

Working to **secure your future**

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# Crossbred calves... what is their future?

As the spotlight moves to beef calves from the dairy industry, and their future in the years ahead, Gwyn Jones, a member of the Defra Health and Welfare Board (with responsibility for cattle) tells GrassRoots why only calves that have a proper start in life have a value.

A photograph of three brown and white crossbred calves standing in a lush green field. The calves are looking towards the camera. In the background, there are rolling green hills, a few trees, and a small building under a cloudy sky.

“The first priority is to establish markets for the finished cattle, ensuring that there’s a margin for both rearer and finisher.”



Following the historic agreement with the dairy industry that all dairy calves will be reared with care by 2023, there's a great deal to do.

Arla has made a brave decision to take a lead, asking all its farmers to rear their calves or make sure – if sold – that they'll be reared for the first eight weeks of their lives. However, the Red Tractor consultation also shows the direction of travel: this is no longer a challenge that can be ignored.

Dairy farms supply half the beef in this country, and it's potentially the most competitive beef we produce. We're not self-sufficient in our beef production, and we should be in a strong position to displace imported beef with home grown. The extra dairy calves to be reared are not a large number and should be easily incorporated in our beef processing up and down the country providing the will is there to make this succeed.

### From a welfare perspective there are two main issues.

The first is that whilst on-farm euthanasia is not a welfare issue if carried out properly, public perception, the reputation of the dairy industry, and the sheer waste and premise that dairy bred bull calves are in some way a 'by-product' means we cannot escape the ethical ramifications of such a stance.

The second is how these dairy-bred calves are treated if euthanasia is not an option. I like to think and am also confident that in the vast majority of cases, dairy farmers care for all the stock on their farms and do their best for them at all times, regardless. However, there are concerns that these calves might not be looked after properly on some farms, and proper organisation which will establish a market value is needed.

The first priority is to establish markets for the finished cattle, ensuring that there's a margin for both rearer and finisher. We really should be displacing imports in favour of our own beef produced to high standards, and post-Brexit, our own four governments should be championing British beef and buying it for our schools, hospitals, armed forces and prisons. Political pressure will be needed to make this happen, especially on those who supply our institutions with imported food 'not produced to our standards'.

Logistics are the next issue. Dairy calves should ideally be reared close to the dairy farms where they're born. Young calves are vulnerable and need a good start in life with plenty of quality colostrum within the right timeframe after birth. The difference this makes is astonishing, but on many dairy farms this simple but vital detail is not being carried out correctly. This is often due to labour constraints, block calving leading to very many calves

being born every day, no dedicated calf rearing person, calving facilities which do not easily facilitate proper care, or in a minority of cases, lack of stockman-ship skills and care.

This point is critical. Only calves which have had a proper start in life have a market value. Dairy bull calves should receive the same treatment and care as the dairy heifer calves and the higher value beef-cross calves, and any discrimination or lack of care due to lower value is not acceptable. The dairy industry has its critics and if we call dairy bull calves 'surplus' or 'by-products', or if we do not afford them the same care as any other calf, then we're letting down our industry and handing them a very big stick.



We know from farm data that total calf sales on a good farm could add as much as 2p per litre to the bottom line. It makes no sense that a calf born on a dairy farm has no purpose in the food chain when we know the markets are there for well reared calves and this is extra money for the dairy farmer.

Sexed semen is part of the solution, as is longer-lasting cows, with both reducing the number of dairy bred bull calves born on farm. The public strongly supports the concept of dairy cows having longer lives, providing everything else is carried out to the required standard.

Questions have also been raised about the crossbred dairy cow – that the calves are smaller or poor conformation. Whilst the cross-bred cow often provides the extra lactation, I would respond by asking if these smaller calves are all bad. What margin can be made rearing them? These are the challenge for our block spring calving farmers and solutions need to be found urgently. Is there a

market for these smaller animals once they're finished? LIC is part of the solution here – let's work together and make sure that market needs can be met.

All dairy processors need to get a grip of this and take responsibility for their supply chain. Retail, food supply and catering companies will also be under pressure to offer proper safeguards as all governments in this post-Brexit world are now asking for, and are determined to deliver higher welfare on our farms. In many cases this is happening, but there is work to be done in order to bring everyone up to the same level, as evidenced by the latest work being done by Red Tractor.

We live in a world where customer demands are high, but the price must be competitive. We're likely to be poorer as a nation following both COVID-19 and Brexit, and this means that price to most customers will be as important as quality. Governments are keen that food prices in the shops do not go up, and if we want to persuade them not to import cheaper food, then we must give them good reason to buy our high welfare food instead. These are tough times, and dairy farming faces many challenges as direct payments are reduced, our markets become more competitive, and our critics ramp up their vegan and anti-dairy messages.

**The only answer is for everyone to farm to the highest welfare standards, make the margins work for us, and not leave any doors open which allow our critics - and in turn the general public - to turn their backs on us. This issue really is that important.**

# Get more out of your herd through weighing

Pasture to Profit consultant Sean Chubb explains why weighing is so important.



