	33.7	607	9	2.2	-0.05	275	3.9	4.9	0.16	0.38	0.30	-0.1		

Spring Bull Shaded bulls are Daughter Proven with AEU BW & BV's 11/10/2014 AEU BW & BV's 11/10/2014 AEU BW & BV's 11/10/2014

Non-shaded bulls are genomically selected with LIC gBW and gBVs.





Protein! Fertility! Udders!



If you're after the three traits above, these bulls will help deliver in-spades!

October is an exciting time for LIC's bull acquisition team.

We're finding out how our next crop of bulls are tracking, not only on Breeding Worth (BW), but also for traits other than production (TOP).

And in the Holstein-Friesian camp, we're simply stoked with what is being delivered.

Obviously Mint-Edition is already a legendary bull, and is among those elite sires that don't come around too often.

Most farmers absolutely rave about his genetics that come through in their herd, and I know for a time he's been truly missed.

The great news is his first crop of sons is coming through with daughter proofs of their own.

And boy are they making Dad proud!

If you're after something a bit different why not consider Tommo (a Maximiser son), who is another shining-star emerging on the horizon, who can stand proudly among the Mint-Edition sons.

The new generation of bulls coming through this spring in the Holstein-Friesians are, in a word, awesome.

Of the six bulls profiled, five will enter the Forward Pack team, and three will be available through Alpha Nominated.

These half-dozen sires are a force to be reckoned with, and allow the Holstein-Friesian team at LIC to continue to go from strength-to-strength.

111049-CLENZIE FM CHARGER S2F

Charger comes in at 279 BW.

With 60 daughters milking to date, Charger has climbed almost 50 BW during the last three Animal Evaluation (AE) runs alone.

Bred by Stuart and Vanessa Clarke of Hawera, Charger emulates everything we've loved about Mint-Edition. High fertility from this bull is not surprising, given his Elsto dam has delivered seven consecutive lactations – consistently getting incalf to her first AB mating each year.

This is a family we are working with closely, and we look forward to what else will come from it.

111037-SAN RAY BEAMER-ET S2F

Beamer is our standout graduate – not only for conformation, but also for production.

Being F14J2, but having typical Holstein-Friesian markings, he will appeal to many Holstein-Friesian and KiwiCrossTM clients.

Not only does Beamer bust-through the magical 40kg protein and 40kg fat, he also has high fertility, easier calving, fantastic dairy conformation, and has an outstanding 1.07 udder Breeding Value (BV); this is an achievement only one other bull in the team has attained (Hothouse).



105038 Fairmont Mint-Edition

With the power of embryo technology, Beamer is one of three full brothers that are coming through with a proof this year.

This trio of bulls have been utilised in contract mating, for Alpha Nominated, and for the genomic teams. Their average BW sits at a massive 260.

Ray and Sandra Hocking of Takaka will justifiably be proud to have their names attached to such an outstanding bull.

Beamer is available to order through Alpha Nominated™.

111055-DELTOP FM HARLEQUIN S2F

Bred by Michael and Chris Moffatt of Waimate, Harlequin looks more than promising at 266 BW.

With 65 milking daughters to date, we are seeing raw production-power with 41kg of protein and great fertility shining through.

The first round of TOP daughters has seen a nice climb in Udder Overall BV.

Significantly, Harlequin daughters are well-liked by those who milk them.

It's gratifying to see that Harlequin was utilised as a young bull within our programme, and we are eagerly awaiting proofs on two of his sons.

111082-HAZAEL FM MAJESTIC-ET

A full pedigree bull bred by Hans and Margaret Schouten of Invercargill, Majestic is one of two full brothers coming through with great promise.

Majestic weighs in at 255 BW, and his full brother, Magical, hits the ground at 236 BW.

In other words, this is a cow family to be reckoned with: Scanning back through the outcross pedigree of Dauntless x Anvil x Boudewijn x Fatal, we have five generations in the maternal line that clock in at more than 300 Production Worth (PW).

It's powerful stuff! We are eagerly awaiting the Blitz son currently coming through from the same family.

111012-FARSIDE M ILLUSTRIOUS

It is fantastic to see one of our most well-known and heavily used genomic sires, 111012-Farside Illustrious come through with a solid proof at 252 BW.

