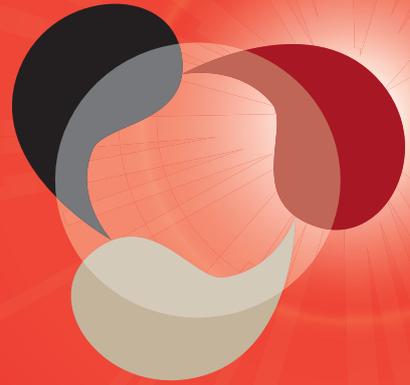


NEWS | NO 01 | SEP 2011 |

PROCROSS

MONTBELIARDE / HOLSTEIN / SWEDISH RED
SWEDISH RED / HOLSTEIN / MONTBELIARDE

THE BEST PROVEN CROSSBREEDING PROGRAM



Hoekstra #6528 Peterslund SR x MO x HOL

PROVEN PROGRESSIVE PROFITABLE PROFESSIONAL

Coopex
MONTBELIARDE
THE MONTBELIARDE WORLDWIDE

VIKING
GENETICS
INTERNATIONAL

WELCOME TO PROCROSS MAGAZINE

You are now reading the very first ProCROSS Magazine. In this magazine we would like to introduce news from different herds around the world that follow the ProCROSS system, along with some basics about what it is all about. ProCROSS is a three-breed crossbreeding program, combining the three dairy breeds Holstein, Swedish Red and Montbeliarde. Results from all over the world show that this combination has a tremendous impact on profitability, as the three breeds complement each other in a fantastic way and on top of that the extra bonus with hybrid vigor. The traits that are most affected by hybrid vigor is fertility, vitality and followed by that longevity, so it's easy to see that these have a positive effect on the profitability in a dairy herd. Welcome to learn more about a genetic strategy for profitability!

Sara Wiklert Petersson
General Manager, VGI

Tristan Gaiffe
CEO, Coopex Montbeliarde

ProCROSS is a cooperation between two strong AI companies Coopex Montbeliarde and VikingGenetics. This summer the ProCROSS team from Coopex and VG met in France.



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SUCCESS OF PROCROSS SYSTEM

3 BREEDS THAT TOTALLY MATCH TOGETHER



2366 Swedish Red x Holstein x Montbeliarde
(Peterslund x Clover x Micmac)

ProCROSS is the best proven crossbreeding program

Successful crossbreeding means the use of several breeds that match and fit together: Along with Holstein that is worldwide renown for milk production, ProCROSS is built successfully on matching qualities of two other long-term selected dairy breeds:

Uniformity

Those 2 dairy breeds and Holstein, being rather similar in size, offer what every dairy farmer aims for over generations: Homogenous and uniform dairy cows.

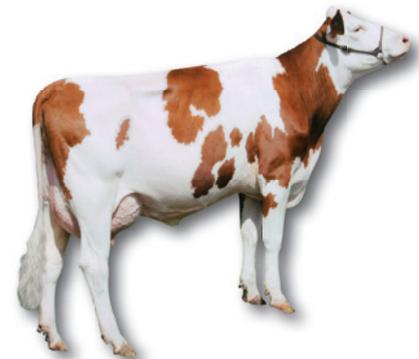
Heterosis: your free gift

The effects of heterosis are the opposite of the effect of inbreeding depression. Research indicates that heterosis is great for traits like vitality, fertility, health and survival allowing also higher production than parent average.

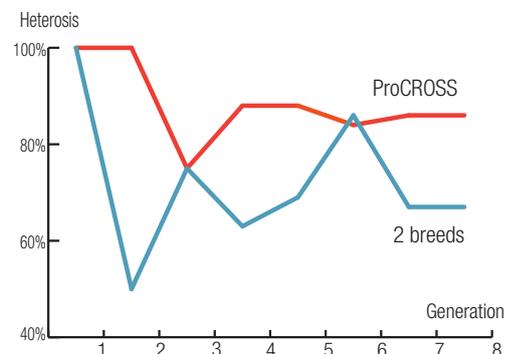
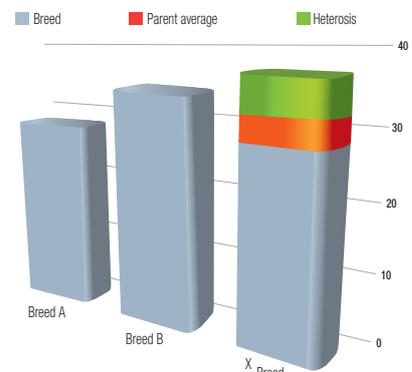
The additive breed effects are important in crossbreeding as well as in all breeding. The heterosis is an extra benefit on top of the parent average. So one critical point is to always use the 8he breeds. A crossbreeding program needs to be well-planned and organized to produce benefits. ProCROSS is the combination of three unrelated competitive breeds all with efficient breed improvement programs.

