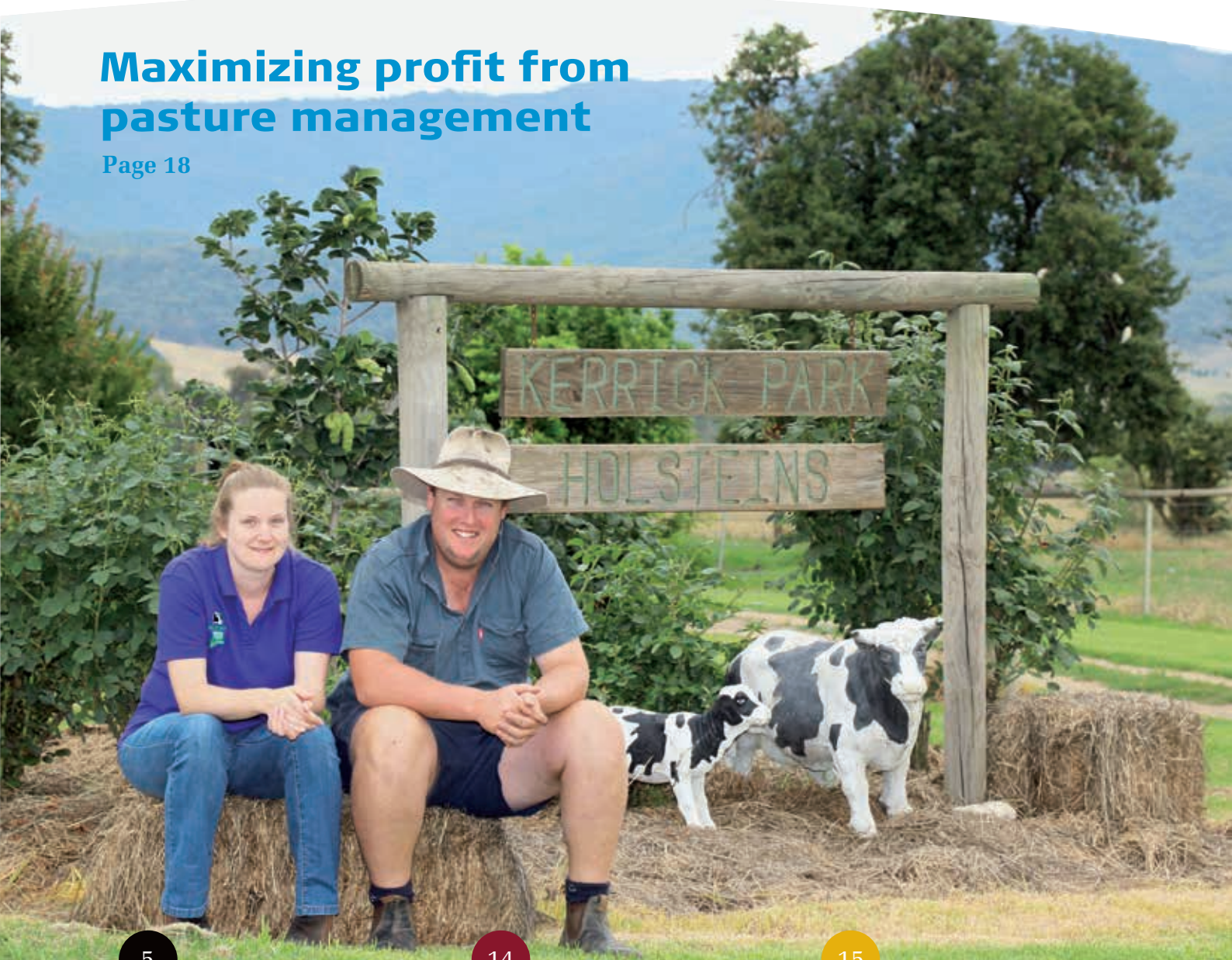
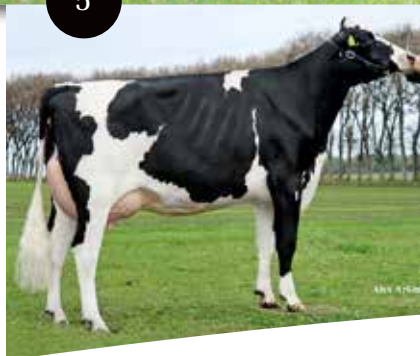


Maximizing profit from pasture management

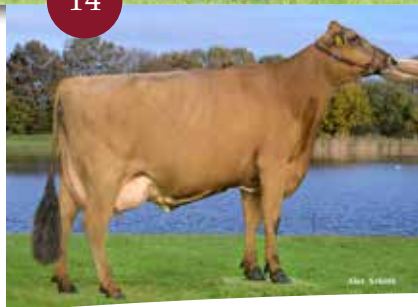
Page 18



5



14



15



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PHOTOS: Alex Arkink, Elly Geverink, Elisabeth Theodorsson, Tiina Tahvonen and employees by VG.

COVER PHOTO: Bredan Glass, Australia is very satisfied with his VikingHolstein cows.
 Photo Poul Bech Sørensen.



By Head of Sales
 Sara Wiklert Pettersson

New breeding scheme leading to higher genetic progress

This spring VikingGenetics will introduce a revised breeding scheme that will increase the efficiency of our breeding programme. Analysis show that there is high value in genomic test of females for the reference population, test of high index females and increased ET activity for the best females of the breeds.

As a result of the fact that the genomic breeding values have equal reliability for both females and males, the importance of using the best females more efficiently is increasing. By increasing the number of progeny of the best females, we can increase the genetic progress. Therefore VikingGenetics has decided to increase the investment in embryo transfer to double the flush activities. VikingGenetics also takes the responsibility that inbreeding will not increase in our populations and in the new scheme the variation of sires of sons will be very high.

Calculations show that we will reach record-high genetic progress of three NTM units per year with the new scheme. The higher genetic progress will contribute to increase in profit for farmers – no matter in which part of the world you are. High production from healthy, fertile and long-lasting cows profitable globally. In this issue of VikingNews you can read about cattle breeders in Australia and South Africa sharing their positive experience with Viking's genetics.

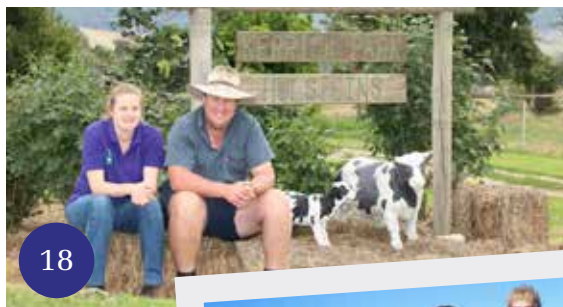


New export manager in VikingGenetics

Jan Andresen is employed as new export salesman and will have Assentoft as his base and start with the markets Germany, Ireland, Croatia, Rumania and New Zealand. Jan has a solid background in the industry coming from five years as breeding advisor in VikingDanmark and six months as salesman in VikingGenetics Australia.

