vikingnews

NO 02 / SEPTEMBER 2018

Australians' visit to Sweden and Denmark

RESEARCH **in Australia**

UPDATE Fertility First

Our **farmers** say...

VIKINGGENETICS

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Cover photo
Darren Fletcher and Gus Kirk at the Noltorp farm in Sweden – owners Marianne and Anders Jansson.

Secure your herd
for the future

As a farmer owned cooperative, we see it as our obligation to ensure that farmers using VikingGenetics are prepared for the future. We always strive to understand global trends within dairy farming and do our maximun effort to find solutions to future challenges. No matter if these challenges are driven by government regulations, consumer demand or by an ever increasing pressure on being a competitive and profitable dairy farmer.

With an early introduction of health traits including hoof health, we have given farmers around the world the possibility of avoiding expensive health related costs and to be prepared for increased pressure to reduce the use of antibiotics.

With our decisive investments in our crossbreeding programme ProCROSS, we can now provide the most well documented concept to improve fertility, health AND production.

We continuously strive to innovate and improve our solutions and we are very proud of our latest achievement, discovering the link between methane emissions and genetics. Again, always trying to be a step ahead.

It is never too late to join the VikingGenetics family and secure your herd for the future.

Happy reading!

Thank you for following us!

David Stenkær Ravnkilde,
Head of Business Development,
VikingGenetics

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As winners of the Dairy Farmer of the Year (2016) Leigh "Skeeta" Verhey and Angela Turner in Koondrook, Victoria have achieved a lot of success in their dairy farming business in Australia. To make breeding interesting and ideally suited for a focus farm they now use all three VikingGenetics breeds in the herd.

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Easy calving cows grow profit

Erik Thompson from VikingGenetics Australia has worked with the Lang Farm and their 1800 dairy cows to achieve more profit through easy calvings.

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"We were experiencing fertility challenges and improved fertility was `the carrot´"

Tom and Bev Phelan, in partnership with their son Leo, run Dalmore Dairy in Tasmania. This is Bev's story of their breeding journey searching for the most profitable cow, the one they founded by crossing their Friesian with VikingRed and VikingJersey.

By Bev Phelan 'Dalmore', Dairy Plains, Tasmania.

"Tom, Leo and I began our "Viking" journey in 2006 when we were inspired by Steve Snowdon to consider Three-way cross breeding and using red genetics. Why?

We were experiencing fertility challenges in our mainly Friesian seasonal calving herd. So, improved fertility was the carrot. Hybrid vigor, feed conversion efficiency with similar kg production also appealed.

The breeding strategy has evolved over time. Red / Friesian Cross, Monty Cross and pure Reds have sidetracked me. Now I have settled on the three-way cross using Friesian, Reds and Jersey.

However, given my passion for Reds, I do put some of my best Red Crosses back to Reds. The Three-way cross gives me a cow that suits our system and drives profit – medium frame and benefits of hybrid vigor, particularly in the early years. With cross breeding, the kg/milk solids (ms) per cow may have dropped slightly compared to our straight Friesians, but they do not need as much feed and the "Not in Calf" (NIC) rates are significantly

better. A few years ago, I broke down our 14% NIC rate and found the Friesians contributed 28% and the Red Cross contributed only 5%.

Why VikingGenetics?

In 2006, I was impressed by the quality of the bulls and by Viking's rigorous and reliable testing and recording regimes. 12 years later, I am still impressed by the quality of their bulls and the reliability of their Nordic Total Merit (NTM) scale. As a loyal Aussie, I have also used GA bulls and supported their Red progeny test program over the years. I have also dabbled in LIC, Alta and even Montbeliardes. However, when I compare stats on paper the Viking cows are consistently at the top of the class.

This season the milking herd is 30% by Viking sires. The breed breakdown is 40% Red, 36% Jersey, 22% Friesian and 2% Monties. Our Three-way cross now make up a third of our herd. With the focus on this cross in recent years, I have found Viking bulls from each breed to suit my needs. Backed by their health traits, they are the ideal choice. A healthy cow = a fertile cow = longevity = a cow producing optimal kg/milk solids and profit.

Until 2 years ago, I individually matched each cow with a particular bull. The aim was to correct faults in the cows e.g. frame, high pins, udder, components, etc. Although time-consuming, it has been worthwhile as we now have a more even herd with sound health status and great production. We have also corrected high pins, tall narrow cows, and similar related traits.

Now with over 1000 cows, and for staff well-being at joining, I choose less bulls and have a "Bull of the Day" in each breed, but still match around 60 of my "best Reds" to individual bulls. I also individually match around 20 other cows if a fault needs to be corrected. Involving staff in the process, whether it be bull selection or their feedback on the herd, adds value to the breeding process. Leo and staff have identified the need to prioritize udders in bull selection of late. Interestingly, a couple of bulls that have thrown cows with poor udders weren't Viking bulls.

Cross breeding continues to be a challenge. Some of our cows and heifers are larger than I would like in our herd, but they are performing. Since the majority of crossbreed is based on using the correct bull on the right heifer or cow, there are still some "fine tuning" to do in this area to get the optimal cow size for our herd.

Up to date with the "900's by Viking" (calves born in 2009)

In this family, we are all interested in fertility, health, longevity and production and therefore, I want to share with you where the Viking calves, born in 2009, are today. This is a group of cows we still talk about because they were healthy, robust calves, and good "doers" that grew into heifers that came into the milking herd in excellent condition. They were bred by Peterslund, O Brolin, B Jurist, Krejstad and Torp.

» When I compare stats on paper, the Viking cows are consistently at the top of the class «

Bev Phelan

I have followed this group through the seasons, comparing them to non-Viking sired cows also born in 2009. Their percentages each year, relating to deaths, culls, treatments, fertility and production, have always been significantly better than "the rest".

Looking at these "900's by Viking" in the herd today: 27% are milking i.e. 20 out of the 75 that calved down in 2011. 15 of these are in calf for spring this year, beginning their 7th lactation. They are in-calf to A.I. as for the past two seasons we have not used herd bulls. Herd Testing stats from February 2018: 26L Milk, 3.7% Protein, 5.5% Fat, 158 ICCC. Their fertility and health traits = longevity, with very good kg/ms to validate their place in the herd.

Lessons that we have learnt over the years:

Be generous in your budget for bulls. The majority of bulls I have used over the years have been the top proven bulls. It may seem like a lot of money at the time, but it represents true value for money when you get the results you want. **Focus on your farm system, and develop a herd to optimize the system**.

Consider your cows (on paper and in the paddock) and which bulls they need to improve their progeny and create or maintain a cow and herd for your system.

Learn from others, including your own staff and the A.I. reseller. As a breeding novice, I have found the willingness to share information and knowledge amongst the "Red" and "Cross breed" fraternity an incredible support.

Do your homework. Study your herd/cow records and statistics. It can be boring, and averages can be deceiving, but is an important part of the planning process.

In conclusion, I have no hesitation in recommending Viking bulls to any dairy breeder committed to improving their cows and herd. I have every confidence in their NTM breeding values system. Their staff, particularly Erik Thompson, have been great to deal with and, although Viking is a business, I have found Erik to be honest and willing to share his knowledge, while always working alongside me to achieve our breeding goals. ●

Discovering more about the Vikings'

successful breeding goal

Viking Australia representative Darren Fletcher and Gippsland reseller Gus Kirk from G & S Farm Services travelled to Sweden and Denmark in late June and early July to visit some Scandinavian dairy farms where they got to learn more about the Scandinavian breeding goal.

VikingGenetics Australia representative Darren Fletcher along with Gippsland reseller Gus Kirk from G & S Farm Services undertook a long journey from the land "Down Under" to learn more about the Vikings. The purpose of the visit was to understand, first hand, more about the three breeds of dairy cattle that VikingGenetics have available in Australia: VikingRed, VikingHolstein and VikingJersey, as well as to learn more about the benefits that can be achieved by using the Viking products and solutions.

"It was great to have access to many herds. It gave us the opportunity to see milking cows of all ages, replacement heifers and calves. We didn't just get to see selected daughters from selected sires", Kirk commented. He went on to say that the difference VikingGenetics has with the rest of other companies in Australia is their dedicated focus on the health traits. "Viking has an enormous focus on health traits when it comes to its sires, a focus that seems to produce excellent commercial dairy cattle", he stated.