Being the most reliable Holstein-Friesian Spring Pack bull, with 1900 daughters in his proof, a number of farmers are already enjoying Illustrious in their herds.

With a number of Illustrious sons in the pipeline, some are already making waves in the current Forward Pack teams.

Bred by Graeme and Jackie Barr, Illustrious has already done more than 72,000 inseminations – not bad for a bull that has only just started getting a daughter proof!

It's exciting to see this bull go all the way.

111044-WAIAU MAX TOMMO S3F

Tommo stands out as his own man. He's not part of the Mint-Edition crowd, but his quality and class allows him to comfortably occupy his space among the elite.

Bred by Jim and Sue Webster of Waitara, Tommo is the bull to consider for something a bit different.

He's one of the most balanced new-comer bulls we've seen.
Because he's got outstanding capacity, strong udders, and (siring) daughters who are well-liked, we have little doubt that this bull will be of massive interest.

Tommo currently has two sons in the Forward Pack teams, with another seven awaiting their proof via Sire Proving.

Tommo will appeal to many for his interesting sire pathway; sired by Maximiser (used as a young bull himself to sire Tommo), and out of an absolute production powerhouse of a Meadows cow (who has consistently produced more than 400 PW, even at eight years of age).



Dam of 111082 Majestic. Owner: Hazael Farms Ltd, Edendale





How are top bulls identified?



Malcolm Ellis – Jersey Bull Acquisition Manager

The identification of top bulls is no accident!

What do OKURA
ADMIRALS IRIS, HILLSTAR
SAMS JOYBELL, and
LAWMUIR WAI LASSIE all
have in common?

They are among the very cream of breeding cows within the Jersey breed during the last 30 years – and sit nice and deep behind the bulls profiled on these pages.

This is the new way forward: Exciting spring sire graduations from absolutely outstanding cow families and seriously deep ancestries.

Genetic gain is about numbers and moons. The numbers have to be high – and that is best achieved by lining up the moons.

This adheres to the modern principals of selection pressure and generation interval, and falls back on the non-negotiables of ancestry and cow families.

It is an absolute pleasure that I profile three exciting 11-code graduates.

What would be an appropriate name for the leading act at this



Dam of 311013 Integrity. Owner: Kowhai Properties, Hikurangi

early lactation stage within the Jersey space?

311016-OKURA TRAIL LEADER.

Appropriately named, keep a close eye on this guy.

With productivity and profitability paying the bills we must graduate Jersey bulls with horse-power.

With a Fat BV of 20, Protein of 12 and Milk at -175, Leader has his engine well and truly fired up.
Since we turned the key in the July AE run he has come up 49 BW units to 243 across 62 production daughters. Averaging 0.42 through the management traits, farmers have formed a very clear impression.

His dam Okura OM Lemonade (9-8) would have to be one of the premier daughters of the great Manhatten. A truly super cow and in my view the pick of the current Okura herd. Behind her an (8-8)Kookaburra cow, in turn a 309 PW Admiral daughter, from the legendary Lawmuir WAI Lassie – born in 1993 would today have a PW of 306, out of the most notable daughter of the super sire

Kaimua Goliath – Lawmuir Chams Lass (9-7), born in 1988 with a PW of 385!

This is an ancestry full of high speck machines proving that top bulls don't just happen. What an outstanding prospect. LEADER launches himself into the 2014 Jersey Premier Sires Forward Pack as the highest ranked spring bull and will also be worth a look in AlphaTM.

311013-OKURA LT INTEGRITY

was first identified and marketed as the leading act of the 2011 and 2012 DNA Proven teams. Such was our confidence in him that we wall charted him within the Genomically selected component of this year's Jersey Forward Pack. He now retains his position as a spring bull. This early exposure gives him over 2500 daughters coming into production this spring. At 218 BW based on 988 of these (83% rel) he looks rock solid. The first son of the absolutely outstanding Lynbrook Terrific, INTEGRITY was always going to inherit highly desirable conformation traits.