Jan is from the German minority in Denmark, which means he speaks German fluently. He has an AP degree in Agricultural Science and when working in VikingDanmark he had 280 farms that he serviced with advising in reproduction and breeding.

We warmly welcome Jan to our team. Jan Andresen, janan@vikinggenetics.com, +45 2169 6566.



Contents

MAGAZINE NO. 01 | FEBRUARY 2015 | VOLUME 6

New breeding scheme focus on females and ET

This spring VikingGenetics introduces a revised breeding scheme with increased focus on females and embryo transfer. The new scheme will result in even higher genetic progress.

[PAGE 4](#)

The good life with ProCROSS

Anne & Gert Lassen, Denmark, achieve fantastic results in their organic herd of 250 ProCROSS cows. The production has passed 11,500 kg ECM, cell count is below 100,000, fertility is excellent and they hardly ever have a sick cow. ProCROSS contributes very much to their good life.

[PAGE 10](#)

Great results with VikingJersey in South Africa

Japie Nel and his family successfully run a high-producing herd with 400 Jersey cows in semi arid country in South Africa. Summers here are hot and winters cold, but the VikingJersey cows seem to acclimatize very well.

[PAGE 16](#)

Maximizing profit from pasture management

The Glass family owns 500 Holstein cows producing 8,500 liters of milk primarily on pasture in Victoria, Australia. The aim is to improve the bottom-line via optimal use of knowledge, science, genetics and pasture management.

[PAGE 18](#)

Successful crossbreeding in Uruguay

Innovation has led to a successful three-way crossbreeding program including VikingJersey, VikingRed and Holstein by Enrique Utermark in Uruguay

[PAGE 22](#)

vikingnews

New breeding scheme focus on females and ET 4

Should I use genomic or daughter proven sires? 5

Kårtorp focus on VikingRed 8

NAV Bull Search is getting even better! 9

The good life with ProCROSS 10

Sires in focus 12

Around the VikingWorld 16

New breeding scheme focus on females and ET

By breeding manager Lars Nielsen

This spring VikingGenetics introduces a revised breeding scheme with increased focus on females and embryo transfer. This new scheme will result in even higher genetic progress.

By increasing the number of progeny of the best females, we can increase the genetic progress compared to how it is at present. Therefore VikingGenetics has decided to increase the investment in embryo transfer to double the flush activities. The additional flush activities for top females is the primary reason for the additional genetic progress in the new breeding scheme.

Calculations show that we will increase genetic progress from three to four NTM units per year. The higher genetic progress will contribute to increase in profit for you as dairy farmer.

In future VikingGenetics will only buy half as many Holstein and VikingRed bull calves, but for Jersey only 10 bulls fewer due to the lower reliability. All the highly selected genomic bulls will first be used as sires of sons. When there are more semen available, we offer semen for the home market and for export.

VikingGenetics also buys heifers

We have also decided to work more actively with purchase of top females that will not be flushed at home in the herd. Therefore VikingGenetics offers to buy top heifers with the right of repurchase for the breeders when the flush activity has ended. The breeder will have the right of repurchase of the first four embryos.

In Finland and Sweden VikingGenetics will house donor heifers in barns next to our bull stations. In Denmark we work with private contracts.



Rasmus Kildal, Denmark, has fantastic results with embryo transfer in his herd. Here he is with heifer no. 2267 (Sundance x VH Osmus x D Skotte) – the best index heifer in the Nordic countries with gNTM +45.

Table 1. Life cycle of the bulls

	Viking-Holstein	Viking-Red	Viking-Jersey
# purchased bulls – previously	240	220	75
# purchased bulls – in future	125	170	75
# bulls in semen production – previously	175	170	50
# bulls in semen production – in future	100	100	40
# embryos produced	4000	4000	200

Sale of embryos and working with recipients

To make the breeding scheme succeed, the work with embryo transfer is very important. But the utmost important may be related work with recipients ensuring that embryos are transferred and pregnancies are made – and preferably very soon after the flush. Therefore VikingGenetics is working on a pilot project in Finland. The project is to ensure that as many embryos as possible are transferred when fresh as this will shorten the generation interval and increase the pregnancy rate. ●

How to reach good results with embryo transfer

Rasmus Kildal from Denmark is working a lot with embryo transfer and obtain amazing results in his herd. “With regards to the recipients I think that good well-being in general is crucial – light, correct temperature, rest and good feed. About three weeks before planned transfer, we increase the energy level a bit so that they are in good energy balance when being pregnant. Last but not least good heat observation is an important precondition to a good result. Our embryo technician is very critical when he examines the recipients. He also transfers the embryos, and the pregnancy results averaging 70% are also very much due to him”, Rasmus points out.

Rasmus of course makes genomic tests of all his heifer calves and number 2267 (Sundance) with gNTM +45 is the best index heifer currently in the Nordic countries! VikingGenetics has already signed a flush contract for this calf!

Should I use genomic or daughter proven sires?

Most dairy farmers have been asking themselves if they should use genomic or daughter proven sires. The answer is: it depends on what you prefer as there are benefits and down sides using both categories of sires.

Have a look at table 1 – this is the VikingHolstein top 10 NTM ranking for daughter proven and genomic bulls. It's easy to see that the NTM level is significantly higher in the genomic sires. There are four years of age difference between the two groups and with a yearly progress of three NTM-units the difference will be about 12 units. The benefit of using genomic sires is that in average you will have a higher genetic progress in your herd meaning higher profitability.

The down side with the genomic sires is that the indexes are less reliable compared to the daughter proven. The average reliability of the traits is from 50-70% depending on trait. Daughter proven indexes when the daughters have finished second lactation obtain reliability from 80-99%. So the benefit of using daughter proven sires is that you are more certain of what you get.

So the choice is yours! Luckily VikingGenetics offers outstanding sires in both categories.

Always use genomic sires as a group

When you use the genomic sires, it is crucial **not to focus on a few sires**. You should always use a group of sires that fits your goals. If you only use a few sires, your breeding program becomes very risky. Because of the lower reliability some



With NTM +30 VH Osmus is the best current, proven VikingHolstein sire. This daughter is from Rasmus Kildal, Denmark.

sires turn out not to be as good as expected when they get daughter proofs. But if you use a group of sires they will **keep the expected level in average** – some will be better and some lower.

Can we then trust the genomic sires? Yes, Nordic Cattle Genetic Evaluation (NAV) is making routine checks if the genomic sires turn out as expected. The conclusion is clear: the genomic information is trustworthy.