The purpose of visit was for Darren Fletcher and Gus Kirk to know more about the three breeds of dairy cattle that VikingGenetics has available in Australia: VikingRed, VikingHolstein and VikingJersey.

A passionate VG team

Whilst in Sweden and Denmark the Australians also had the opportunity to visit VikingGenetics' offices and bull stations. "The Viking staff are just so passionate and keen about their company, bulls and systems. There's a real belief there that it's the best product around", Kirk remarked. Another fact that he found interesting was the willingness of VikingGenetics to use outcross sires from other countries to help breed sires of sons, "what a great initiative to give variety in their breeding genetics", he said.

Asked about the similarities between Scandinavian and Australian farmers, both Kirk and Fletcher agreed on the fact that farmers in Australia and Scandinavia are looking for medium framed cows with good feet and legs, good udders, good daughter fertility and longevity. The Scandinavian dairy farmers have done a lot of genetic progress in these areas, they commented.

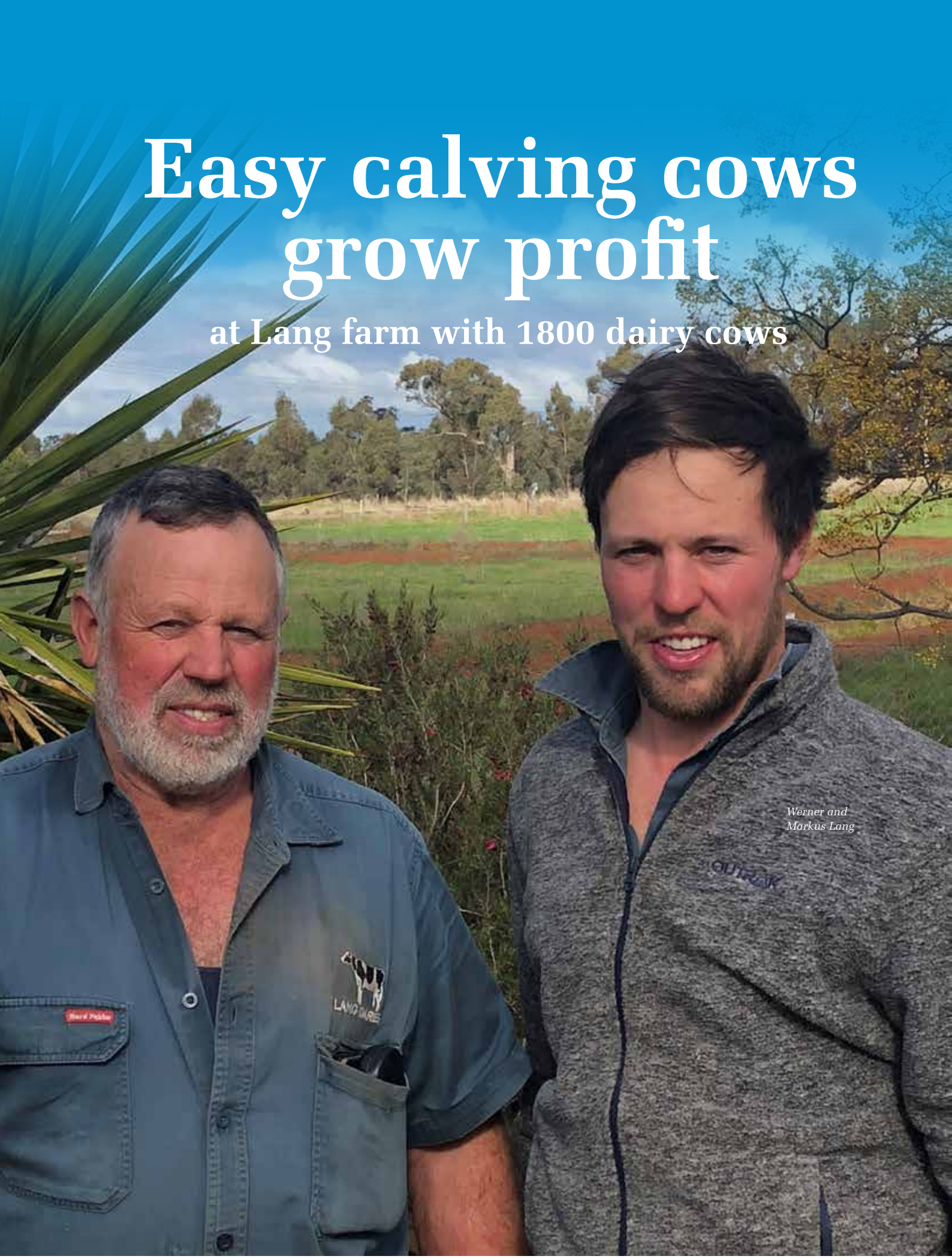
"The tour was a great opportunity to see a large number of Viking cattle being milked in many different systems, from free stall barns to high production, organic herds on pasture. Definitely something to recommend to the Australian farmer," they concluded. ●

Darren Fletcher explaining about the similarities between Nordic and Australian dairy farming to Claes Johansson and Amanda Jansson.

Darren Fletcher and Gus Kirk at the Noltorp farm in Sweden – owners Marianne and Anders Jansson.

Easy calving cows grow profit

at Lang farm with 1800 dairy cows



Werner and Markus Lang

When I first started working with the breeding decision of the Lang farm in 2012, Werner Lang was very hesitant to use conventional Holstein semen over his maiden heifers.

By Erik Thompson, VikingGenetics Australia

He said that he had tried "so called" calving ease sires before and it had been a disaster, "so why would Viking be any better?" I explained that Holstein is always bred to Holstein heifers in the Viking population and that thousands of calvings have been and are recorded for calving ease, survival and size on a sire's calving performance. Werner decided to try it and the result was fantastic - no problems with all calves that presented normally. This was an eye opener for Werner and he states that VikingGenetics' data is reliable: "When Viking says easy calving, you get easy calving. We don't have that faith in other genetics."

Werner and Josie Lang started their dairy enterprise back in the Goulburn Valley region in 1982 at Tatura, Victoria. The original farm was 50 hectares where they milked 90 cows. Now 36 years later, they have two sons home, Markus & Phillip and milk 1800 cows off 1250 hectares and a 250 hectare lease. Lang Farms operate out of two 50 unit Rotaries and one 22 Swing over with 11 staff in total. Lang Farms do not operate on a per cow production focus but margins after inputs, a total farm production system.

So what have the notable differences been since breeding with VikingGenetics? The great calving ease which has already been stated, but also Werner and Markus believe there has been a great "kick on" effect from this into the other health traits.

"Cow gestation has been getting shorter as this is correlated to easy calving, not only has this allowed us to pick up more production but it gives us more chances to get her back in calf", Markus said. Cow fertility has definitely improved and they are getting more AI calves, which means a surplus of replacements that they can now sell, providing another income stream that was not there before.

Regarding mastitis, the Lang Farm stays in premium band most of the time for milk quality. "This is a big improvement as the early days were not great", said Werner. Management has got better to help milk quality but the Lang's believe the genetics have played a great role as well. Viking's mastitis resistance index is 100% accurate as it is based on actual treatments where an SCC index is only 65% correlated to mastitis problems.

» I remember my first year on the farm, every night we were checking cows, now we don't «

Markus Lang

VikingGenetics' breeding goal is appreciated by Lang farm

The Lang's appreciate the Viking philosophy of breeding cows from the inside out instead of outward appearance. If you have a cow that is producing well, has healthy feet and legs and mammary and is very fertile and healthy overall, then the frame she needs will already be there and so will the longevity too, Markus believes.

Werner says they are seeing this in their VikingHolsteins; "they just look so good and have plenty of get up and go" he says. It is a nice herd to look at, and it has happened pretty quickly over the last six years. When they look at the bull's list, the Lang's don't look at conformation traits anymore. The Viking bulls have all of that anyway or they wouldn't be on the list. The focus is on as much health as possible and keeping the milk components moving up, it is much cheaper to increase components rather than milk!