	TERRIFIC 2013	INTEGRITY 2014
BW	210	218
Protein BV	7	8
Fat BV	17	19
Milk BV	-294	-180

Capacity BV of 0.73, udder support of 0.50, fore udder of 0.33, rear udder of 1.01, udder overall of 0.75 and dairy conformation of 0.51 paints an impressive picture. In anticipation I have spent a lot of time out and about inspecting daughters of this highly promising sire and I am not one bit surprised by this TOP profile.

Farmers are raving about them. I predict that there is still a good deal of upside in his BW. It is of real interest to note how similar INTEGRITY is in October 2014 compared to his super sire Terrific in October 2013.

With Terrific currently at 251 BW and #3 on the RAS list, who would bet against INTEGRITY'S future.

His maternal ancestry needs no introduction, descending from one of the super cows of the Jersey breed in Okura Admirals Iris. Three consecutive 8 capacity cows sit behind INTEGRITY. His Mitchells Likabull dam is amongst the most spectacular I have seen since joining LIC three years ago. This is the latest outstanding bull to come out of the much celebrated Okura stud in the north. He will get through some work in Forward Pack and will be popular in Alpha™ particularly with his super star Dad sold out.

While not selected as a spring bull for Premier Sires Forward Pack, 311027-TE ARANGA PCG JINGO will be available as a spring bull through Alpha Nominated.

At 223 BW his obvious value is in the diversity of his sire pathway.

A son of the highly impressive Puhipuhi Caps Goldie (Capstan son from a Minstrel) at 0.96 Capacity BV, the highest ranked Jersey capacity bull amongst the top 100 of the breed.

Combined with a maternal sire pathway of Konui Glen Elmo Bowie, Paspalum Perceys Ace, Lynskeys Doyle SJ3, Judds Admiral, and Crescent Senator Sam, Jingo arrives on the scene with no sign of Maunga, Manhatten, Nevvy, Samual, Casper, or Forever behind him.

A hugely valuable outcross.

Longevity and capacity is simply everywhere in this highly acclaimed

maternal ancestry. The nearest six females classified 8 or 9 for the highly desirable capacity trait.

While Jingo's dam was tragically lost prior to the commencement of her 7th lactation, the next five females in the pedigree averaged 12.4 lactations, with arguably Senator Sam's most notable daughter, Hillstar Sam's Joybell, completing 15 uninterrupted lactations.

With 824 daughters already in his proof and more than 2300 expected this spring, JINGO has 82% reliability, and looks very steady on the *RAS* list.

He makes for an ideal late addition to any breeding programme.

Great careers have to start somewhere, and launching LEADER, INTEGRITY and JINGO as daughter proven debutants is very satisfying.



Dam of 311027 Jingo. Owner: Te Aranga Farm, Pirongia





KiwiCross[™] — new blood



Ahh Spring. Sun on the paddocks, rain in the forecast and the sound of silage contractors tearing around the country side – it all adds up to a well-earned sigh of relief as the worry of managing feed fades and the next challenge of mating begins.

At least Christmas isn't far away!

But sticking with mating for the time being, the Kiwicross™ team is pleased to introduce three new arrivals whose first milking daughters have received their conformation and management (TOP) assessments.

These boys will add new blood to the quality selection of bulls available in Alpha Nominated and the Premier Sires Forward Pack team.

511053-HOWIES ARKAN RAMADA ET F11J5

A full embryo transfer brother to Revller, Ramada takes the early advantage over his sibling to make the Spring Pack, with daughters offering good milking speed, positive farmer opinion and a 0.51 udder overall BV.

Combined with a 289BW at 72% reliability, 4.6 fertility, and a touch below 30kg of both fat and protein, Ramada is living up to his early billing.

We perhaps shouldn't be overly surprised at the above, considering his parents.

Ramada is sired by one of the most complete bulls in recent history, Mint-Edition, and he hails from the grand-dam of Howies Checkpoint (she can only be described as an exceptional animal, being born in 1999 and carrying figures of 258BW and 714PW! To think, 15 years on we are still trying to breed cows that are this good!).

This joint venture between the Howie family of Morrinsville and the Anderson family of Otorohanga has produced an exceptional sire, who will provide the perfect mating for capacious cows across all breeds.

511015-BURWELLS RILEY F12J4

Another Mint-Edition son out of a Manhatten cow, (not a bad start!), Riley's TOP scored daughters indicate he brings some exceptional qualities to the programme.