Another interesting observation is that the 10 best daughter proven sires shown in table 1 have 41 sons in the VikingGenetics program today. Eight of the 10 were used intensively as genomic sires and also as sire of sons. The only two ones not being used are VH Bentzen and VH Sully that have turned out to be better than expected.

Transition from genomic to daughter information

In most world wide breeding value estimation centers the transition from genomic information to daughter information is done in a way where the genomic information automatically gets less weight when more and more daughter information becomes available. This is called a blending procedure. **NAV does not use a blending process** and thereby also not the VikingGenetics sires.

This is very important to have in mind when you look at the early daughter proven sires. NAV is working on making this blending procedure, but does not have it ready yet. The

Table 1. Top 10 daughter proven and genomic sires. Indexes from feb. 2015

Top 10 daughter proven sires	NTM	Top10 Genomic sires	NTM
VH Osmus	+30	VH Lemek	+44
VH Grafit	+28	VH Griffin	+42
VH Mandel	+28	VH Bernell	+41
VH Peder	+27	VH Lomee	+41
VH Bentzen	+26	VH Blush	+40
VH Fanta	+26	VH Lot	+39
VH Oyvind	+25	VH Ohare	+38
VH Sully	+25	VH Gomorra	+38
VH Op	+24	VH Grace	+38
VH Clark	+24	VH Proud	+38

benefit of the current system is the easiness to separate the information source whether it is genomic marker information or daughter information.

The moment the first daughter proven information is available, the genomic information disappears 100%. This will in most cases cause some jumps up and down, and mainly down, because the early daughter information is strongly influenced by pedigree information, and all VG sires are positive mendelians which means they are better than their parent average. In a couple of index runs this effect will disappear first for the high heritable traits like production and conformation and later for low heritable traits like udder health, hoof health and female fertility – the traits that have a high focus in VikingGenetics.

This means we have to be patient in evaluating if a sire keeps what was promised based on genomic information. A good example right now is VH Miracle. Today he has NTM +19, which is lower than expected from his genomic information. We hope and trust that he will increase his proof when more data is included. Another good example is VH Clark – a D Cole son at NTM +24. One year ago he got his first proof based on daughter information and at that time he dropped from NTM +29 to +11. Two index runs later (in May) he was up to +24 in NTM.



Genomic sires are on average 12 NTM units higher than the older daughter proven - but the reliability is lower. Therefore we recommend to use them as a group.

And always keep in mind that the genetic progress is three NTM units per year, meaning a genomic sire will automatically drop 12 units (3 x 4 years) from his first release of indexes until the daughters start milking. ●

The Agromek exhibition November last year attracted visitors from many countries to the Viking exhibition, seminars and visits to top managed herds all over Denmark

Great ProCROSS cows



International guests



VikingRed show

The Spanish team



R Facet daughter group



VH Grafit daughter group

Once again proven. Genomics works!



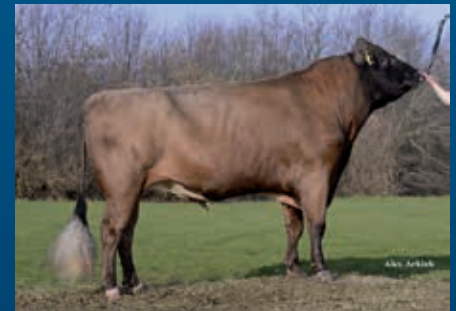
VR Fimbe
NTM +20

VR Fimbe combines production, longevity and conformation.



VR Alavire
NTM +19

Mr daughter fertility is his middle name. Sexed semen available.



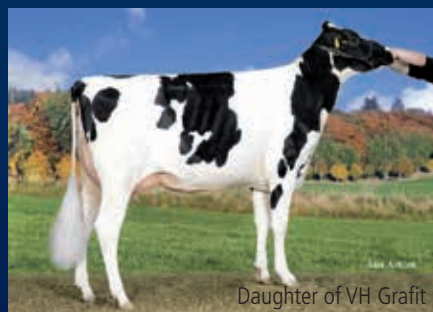
VR Fergus
NTM +18

VR Fergus for longevity and nice udders.



VH Osmus
NTM +30

Super health trait sire.



VH Grafit
NTM +28

Production and conformation from VH Grafit.



VH Mandel
NTM +28

Health traits and conformation. Sexed semen available.

Kårtorp focus on VikingRed

By Camilla Rosman

Per and Tore Larsson, Kårtorp Farm in Sweden, are very enthusiastic about the VikingRed breed. The organic production is at present 9,700 kg ECM and increasing. "I want to show that high production and the good health of VikingRed cows can be combined!" Per says.

"As dairy farmers we must have as much milk as possible in the milk tank! That is first priority. At present our production is 9,700 kg ECM and the goal is to deliver 10,000 kg ECM per cow in our herd of 210 VikingRed cows. The herd was quite uneven since the herd was tripled between 2009 and 2012. Because of that we focused on cows with functional conformation and today we got a more uniform herd. The present focus is on production, components, milking speed, feet & legs and udder health" Per tells.

"In my opinion the best cow is a cow that looks the same, lactation after lactation. She must give high production of solids, stay healthy and fertile,

be small to medium size and have a good udder. I am a dairy farmer and must produce milk as efficiently as possible. My cows do not have to be show cows", Per says.

All calves genomically tested

At Kårtorp they genomically test all heifer calves routinely. The heifers are in an external heifer housing system from the age of 3-4 months and brought back to the Kårtorp herd six weeks before calving. "When testing all heifer calves, we are able to do more correct selection and focus on the genetically best animals. Even though there is a cost for genomic test, calculations show we can increase the genetic progress and minimize the cost of raising heifers", Per says.

Combines use of X-Vik and beef semen

"Our goal is an increase of three NTM units per year in the herd. The best

third of the herd is inseminated with sexed X-Vik semen from top sires and by having a genomic test we are more certain to get heifer calves on the genetically best animals. Furthermore potential bull dams are mated to sires of sons with the goal to sell bull calves to VikingGenetics", Per emphasizes.

"We have no intentions to breed more heifers than we need for replacements. As part of the strategy we therefore use beef semen on the poorest third of the herd. We choose Charolais for the cows and Hereford for the heifers. Following this strategy we both increase the genetic progress and the beef value of the herd. The goal is to reduce the replacement rate to below 30% meaning we need 60-70 new heifer calves per year. This goal should be possible", Per says. The calving interval is 12 months and almost all heats are found with automation heat detection tools. ●

Fact box:

- 210 VikingRed cows
- 3 employees
- 250 ha
- 9,700 kg ECM
- 3 GEA robots



Per Larsson, Kårtorp Farm in Sweden, is very enthusiastic about the VikingRed breed.