“I’m often asked where the value in weighing stock is - or I’m told that farmers don’t need to weigh stock because they have a good eye for this sort of thing and would be able to tell if their calves were not performing as expected, writes Pasture to Profit consultant Sean Chubb.

My response and belief remains the same, it doesn’t matter whether you’re running a dairy farm, a calf rearing operation, or running sheep and beef. The information you gain from weighing will have a positive effect on your business profitability.

With age of puberty and longevity within the herd linked to the liveweight of heifers, it’s for this reason that as an industry we’ve set liveweight targets throughout the rearing process. Through a regular weighing programme, you’re giving each dairy replacement the best chance of joining the herd and having a long production life, maximising your profit from her.

Now I know many of you reading this will be questioning the need for weighing your heifers given their performance, to which my response is, what’s the added value from catching heifers dropping to the bottom of the group or picking up on health issues earlier? This is what weighing will add for you. If you’re

transitioning systems, or changing the size of your cows, then weighing your heifers is the only way to know whether you’re feeding them correctly, as you’re likely to have a wide range of heifer sizes.

To drive the profitability of your herd forward, it’s essential to have efficient cows. In a grazing system, efficiency is linked to liveweight given the limited amount of dry matter that can be obtained out of grazed grass. It’s for this reason that farms with different contours, walking lengths and feeding plans will have different optimum liveweight levels.

When you’re not weighing your cows how do you know you’re picking the correct bulls for your farm and system? Through combining the cows’ weights with her production information you’ll be able to identify the average size of cows that make up the top 25% of your herd. By targeting your breeding to try and replicate these cows, and continual monitoring, you’ll be able to find the ideal cow size for your farm.

With the increased use of sexed semen and beef semen off the back of that, what can you do to maintain profitability from the sale of dairy beef animals through this increase in supply?

Information could be your answer. Could you gain more interest in your stock if you

could provide liveweight gains? Buyers are wanting animals that will grow to a desired size and as quickly as possible, so put yourself in their shoes. If you had the option of two different sources of calves - one had information on liveweight gains and the other did not - which are you more likely to go for?

Could you achieve a higher price across the entire range of your calves through grouping the calves, so each group has the same liveweight gains? When you’re taking your dairy beef through to finishing, weighing could see you achieve a higher price and when you know the range of growth rates you can work out whether it’s worth continuing to carry certain beef animals if the price is dropping.

For example: if the liveweight gain is 0.90Kg per day and the price per kg is dropping by £0.05 a month then the animal is still growing in value, but if the drop in price is £0.07 then you’re not and you’ll be better off selling it earlier.



**To discuss your weighing and rearing options with Pasture to Profit consultant Sean Chubb pick up the phone and call him on 07833 228501 or drop him an email on [schubb@liceurope.com](mailto:schubb@liceurope.com).**



# Teamwork makes the dream work

**Weighing cows is simple and certainly, when combined with LIC's herd improvement tool, the best way to boost the quality of your dairy cows. David Williams, his wife Carol, Carol's sister Sue and their daughter Vicky make up the team running a 300 head herd in Mold and believe the quickest way to increase the efficiency of their animals is by following this trusted route.**

The Friesian and Jersey crossbred cows at Clawdd Offa Farm are a predominantly young herd, milked once a day, on a 80ha grazing platform with a 40ha support block a couple of miles away used for rearing the youngstock and cutting silage.

"We started weighing our calves over 15 years ago," explains David. "We wanted to monitor progress, and any that didn't thrive we would cull. They were weighed every five weeks, as well as at birth and weaning."

The business has invested in a Gallagher weigh platform, and now sets up a race beside the parlour so, as each cow has finished milking, she walks down the race and over the platform, under a crush, before walking on out to graze. "It couldn't be an easier operation, it probably takes around 30 seconds a head."

The farm runs a range of crossbreds from pure Friesian to pure Jersey and wanted to be able to accurately compare the performance of all, pitching production against weight.

"You must milk record, that's the starting point," he says. "We've used NMR for more than 10 years, and you soon start to see patterns emerging. We put a Jersey bull on the cows producing lower milk solids and vice versa."

The herd improvement tool, which adds weights to the milk solids and yield information, allows for a league table of cows to be prepared, with the most efficient at the top, and least efficient at the bottom.

Sometimes there are some surprises, and one recording, from the weighing completed in late November, saw one cow that had been ranked 77th move up to 13th once her weight was added.

Average milk solids for the herd are 406kgs with an average yield of 4462kgs. With average liveweight at 527kgs, the cows were delivering an overall performance of 77%. The top 25%

were giving 514kgs/MS and the bottom 285kgs/MS, a difference of 229kgs, something that should improve as the cows mature and poor performers are removed.

While the average liveweight is 527kgs, David would like the herd to be closer to 500kgs, with his first lactation heifers achieving this and averaging between 470 and 490kgs. "They were slightly heavier than we expected, but there are some purebred Friesians in there that would move the average up."