With positive temperament and BV's of 0.75 capacity, 0.71 udder overall, and 0.86 dairy conformation, there is a lot to like about this young bull who holds a current BW of 279 at 70% reliability.

Add to that 41kg of fat, 40kg of protein (10kg more than Checkpoint!) and a 30kg liveweight BVs, these daughters evidently stand up and compete right from day one, and, on the basis of early indications, they look set to continue to do so for many seasons.

Thanks should go to Barry and Julie Burwell who bred Riley; he's an exciting new bull that easily warrants inclusion on the basis of his complete daughters.

511026-ARKANS BEAUT F9J7

Used extensively as a genomic bull, Beaut's 2100 herd-tested daughters are a clear illustration that his high use as a young bull was well justified; this gives him 84% reliability right from the get-go.

When you consider he comes from Stewart and Kathryn Anderson's Beauty family, you can use this bull with confidence. His PW's read down his maternal ancestry at: dam 479PW; grand dam 533PW; great grand dam 638PW; and great great grand fam 'Chocolate' (born way back in 1997) 472PW. Quality breeds quality and there are few better histories than this one.

No Mint-Edition here, this Nevron Showman son is the picture of consistency across his TOP BV scores with 0.50 capacity, 0.52 udder overall and 0.49 dairy conformation. He also boasts strong production with 28kg Fat and 30kg protein, but his daughters won't hold you up in the shed with a Breeding Value (BV) of 0.24 for milking speed.

With a nearly-even Friesian Jersey breed split, Beaut offers balance and options right across the board and he already has eight sons within SPS (including 513002 Arkans Karma in Forward Pack).

So some exceptional new blood here to consider for mating in 2014 and there are others ready to put their hooves up for inclusion as their daughters strut their stuff. These boys will add new blood to the quality selection of bulls available in Alpha Nominated and the Premier Sires Forward Pack team.



Dam of 511026 Beaut. Owner: S & K Anderson, Otorohanga



511053 Howies Arkan Ramada ET



511015 Burwells Riley





Discovery hits the gas



Together with Holstein-Friesian NZ, LIC has the foot flat on the floor in breeding the next generation of elite Holstein-Friesian sires.

Simon Worth -

Bull Acquisition Manager

At the same time we are witnessing a genetic boost to the population of superior females.

The Discovery Project (DP) is in year 10 of operation.

Eight of those years saw incalf heifers calve down at one location and be tested in the same environment – with the very best entering an embryo technologies programme.

During this time 20 sons were purchased for progeny test, with the likes of Westland CL Jasper ET S1F going on to sire more than 12,000 daughters.

Although successful, it was acknowledged that breeders did not always want to be separated from their very best animals in their first lactation.

As a consequence, a full review was initiated resulting in the



DISCOVERY PROJECT

spotlight moving to the younger, and genetically superior, generation.

This move, to an intensive embryo technologies programme with the very best yearling heifers, has meant they are only away for, on average, a 10 week period.

Not only are breeders able to calve down and milk their own animals, the programme remains true to the original objective – 'expanding elite cow families, while producing bulls for the Al industry through advanced breeding technologies'.

This programme has fitted in beautifully with the other embryo transfer programme that LIC facilitates at ABS (see pp 6 and 7 in this edition).

The value to the breed, through breeding elite sires and future bull dams, is enormous. And the principles of turbo-boosting genetic gain are well and truly addressed within the DP.

This begins with accuracy of selection.

Anywhere between 150 and 200 heifers undergo genomic screening to identify the most-elite, who subsequently progress through to the programme.

By utilising the most genetically elite animals (yearlings) the generation interval is shortened, and selection intensity is well and truly amplified by vastly increasing the number of bulls to select from.

Already the LIC's bull acquisition team is genomically screening young bulls resulting from last year's programme.



Daughter of 110006 Grandeur. Owner: P & M Paterson, Morrinsville

Normally we could expect about 8 bulls from the 32 heifers involved, had they simply been AI mated.

Through DP this number explodes to nearly 70 – and by a range of sires.

Given the embryos are carried through pregnancy by recipient animals, there is no need to compromise sire choice by considering calving difficulty.