Werner says people are funny how they think they need to have big cows. "What they need is good producing, healthy long-living cows, which we have found we can achieve from Viking's very reliable data", he said. VikingGenetics breeds for the medium size cow.

The Lang's also value the general health index and say they have far less sick cows and calves, LDA's, (twisted stomach) ketosis, reproductive disorders etc.

The Lang's note that they also have less lameness in their cows but of course in a very wet year the problem is magnified. Markus says he likes the fact that he can go into a Viking Sires proof and find out if a sire's strong point in his hoof health index is white line separation and sole haemorrhage, which are the hoof issues on their farm.

Finally, apart from all the benefits just listed, the Lang's have now more time to do other things on the farm, as sick problematic cows with calving problems take up way too much of your time. Markus says; "I remember my first year on the farm, every night we were out checking cows, now we don't. We calved down 150 heifers last calving and did not lose one or damage any."

Interesting quote from mydairyvet.com in regard to LDA's: "Dairy cows these days also tend to be bigger and deeper chested allowing much more room for the abomasum to float into". ●

Fertility First Update

The innovative "Fertility First" program is a VikingGenetics initiative to help reverse the downward trend of fertility in Australian herds over the past 10 years.

Our Reproduction Specialist, Ange Wilson, has been visiting numerous herds across the state with the goal of increasing 6 week in-calf rates, an overall increase in herd fertility and avoiding wasting money on inseminating cows that have little to no chance of getting in-calf.

Fertility First focuses on a Scandinavian approach to pre-joining fertility screening and is proving valuable to Australian dairy farmers. The Fertility First pilot program saw 2,500 dairy cows screened across 10 Victorian dairy farms.

63% of cows screened were either:
a) cystic,
b) non-cycling,
c) problem cows (some sort of physical abnormality),
or
d) in need of veterinary treatment before they're able to be classed as "Open for AI"
*(*see screenshots of actual Fertility First reports to the right)*

Significant savings can be made by knowing which cows are, and which cows are not, open for AI. Being in possession of this information gives you the insight to withhold inseminating cows that are not ready and just won't get in-calf. In the case of a farmer putting up 200 cows to AI, and based on a 63% rate of cows not being ready for AI, the saving to the farmer is $5418. This figure is based on an average AI cost to be $43, including the straw and the service.

Below are some screenshots of the simple and practical reports produced after the first round of checks.

Simple and practical reports produced after the first round of check.

GINA BLACK'S EXPERIENCE OF THE FERTILITY FIRST PROGRAM WITH ANGE WILSON

"Ange Wilson tested 80 of my carryover high-producing cows on behalf of Viking Genetics. She has had vast experience in the AI industry in this district.

- 4 cows were pregnant,
- 2 had probable calving damage,
- 3 had metritis, which continues to be treated,
- 14 had cysts, including one that was very large.

These cows were treated. All cysts are gone and these cows are now being joined.
"I am very happy with this result and am pleased to recommend the service to dairy farmers."

Sam Wilson and "Stewie", aka Mitchell Stewart, at Gina Black's farm in Western Victoria with a newborn calf.

Serenity now! The beautiful Victorian High Country where the Jones farm is located.

We await the conception results from the farms who took part in the program to outline the full benefit of the program to each farm. However, in the meantime, we can report that most farmers are already in front financially due to the savings they have made by not inadvertently inseminating cows that were not open to AI.

Just one example from one of the farms saw 131 cows checked at $15 each, for a total investment of $1965. Across 2 checks, 56 cows were not immediately open to AI. We've calculated the average AI cost to be $43, including the straw and the service. So, in this case the farmer has already saved $2408. They are $443 ahead, even before the many benefits of the increased conception rate they will receive and before factoring in having more cows in-calf earlier in the season. Stay tuned for a full report in the next edition of VikingNews.

For Ange, the next best thing to working with cows is talking about cows and the dairy industry! So, for more information about the service and how it can help your farm business, feel free to give Ange a call on 0437 492 888.

.....to be continued!

Shane and Shelley didn't hesitate to get Ange out to their farm to offer the same service before this year's winter joining.

SHANE AND SHELLEY JONES FERTILITY FIRST EXPERIENCE

Shane and Shelley Jones were involved in the trial project and received positive results. Details of their experience below:

"We participated in the trial of the Fertility First Program with Magnus. We were a bit skeptical at first, as to whether it would make any difference but quickly changed our minds. Our in-calf rate to AI improved dramatically due to identifying potential problems before joining that may inhibit a cow's ability to get in calf. There is nothing more frustrating than spending a heap of time and money on AI and having a poor conception rate so this program is well worth the investment."

BRENDON MCVILLY'S FARM IN WESTERN VICTORIA

Ange has been all over the state conducting Fertility First checks. This time, at "Windyview" in Western Victoria. Brendon McVilly talked Ange through all of his cows put forward for the Fertility First program. Ange talked Brendon through the analysis of each individual cow.

Ange doing prejoining fertility screening of the selected cows in Brendon McVilly's farm.

Breeding for High Production

with Low Use of Antibiotics is Possible

Dairy farmers in the Nordic countries clearly understand that breeding is a crucial part of ensuring a successful dairy business and just as important as finance, feed and management.

By Lars Nielsen, Head of Breeding at VikingGenetics

A natural defence against diseases in the genes of cows has been a part of our breeding goal since the 1980s. It has been at the heart of our Scandinavian philosophy driven by the fact that Nordic countries have very strict veterinary regulations regarding the use of antibiotics.

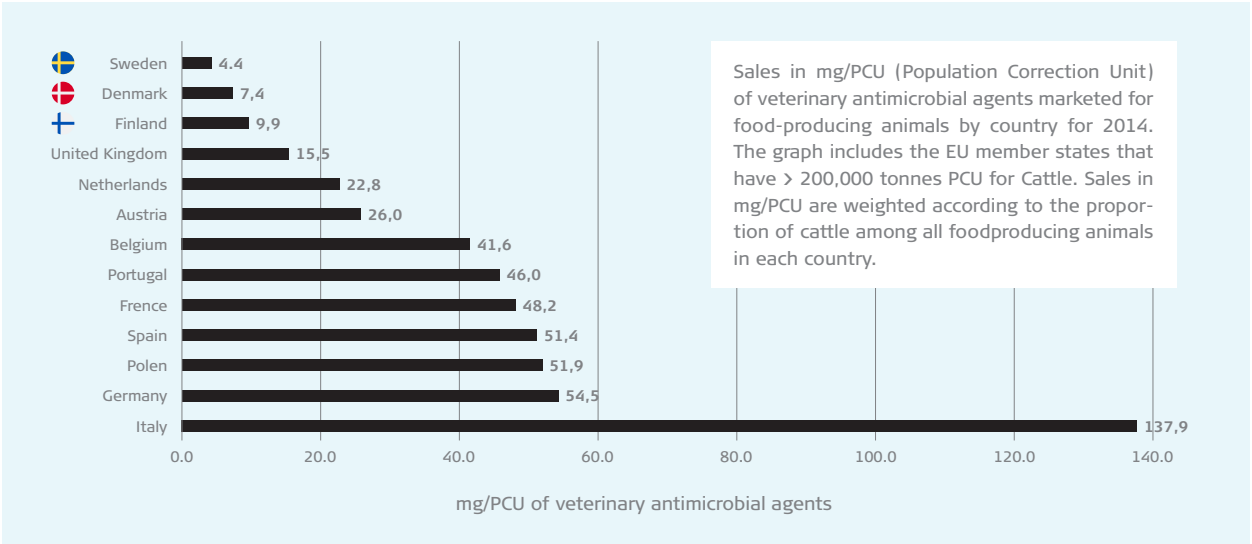
With limited access to antibiotics, the dairy industry in the Nordic countries has been compelled to find other ways of keeping cows healthy.

The Nordic tradition in breeding for healthy cows is reflected in the latest report from the European Medicines Agency (EMA), from 2016: "Sales of veterinary antimicrobial agents in 29 European countries in 2014". According to this report, Sweden, Finland and Denmark are the EU member states with the lowest use of antibiotics in livestock, far below the rest of the EU. (Table 1).

For instance, the use of antibiotics in cattle breeding in the UK is of particular concern. The Department for Environment, Food & Rural Affairs in the UK is aiming for a reduction of 20% of mg/PCU (Population correction unit) by 2020, based on a plan dating from 2015.