He says that just looking at one aspect of performance can lead you to make some poor decisions. "You have to look at everything in the round. This tool is another step up from milk recording, and the quickest way for me to boost efficiency is to take out the bottom 5% every year."

While he sees milk solids as a key selection driver, he also looks at udder type and TOP traits, if the team aren't keen on a particular cow it will be culled.

"We're hoping for more rapid progress now we are using the tool," he says. "Our second calvers did 107% of the herd average this time, so we are definitely heading in the right direction. When we get to a position where we have a surplus of AI bred heifers we can start to look at the efficiency of the dams."



David

# Day in the Life of.... Emyr Brown

**Admitting he's a bit of a workaholic, FSM Emyr Brown never seems to stop. When he isn't on the road calling on his customers, he's helping his son with his share farming enterprise, or doing some relief milking to keep his hand in.**

"Farming's in my blood," he says. "I've been working with cows since before I was 10, when I used to help with the teat dipping and spraying on my grandmother's farm. Once I'd been around cows, I made up my mind that was how I wanted to spend my life."

Working on local farms in school holidays through his teens, Emyr went to college at Gelli Aur where, because he came from a non-farming background, he studied two courses, one on practical farming and the other a national certificate in agriculture.

He went back to work on a farm where he'd helped as a boy, in his home village of Llangrannog in West Wales, a dairy unit with mostly Friesian cows moving towards introducing Holsteins. Leaving there when the farmer retired, he had a spell working with dairy and beef until he took the plunge and applied for, and got, a county council tenancy near Welshpool.

"I had just 14 acres when I started, so couldn't do dairy," he says. "Instead, I had some beef, sheep and pigs. But I was also working full time, milking 200 cows a bit up the road."

After 10 years there, he applied for another council smallholding, this time with 60 acres, and started milking 50 Friesian-type and Ayrshire cows. He was there for four years, until in 1996 he got the chance to take on a National Trust tenancy just half a mile from his home village. It had limited milk quota but, with a café, access to the beach and some static caravans, gave him the chance to get involved in tourism as well as farming.

Keeping the farm, where he started to contract rear heifers, he decided to join Bibby as a feed rep in 2004 and spent nine years building relationships with farmers across the country, joining LIC in 2013.

"My portfolio was built on relationships," he says. "A lot of people think every farm is the same, but each is different. I'm interested in helping businesses be sustainable, and probably my biggest asset is that I listen. My customers love talking about their farms, and my strength is building relationships with them and helping where I can."

Breeding has always interested Emyr, as has grass-based farming, even when



he was working with Bibby. His son went to work on a large dairy farm in New Zealand, and they spent lots of time talking about the benefits together and applying them to farms in Wales.

His customers vary a lot in size, from 80 cow to 1500 cow units, and he's seeing a growing number looking to utilise grass better and move away from the bigger, yield-orientated Holsteins to the more efficient smaller NZ Friesian.

"I've been involved in some start-ups, right from the beginning, and that's been particularly interesting. I'm also involved with LIC's monitor farm, Walford College, where they're gradually moving from Holsteins to a crossbred herd."

One of his highlights is attending shows. He really missed the Royal Welsh last year – a county show that attracts over 250,000 people throughout its four days – and cancelled in 2020 due to Covid.

"I've been missing that contact with the industry," he says. "I'm just hoping things will improve in 2021 and we can begin to get back to normal."

In a usual day he would go to a specific area, do a delivery or two, and then do some cold calling on other farms close to his customers. "This hasn't been





possible lately," he says, "and I think both farmers and the LIC team are missing that contact."

His area covers about two-thirds of Wales, parts of Shropshire and parts of Hereford. "I'm out most days and deliver all of my 20,000 straws personally."

While the job has changed in the past 12 months, he says he's always amazed at how happy a farmer is to hear from him... even if it's just for a chat on the phone.

One of his long-time ambitions happened just before lockdown in February last year, when he had the chance to visit New Zealand with some of the LIC team.

"It was the first time I'd been and it was a fantastic trip," he says. "There's so much to learn. What I loved was their simplistic approach and the amount of information they made use of through MINDA. Nearly every herd is milk recording and using more automation than we do here. We still have such a long way to go."

Emyr spent four days on farm with a group from Australia, and four days at LIC headquarters in Hamilton, before hiring a car and touring around the North Island.

"The biggest thing is their simple system, attention to detail and profit – and I want some of that," he says.

Looking ahead he says he'd love an opportunity to see other parts of the world and travel more, looking at different farming systems across the world.

What does Emyr do in any spare time he manages to find?

"I enjoy walking, the coastal path is near us here, and watching rugby. I used to play in my younger days. I haven't been to a live match lately, it's always very difficult to get tickets, but maybe I'll get a chance to watch Wales later this year."

Finally, he talks about the future for young people keen to get into farming.