That means the very best matings have the opportunity to be made.

Remember, we not only expect 70 bulls to be generated from the programme, but also, on average, 70 heifer calves.

Over two years of the re-vamped DP, highlights include the creation of progeny or pregnancies from cow families that have already proven successful.

Examples of sons resulting from families having participated in DP include:

- Whinlea PF Esteem ETS2F current Premier Sire
- Zink LI Prosperity S2F and Zink LM Porter S2F (past Mahoe Trophy holder)
- Busy Brook Revitup ET S2F (highest protein plus fat bull)
- Full brothers Busy Brook Rapture ET S3F and Busy Brook Robust ET S3F
- Hazael FM Majestic ET new spring addition to Forward Pack
- Bagworth PF Grandeur S1F current Premier Sire
- Woodcote TF Maximiser current Premier Sire

- Lornlace VHA Dumpling S3F
- Edwards Banq Ovation S3F current Premier Sire
- Lightburn Fireraze ET S2F
- Maire PF Golden Boy S2F current Premier Sire
- Muritai App Whistler S3F

Adding further interest and excitement to DP are the number of yearlings involved that have been sired by bulls that are only now receiving their daughter proof.

As their sires gain a proof, the yearling heifers have already generated many potential offspring!

Bulls in this category include some high profile genomic bulls that are now demonstrating, through daughter performance, their true worth. These include the likes of Farside M Illustrious S3F, Waiau Max Tommo S3F, Thordale Royalmint S3F and Auahi Hero Warrior S3F.

At LIC we are certainly aware of the need to balance the risk within our breeding programme.

This means a continuing focus on high performing cows that have proven themselves through lactation performance, and who meet strict conformation standards as future bull dams.

However as the pedal hits the metal via the DP, we look forward to driving genetic gain with newfound acceleration!

The value to the breed, through breeding elite sires and future bull dams, is enormous.



Daughter of 109052 Maximiser. Owner: B & L Old, Morrinsville







Living without inductions

This is part-two in a three-part series of articles that Joyce Voogt, qualified vet and LIC's reproduction solutions manager, has penned on 'living without inductions in 2015'.



LIC Reproduction
Solutions Manager

In part one, which appeared in the last issue of The Bulletin, Joyce discussed the drive toward lifting the six week in-calf rate (thus reducing late calvers in the herd long term),

using strategies for early-mating, including:

- reviewing the calving pattern to profile the late calvers; discovery of underlying causes and solutions to get sustainable improvements in the calving pattern
- mating heifers a week ahead of the cows
- identifying and dealing with non-cyclers early (to achieve a 90% 3-week submission rate)

 accurate heat detection to ensure no heat is missed

Joyce continues...

Important decisions will need to be made this mating period for any farmer facing life without inductions for the first time in 2015.

To achieve efficient and sustainable herd fertility (without inductions), it is crucial to maximise the percentage of cows that get in-calf within the first six weeks of mating.

If this can be achieved, there will be fewer late calvers in the herd next season.

But it doesn't stop there.

Pregnancy testing records show some farmers still end up with a 'large tail' of late-calving cows after week six of mating, despite a reasonably good performance during AB.

Mating does not stop when AB stops!

Just as in sports, the game is not over until the final whistle, or until the match-point is complete.

In other words, farmers need to ensure they remain focused on herd reproductive performance throughout the natural mating period too!

That's because things can go wrong with both bulls and cows during this period.

Insufficient numbers, or poor health, of bulls has a huge impact on many farms.

Disease such as BVD can wreak havoc, and cow nutrition can become challenging (as grass loses quality once it enters the reproductive phase).

Solutions do exist.

Extending AB, or reinstating several weeks of AB at the end of mating, is emerging as a good option among farmers who wish to take advantage of earlier-calving dates that result from use of short gestation length bull teams.

It is strongly recommended, however, that short gestation length semen be used in combination with heat detection aids; the aids will help pick the hard-to-find, late-seasoncycling, cows.

Keep in-mind that the hotter the summer sun, the quicker tail paint will degenerate and flake off!

Deciding to pull the bulls out early,

2014 mid-mating checklist



AB Review: Have you assessed how things have gone? Did you meet your 90% submission rate target? Extended AB options with short gestation length bulls can be used to pull more cows into the all-important first six weeks of calving (on farms with good heat detection performance).