"It is exciting to see how far you can push the VikingRed cows when it comes to production. I think that the red cows have a far higher capacity than many dairy farmers realize! And we want to prove it!"

PER LARSSON

NAV Bull Search is getting even better!

NAV Bull Search was introduced in summer 2014. It has received positive feedback from farmers as well as breeding advisors and other professionals working with dairy cattle breeding. New features that make the search page even better have now been implemented.

Did you know that it is possible to search for sons or maternal grandsons of a certain bull? There are also a lot of other search possibilities to find the bulls you need.

Ever wondered what breeding values mean in expected daughter performance? Now there is a new function on NAV Bull Search where you can see the expected effect a certain bull has in average on this daughters compared to the population average.

During 2015 more traits will be added. The idea with the function is to give a clearer picture of what breeding values mean in practice. Hopefully it can also lead to a more sound use of breeding values due to a better understanding of the value in practice of different breeding values.

You find the NAV Bull Search site at <http://www.nordicebv.info> ●

Genetic evaluation for carcass traits

Results from a new Danish pilot study suggest that it is beneficial to include data from cows in the present index for growth and carcass. Today's index only includes data from bull calves.

The study is based on records from slaughtered cows and bull calves. Data in the study are from Holstein and VR calves slaughtered between 2004 and 2014, and Holstein, Jersey and VR cows slaughtered between 2010 and 2014.

This study shows that weight and carcass conformation are quite different traits in cows and bull calves. Improving traits in both genders can only be done by including data from both cows and bull calves in the genetic evaluation. However it also has to be considered how better growth traits effect function, health and feed efficiency. This will partly be analyzed in 2015. ●

Breeding for better youngstock survival

At the end of November 2014, NAV introduced new breeding values for youngstock survival. At first the index is shown for daughter proven sires, but in 2015 it will also be available for genomically tested young sires.

Calves and young stock that die during the rearing period result in lost revenue by causing fewer heifers for replacement or slaughter and often in higher veterinarian costs. It is also an animal welfare issue.

Data to calculate the index comes from both heifers and bulls. For bulls survival up to six months of age and for heifers survival up to 15 months of age is used. There is a clear difference of youngstock survival between bulls, so it is possible to improve this trait genetically.

The genetic level for youngstock survival has been stable during the past 20 years. This means that the survival rate has not been affected as regards the genetics for the period of time.

The new index for youngstock survival is published on the NAV Bull Search web site <http://www.nordicebv.info> ●



NAV has introduced a new index for youngstock survival.

The good life with ProCROSS

By Poul Bech Sørensen

Anne & Gert Lassen, Denmark, achieve fantastic results in their organic herd of 250 ProCROSS cows. The production has passed 11,500 kg ECM, cell count is below 100,000, fertility is excellent and they hardly ever have a sick cow. ProCROSS contributes very much to their good life.

The Lassen family in Denmark has 20 years experience of organic dairy farming and 12 years with cross breeding. “We had a normal Holstein herd, but too many problems with general health and hooves, made us look for alternatives. We were a bit uncertain which breeds to choose. Jersey we did not want because of the lack of beef value. The obvious choice was therefore Danish Red - a breed known for health, fertility, strong black hooves, beef quality and high production. The science and several studies prove that we need a third breed in the rotation to get the full heterosis. We selected Finnish Ayrshire and we were very pleased with those crosses. In fact our four oldest cows are FAY x HOL!”, Anne & Gert smile.



Anne and Gert Lassen with their four children enjoy the good life with their herd of 250 ProCROSS cows.

“The robustness of the cross bred cows is definitely a major contribution to healthier cows”.

ANNE & GERT LASSEN

Happy with VikingRed and Montbeliarde

When VikingGenetics was founded, the breeding programs of Danish Red, Finnish Ayrshire and Swedish Red merged into one - VikingRed. Therefore Anne & Gert had to look for another breed for the cross breeding program. “We studied the ProCROSS concept that includes the French Montbeliarde breed, which seemed to be our kind of cows - high components, strength, robustness and good beef quality.

Strong wills - easy calvings

Both Montbeliardes and VikingReds have a stronger will than Holstein cows, and that you have to learn when working with them. “On the other hand both calves and cows have a much stronger will to survive. Calvings are also easy and we hardly ever assist with a calving, even though we now use Charolais for the poorest half of the cows. The possibility for using the beef strategy is thanks to the great longevity of the ProCROSS cows. Therefore we need less replacement heifers, and we don’t want to produce heifers with the goal of selling them – there’s no economy in raising and selling heifers and you better use your land for producing milk”, Gert & Anne point out. The culling rate for the ProCROSS herd is 20-25% per year.

Super fertility

The fertility of the cross bred cows is excellent and they use eyes and ears to see the signals of heifers and cows in heat - no activity meters are installed. Especially during milking they catch many cows’ heats. “The size of the heifer is evaluated prior to breeding and some of the Montbeliardes heifers really take off with tremendous growth, so we need to monitor them!”, Gert highlights.

“ProCROSS makes breeding really easy. You simply have to select the best sires from each breed and the great thing is that you never have to worry about inbreeding”.

GERT LASSEN

Owners: Gert Lassen & his wife Anne

Family: 4 children – Malte 12, Maja 11, Sofia 6 and Bertram 3

Employees:
4 employees – all Danish:
Gert's father Henning
Jeppe – herd Manager
Søren – mixes the feed and works in the field
Bjarke – evening milking.

Acreage:
510 ha – 330 ha leased
285 ha grass of pasture
145 ha rye
65 ha barley
15 ha carrots

Production:
250 ProCROSS cows
Average yearly production:
11,500 kg ECM, 3.84% 441 kg fat and 3.31% 381 kg protein

Tremendous improvement of udder health

Three years ago mattresses and chopped straw as bedding in the cubicals were replaced by sand. At the same time they went on 3 x milking and they saw an immediate improvement of udder health. Cell count dropped from 300 to 200,000 and last winter cell count was 140,000. At the moment it's as low as 95,000 even though treatments with antibiotics when drying of cows is not used.

Another reason for the excellent udder health is highly qualified staff, extra room in the barn and stabile feeding. But the robustness of the cross bred cows is definitely a major contribution to healthier cows.

Huge potential for production of PC cows

That cross bred cows have huge potential for high milk production is proven in the Lassen herd with a rolling herd average of 11,500 kg ECM! "Before we did not realize the potential of the cross

bred cows and only fed them to a daily production of 30 kg. Being a member of an exchange group with 12 progressive dairy farmers taught us that we could easily increase the energy level in the ration. Holstein cows might have a higher production potential, but it is just so easy to exploit", Gert explains. The feed efficiency is measured every week and if necessary adjusted and optimized.