According to The Alliance to Save Our Antibiotics in the UK, only 40% of inframammary antibiotics are used for sick cows, which means that 60%

TABLE 1: SALES IN MG/PCU (POPULATION CORRECTION UNIT) OF VETERINARY ANTIMICROBIAL AGENTS MARKETED FOR FOOD-PRODUCING ANIMALS



Source: Report made by the European Medicines Agency, European Surveillance of Veterinary Antimicrobial Consumption, 2016. 'Sales of veterinary antimicrobial agents in 29 European countries in 2014'. (EMA/61769/2016).

Lars Nielsen, Head of Breeding at VikingGenetics

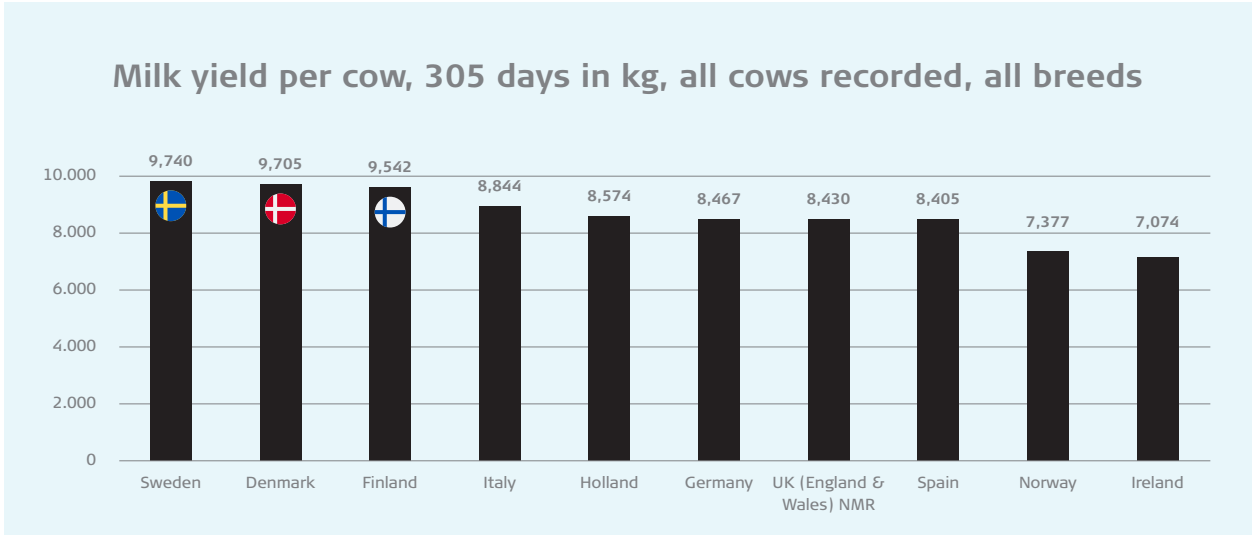
of such use is in healthy cows (for prevention and growth promotion reasons). In addition, 85% of non-organic farms routinely use non-selective dry-cow therapy with at least two antibiotic treatments per cow, per year.

High Milk Yield

In contrast, Scandinavian farmers not only have the lowest use of antibiotics but also the highest milk yield per cow over 305 days, in kg all recorded cows and all breeds, according to the International Committee for Animal Recording (ICAR). See Table 2. Sweden produces an average 9,740 kg of milk, Denmark 9,705 kg and Finland 9,542 kg compared to an average in the United Kingdom (England + Wales) of 8,430 kg, Spain 8,405 kg, Norway 7,377 kg and Ireland 7,074 kg.

Strict veterinary rules in the Nordic countries with restricted use of antibiotics have forced the farmers to find other ways of keeping their cows healthy. Good management and breeding for better health have shown them the path to ensuring success in their dairy business. ●

TABLE 2: MILK YIELD PER COW, 305 DAYS IN KG, ALL COWS RECORDED, ALL BREEDS



Three-way crossbreeding,

most profitable cross on pasture-based system in Australia

A study conducted by Dairy Australia, the national service body for the dairy industry in Australia, compared the different crossbreds with purebred herds on a pasture-based system. The results confirm that the three-way crosses with Reds are the most profitable.

By Verónica Löfgren, Communicator at VikingGenetics

Crossbreeding in Australian dairy herds has been gaining momentum and an expert panel from the Dairy Australia InCalf presented the findings from a recent research on crossbreeding. This project looked at farmer attitudes and use of crossbreeding, examined the industry data on production, fertility and udder health. They also analysed the longevity of crossbred and purebred cows and modelled their long-term economics.

"The most common breeds for a three-way cross on dairy farms are Holstein, Jersey and Red, and before this study, there have been no figures about this performance", Jo Coombe, researcher at the University of Melbourne's School of Veterinary Science, states. The researchers analysed data from more than 23 million lactation records from almost 900,000 cows on 18,207 farms.

"In terms of the three cross, there is no significant difference in volume of milk; however the protein, fat, protein percentage, the survival (how long the cows are in the herd) conception rate (CR), the six weeks In Calf Rate (6wICR) these three breed cows out performed the backcross animals (two cross system)", she adds.

The researchers also made a comparison on purebred herds, two-breed and three-breed crossbreeding on economic performance with Richard Shephard's model (veterinary consultant and leader of the Dairy Australia's In-Calf Project).

"You can have higher gross margin on the same amount of milk. How can this be possible? The answer is that the crosses are more fertile! That means that the cow lives longer in the herd and the effect is that she depreciates less each year. That change in depreciation cost is pure profit into the farmer's hand", Richard states.

He adds that besides taking the depreciation if you manage your farming system appropriately you make fewer replacements to keep your herd together so this is less money in rearing costs. "Within a herd that requires 25% replacements, is $500 per cow, per year cost in replacement. So, together the reduced depreciation plus reduced rearing costs are extra income for the cross breeding cows", Richard Shephard states.

Among the conclusions regarding three-way crossbreeding, Shephard emphasized three of them: the long-term decision, the smaller size of the cows and the importance to select only the best bulls of every breed. ●

RICHARD SHEPHARD'S ECONOMIC MODEL ON COW DEPRECIATION PER YEAR

Why do we have a higher gross margin on a crossbred farm than a purebred farm if the farm produces the same amount of milk?

HF cow: $2000 cow lasts 4 years and sold at $800 = $300 depreciation / year

X cow: $1400 cow last 6 years and sold at $650= $125 depreciation / year

HF: Holstein Frisians, X: crossbred cow

RICHARD SHEPHARD'S ECONOMIC MODEL ON COW REPLACEMENT PER YEAR

Crossbreds need fewer replacements – less mating/ rearing costs.

HF: $500 cow/year in replacement costs (25% replacement per animal)

X: $330 cow/year in replacement costs (17% replacement per animal)

HF: Holstein Frisians, X: crossbred cow

Quotes

ALAN OLSEN, GIPPSLAND, VIC

Milking 280 cows on 300 acres
Breeds Holstein, xbred and a few jersey

"As a first time user of VikingGenetics, I am stunned with their calving ease. The calves are a good size and are very vigorous. Training the calves to feed is a pleasure as they want to drink from day one. Can't wait for my next lot of Vikings "

BEV PHELAN, DELORAINE, TASMANIA

Milks 1200 cows (most crossbreds)

We were experiencing fertility challenges and improved fertility was the goal. In 2006 I was impressed by the quality of the bulls and by viking's rigorous and reliable testing and recording regimes. 12 years later I still am. When I compare stats on paper, the Viking cows are consistently at the top of the class. For our crossbreed herd, I have found Viking bulls from each breed to suit my needs. Backed by their health traits, they are the ideal choice.

KEN FAHEY, TERANG, VICTORIA

Milks 450 Reds in Terang Victoria and loves the depth of information from Viking and will be joining the top portion of his herd with sexed semen in the future.

We can get a bit silly at times when breeding and blame the bull, but we must remember there are Dams involved as well. We love the fact that VikingGenetics has a vast and reliable database

HILCO ZUIDEMA, GIPPSLAND

We have calved approximately 40 Viking heifers in a two week period with no calving problems. The heifers have an amazing temperament with most entering the dairy on the first couple of runs. Very happy with Viking and look forward to a long and happy partnership.