Heat detection fatigue: Cows get harder to pick as fewer come on heat and people get tired. What is your plan to keep heat detection efficiency up during the later weeks of AB? Extended use of heat detection aids often pays big dividends.



Bull numbers and health: Have you correctly calculated the number and status of the service bulls you require? Using your submission rate data, your vet can help you with this and advise on important bull health and management issues. Bulls are expensive but failure to have enough bulls is also very costly; look at your options carefully.



BVD can destroy pregnancies in a herd – so keep it out. Have you got a robust BVD monitoring and management plan?



Information to make decisions: Will you have the information required to make good mating and culling decisions to address late calvers in 2015? Herd testing and aged pregnancy testing provides the production and reproduction data you need for making culling decisions later on. Discuss pregnancy testing strategies with your vet now.



Young stock: Are you monitoring your young stock weights in MINDA Weights? Do you have a plan in place to ensure the heifers meet target live weight at mating and calving?

without knowledge of what has been happening, can have devastating consequences.

Make a careful plan with your rural advisor(s).

And don't forget the heifers!

Young stock are the future herd – yet poorly-grown heifers are one of the biggest impediments to national dairy herd fertility.

More information and support is available through the 6 Week Challenge. Join with other farmers

around New Zealand keen to lift their herd fertility by registering at www.6weeks.co.nz

Read participant stories, share tips and information, plan with your staff using the resources provided, attend events, and see who is available to offer help on the rural advisors' list.

Part 3 of this series of articles will appear in The Link, out in January 2015.





Don't plod your way through as an 'also ran' — Get out there and perform

Did you know your milking cows are in a race?

The Race Against Time is run among New Zealand dairy cows every year, and here's why:

With only 365 days in a year and a gestation length of 282 days, cows in seasonal calving systems have just 83 days available to cycle, be mated, and to establish a pregnancy – that's if they are to calve on the same day each year.

And 42 of these 83 days are needed for the reproductive tract to recover from calving and fire into action again.

A practice cycle allows cows to reach peak fertility.

In the illustration on this page, it can be seen that cows that calve in the first six weeks of the calving period have the luxury of time to both recover, and have a practice heat, before mating commences.

Cows that calve after week six do not have time on their side. These are classified by DairyNZ's *InCalf* publication as 'late' or 'very late' calvers.

'Late' and 'very late' calvers consistently have poorer performance across all reproductive parameters.

That is why maximising your 6 week in-calf rate is essential for sustainable herd fertility.

The use of routine inductions



as a tool for correcting calving pattern of very late calvers is no longer available.

There is more urgency than ever to maximise the 6 week in-calf rate, and minimise late calving cows, in your herd.

Late calving cows hold your herd

back reproductively. Late calving cows hold your business back.

Don't let your cows merely participate in the race, coach and manage them to perform.

Joyce Voogt – LIC Reproduction Solutions Manager

Do-it-yourself AB recording and natural mate recording now a mobile app

Farmers planning to do their own inseminations, together with anyone wanting to record natural matings, should download a new smartphone app and 'give it a whirl' this spring.

Designed to stream line the recording process, MINDA™ Mating allows farmers to instantly record matings as they happen, whether in the shed or out in the paddock.

This means scrappy pieces of paper and the pen can be ditched – along with the need to key-in the day's mating events on the PC back at the office, at the end of the day (when farmers or staff can be getting on with better things).

Even without internet connectivity, MINDA Mating allows farmers to store information which will later synchronise automatically when a connection is re-established.

When the app is open and in range of internet, information will automatically upload to the herd's web-based 'holding pen' at www.MINDA.co.nz (for the herd's record keeper to approve).

Better record keeping will help with accuracy at pregnancy diagnosis time, and will provide first class Fertility Focus Reports and MINDA Expected Calving reports. Both reports are increasingly relied upon for quality decision-making when it comes to reproduction.

Accurate mating information provides recorded ancestry, which ultimately supports calf retention and breeding decisions.

Special features of the app include:

- a short return alert (when another heat or mating has been logged within the last 17 days);
- a link to the MINDA Lookup app (to help reference previous reproductive information for the cow); and
- a 'recent batches list' that stores details of recently-used bulls/ batches (avoiding the need to repeat entry of the same sire information).