**"I went into farming under quota. I really feel there's more opportunity today... share farming and contract farming both offer young people a chance. I do all I can to encourage people to work in this industry. It's the best."**



**Above:** Christine & Richard Lansdaal who have a 330-head jersey herd, buying only on high BW. All are above 200BW, rearing all bull calves and selling as bulls once a year

**Below:** Larry and Raelene use Jersey or Friesian bulls, keeping cows that are F8/J8. No crossbred bulls are used.





# Breeding for fertility in the modern dairy cow

By Joyce Voogt, LIC Technical Manager

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

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

For detailed information on genetic fertility, refer to page 39 of the InCalf book for New Zealand Dairy Farmers.

The principles apply everywhere, including Ireland and the UK, so let's take a look at what's been happening of late in New Zealand with:

- DairyNZ fertility research,
- Performance of cows by fertility BV in commercial herds, and
- The latest national reproduction statistics

## Fertility Research Update:

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

- Large differences in 3-week submission rate, 6 week in-calf rate and not in-calf rate in the purpose-bred research animals made up of two extreme fertility BVs groups (BV +5 and -5).
- Discernible differences were seen between the two groups as yearling heifers. High fertility BV heifers achieved puberty earlier and at a lower percentage of their own expected mature liveweight.
- Modelling research also suggested that genetic fertility delivers more benefit in lower-performing herd environments.
- To find ways of identifying high genetic fertility animals earlier in life, new candidate predictor traits are being investigated.

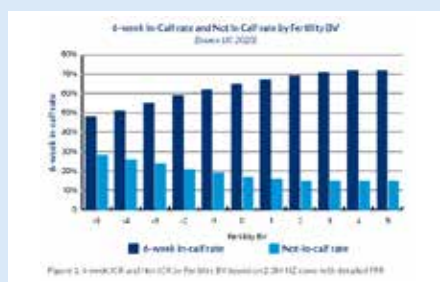
## On-farm cow performance by Fertility BV

At an individual cow BV level, figures from over 2.3 million cows with early aged pregnancy testing results support the research herd findings.

Figure 1 shows a significant difference in performance at the extremes of cow fertility; BVs of +5 and -5. It appears from this dataset that the relationship is not linear. Gains in 6 week in-calf rate appear to taper off as BVs increase, particularly at BV +3 and beyond.

It is important to keep things in context as well. Few cows have extreme +/-5 BVs in the NZ national herd, as illustrated in Figure 2 which plots the Fertility BV distribution of the 2.38 M cows analysed.

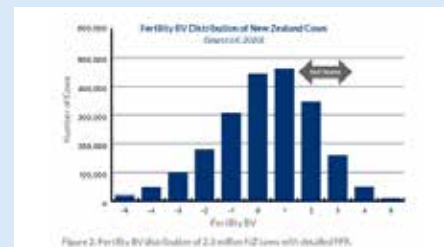
The majority of cow Fertility BVs sit between -1 and +2. The figure also shows the average fertility BVs of balanced index LIC bull teams marketed in the same year. This illustrates, at a national level, the potential scope for improvement of cow genetic fertility while keeping focus on other important traits. The scope within individual herds will depend on the herd's own spread of BVs. While creating and maintaining a high herd level of genetic fertility is important, the impacts of increasing BV may eventually taper off.



Farmers with high fertility herds may wish to set minimum thresholds for bull teams or to focus effort on their lowest fertility BV cows. Of the things you can influence on farm, picking the right straw is the easiest to implement.

When selecting genetics for UK & Ireland from elite daughter-proven New Zealand bulls, LIC Ireland focuses on breeding

values for important traits including fertility. Use LIC's elite bulls to underpin your herd reproductive performance as you implement the other 7 key management areas; calf and heifer management, calving pattern, body condition and nutrition, heat detection, AI practices, cow health and stock bull management.



## Latest NZ national stats set new records

Latest industry stats from NZ show genetic fertility and phenotypic reproductive performance are trending positively in the national herd. Fertility Focus report-based statistics are setting a few new records since monitoring started 10 years ago. By breed, genetic daughter fertility BV remains high for Jerseys and it is pleasing to see both HF and F X J cows now closing the gap as high fertility BV bull teams make an impact. (see figure 3) On the phenotypic side, the national 6 week in-calf rate hit another high point in 2019 at 67.8% 6 week in-calf rate. This increase followed on from gains in the previous 2 seasons. Average total joining length has now reduced to 10.7 weeks, the shortest on record. These latest season's repro results are based on 2,377,370 cow records in 4430 seasonal calving herds throughout New Zealand with a detailed Fertility Focus Report in LIC's MINDA™ herd recording software.



**Your LIC sales team can advise on the bulls available and their fertility BVs - contact your LIC rep today.**





## Dairy cow body condition – is your ‘eye’ometer calibrated?

There’s a lot to manage in modern dairy farming. With farmers being pulled in so many directions sometimes it’s the simple things that can be overlooked. And I believe body condition scoring is one of these.