Marleigh Park Farm

Focus Farm For VikingGenetics

As winners of the Dairy Farmer of the Year (2016) Leigh "Skeeta" Verhey and Angela Turner in Koondrook, Victoria have achieved a lot of success in their dairy farming business in Australia. To make breeding interesting and ideally suited for a focus farm they now use all three VikingGenetics breeds in the herd.

Skeeta is a fan of figures and numbers; therefore, the decision on what to trust when it comes to breeding for healthy and productive dairy cattle made them choose genetics from VikingGenetics

» I was looking for a smaller cow, a profitable cow and I found it. Now I'm producing 600 kg solids from a 550 kg live weight cow «

Skeeta

as their only supplier and thus set up as a Focus Farm. VikingGenetics is well known around the world for its unique registration system backed up by more than 90% of the cow's population in Sweden, Denmark and Finland.

Skeeta and his partner, Angela Turner founded Marleigh Park Farm in 2005 in Koondrook, central Northern Victoria. The farm consists of flat land, the weather can be hot in summer and cold in winter and with low rainfall the farm relies on irrigation from the Murray River.

They have 332 cows in milk, Holstein, Jersey, and VikingRed. The herd has produced above average this season with 600 kg milk solids, 7800 litres milk with 3.5% protein and 4.2% fat. Their goal is to increase the number of milking cows to 400 by the end of the year.

The numbers support the breeding strategy

"I liked the way VikingRed was performing, with superior health and fertility, on a friend's Aussie Red farm", Skeeta says when asked about the decision he made to use VikingGenetics in his herd because the Aussie Red is predominately bred

Marleigh Park Farm is a Focus farm for VikingGenetics. The distance makes it difficult for Australian farmers to go to Denmark, Sweden and Finland to inspect the cows. Therefore this farm will be a place where new customers can have a look at what Scandinavian genetics can offer, and to find that it works in other conditions than the Nordic climate and management systems in a controlled programme. We believe this will be a great opportunity to make more farmers understand the Nordic Genetic profile.

with VikingRed's bulls.

"I was looking for a smaller cow, a profitable cow and I found it. Now I'm producing 600 kg solids from a 550 kg live weight cow, which I consider is an elite body weight to kg solids ratio", he says.

Skeeta says the bottom line is: "We have a return on asset of 3 to 5% per annum in average", and the reason for this is the improved herd fertility.

We asked Skeeta: "What traits are you looking for when selecting bulls?" He replied "Fertility, chest strength, feet and legs, and a strong NTM health profile because high NTM bulls give a sound index platform". He jokes "No grease nipple on a cow's jaw so therefore I like to breed cows that graze aggressively". Marleigh Park Farm should become a very interesting reference farm for Australian farmers. "We will commence monitoring three Viking breeds as I want to breed the most profitable cow that I can." ●

We asked Leigh "Skeeta" Verhey what are the main challenges and goals for his farm?

Goals - I want to breed the most profitable cow that I can, and that is why I use all three breeds from VikingGenetics. It will be interesting to see if any breed rises above the other two for profitability under my conditions. This will be interesting as I think that heat tolerance is going to play a major role in deciding which cow I move into the future with.

What is best thing about VikingGenetics and Why?

VikingGenetics has sound, reliable indices from a complete but simple system where all traits are 10 points for a deviation, which is easy to understand. Besides, you get what the proofs say, you know exactly where your breeding programme is moving towards and I like the good relationship we have with VikingGenetics Australia, it is a real team feeling.

Challenges -The security of irrigation water. During the dry seasons (and we have a lot of them) water gets expensive and availability of water can be a problem.

Denmark's top three high-producing herds

Our distributor and owner, VikingDenmark has met the owners of the three highest producing herds in Denmark for a talk about their strategy and challenges with reproduction and breeding goals.

TORBEN THORSEN

- Owner of Denmark's highest yielding mixed herd
- 360 cows – primarily Holstein, plus some crosses
- Yield: 14,608 kg milk
- Three full time employees
- 360 hectares
- Produces 200 calves for slaughter each year

What is your focus when breeding?

I select bulls based on NTM (Nordic Total Merit Index), and they need to have a high production index – preferably around 120. I also focus on mammary. We have a high lifetime production in this herd, so our cows need to be able to last one lactation longer here than with the average dairy farmer and good udders are therefore important. I have had high improvements in production and increases in lifetime production by breeding for NTM. I have used beef for cows with the lowest NTM and still use this for approx. 30% of the cows.

How can VikingGenetics make a difference in your herd?

I have focused on the Holstein breeding goals for reproduction, but looking at the financial aspects, it is much more expensive to cull a cow due to high cell count or poor feet and legs. After all, a cow that is culled because it does not become pregnant has still produced milk one or two years after calving and has reached a good slaughter weight compared to cows that you cull for other reasons. We also aim to focus on teat placement. I have milking robots and therefore I prefer breeding for good teat placement and suspensory ligaments. Plus, it will be very interesting to see the financial benefits of feed efficiency when this index is launched.

Having the highest producing herd – what challenges do you see when it comes to reproduction?

Actually, I do not have any major challenges. A few years ago, I decided to do insemination 90 days after calving and I noticed that the pregnancy rate increased. Previously I had to dry off cows that produced a lot of milk, and then thought I might as well milk them for a few more months.

BJARNE V. HANSEN

- Owner of the highest yielding herd in Denmark
- 200 Holstein cows
- Yield: 15,410 kg milk
- Four employees
- 170 hectares

What is your focus when breeding?
I use the "mating plan" and usually stick to it. When I order semen, I keep the daily plan in mind with the focus on the udder. High production puts pressure on the udder and therefore having cows with good udders is important to me. I aim for medium sized cows. I have a few show cows in my herd and when it comes to mating them, I look for conformation.

How can VikingGenetics make a difference in your herd?
I especially use my AI Technician for sparring. I strive to be in the barn when he comes by – for the daily contact and to know which animals have issues regarding reproduction.

Having the highest producing herd – what challenges do you see when it comes to reproduction?
I have put the emphasis on high production for a number of years, and this can be a challenge for reproduction, but it is an interesting challenge that can be solved. For instance, I have bought a heat detection system and I am thinking of adding more transponders as they provide good support in reproduction work. It is important to learn more about how we, as a high-producing herd, can improve when it is difficult for the cows to become pregnant. Not all cow cycles are easy to determine which is why more research in this field is important.

LARS REMME

- Owner of the highest yielding organic herd in Denmark.
- 200 Holstein cows
- Yield: 13,479 kg milk
- Three full time employees
- 325 hectares

What is your focus when breeding?
After building a new barn with cubicles in 2000, I no longer need to worry about feet and legs – the cubicles have been the solution and a good investment. Instead, I can focus on reaching high production and general health and udder health. I would like to have cows that can take care of themselves –invisible cows. In addition, I go after cows that do not grow too big – I breed to get them a bit smaller because they have started to take up too much space in the milking barn.

How can VikingGenetics make a difference in your herd?
VikingGenetics equals good genetics. The cows we have today are so much better than the cows we had 10 years ago. Breeding work has developed massively and this good development should preferably continue.

Being a highest producing herd – what challenges do you see when it comes to reproduction?
Cow reproduction caused me some trouble last year. I had many cystic cows, but reproduction varies a lot in this herd from year to year. I might add that I do give my cows more chances to reproduce than most dairy farmers would. I serviced one of my very good cows 13 times, and of course this will decrease the total reproduction figures for my herd.

Interesting times ahead
for world milk markets

After the milk crisis of 2015-2016, demand for milk on international markets eventually outpaced supply, and prices began to recover. This is the first market-driven growth period in Europe since the removal of production quotas.

By Olli Niskanen, at Luke, Finland with data from the International Farm Comparison Network (IFCN).

World milk production in 2016 was 845 million ECM tones, according to data from the International Farm Comparison Network (IFCN). This was the smallest increase in production since 1997, 1.1% compared to 2015. Over the period 1996-2015, the annual average production increase was 2.4%. This low growth rate is largely due to the tough financial situation in 2015-16 in all the main milk production areas. European Union (EU) measures to reduce milk production also had little effect on limiting growth, or at least postponing it.