Why 3 breeds?

Capturing and sustaining heterosis is a key part to an efficient crossbreeding program. Once you have gotten used to the extra bonus of heterosis, you don't want it to drop below 75%. For 2-breed crisscrossing the extent of heterosis drops to 50% in the second generation – leveling off at 67%. A system of 4 breeds results if a high heterosis on average, but contribution of each individual breed is too much diluted. A 3-breed rotation is the optimum and results in average heterosis of 86%.



Prins #117 23239 MO x SR x HOL



SWEDISH RED EXCELS FOR

- Calving Ease & Stillbirths
- Udder Health & Disease Resistance
- Milk & Solids
- Medium size cow



MONTBELIARDE EXCELS FOR

- Genetic Body Condition and Fertility
- Feet & Legs
- Milk & Solids
- Strength & Disease Resistance

CROSSBREEDING REALLY WORKS!



Wes Bylsma is very pleased with his ProCROSS cows

Wes Bylsma, Merced, Central Valley, California, has been crossbreeding since 2000. He milks 1,260 cows averaging 11,500 kg/cow (3X) and is very pleased with his crossbred cows.

Advantages

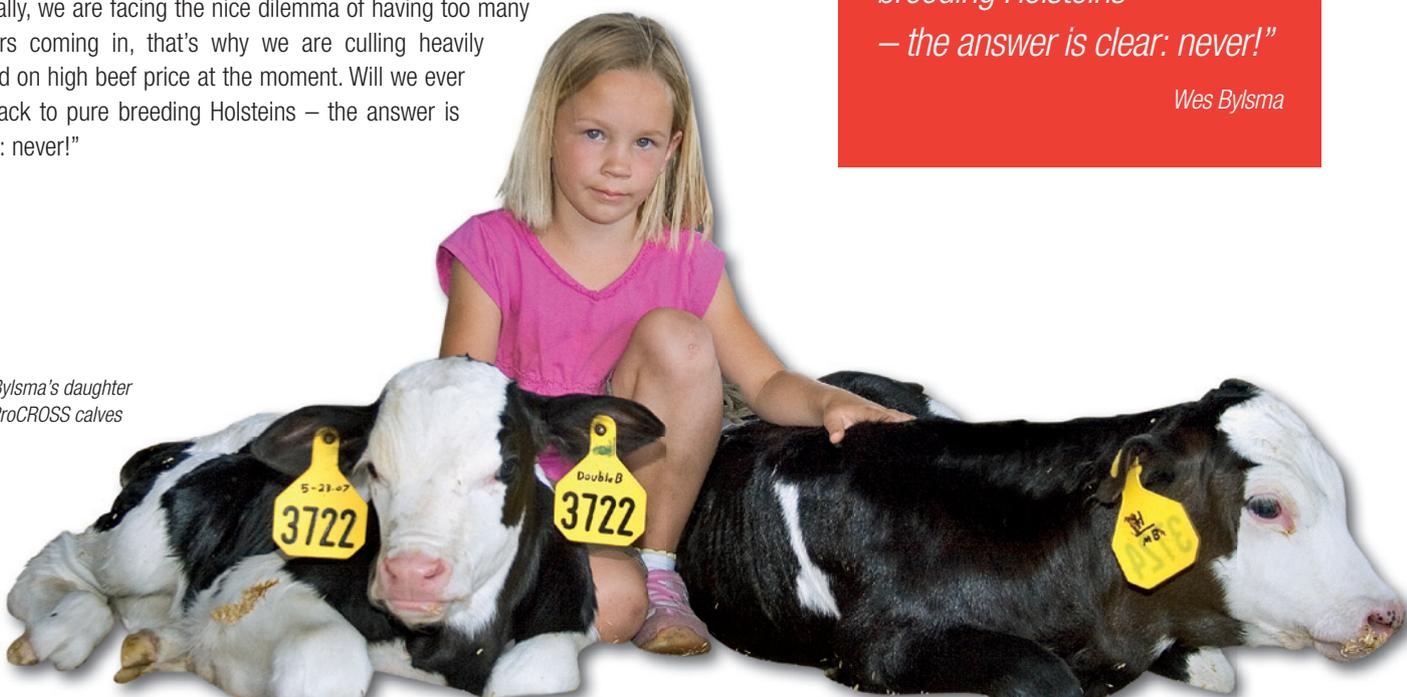
"I started crossbreeding my Holsteins with Montbeliarde in 2000-2001, at first on 400 cows, just to see how it would work.