Use the best sires for NTM

Cross breeding makes matings really easy. You simply have to select the best sires from each breed and the great thing is that you never have to worry about inbreeding. "We are not breeding enthusiasts", Anne & Gert emphasise. They select one well-proven sire for the

heifers and one for the cows from each of the three breeds and use the best sires to achieve better economy and a better life. The selection criterion is NTM - Nordic Total Merit - which includes all economically important traits. Heifers are inseminated three times; thereafter they are bred with beef semen.

The good life

First in the priority of Anne & Gert is the good life. Time for the family and their four children who take part of the farm work. A daily life without too many problems. Staff that is pleased with their work. The trouble-free, healthy ProCROSS cows contribute to the good life for the Lassen family! ●

"ProCROSS calves and cows have a much stronger will to survive. Calvings are also easy and we hardly ever assist with a calving".

ANNE & GERT LASSEN

What is ProCROSS

ProCROSS combines the three breeds VikingRed, Montbeliarde and Holstein. ProCROSS is proven to be the most profitable crossbreeding program and is used by progressive dairy farmers in many countries. Learn more at www.procross.info.



Montbeliarde x VikingRed x VikingHolstein cow producing well over 12,000 kg.

Sires in focus

VH Bostrup

(VH Bismark x V Exces x A Ford)

Bismark son from an impressive cow family



VH Bostrup

NTM
+23

VH Bostrup obtains his first proof based on milking daughters - 100 daughters in 82 herds. These first indexes show that VH Bostrup is a strong overall bull with special abilities for health and reproduction. VH Bostrup was intensively used as a genomic sire and his best son VH Blush top the breed with NTM+40.

VH Bostrup is from a cow family that has shown tremendous production and longevity. The Exces dam average 12306 kg milk in 4,9 years, A Ford G dam 14962 kg milk in 6,6 years) and V Brando GG dam 12236 kg milk in 8,1 years.

The #1 daughter proven bull VH Osmus is from the same V Exces cow.

VH Fanta

(Fibrax x Satsi x T Hoppu)

Daughter proven outcross



VH Fanta

NTM
+26

Everybody in the Holstein world is searching for outcross sires. Stop searching – he is right here!!

Have a look at his sire line! A true outcross being at the very top of daughter proven sires, VH Fanta now has 177 daughters in milk in

158 different herds. He is the rear combination of high production and super female fertility. Conformation and health is above average.

VH Fanta is bred by Ossi & Heljä Huttunen in Finland.



GENVIKPLUS[®] genomic super sires

VH Beta

(VH Bynke x VH Service x Oman Justi)

The way to eternity



VH Beta

gNTM
+37

Perhaps not all the way to eternity but VH Beta is the King when it comes to longevity (141). Healthy cows that are super fertile and easy to breed back - and good looking too. That is apparently the recipe for cows to stay long in the herd.

VH Beta is bred by Stefan Edlund, Sweden. The dam by VH Service (P Shottle x Lancelot) is a VG85 with 831 kg fat + protein (av. 1.4 lact.) and the Oman grand dam 1,127 kg fat + protein (av. 4.9 lact.).

VH Midgard

(VH Mandel x D Orange x D Banker)

Top proven sire line



VH Midgard

gNTM
+32

VH Midgard is an interesting VH Mandel son bred at Midtgaard v/ Tage Schmidt, Denmark. His sire VH Mandel is with NTM +28 the second best daughter proven VikingHolstein sire. VH Midgard's dam is one of the best D Orange daughters with NTM +26 and very high production of 12,000 kg milk (av. 1.4 years).

VH Midgard breeds - like his sire - super conformation and on top high production and super udder health. VH Midgard - a very balanced profile without weaknesses.

VH Mosling

(VH Miracle x D Oscar x D Legal)

Health and reproduction



VH Mosling

gNTM
+36

VH Mosling is bred in the largest herd in Denmark called I/S Roenhave who has bred several good bulls, including VH Bismark. VH Mosling is the highest-ranking son by VH Miracle and with well-recognized sires behind. D Oscar is one of the best Oman sons from a Joute cow and D Legal is a Lukas son on Tirsvad Patron Claire.

VH Mosling breeds prime udder health and super reproduction - both female fertility and maternal calving ease. Excellent udders and high production level at 115.

R Harvard

(R Ascona x VEST Sum x Emory)

Reliability ahead



NTM
+22

R Harvard daughter

R Harvard has nearly 300 milking daughters who produce well with high components. They are tall with parallel legs, have good udders, excellent udder health and are easy to handle in the dairy. R Harvard can really improve suspensory ligament, fore udder attachment, rear udder and teat placement

R Harvard comes from a strong cow family that has given several good sires like VEST Andy who is a half brother to R Harvard's dam. R Harvard is the best son of R Ascona who has given the red breed many good cows - also some who has been successful in show rings. R Harvard is still selling well at home markets as well as abroad.

VR Donato

(R David x R Admiral x VEST Andy)

The international star



NTM
+24

VR Donato daughter

VR Donato is a true star built on international success. He got his first daughter proof by the end of 2013 and keeps high NTM at +24 making him in the top five of proven VikingRed sires.

VR Donato is high in TPI in USA and his sire R David was the very first sire across all breeds to break the limit 1000 days in longevity in Holland. VR Donato is an excellent all round sire that breeds cows slightly below average in size with good udders and strong feet & legs. He is a real fat specialist combined with super fertility, health and calving ease.

VR Donato is bred by Torben Stolshøj-Pedersen, Denmark.

GENVIKPLUS[®] genomic super sires

VR Lucky

(VR Leroy x VR Anton x R Festival)

The ideal AMS sire



gNTM
+30

VR Lucky

VR Lucky is a new genomic sire and one of the highest ranking VR Leroy sons. The dam was classified 84-81-90-87 and the grand dam was one of the first highly genomically tested heifers. She has given birth to VR Fimbe, our former genomic sire having now ob-

tained NTM +20 based on daughter proof. Fimbe - an R Facet son - has been one of the most popular genomic sires during the recent years.

VR Lucky breeds top type, positive health and fertility profile combined with shallow udders, close front teats, good space between rear teats and very fast milking speed makes him an ideal choice for automatic milking systems. VR Lucky is born in the herd of Carsten R. Eriksen, Denmark.

VR Emser

(VR Ejstrup x R Facet x Peterslund)

Milk solids, health, fertility & longevity



gNTM
+31

VR Emser

VR Emser is a high-component genomic sire. He is on top in all fertility traits being an easy calving sire as well. Daughters are medium sized, positive in feet & legs and udder conformation. Excellent udder health and longevity - and one of the very best in milking speed. Emser was born by Daltäppa Mjöl AB, Sweden.