The shift in balance between supply and demand eventually led to price increases. In 2017, growth in demand was focused on full fat rather than skimmed milk powder (SMP) however, which suffers from significant EU intervention measures leading to SMP mountains, that has to be sold at some point.

Greater price fluctuations between countries

The average price of milk at a global level was 24.4 euro cents per ECM kg in 2016. The lowest price recorded was 18.1 and the highest 95.5. Global milk price increases filtered down to farm level at varying speeds in different countries, mainly driven by national production systems and the political environment. The price of milk has never fluctuated as wildly as now, a sure sign of change in markets.

In 2017, the countries that gained the most from increased prices were relatively high exporters of butter. The average price of milk rose to 31.7 euro cents per ECM kg in 2017. Some small fluctuations in farm gate prices also contributed to a higher milk fat

percentage value, but as market situations are changing all the time and production cannot immediately react to these, adjustments are not very significant.

Europe faces new challenges

Demand driven growth on world markets remains slow. The price differential between fat and protein has reduced general price growth in many countries. In Europe, we have entered the first growth period since the removal of production quotas. Production can now grow with increases in demand.

It's somewhat inevitable to suppose that there will again be a surplus of production when the market situation eventually changes again. Hopefully, farmers in central and eastern Europe will bear this in mind when planning future investments. ●

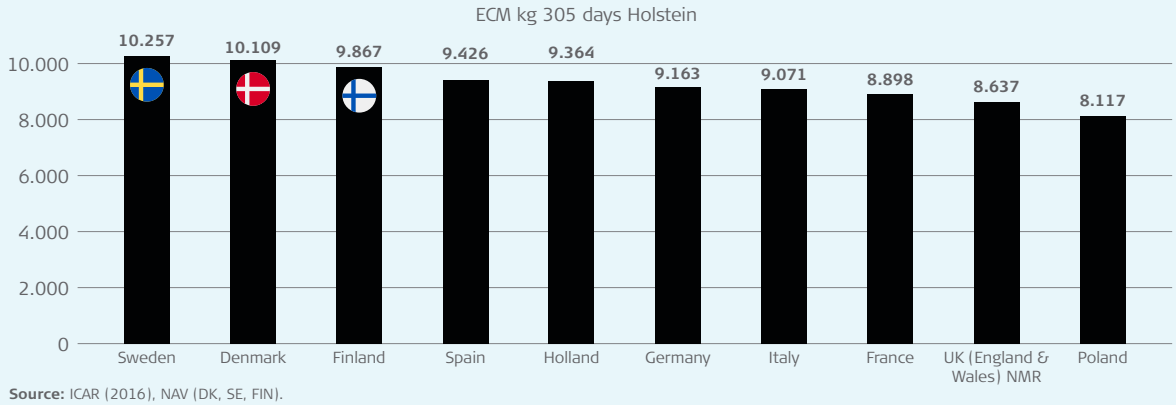
You can read the whole article at www.vikinggenetics.com

VikingHolstein is much more than a Holstein

Did you know that the Holstein cow in the VikingGenetics area is the highest producing cow in Europe? Measured by energy corrected milk in 305 days. Take a closer look at the numbers that back up this statement.

By Claus Langdahl, Breeding Manager VikingHolstein at VikingGenetics

TABLE 1: ECM PER COW, 305 DAYS - HOLSTEIN



Source: ICAR (2016), NAV (DK, SE, FIN).

The whole picture about our VikingHolstein is interesting, you can see it from a phenotypic level and also from a genetic point of view. Our goal in the VikingHolstein breeding programme is to produce a high yielding cow which is, at the same time, healthy and fertile. Not an easy task because we know there is a negative correlation between health, fertility and production. With this in mind, it is amazing that independent calculations from the International Bull Evaluation Service show that the production level of major Holstein populations are exactly the same.

VikingHolstein - The best among Holsteins

- Highest production in Europe - VikingHolstein average for production is 10,310 kg milk, 3.99% fat and 3.37% protein
- Superior udder health and fertility and still with the same genetic production capacity as other Holstein populations
- VikingHolstein has an average size
- Ready to work on improving the economics of dairy farming around the world

A healthy Holstein cow is a high producing cow

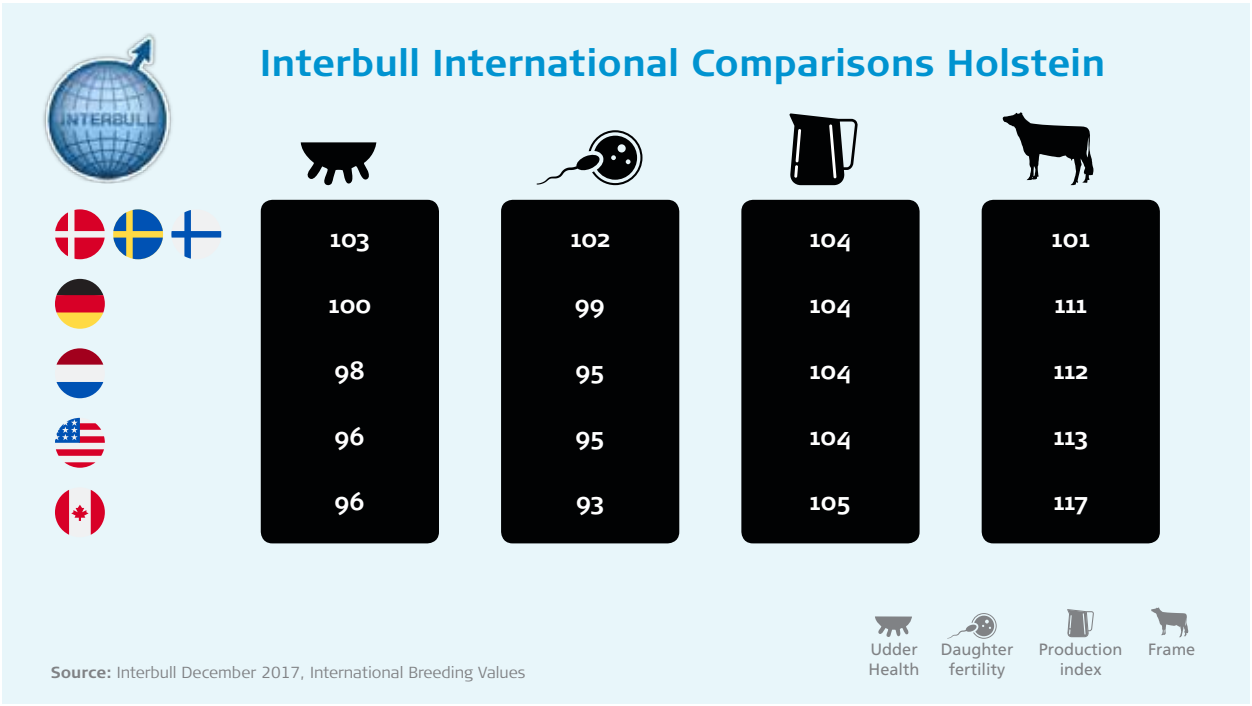
VikingHolstein cows have excellent resistance to mastitis with a low average (11.7%) incidence of clinical mastitis per lactation in the first three lactations. Clinical mastitis is the most common clinical disease in modern dairy businesses around the world and among the top culling reasons worldwide.

The VikingGenetics breeding philosophy and reliable data have made it possible to have superior health and excellent female fertility in combination with high production. Independent data from the International Bull Evaluation Service shows this very clearly in Image 1 that refers to a comparison between major Holstein populations around the world.

Sometimes average is best

Have Holstein cows become too big? Well, it depends of course on the preference of the farmer, but the fact is that an average size cow is a more economical cow than a big Holstein cow. Holstein cows from VikingGenetics are average size and therefore a perfect choice for many farmers regardless the production environment. They are smaller than other populations of Holstein cows, which means more

IMAGE 1: VIKINGGENETICS BULLS ARE THE TOP PERFORMERS IN UDDER HEALTH AND FERTILITY AND KEEP HIGH PRODUCTION FROM OPITMAL SIZED COWS.



efficient; less feed for maintenance and better longevity. In the same image, we can see a massive difference between VikingHolstein and the other Holstein populations in the comparison.