Then I thought to do so again the next year but my vet scared me. According to him, I was going to loose too much milk. My nutritionist also told me to stop it and I listened to them. Conclusion: I lost two years - the time to see my first Montbeliarde crossbreeds in milk!

To confirm this, I also got the information from the herds in Oakdale (60 miles north) where the same excellent results came out. All problems aren't solved but my dose/ conception went down from 3,1 to 2,1 and my open days went down by 28 to reach less than 110 days. Displaced abomasum is now history and hormonal shots aren't an obligation anymore.

Actually, we are facing the nice dilemma of having too many heifers coming in, that's why we are culling heavily based on high beef price at the moment. Will we ever go back to pure breeding Holsteins – the answer is clear: never!"

Wes Bylsma's daughter with ProCROSS calves



Last February, during world Ag Expo, a group of foreigners including Canadian, Dutch, German, Spanish, Michigan and Wisconsin dairy farmers visited Wes Bylsma herd. The updated results for the dairy were the following:

Production

1,060 cows in milk - 200 dry cows
Milk Production 88 Lbs of milk (40 kg/day) 3X
3.7% fat
3.41% prot
6.98% solids
Average somatic cell: 94,000

Reproduction:

Conception Rate: 46%
Pregnant at 1st Service: 44%
Heat Detection rate: 71%
Pregnancy Rate 21-day: 26%
Services per conception: 2.1 dose
Days in milk: 174
Days Open: 97
Calving Interval: 12.6
Cull Rate: 37%

"Will we ever go back to pure breeding Holsteins – the answer is clear: never!"

Wes Bylsma

CROSSBREEDING TRIAL IN TEN MINNESOTA DAIRIES CONTINUES

In 2008 the University of Minnesota initiated a crossbreeding study including more than 10,000 dairy cows over an 8-year period in 10 commercial dairies in Minnesota. We are now three years down the way in the trail and the first crosses have started to milk in these dairies.

The Minnesota project will compare pure Holsteins to crossbreds in a 3-breed rotational system using the Holstein, Montbeliarde and Swedish Red breeds. The objective of the study is to compare the profitability of crossbred dairy cattle with pure Holsteins, which currently comprise more than 90% of the dairy cows in the U.S.

The 10 dairies are located throughout Minnesota and among the top managed dairies. All dairies have milked some crossbred cows with great satisfaction, and their success with crossbred cows in their dairies sparked their interest in participating in the project. The 10 dairies range in size from 250 to 1,620 cows.

These dairies are among the best in Minnesota for production and reproductive management (see table that follows). However, collectively, these dairies are near the Minnesota average for stillbirth rate, death rate, and turnover rate – all three of which have a huge impact on profitability of dairying.

This study is funded by five internationally-recognized genetics organizations: Coopex Montbeliarde, France; VikingGenetics, Sweden, Denmark and Finland; Creative Genetics of California; Minnesota Select Sires; and Select Sires, Inc. of Ohio, USA. Professor Les Hansen and Junior Scientist Amy Hazel enrolled the 10 cooperating dairies in the new study between April and September of 2008.

This research is a follow-up to a field study with 7 cooperating dairies in California, which compared pure Holsteins and crossbreds of Holstein with Normande, Montbeliarde, and Scandinavian Red. The California study ignored data for health traits, which will be emphasized in the new study. Furthermore, the new Minnesota study is likely to confirm results from the California study, which showed major advantages of crossbreds compared to pure Holsteins for calving difficulty, stillbirth, fertility, and survival, with little, if any, loss of production. In this trial it will also be possible to compare the 3-way cross (HxSRxMO or HxMOxSR) with Holstein cows.