“ Dairy cow body condition is fundamental to herd health, which in turn results in productivity, fertility, longevity, and ultimately profitability. If we get body condition right, many other challenges can be avoided or limited.

First it’s important that all dairy farmers have some understanding around body condition score (BCS) and what this should look like for their herd. The most well-known condition scoring system in the UK was developed in the USA based on a Holstein cow and assesses four key areas of her body.

With modern dairy cows coming in all shapes and sizes this system may not be the best fit for your herd, so upskilling on an across-breeds system of condition scoring may be more applicable. These assess more areas of a cow’s body, as different breeds carry fat in different places.

Secondly, it’s important to understand the acceptable levels of body condition for the different stages of lactation. All stock loses body condition after giving birth as they mobilise their own body fat for energy to lactate. Dairy cows have been genetically bred to over-emphasise this milk response and lose a significant amount of weight post-calving.

We cannot stop this happening as it’s governed by genetics. What we can do, however, is ensure weight loss post-calving is within the realms of ‘normal’ (that which is genetically programmed). For example, using the New Zealand across-breed BCS system, on average a herd (or cow) should lose no more than 1.0 BCS post-calving.

Provided she calved at the correct BCS, this leaves her with enough body condition to resume cycling and get back in-calf in the optimal time period. Identifying if your cows are losing too much body condition, and finding the cause of this, will do a lot to improve subsequent challenges (including the cost of the extra energy she will need to regain condition: energy that won’t go into milk production)

All herds have some skinny cows and some fat cows, again genetics has a role to play. But this only goes so far. Knowing



Photo one

the percentage of your herd that is outside the target range for their stage of lactation can help pinpoint a link for multiple problems.

For example, if more than 15% of your herd is too fat when they calve, there’s something wrong with the management of these animals in the months preceding calving that needs to be addressed, both from a cow welfare and an economic perspective. On farm this ‘over-conditioning’ is often seen in other ways, for example difficult calvings, high proportion of milk fever, ketosis or retained cleansings; even excessive post-calving weight loss – all exacerbated by excessive BCS at calving.

If there’s a best time to target getting BCS right, it’s at calving. This will set cows up for the greatest chance of a productive lactation and getting back in-calf regularly. This means a real focus in late lactation when you can most economically influence cow BCS.

It can be difficult to see subtle changes in BCS over time when you work with stock on a daily basis, so using someone independent to assess your herd’s BCS at key times will result in an unbiased, more accurate view. We all like to think it’s not a problem, that we ‘know our stock’ but sometimes we all need to recalibrate what a healthy dairy cow should look like.

To upskill yourself, or your staff, on BCS or if you think BCS may be linked to issues you’re experiencing, get in touch with Bess, one of our P2P consultants, for a no obligation chat. Bess can also come out and do the BCS scoring for you. You can email her on [bjowsey@liceurope.com](mailto:bjowsey@liceurope.com) or call her on **07717 732324**. We have consultants nationwide to BCS your herd or provide upskilling if Bess doesn’t work in your area.

### Examples of body condition scores

Photo one is in the 4.4-4.5 range and photo two 4.5-4.7. In both photos the backbone is nice and flat but some ridges are visible, they have nice cover over short rib and long but are scoloped in hind leg and dip in the rump.



Photo two





## Crossbred calves do the business

**"Dairy-bred beef calves are performing just as well as my Angus, Hereford, and British Blue calves," says Cheshire beef producer Graham Parks, who rears around 250 steers a year near Macclesfield in Cheshire.**



"I'd urge farmers not to be concerned about how these calves – some of which have over 50% Jersey blood – are going to finish," he says. "Admittedly I selected the bigger calves, but they've surprised me and done everything I would expect from a growth and performance perspective."

Graham says the rearing system is key, and uses as much grass, grazed on a rotational system, as possible in their ration.

He farms a total of 288 acres, all grass, some tenanted and some owned. He moved to the farm four years ago, leaving a council smallholding behind, and says farming was always in his blood, with both his grandparents and both his uncles rearing stock before him.

"I buy all my calves from one source, a farmer who uses KiwiCross™ bulls and other bulls on his dairy cows as he's aiming for high milk solids to turn milk into ice cream," he says. "He's spring calving, and I pick them up weekly in lots of 30 to 40 calves from March 1 through to the end of April. All the calves are fed on a 50-teat milk buggy.



When the calves arrive they're put on milk replacer twice a day for the first four weeks. Then for two weeks they're on replacer once a day and fed adlib calf pellets with Deccox. By the end of six weeks they're all weaned and kept inside for a further two weeks before going out to grass.

"They're bedded on straw and I use large straw bales to divide the pens, that way they always have something to pick at," he says. Once outdoors they move into his rotational grazing system and are fed a beef nut at the rate of 1kg/head.

"The dairy bred calves didn't stand out as being any different," he says. "On arrival their weights varied between 37kgs and 45kgs averaging around 40kgs. The others weighed between 33kgs and 52kgs, some were lighter and some heavier, but overall they were a pretty even bunch."