VJ Husky

(DJ Hulk x DJ May x Q Impuls)

Triple aAa: 534162 JH1 F

Cappa Casein: AB

Beta Casein: A2/A2

X-Vik available

Sums up his world famous paternal pedigree



Haugaard Husky Hannah

NTM
+22

VJ Husky is the first daughter proven DJ Hulk son world wide. VJ Husky is an extremely good overall sire being positive for nearly all traits. Notice the high production and protein percentage. Tall daughters of excellent type with strong fore udders, shallow udders and thick teats. And then add the good fertility, health and longevity! Now 800 daughters in his proof and 450 daughters classified.

VJ Husky was marketed as GenVik-PLUS (Genomic super sampler) and used as sire of sons. The first VJ Husky sons VJ Hjort (MGS DJ Zuma), VJ Hihl (MGS DJ Zuma) and VJ Hyksos (MGS VJ Ramses) are already now dominating the NTM lists and used as sires of sons.

GENVIKPLUS[®] genomic super sires

VJ Hoj

(VJ Hjern x DJ Zuma x DJ May)

Triple aAa: 423

JH1 F

Cappa Casein: BB

Fertility, health, type and protein



VJ Hoj

gNTM
+22

VJ Hoj is out of "Haugstedgaard Zuma Gretha" by Peter Høj, Denmark. Prominent sires as FYN Haug and DJ Broiler are bred in the same herd. VJ Hoj is the first son of VJ Hjern (Q Hirse x Q Handix) to be marketed.

The dam of VJ Hoj is a young cow, just finalizing her first 305 day lactation with outstanding 9140 kg milk, 5.29% and 482 kg fat, 3.98% and 364 kg protein. The maternal grand dam has been milking for 4.5 years with a yearly average of 9500 kg

milk. Haugstedgaard Zuma Gretha is scored VG 88.

VJ Hoj breeds high protein production, high protein component, very good fertility, longevity and health. Expect daughters with good frame, strong and high rear udders and shallow udders.

VJ Hoj is used heavily as sire of sons in the Viking-Jersey breeding and flush programs.

VJ Rodme

(VJ Hubert x DJ May x Q Impuls)

Triple aAa: 243

JH1 F

Cappa Casein: BB

X-Vik available

World leading genetics in the first VJ Hubert son



VJ Rodme

gNTM
+24

VJ Rodme is out of "Rodme Nygaard May Kirsten" bred by the Hansen family, Denmark. VJ Rodme is the first son of VJ Hubert (DJ Hulk x Q Hirse). An extremely strong line up of sires in the pedigree: Hulk, Hirse, May and Impuls.

The dam of Rodme is scored VG 87 and average 7,400 kg milk, 5.76% & 429 kg fat, 4.12% & 307 kg protein. Both MGD and MGGD had productions on the same high level with 300 kg protein per year.

VJ Rodme breeds tall daughters with very good capacity and frame, along with excellent, extremely shallow and well-attached udders. Udder health and longevity are other of VJ Rodme's trademarks. VJ Rodme is used heavily as sire of sons.



GREAT RESULTS WITH VIKING-JERSEY IN SOUTH AFRICA

By Poul Bech Sørensen

Japie Nel and his family successfully run a high-producing herd with 400 Jersey cows in the semi arid country of Schweizer-Reneke in the Northwest province of South Africa. Summers here are hot and winters cold, but the VikingJersey cows seem to acclimatize very well.

“We farm in a place of very extreme temperatures. It can reach 45 degrees C in summer and drop down to -11 in winter. The jersey cows seem to adapt very well in this climate”, Japie tells. “From the start I used Danish Jersey sires due to their high milk solids. We sell our milk to a local cheese factory, and they pay a good bonus for the high solids in Jersey milk. With an average production of almost 8,000 kg milk we also value good udders. We find that Danish / Viking Jerseys are very strong for this important trait. Fertility is also of high priority; challenged with the heat stress we experience during summer months”, Japie points out. Some of the sires doing particularly well in the herd are DJ Zuma, DJ May, DJ Broiler, DJ Holmer, Q Impuls and DJ Lix. The DJ Lix cows are the favorites when it comes to strong udders.

Excellent relationship with Genimex

Japie has enjoyed an exceptional business relationship with the local AI company Genimex, who represent VikingGenetics in South Africa. Chris Cloete, the manager of Genimex, and his advisors provide solid advice to not only Japie but many other dairy farmers throughout the country.

Japie took his interest in VikingGenetics to a new level when visiting Denmark to see the VikingJerseys with his own eyes. “I was very impressed with the quality of the Jersey cows and high producing herds. In the future I will definitely continue using VikingJersey sires because you know what you get. The Scandinavian data and registration system is so complete and

refined that the breeding values on the sires never disappoint. The secondary breeding values are outstanding - and we need that with the production system that we are in. Good health and fertility are essential in our extreme weather, if you want many lactation periods in the cows.” Japie stresses.

Dry country farming

The annual rainfall in this part of South Africa is around 450mm, which without irrigation only suits growing native African grasses. However, on Japie's farm 26 ha are irrigated and used for

“Good health and fertility is essential in our extreme weather, if you want many lactation periods in the cows”.

JAPIE NAL

growing maize for silage. During the winter it is also possible to seed oat cut for hay later on during spring. Lucerne hay is added with other feed components in the TMR ration and brought in from other farmers. This year the maize silage in the pit was disappointing with lower feed values only allowing 3.1 kg in the ratio versus the norm of 10-15 kg.

Finally higher milk price

Up until April 2014 dairy farmers in South Africa suffered from low milk prices and high feed costs. “For a period we lost 20,000 ZAR each month, and it was the worst time in my 20 years as a dairy farmer”, Japie tells. “But luckily there is now a better balance between supply and demand and the milk price has increased to currently 4.85 ZAR / liter at 4.70% fat and 3.72% protein”.



Anelia & Japie Nel with their three children. All take part in the work in the African farm.



Japie Nel is very happy with VikingJersey - including these daughters by DJ May.



DJ Zuma daughters.

Challenges for farming in SA

Japie points out a number of challenges for dairy farming in South Africa:

- Lack of skilled labor
- Continuous expansions
- Lack of water
- Climate changes
- Politics
- Crime

The first point with skilled labor is a major challenge in farming in South Africa in general. On the other hand labor is (still) relatively cheap.

The second point relates to scale of economics as continuous expansion is necessary to keep competitive in both the local and world market.

The third concern we face is the water level that is becoming a major issue

after some very dry years. Normally we get about 450 mm of rainfall annually, but the past three years we have only received a total of 700 mm!

Climate change is impacting us here in Africa. "When I was a boy, we had a nice rain for seven days, but now we get rain storms of 70-80 mm in a few hours", Japie says.