*#9406 (Orraryd) by Gar-Lin Dairy, Minnesota, USA. (SRB x HOL) 1-09
129 dim, av. 92. Lbs/d (42 kg/d) 3.7%F 3.2%P 20,000 SCC bred 1x and
pregnant!*



*# 9251 (Masolino) by Gar-Lin Dairy, Minnesota, USA. (MO x HOL) 1-10 151
dim 99.2 Lbs/d (45 kg/d) 3.3%F 2.9%P 20,000 SCC bred 1x and pregnant!*

CROSSBREEDING FOR PROFIT

By Claudio Mariani, Genesi Project S.r.L, Italy

When it comes to crossbreeding in Italy it sounds like a religious war: either you find enthusiasts or a fiery opposition. You can hear excellent comments or a total denigration. Why? Because some Holstein farmers see the crossbreeding as bringing an “impurity” into their herd - a sort of nuclear contamination.

The truth about cross breeding is not either/or: for some farms crossbreeding has represented a profitable alternative and almost nobody has gone to a 100% crossbred herd. Many have decided to keep some of their Holsteins pure, normally the ones with better performance and/or genetic merit which also makes a lot of sense.

In farming and any other business it's always better to move away from ideology and stay close to science and raw facts. That's why it is interesting to take a closer look at a farm that is now milking some hundreds of ProCROSS cows, not far from the town of Modena, in the world famous area of Parmigiano-Reggiano - the king of Italian cheese.

Crossbreeding is controversial

The “La Corte” herd is part of a huge coop, made of about 3,000 milking cows placed in different farms. This is the biggest in the group, milking about 850 cows in a quite brand new (four years) freestall barn, and using a 40-places rotator milking parlour.

As a matter of fact, a typical Parmesan farm has all the same problems as any other dairy, and maybe some more focus on components – especially protein. But this wasn't the reason for starting some crossbreeding, neither was fertility that here has always been quite good: in the last five years, the worst days open-result was 117.....so it is not exactly true that the herds who decide starting some crossbreeding are the ones with lower management! The manager, Carmelo Monteleone, says they started because of “health problems right after calving. Too many cows were showing a dramatic drop in their immunitarian response, as number of mastitis and trouble-cows in general were as much as 35-40%. Too much for our standards”.

That's why Monteleone started reading some reports about crossbreeding in US - not only the well-known Californian trial, but also reports and studies for some US universities - and thought it could be an alternative to be deeper investigated. Then he visited some farms nearby that even though smaller than his herd (about 100-150 cows) that were already milking some of those crosses. But as you can imagine, when Monteleone

ProCROSS cows in Italy. The ProCROSS way has cut costs significantly thanks to improved fertility, health and easier calvings.





“La Corte” herd is milking about 850 cows in a new freestall barn and using a 40-places rotator milking system.

reported to the members his idea of starting crossbreeding, there were many controversial debates.

Surprised about the quality of ProCROSS cows

“Everybody I was asking about crossbreeding, told me that I would loose production, make horrible udders, bad legs....a kind of disaster. So I decided to take a look myself, and I have to say I was very surprised when I saw the cows! They were much better than expected and the only difference was the skin color”. So Carmelo Monteleone came home and decided to start doing some crossbreeding, but he felt like a method was needed.

“We already tried some crossbreeding with Brown Swiss in the past, but after F1 cows they were no good anymore. When we learned about the ProCROSS way, we decided it could be what we were looking for. A scientific approach has always been our choice in everything we make, and ProCROSS was the scientific program on the market. Of course, if you like the type of a Holstein cow, ProCROSS is not for you: especially at the beginning, you might have pure Holsteins, F1 and F2 and the cattle could look somewhat heterogeneous. But in my herd we don’t really look at the esthetic part too much. We want cows that give us profit”.

Improved health and profitability

They started with 25% of the herd, and today there are 500 crossbreds on a total of 1,700 heads. A little bit more than 200 crossbred are in milk, and 80 of those are in their second lactation. In 2010 they had about 200 ProCROSS calves, so the number is becoming important. What did they see then?