They were weighed again after they'd been on the farm for a month, and the average weight gain was 20kgs across the groups, with no significant difference between the breeds. By the time of weaning they'd put on a further 10kgs, and another 12kgs in the two weeks prior to turnout giving a total weight gain of 40+ kgs over the eight weeks before turnout.

"Again, at 12 months there was no difference, but at 18 months I believe they were a bit bigger and heavier. They had bigger frames, and were a bit leggier and taller."

These dairy bred calves were bought in the spring of 2019, so will either sell as stores this coming May, or Graham will take them to finishing from July onwards.

He aims for a store weight of between 450kgs and 500kgs, and a finished weight of an average 600kgs.

All the calves are grazed from late May/early June through to late October, with the biggest one third of the beasts staying out over the winter irrespective of breed, outwintered on grass and silage with 1.5kgs/head beef nuts.

"I believe the dairy bred calves have done just as well as any of the other breeds and yes, I would buy them again," he says. "When they're cheaper than other calves they'll allow us to make better profits."

Although slaughter weights and carcass classification have still to be confirmed, he's aiming for around 600kgs with a classification of O+3 or O+4L. Some will be a mid O.



"I see a big benefit in getting all my calves from one farm, from a disease perspective. I only lost one calf last year, consistently my mortality is below 2%, and this spring it'll be the 5th time I've bought from the same source."

Pasture to Profit consultant Sean Chubb has been monitoring the results and says he's 'delighted' to see how well these steers have done in a rotational grazing system.

**"Graham has done a great job producing these calves, and has shown there is profit to be gained. With more farmers looking to use KiwiCross™ bulls to improve milk solids and fertility, this is very good news for dairy farmers looking for markets. I'd encourage more beef producers to look at this option and source these calves for themselves."**





# Sexed semen - mate the right cow to the right bull at the right time

Mark Ryder and Joyce Voogt



As a push towards increased use of sexed semen in the dairy herd builds momentum, there is much discussion over what product will deliver the greatest benefit on farm. At LIC we have plenty of experience with the various semen options - fresh and frozen, sexed and conventional, and the many considerations for their use in breeding programmes.

These considerations actually boil down to a fairly simple concept - **breeding heifers that will suit your farm system by mating the right cow to the right bull at the right time.**

When buying a straw of semen, remember you are doing more than just

getting a cow in-calf, you are buying a heifer to milk in 3 years' time.

Hence the appeal of sexed semen - you can mate your ideal bull to the best cows, with a 90% chance that the calf will be a heifer. By selecting bulls who carry the genetic traits you need and cows who perform well in the herd, you can produce a heifer that genuinely suits your farm system.

Let's drill down a bit more.

**The right bull** - LIC has the cream of New Zealand pasture-based genetics at our fingertips. Many of these bulls are now available in the UK in a frozen sexed product. They will deliver the sort of heifer you know will suit your system when she hits the herd in 3 years. UK farmers can use our frozen sexed semen throughout the breeding season to suit their individual plan. Fresh sexed semen, unfortunately, will be an immediate compromise simply because it won't be from LIC's elite bulls, since they live over 11 thousand miles away!

Frozen sexed semen allows you to select and use a variety of bulls with the traits you require. Fresh sexed semen, on the other hand, has a limited shelf life and is restricted to the bulls collected and processed on the day of dispatch.

**The right cow** - You'll want that top heifer to come from a top cow, not



Mark Ryder

just whoever happens to be cycling on the day. With frozen semen, you have the choice to use a sexed straw or a conventional straw depending on the cows that present for mating each day. Best practice recommendations are to pre-select cows and breed those with the highest fertility rating to sexed semen. If she's of lower fertility status (e.g. a first heat or an older cow) it may be prudent to use a conventional straw. If she's from the lower end of the herd for production, a beef straw may be the better option for her.

**The right time** - Timing is important. Frozen sexed semen allows you to follow a specific mating plan,





mating the right cow to the right bull at the right time. If insufficient pre-selected cows are bulling on the day, unlike fresh sexed semen, you are not obliged to use the frozen sexed straw.

And if that top cow is bulling slightly ahead of AI start date, you can use a frozen sexed straw, get a heifer calf and gain some extra days in milk. Likewise, well-grown yearling heifers can be inseminated with sexed semen 2-3 weeks ahead of the herd mating start date, and their returns will still fall in the first round of breeding.

## What about conception rates?

Maintaining a compact calving is important in seasonal farming systems. Results of trials comparing sexed and conventional semen performance in pasture based herds show sexed semen has, on average, a lower relative conception rate and that results can

be more variable than conventional semen<sup>1,2</sup>. Not all sexed semen products and farm situations are identical. While a New Zealand trial<sup>3</sup> using LIC fresh sexed semen showed a relative conception rate of close to 95% compared to LIC fresh conventional product, farmers should be aware that this is not necessarily the case with other products or in other environments, as demonstrated in a recent Irish trial<sup>1</sup>. Production processes vary between companies, so farmers should seek information from suppliers on controlled trials relevant to their product before purchasing.