MINDA Mating is the fourth app in the MINDA series; it is part of a concerted effort by LIC to free farmers from the office, and to help people avoid unnecessary duplication when it comes to farm record keeping.

All MINDA apps provide access to upto-date information in real-time, from anywhere, via the internet.

Beside DIY inseminations and natural mating recording, the MINDA Mating application will also be an excellent way of recording pre-mating heats.

Pre-mating heats are a vital component of the lead up to artificial breeding (AB) and heat detection. Premating heat information assists the accurate selection of on-heat cows during AB, and will help identify noncycling cows before mating starts.

Ultimately, the pre-mating heat



information will help improve threeweek submission rates, and six week in-calf rates.

MINDA Mating is available to anyone with a recently-released Apple or Android mobile device, and can be accessed at the Apple App Store and the Google Play Store for Android.

Farmers subscribed to LIC's MINDApro™ software are able to download MINDA Mating free-of-charge, and there is no limit on how many staff download the app.

The next app from LIC will enable farmers to record health diagnoses and treatments on their mobile devices.

Rob Young – LIC Farm Information Product Specialist





MINDA™ Labs: herd tab

Find it on www.minda.co.nz, opt-in to the new MINDA Labs section, and click on HERD

Johanna Burton – LIC Genetics Specialist

The MINDA Herd Tab is an exciting new addition to MINDA on the web – a tool designed to give the farmer insight into their herd's genetics.

MINDA Herd allows farmers to see how herd improvement decisions are progressing, and allows the owner of the animals to monitor herd performance.

Farmers can rate usefulness of information by assigning ratings, using a star system, and can offer feedback on associated graphs as well as suggest additions or requests for future updates.

At a glance farmers can identify, for example, their herd's status:

Am I close to the top-10% nationally for BW?

Are there any opportunities or gaps?

By investigating the genetics of the herd and considering where to take the herd long-term, farmers can make more informed planning decisions, which will shape the future of their herd.

Key areas for building herd quality are highlighted and information is practical – such as implications for keeping heifer replacements, and resulting culling pressure on the herd.

Key areas for building herd quality are highlighted in the Genetics Tab:

- The calves you keep: When more AB heifers are generated, be selective and accurate about the ones to keep.
- The sires you use: High-BW sires with desirable TOP traits.

- Reproduction: Fewer empty cows means more discretionary culls, plus more AB heifers (resulting in greater choice).
- The cows you cull: Accurately cull poor performers.

The herd is one of the farm's biggest assets – when well managed there is a greater chance of:

- Increasing the herd's value (resulting in a better sale prices);
- 2) Increasing its productivity, each year, as you're milking it; and,
- Providing more options (in terms of trading stock) while you're managing it.

Information is presented alongside reproductive performance and the use of high genetic merit sires (ie. the pillars of successful herd improvement).

Matamata sharemilker Aidain Stevenson has checked the Herd Tab tool out, and says it presents information clearly and logically.

"Our goal is to be in the top two percent for BW, this allows me to track our progress, see how we sit nationally, and highlight key areas for improvement. Being online, it's easy to navigate... I can look at this on my phone while getting in the second herd."

Take the opportunity to check in on your herds progress by visiting the Herd tab on www.minda.co.nz

The tab consists of six graphs (four of which are illustrated on p.37).

Breeding Worth By Age
Graph: Helps identify the BW
distribution of each year group.
This provides insight on how
breeding and culling decisions
have impacted the herd. The
function is customised to
allow for easy viewing of age
groups (ie. by clicking on
different colours).

BW By Year-Born Graph: Shows how the herd has tracked nationally over time, allowing the farmer to see where they sit compared to the national average and the top five percent.

Production Worth vs. Holstein-Friesian Breed 16th: Allows farmers to track how differing Friesian breed combinations perform on their farm, using PW and the breed profile of the herd. This tool can be used to monitor which Friesian-breed 16th combination is potentially more suited to a specified farming operation.

Herd Age Structure: This highlights the efficiency of the herd. Knowing the herd's age structure helps farmers monitor culling and rearing decisions.