The political situation in South Africa is another major concern for many farmers and other businesses. "We have to live with it and try to adjust to the given

political system", Japie underlines. "We need to establish a trust with the local community if we want to expand our operation. It is a challenge but some farmers are able to overcome this too.

The final issue is the high crime rate in a country with significant social diversities. We try to keep a good relationship to our local community, but in many places in SA crime and protection of your property is an everyday concern", Anelia & Japie finish this interview. ●

"I was very impressed with the quality of Jersey cows in Denmark, and in the future we will definitely continue using VikingJersey sires because you know what you get".

JAPIE NAL

Hernanja Jerseys

Owners: Japie (49) + wife Anelia Nel & three children

Workforce: 2 managers & 15 full time workers

Herd: 400 purebred Jersey cows

Production: av. 28 litres/day - 7943 4.70 3.72

Farms: 473 ha - 26 ha irrigation & 140 ha cultivated dryland

Milking: 20 point static herringbone - Dairymaster

Breeding goal:

- High solids
- Shallow udders
- Strong fore udder attachment
- Strong ligament
- Fertility
- Longevity



The cows are fed with TMR and hay. The trees give shadow in the extremely warm summer days.



MAXIMIZING PROFIT FROM PASTURE MANAGEMENT

By Poul Bech Sørensen

The Glass family owns 500 Holstein cows producing 8,500 liters of milk primarily on pasture in Victoria, Australia. The aim is to improve the bottom-line via optimal use of knowledge, science, genetics and pasture management.

Everything the Glass family does in their dairy is focused on profit. Their farm is part of The Focus Farm Project which is administrated by Murray Dairy, the regional Dairy industry Board in this part of Victoria. A “Focus Farm” is not a “demonstration” or “best practice” farm. It is an ordinary commercial dairy farm coping with the day to day challenges of the dairy industry. Over the next two years a Support Group of dairy farmers, the farm’s agronomist, vet, banker and accountant along with Department of Environment and Primary Industry (DEPI) staff, will meet every six weeks on the Glass farm with a clear purpose. They will assist the Glasses to achieve their stated personal and business objectives.

The name of the farm is “Kerrick Park”, purchased in 2004 and covering 269 ha with an additional 328 ha leased land. According to the Group the farm performance is already in the top 20% from an economics perspective.

Wants healthy and fertile Holstein cows

The foundation for profitable milk production is cows with good genetics. “Our ideal cow is medium-sized with a production of high milk solids and structurally sound udders. Fertility and herd health are equally important so the cows breed back and get into the next lactation with ease and without mastitis. The cows must perform well in turning grass into milk solids because that’s how we get paid”, Brendan Glass says.

With seasonal calvings, good reproduction is extremely important. “Cows need to calve easily and in sync with

nature to take advantage of the growth curve of the pastures. This result in many calvings in a relatively short period of time so a live and vigorous calf that gets off the ground is a must. We breed cows 80 days after calving using prostaglandin injection after a week of natural heats for eight weeks then we turn bulls out for two or four weeks. Heifers are bred according to size and usually we start at the age of 14 months with a pregnacol program which heifers get three injections and ciders then blanket AI. Bulls are put out for eight weeks”, Brendan says.

NTM makes profit easy

In the recent years Brendan has been using sires from the Scandinavia based cooperative VikingGenetics. “In Scandinavia they have a unique indexing system and collect extensive data on very important traits like health, fertility, calving ease, hooves etc. The amazing thing is that in Scandinavia they have collected this type of data for more than 30 years and included all economically important traits into a Total Merit index called NTM. This makes it easy to select the most profitable genetics for our dairy”, Brendan highlights.

“We currently milk daughters by D Odder, Rakuuna and D Sol and calves by D Onside, VH Miracle and VH Bento. The results so far are really promising and we will definitely use more VikingGenetics sires in the future”.

BRENDAN GLASS



Brendan & Sarah Glass run Kerrick Park Holsteins.

Kerrick Park

The People

- Pat (53) & Kerrie Glass, Brendan (29) & Sarah Glass
- Employees: Kirsty (full time) and Steff (part time)

The land 269 owned 328 leased

The Holstein herd

- 500 milking cows, av. 8.500 kg milk / 600 kg MS
- 160 rising yearlings
- 150 joined rising two-year olds
- 75 steers
- 20 mixed age bulls



Cows are grazing all year round and the goal is to maximize profit from pasture management.

All replacement heifers are retained to maintain the herd. The main culling reasons are fertility, mastitis and hooves, but the daughters of the Viking-Holstein sires are already showing improvement for these important traits.

Sires used on the farm from Viking-Genetics with cows in milk are Rakuuna, D Sol, D Odder and D Onside and heifers are from D Sol, Bento and Miracle and this year we used Obama in the heifers. ●

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"In the past we have used a lot of genetics from many sources, but we started using semen from VikingGenetics sires due to the better fertility and very complete data on health".

BRENDAN GLASS



Brendan Glass clearly sees the results of Viking-Holstein sires with improved health, fertility and calving ease. Simply hardier cows!



The Glass family is milking daughters by Rakuuna, D Sol, D Odder and D Onside. Here's a super D Odder daughter.



Australian farmers happy with their Viking cows

By Poul Bech Sørensen

Australia has become one of the best export markets and daughters by Viking sires are performing well in the herds.

70% of Australian dairy farming is concentrated in Victoria with large commercial herds combining grazing with a supplement of concentrates. Cows must calve easily, breed back easily, produce high solids and stay healthy. VikingRed has been popular for years and soon there will be thousands of

daughters by VikingHolstein sires in milk. Farmers love them as calves and even more as cows, because they are trouble-free and fertile. We have visited some of the many satisfied dairy farmers in Victoria.



Dennis Lomax loves his DJ Jante heifers.

Dennis Lomax, North Victoria, Australia
380 Jersey & Red cows, 618kg solids
150 Ha pasture, irrigation and 1.5 ton grain per head

“I am using more Viking sires because of the huge amount of reliable data behind every economical trait that affects my bottom line for profitability in my dairy business. Viking sires are fully optioned and matched by no other. I have 20 daughters milking by DJ Jante and they are the best line of Jersey heifers I have ever had - taller, stronger and great udders with amazing milking ability.”



Julie Young and her son are very fond of their VikingRed cows and now also use VikingHolstein.

Julie & Stuart Young, Victoria
375 mixed cows - Red, Holstein and crossbred
Av. 7807 liters - 598 kg solids
185 ha - pasture, grain and supplements

“We started on this farm two years ago and have bought quite a lot of cattle in. We have some cows by Viking sires but not as many as we would like. We have cows by all breeds and crosses of them, but we really like the VikingReds as well as the red crosses. We’re not fans of big Holsteins, but it seems like the VikingHolsteins are more medium in stature and very functional so it might be those two breeds we focus on in the future. Maybe in a cross breeding programme.”