## Getting the best possible results with sexed semen

Some very good advice in the industry has been assisting farmers to get the most from their investment in frozen sexed semen to date. This advice includes cow pre-selection – i.e. using the straw in the cow that is most likely

to conceive – (cows calved >50 days<sup>2</sup>, displaying a 2nd or 3rd strong heat since calving, younger cows, in good body condition and in excellent health), and following the product guidelines for semen handling and insemination.

We have seen farmers who follow these steps achieve better results than those achieved in blind trials where no pre-selection was exerted on the cows, and is exactly as you would expect. Variation exists however. Research suggests sexed semen is more affected by herd, cow, bull and technician factors than conventional semen and that more research is required to reduce herd to herd variation on performance<sup>2,4</sup>.

Good management practices and processes on farm will provide the best outcomes regardless of semen type.

**Talk to your LIC representative to help you develop the best breeding plan to meet your goals.**



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# Beefed up for dairy

By Charlotte Gray

**In what is a significant shift forward in the animal welfare space, dairy farmers are more focused than ever on minimising the number of, and getting the most value-add return from their surplus calves.**



“ This has coincided with a more targeted approach to artificial insemination with farmers being far more selective about which cows they're choosing to mate to elite dairy bulls.

After all, when the average difference in milk production between the top and bottom quarters of the herd is about NZ\$960(€550) per cow\*, some serious questions hang over any decision to retain replacements from the herd's bottom end.

So when she's not going to produce a heifer replacement worth keeping, a reduction in surplus calves can be achieved, or the value from these surplus calves can be maximised, progressive farmers are thinking beef.

The ideal synergy is to increase the value of the calves born which must be profitable and saleable - with minimal risk to the cow.

First and foremost a dairy farmer's prosperity comes from milk income, but LIC believes beef sales worldwide are set to increase significantly over the next decade, and with many farmers sharing this view, it's a natural progression for LIC to complement its strong dairy offering by providing quality beef options.

LIC has aligned itself with trait and breed leaders in New Zealand's beef space to ensure that the beef genetics offered will tick the boxes for both dairy and beef farmers.

LIC's beef offering delivers value-add in several forms, be it short gestation length, polled, marbling, rapid growth to weaning or slaughter, or extremely feed efficient genetics.

LIC is proud to say it now offers its widest-ever variety of beef options,

providing all types of dairy farmers the opportunity to diversify their revenue streams by taking a more targeted approach at mating time.

**High growth, feed efficient Profit Maker™ composites, well-marbled Wagyu, and short gestation Angus are just a few of the breeds that are sharing the limelight with the traditional Hereford.**

LIC's short gestation Hereford product is the highest-use beef product in New Zealand. Ranked on gestation length, a massive 75% of the 75 shortest gestation Hereford bulls in New Zealand were bred by Shrimpton's Hill - LIC's exclusive supplier and partnership for short gestation Hereford genetics. Having sold in excess of one million short gestation Hereford straws into the industry, Shrimpton's Hill are renowned as short gestation specialists, and continue to provide low birthweight, easier-calving genetics tailored specifically to the dairy farmer.

LIC's relationship with Rissington Cattle Company is yielding its own efficiencies. A tale of three brothers - these astute farmers recognised the importance of measurable feed efficiency across breeds, and through accurate feed intake recording, have bred bulls that eat significantly less feed whilst still achieving exceptional gains. Feed grown or imported into the system is one of the biggest limiting factors to production in both dairy and beef. With Rissington able to demonstrate that two yearling bulls of the same liveweight and age grow at the same rate per day, yet one eats less than half the amount of dry matter compared to the other, why wouldn't you utilise the most feed efficient of the two.

Rissington's feed efficient short gestation Angus, Simmental, and Profit Maker™ - a composite made up mostly of Angus and Simmental genetics - are sharing the limelight now with the traditional and trusted Hereford product.

Understanding the differences between the breeds and bulls within breed is key, and farmer selection of beef genetics should always come back to the desired outcome.

Dairy farmers know more than anyone that bulls of one breed are not the same, and the same goes for beef. That Angus bull down the lane may look the part, but will he deliver on your non-negotiable traits.

Rissington's bulls are compared on a global database that contains over 1,000,000 animal records, so you can have confidence in their genetics, and some of Shrimpton's Hill Hereford bulls have in excess of 50,000 dairy-born progeny in New Zealand, testament to their calving ease.

Some breeds and bulls may suit one farm system better than others. Factors such as herd size, cow breed, staff, and the ability to take the beef-cross calves through to processing, or at what age the farm might opt to sell instead, will all have a bearing on the farmers decision.

**To discuss what might best suit your farm, call your LIC representative.**

\* In 2017 LIC researched millions of milk recording results, taking out 2 & 3-year-old cow information (these animals were deemed not to have reached mature production), as well as 9+ year-old cow information: Information among all 4- to 8-year-old cows was split into quarters. Results showed the variation between the 'top-quartile' and 'bottom-quartile' of the production engine room, 4 to 8 year-olds, was a staggering difference of 160kgs/MS (on average).