An average size cow is better

We don't want too big a cow or too small a cow. At VikingGenetics we see the advantages of a normal size cow. Big size has a negative correlation with longevity. A smaller cow needs less food to maintain her weight, and less weight means e.g. less pressure on hooves.

VH Cosmo.

Are you looking for an average sized, high producing cow that is easy to get back in calf and with problem free hooves, then have a look at VH Cosmo.

The VikingHolstein proof leader, VH Cosmo, has a +30 NTM and is an exceptional bull with Hoof Health at 117, female fertility at 115, milking speed at 115 and production at 121. He is indeed a leader! Today, he has more than 1600 milking daughters and out of those almost 500 classified. This will give you highly reliable information about his breeding profile.

It is interesting to note that the sire of VH Cosmo (VH Clark) is the third highest daughter proven bull with NTM +26. Better foundation is not possible!

The dam is a high-producing VG89 Router daughter with an average of almost 13,000 kg in milk and 4.22% fat and 3.76% protein.

This bull was bred at the herd of Michael Jensen of Hammel in Denmark.

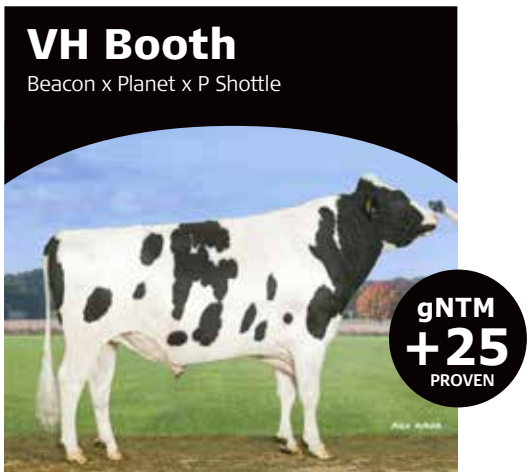
VH Roxy.

It is great to have a son from a daughter of the great BPI sire here in Australia: VH Booth.

If you want a smaller compact cow that really takes care of herself with no fuss then VH Roxy is a must use bull for you. Medium size, high producing, and healthy cows that are very calm and free milking. Who doesn't want a herd full of those?

VH Roxy breeds daughters that are medium statured with lovely udders that have ideal teat placement for both front and rear teats. Superb production combined with a great health profile. Milking speed and temperament are also very good.

He is bred at the herd of I/S Kinima in Finland. The VH Booth dam has just started her second lactation - first milk test was 46 litres of milk and she is classified 84. The grand dam just calved for the fourth time and is classified 87 for udder. Average production 9,700 litres with good com-po-nents.



VH Booth.

A PROVEN sire ranked at the top in Australia and Scandinavia. A daughter proven bull that is actually able to compete on NTM with the younger genomic bulls.

More than 5000 milking daughters and out of those more than 2100 classified confirms his outstanding value and a high reliability.

VH Booth achieves a very high ABV excelling for protein production, high milk flow with positive protein composition. Cell Count, Daughter Fertility and Workability are also very good.

Mammary and overall Type are also at a premium and the good news is that they are not too tall with stature at 101.

He originates from an embryo that VikingGenetics bought in Holland at the Koepon farm. The dam is Koepon Plan Classy 62 and her dam Koepon Shot Classy 17. An exceptional production family and that is also the breeding profile of VH Booth – production index at 128 and protein index at amazing 129. At the same time, he is able to keep average health and fertility traits. His daughters are very calm cows with good calving ease at 113.

VH Booth is set to make his mark in Australia.

VH Sparky.

Imagine a cow with super quality in the hoofs, easy to get back in calf, perfect harmony in conformation and a good milk production from excellent components. It is not just imagination - take a look at the daughters of VH Sparky.

Hoof health at 119 makes him a fantastic improver in this important trait. Female fertility at 110 and good production with high components fat% index at 116 and protein% index at 118. He will give you cows with strong, balanced conformation with good feet & legs (107), fantastic udders (120) and medium size. This is the perfect profile if you want efficient cows.

The cow family behind Sparky is outstanding. The VH Salomon dam has an average production of more than 12,000 kg milk with 4.53% fat and 3.70% protein and classified VG86. In less than 10 years, her dam produced almost 120,000 kg of milk and was classified VG88.

The breeder is Flemming Petersen in Ribe in Denmark.

Higher reliabilities for genomic indices

By Auli Himanen, Breeding Manager VikingRed at VikingGenetics

In early February, NAV (Nordic Cattle Genetic Evaluation) has achieved an improvement in genomic breeding values and females are now included in the reference population for daughter fertility, calving traits, hoof health, general health and longevity. This inclusion has made a huge impact on the reliability of genomic breeding values. The biggest increase is for general health and hoof health. See Table 1.

We have 8,900 bulls and 33,500 females in the RDC (Red Dairy Cattle) reference population today, and more cows are continuously being genomically tested. There are two reasons for this: firstly because breeders are now more interested in genomically testing their heifers and using the result for management purposes to select the best heifers for the next generation. Secondly because VG started subsiding female genomic testing of red cows back in 2013, and many of these farmers have continued to do tests. Annually, around 10,000 females are genomically tested in this project.

As you can see in the table below, reliabilities increased sharply in February, for example fertility has increased from 43% to 61% reliability. ●

Table 1. Mean reliabilities from official run in January compared to February 2018. (197 RDC AI bulls born 2015-16)

		Fertility	Calving	Birth	Hoof health	General health	Longevity
RDC	Jan 18	0.43	0.45	0.60	0.34	0.38	0.38
	Feb 18	0.61	0.56	0.68	0.52	0.52	0.51

OPU shortens generation interval

Hollola is the centre for the top VikingRed heifers in the Viking countries today thanks to the highly developed know how in embryo production and OPU (=Ovum Pick Up) in Finland.

Hollola barns work in very close cooperation with Luke (Finnish National Research Institute) when it comes to OPU.

The eggs are collected at Hollola once a week and transported to Luke lab to be fertilised, cultivated and frozen.

Heifers are also used for normal embryo flushing if they have not produced enough embryos for the breeding scheme with OPU. They can start OPU production again when pregnant. The production of OPU embryos in this step is mainly done with X-Vik semen to produce heifer calves.

The goal of OPU production is to shorten the generation interval. Genomic breeding schemes today go very quickly and by using OPU you can shorten this by three months. ●

A couple of heifers in the VikingEmbryo programme.

Sires in focus

VR Viljar

VR Vimur x VR Niki x Ullimulli

VR Viljar.

VR Viljar is a sire with good production and extremely good udder health. He breeds big open framed cows with good height and great udder conformation.

The dam of VR Viljar, Luckykymppi, sired by the progeny proven VR Niki, was bought as an embryo to Kuusela farm. She is out of the famous Lakiala cow family owned by Sakari Oksanen, the breeder of VR Uudin. The Kymppi family ("Kymppi" means 10) cows have had lots of success. The MGD of Viljar is Isokymppi, VR Uudin's sister, who was sold to ASMO nucleus herd where she was flushed several times.

The dam of VR Viljar was flushed twice with Viking contract as heifer at Kuusela, first with VR Lazer and then with VR Vimur, the latter producing VR Viljar. There are also good genomically tested heifers out of these flushes growing at the farm. The dam of VR Viljar is an invisible cow. The dam produced more than 11,000 kg milk with components 4.8% fat and 4.1% protein. VR Viljar is available as X-Vik. VR Viljar breeders are Kati and Ari Luukkonen, Finland.

VR Tokyo

VR Tuomi x V Föske x Asmo Sale

VR Tokyo.

VR Tokyo has a reliable progeny proof. He has 400 daughters in his proof of yield traits. If you are looking for high yield, VR Tokyo is your choice.

He is also positive in components. He is good in female fertility as well as in longevity and positive in all health traits. His daughters are very easy calvers. Daughters have a strong body with good feet and legs and udders.

The maternal great grand dam is still alive and has produced more than 73,000 kg.

The breeder is Göran Carlsson, Sweden.