“For us it’s important to have cows that get in calf easily, good udders, high solids and stay healthy. A big majority of our young stock is by Viking sires and we really look forward to starting milking them”. The Stuart family has used a broad variety of sires from Viking like Ross, Bento, Nero, Miracle, Obama, D Odder, Nästgard, Foske, St Hallebo, Orraryd, B Jurist, O Brolin and Torpane.

Werner, Josy, Phillip & Markus - Lang Dairies, Victoria
1400 cows - primarily Holsteins + few Jersey & crossbred
Av. 6500-8000 liters
1000 ha - 370 ha pasture

“We started using Viking sires on our maiden heifers for calving ease. Conventional semen of D Odder, D Sol and VH Mogens has been very successful for this purpose. We are expanding our herd and heifers are quite valuable with the current very strong export market to China. Overall health traits are becoming more important in our herd to make general management of the cow easier. We run two dairy platforms, each currently milking 700 cows. Next year we plan to start a third dairy platform and boost total milking numbers to 1600+ cows.

We are aiming to breed functional cows that have the flexibility to change production according to seasonal conditions. Our cows have medium stature and must have the ability to walk long distances every day to graze. Health traits are becoming more important in our herd, aiming for a cow that



Werner, Josy & Markus - Lang Dairies, Victoria in Australia, have 1,600 cows. They wish for healthy, robust and fertile cows with strong hoofs. Therefore they use genetics from VikingGenetics.

requires fewer medical interventions to achieve the same production. We believe that the Viking genetics can help us achieve these goals. Each year from now on we will therefore have 200+ Viking heifers entering our herds.

Jock Bellmann, Victoria
150 VikingRed cows
Av. 26-30 liters daily
120 ha - pasture + fodder

Jock practices seasonal calving in early autumn (March) and now in December the cows are in late lactation ready to dry off so Jock and his wife can have a good long summer holiday. “I really like the red cows”, Jock says. “They are very healthy, hardly ever get mastitis and easy to get in calf which is important for me with the seasonal milking. Also they are easy calving and I have no worries with the calves either”.

Jock’s favorite VikingRed sires are V Föske, B Jurist, S Valpas, G Edbo, VR Cigar and VR Harvard. “As I get older I tend to use proven sires, as we have no one to take over the farm. I want to have good, solid cows when the day comes we have to sell our herd”, Jock says.



Jock Bellmann is very pleased with his red cows. His favorite VikingRed sires are V Föske, B Jurist, S Valpas, G Edbo, VR Cigar and VR Harvard.

Mette & Tony De Nittis, Victoria
230 Holstein cows
Irrigation country

“We started using Viking sires five years ago, because of the better fertility and the quality recordings and data that are behind the complete figures. We need a medium cow that gets in calf, stays healthy and gives a high production of solids for many lactation periods.

We have a herd of 230 cows and have used semen from VikingHolstein sires for the past five years. We see higher fertility, cows get in calf earlier, the SCC has decreased to 100,000 and for the first time this year we had a “challenge” to pick cows to cull meaning we have a surplus of heifers we can sell for high prices. Our daily life is so much better now that we see the result of the VikingHolstein sires in our herd”, Mette & Tony explain. The cows by D Sol are some of their real favorites.



The Danish-Australian couple Mette & Tony De Nittis have used VikingHolstein sires for five years.



Successful crossbreeding in Uruguay

Innovation as a priority but also the workers' team and good management have been the keys to the development of the farm "El Gato" in Soriano, Uruguay. Innovation has led to a three-way crossbreeding program including VikingJersey, VikingRed and Holstein.

"El Gato" belongs to Enrique Utermark; breeder and member of Crea El Niño - a group of breeders aiming to improve the efficiency of their farms with help of an agricultural technician.

The farm El Gato originally had Holstein cows, but then the owner considered the possibility of crossbreeding. Enrique started with VikingRed in 2004 as an innovation, but the clear aim was to improve the indexes for reproduction, calving ease, feet & legs etc.

Currently, the herd produces an average of 8984 liters of milk per hectare of grazing (according to data from 2013/2014). The feeding base is 60% grazing, 28% concentrates and 12% silage and hay.

"I am very thankful to VikingGenetics for the selection method that they have been developing for more than 50 years. In all breeds they prioritize traits that increase the profitability of the dairy business".

ENRIQUE UTERMARK

VikingRed like a dream

Enrique Utermark tells us: "The VikingRed breed must be the dream of every farmer. In my house it is a dream come true because they are strong cows, docile, long-living, with easy calving, good legs and udders and high indexes for milk production and solids.

All the problems with fertility, calving difficulties, cesarean births and illnesses are left behind and year after

year these cows give us a calf.

"I am very thankful to VikingGenetics for the selection method that they have been developing for more than 50 years. In all breeds they prioritize in the selection of traits that increase the profitability of the dairy business. This results in durable, medium-sized animals with good legs, high milk solids and good fertility - in short animals that live longer and are more profitable. We can start to inseminate the heifers at 13 months of age without any problems during pregnancy and they are very precocious in fertility", Enrique says.

VikingJersey three-way crosses

Last year the first three-ways crossbreeds with VikingJersey started to milk. I am really surprised of these crossbred animals; they have high production with good udder attachments. I also want to highlight the docility of the animals in all stages of the breeding, which makes the management much easier in general. The calves are very easy to raise and learn easily to drink milk".

"I carry out my dairy in an area of 125 hectares. Currently I have 198 cows in milk, 9 dry cows and 50 pregnant



Mr Enrique Utermark, the owner of the farm El Gato, with the Export Manager Suvi Johansson.

heifers to calve this autumn. Calvings are concentrated 80% in autumn/winter and 20% in spring. The females born in spring are all sold because of surplus of the replacement. This is on the contrary of what happened in the beginning of my farming, when I needed to buy pregnant heifers every year, because I did not have enough replacements” Enrique says.

Today the farm “El Gato” is a reference for many Uruguayan breeders that want to start crossbreeding since they can see the obtained development in the farm in all these years. ●



The beautiful herd of El Gato grazing.

“The first VJ x VR x HOL crosses are great cows; high production of milk solids and good udder attachments. The docility of the animals makes the management much easier in general. The calves are very easy to raise and learn easily to drink milk”.

ENRIQUE UTERMARK



Homogenous group of crossbred cows in the feeding area.



The entrance for the farm El Gato (“The Cat” in Spanish).



Amazing VR x HO crossbred cow in her third lactation and daily production 53 kg milk.

adding value every day means

increasing your productivity

Your herd
deserves the
very best genetics
and excellent
service

Your herd has a great potential. Unleash it with high NTM sires from VikingGenetics. Improved herd health, high production and functional conformation come in one great package.

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