# Are you utilising your grass to its full potential?

Ireland has come a long way with its grassland management. The focus is now all about turning grass into milk. We often use lines like 'making a profit from turning the green stuff into the white stuff'. But there is more to getting good utilisation than getting low residuals at every grazing. What about improving grass utilisation after it enters the cow's mouth?

What percentage of your grass goes towards milk production and how much goes towards maintenance. Depending on the cow, there can be, more than a 20% variation on her maintenance requirement with the cow's liveweight playing a large role in this. This 'wastage' of feed that could otherwise be used for production happens more often than we might realise. Here is a real life example -

Table A comes from a farm in Co. Tipperary and shows Cow A producing 577kg/MS and Cow B producing 493kg/MS. Cow A has been doing a great job of turning grass into as much milk as possible. In fact, Cow A has produced 19kgs/MS more per tonne of dry matter of pasture eaten<sup>1</sup> than Cow B, resulting in €360 more profit. Her efficiency, as



measured by milk solids production per kilogram of liveweight, is impressive too, at 1.3kg/MS/kg/Lwt. Cow B is only achieving 0.8kg/MS/kg/Lwt.

Components and volume aside, liveweight costs alone likely explain a significant part of the difference. Cow B weighs in at 640kg, 200 kg heavier than Cow A, who weighs 439kg.

Cow B has roughly a 25% greater liveweight maintenance and pregnancy requirement than Cow A. She requires 635kg/DM, or over 10% more feed (at 11MJ/ME/kgDM), than Cow A each year that is not going into milk. It's enough to produce the 80kgs/MS extra that Cow A has achieved.<sup>2</sup> Extrapolate the

revenue difference out to a 100-cow herd and at €4.40/kgs/MS it would mean an estimated €36,000 extra in the milk cheque.

Cow A has good genetics behind her and more importantly, the data shows she is the right type of cow for a grass-based system. A robust, smaller cow with higher milk components percentage, who really will turn pasture into profit; a cow that generates €360 more revenue while saving €60 on feed costs.

It is important to note that this extra income is achieved without increasing your stocking rate, changing your management style or any kind of extra spending. It is achieved by changing your AI straw to a sire that is going to give you the right cow who is suited to getting the most efficient production from pasture; cows that can graze all the pasture while diverting less into growth, pregnancy and maintenance and more into milk production.

This Tipperary farmer knows Cow A is right for his farm and has focused his goals towards breeding this type of cow. If you want to turn grass into profit, allocating as much grass as possible towards milk production instead of maintenance needs to be priority.

1. At 11 MJ/ME/kg/DM

2. Energy requirements based in Facts & Figures for NZ Dairy Farmers (2017) DairyNZ



Table A	Cow ID	Milkfat	Protein	Volume	Liveweight	Kgs/MS/cow	Efficiency (Kgs MS/kgs/lwt)	Revenue/cow (€)	Intake/cow (tonnes/DM)	Efficiency (KgMS/DM eaten)	Milk revenue/t DM eaten (€)
	A	335	242	6052	440	577	1.3	2550	5.4	107	473
	B	279	218	5860	640	493	0.8	2190	5.6	88	388
	Difference	56	24	192	-200	64	0.5	360	-0.2	19	85

# 25 years ago

This is a special celebratory year for LIC here as it was exactly 25 years ago, on May 30 1996, that the company started working in England, Scotland and Wales.

We've been supplying fresh ideas for a quarter of a century, helping farmers with their grassland management and with the genetic improvement of their dairy cows.

We're busy planning some special events for the year, Covid-19 restrictions permitting. As you will all be aware, it's pretty hard to plan anything at this moment in time.

Keep your eyes on our Facebook page and the future issues of GrassRoots, catch up with our hopes for a charity ball in the autumn, coupled to an auction, raffle and farm visits, plus take part in our plans to celebrate farming memories from our customers with a call for some photographs and words about their special moments that we can share with you all.

Watch this space as we plan some very special 'silver' activities.



## We are delighted to welcome Lewis Cook to the LIC team as the Farm Solutions Manager for Devon and Cornwall.

He's been in agriculture all his life, and feels this is where he belongs as he's extremely passionate and interested in farming. In his new role, he'll be combining all of his experience from previous jobs.

Working on a EU stud for the past seven years, he's been working closely with some of the very best bulls and farmers. He's gained valuable experience throughout this time, and is now ready to further his knowledge of the AI industry.

He intends to bring farmers a strong strategy to increase their product, and their herd efficiency, with a very high customer service level so he can create lasting and strong relationships with my farmers.

Based in Devon he'll be covering both the SW counties and is looking forward to meeting his customers in the months ahead. If you would like to talk to Lewis, please feel free to pick up the phone and dial 07787 408824.



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