Get used to higher NTM levels for the best Jersey bulls

By Peter Larson, Breeding Manager VikingJersey at VikingGenetics

By adding data from females to the genomic Jersey reference population for five new health traits, the reliability on these breeding values has increased significantly. As a result, the standard deviation has also increased and bull breeding values are now more spread. Best bulls are not in the mid 20s any longer, - they are now higher than +30 for NTM.

Bulls are still bred the same way, but breeding values are more reliable and it is easier to distinguish between bulls.

The highest ranking bulls are two VJ Haley sons, VJ Hawk and VJ Hirts, gNTM +31 and +29, respectively.

VikingJersey is expanding its international activities

An increasing number of Jersey females are genomically tested in the Nordic countries. In addition, over the last six months, hundreds of Jersey females from The United States of America (USA), South Africa, The United Kingdom (UK), Belgium, The Netherlands, Norway and Russia have been tested on the Nordic Total Merit (NTM) scale.

This action represents a big advantage for breeders, when selecting the best animals and when making combinations with VikingJersey bulls. The results have shown that a number of females are at a very high NTM level, and VikingGenetics encourages owners to flush these animals.

As a result of testing foreign Jersey animals in the Nordic system, two foreign bulls have been purchased by VikingJersey. The first was VJ Hurling from Ireland and the second one is VJ Lukaku from Belgium.

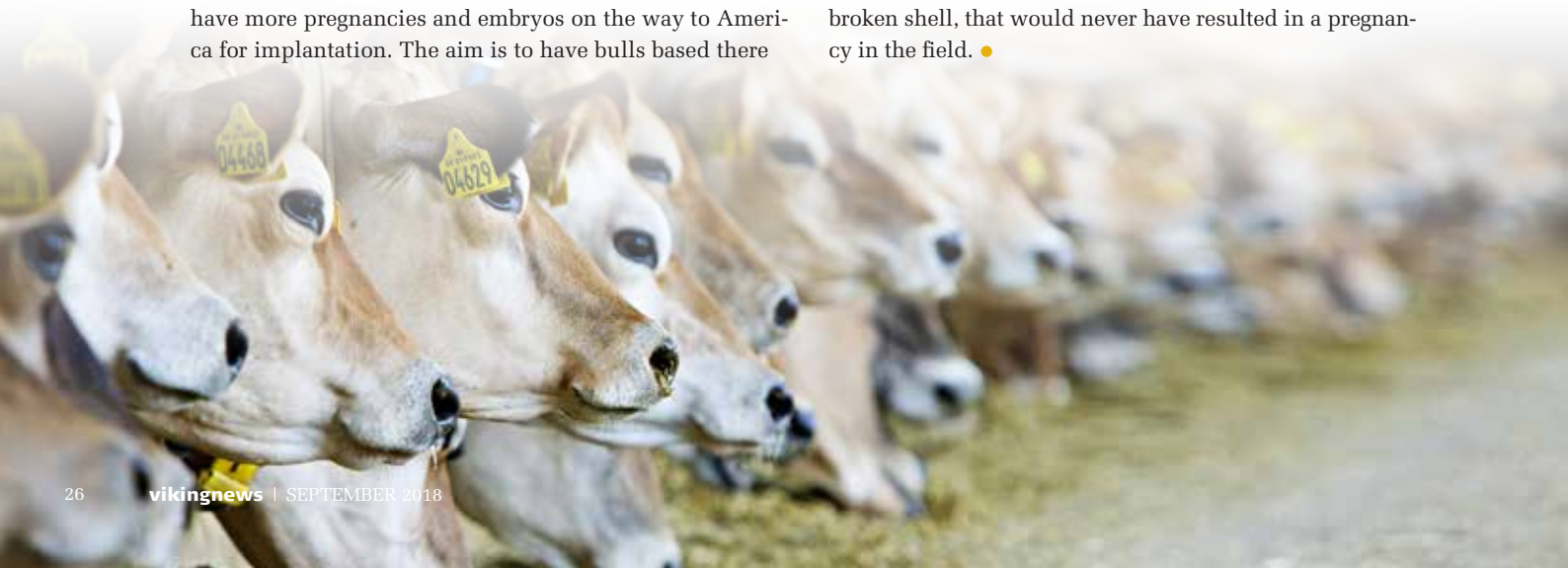
We are currently testing bull calves in the USA, and have more pregnancies and embryos on the way to America for implantation. The aim is to have bulls based there to ensure availability of semen. The bull calves have been selected to suit the American dairy system.

The good news is that the Norwegian Jerseys cows will soon have a NTM classification. This is expected to result in closer breeding cooperation.

VJ Nucleus herd breeding new top animals

Since the first bull calves out of VikingGenetics owned donors were genomically tested a year ago, 12 bulls have been selected for the VikingJersey breeding programme.
This is a very high success rate, and therefore is important to encourage the donor programme and Ebryo Transfer (ET) in general. VikingGenetics has selected three sons with different sires from one donor and a half-sister has now entered the nucleus herd.

A good example of making better use of genetics in the nucleus herd was the new top bull VJ Hodja with gNTM +33. He is the result of an extremely poor embryo, with a broken shell, that would never have resulted in a pregnancy in the field.



Sires in focus

VJ Huzar

VJ Hilde x DJ Zuma x Q Impuls

Daughter proven health, fertility and udder improver

VJ Huzar.

VJ Huzar is out of Hoeholt Zuma Dorthe, bred by Morten Jensen, Hoeholt Jerseys (Danish Jersey Master Breeder 2017). The dam completed four lactations with an average of 7780 kg milk with 5.65% fat and 4.14% protein.

As the dam's results indicate, VJ Huzar will increase protein percentage. His production proof is based on 210 daughters milking in 120 herds. Huzar is among the very best bulls in the breed for Fertility (118), Udder health (113), General health (123) and Longevity (114). 140 daughters are scored and they show that VJ Huzar breeds daughters a little taller than average, with good chest width and straight top line. Fore udders are exceptionally well attached and rear udders are both high and very wide. Also the extremely shallow udders are among VJ Huzar's trademarks.
Ideal teat size and teat placement – workability is at a very, very high level!

VJ Huzar combines some of the most dominant bulls used in the Danish population – Q Hirse (sire of VJ Hilde), DJ Zuma and Q Impuls. Contribution of genes are 7% NZ, 21% US and 72% Danish.

US proof, August.2018: 393 NM$, 441 CM, +3.7 DPR, +4.7 PL, +2.84 SCS

Triple aAa: 243516	JH1 F	Cappa Casein: AB	Beta Casein: A2/A2	X-Vik available

VJ Lotto

VJ Libero x DJ Jason x DJ Beo

The healthy outcross

VJ Lotto.

VJ Lotto is out of "Hasmarkgaard Jason Jeanette", bred in the Hasmark Jersey & Holstein herd, owned by Inga Rasmussen on the Island of Funen, Denmark.

VJ Lotto is out of a family of high-producing cows. Both dam, GD and GGD milking more than 8,400 kg milk with over 440 kg fat and 335 kg protein per year. The dam, "Hasmarkgaard Jason Jeanette" completed her second 305 day lactation in 2017 with 9,767 kg milk, 476 kg fat and 391 kg protein. VJ Lotto will improve percentages.

VJ Lotto's special trademarks are his health traits. A breed leader for both Udder health, General health and Hoof health, - all with breeding value of 112.

VJ Lotto is expected to breed medium to tall, open ribbed daughters with a good body depth. Super F&L and very nice udders. Especially rear udder height, ligament, the shallow udders, thick teats and close front teats needs to be mentioned. VJ Lotto is 3% NZ, 42% US and 55% Danish. An outcross bull easy to use!

Triple aAa: 243	JH1: C	Cappa Casein: BB	Beta Casein: A2/A2	X-Vik available

The Real
Cost Cutting Cows

"We have been using VikingHolsteins since 2012 and have achieved improvement in all areas of our 1800 cow herd. Cow health and fertility have improved substantially, with less mastitis, feet and leg problems, and metabolic disorders. The higher cow fertility has now given us a great bank of surplus heifers each year, which has provided another income stream. Our production has increased with substantial gains in fat and protein percentages and cell count is constantly at a premium."

WERNER LANG, LANG DAIRIES TATURA, 1800 COWS

VIKINGGENETICS®

breeding for what truly matters

www.vikinggenetics.com.au