“Milk production is slightly lower for crosses compared to pure Holsteins,” – says Monteleone – “about 10,200 against 10,500. But this is a reasonable loss, when you go looking into other numbers, directly related to profitability. Just to name one, we cut 15% down the cost for treatments on the whole herd, and this had a huge impact on production costs. Before we had 15.00€/ton milk as pharmaceutical cost – now 13.50€/ton and decreasing. Then we experienced cutting 50% down mastitis, placenta retention, twisted stomach, feet diseases and stillbirth. Back to production, we increased significantly the components (especially protein) and therefore the cheese ability of the milk coming from ProCROSS cows. Therefore I have already suggested to the other coop members to increase the percentage of crossbreeding. But even if we won’t, it will increase anyways as those cows simply last longer!”

“With our ProCROSS cows we experienced cutting 50% down mastitis, placenta retention, twisted stomach, feet diseases and stillbirth”

Manager, Carmelo Monteleone

Table 1. Farm data referred to 2010 and 800 cows in milk (20% ProCross); 1035 calvings in total (200 ProCross, 128 1st calvings and 72 2nd calvings): Data are expressed in % and referred, respectively, compared to the total number of PURE COWS (only Holsteins) and the total number of ProCross cows.

%	Holstein (640)	ProCross (160)
1st calving Culling rate	33	7
Total Culling rate	34	5.5
Mastitis	54	29
F&L diseases	34	18
Placenta retention	17	10
Metritis	32	31
Abomasus dislocation	6.6	3.5
* Dead Calves within 24h	9.5	4
* Stillbirth	20	14.4
* Production (milk)	103.8	99.7
Protein	3.74	3.9
Fat	3.9	4.1

* 1st lactation

THE PROCROSS PIONEERS

By Sara Wiklert Petterson, VGI

11 large herds in Oakdale California were the pioneers in ProCROSS breeding. They have tried several breeds for crossbreeding to get the most reproductive and economical dairy cow. Based on the experiences their preferable choice is ProCROSS.

Mike Osmundson, Creative Genetics, was the person that first initiated the crossbreeding with Swedish Red and Montbeliarde in US. In his group of customers in Oakdale California, the dairymen struggled with keeping the cow numbers up, as the survivability and reproduction of the Holsteins had decreased. The group started to look around the world and found Normandie, Montbeliarde, Norwegian and Swedish Red in addition to the dairy breeds already present in US. The 11 herds started crossbreeding already in 1998-1999, and today 9 of them are still active cross breeders (one has closed down and one discontinued crossbreeding). When they started, the group decided to document what they did and contacted Professor Les Hansen at the University of Minnesota who together with Dr Brad Heins collected the data and analyzed the results from these pioneer herds. These results are known around the world and clearly show the advantage with dairy crossbreeding utilizing Montbeliarde and Swedish Red.

“Once you get the Pro-CROSS cow it will be the best cow you ever milked”, Mike Osmundson

The three breeds you need for optimal results

Mike explains that it was a learning curve and that they soon realized that not all crosses are created equal, some they liked better and some less and it was a process of elimination when the cows started to milk. In the years 2001-2004 they found out that they liked the Holstein x Swedish Reds or Holstein x Montbeliarde the most and when they started to milk the full ProCROSS (HxSRxMO or HxMOxSR) that was their preferable choice over everything else. Now the herds have gone around the circle and are milking many Holsteins out of the ProCROSS and even Swedish Red daughters from these cows, i.e. they are in the circle the second and third time around. And they really like what they have.

European Holstein sires for better functional traits

“Once you get the ProCROSS cow it will be the best cow you ever milked”, Mike says. “When using the Holstein again, you see more of the Holstein traits of course, but those are also good traits and the strength is still there from the ProCROSS dam. In crossbreeding it is important not to give away the benefits that we have reached thus far and that’s why we use European Holstein, as they have a better selection for functional traits”.

Satisfied cross breeders are the best ambassadors

When I ask Mike how he sees the crossbreeding develop in US, he says “There is no reason why crossbreeding would not be a significant tool in the dairy business. I thought it would happen a lot quicker when the results were known, but it seems like the skin color is still important to some people. The dairy business is quite conservative and slow to change most of the time and with crossbreeding it is no different. The increase in the crossbreeding is very much due to word of mouth, the neighbors of satisfied cross breeders start when they see the result with their own eyes.”

Stay committed

Mike gives the following recommendation to anyone that considers starting crossbreeding. “Look at, evaluate it, go and look at the ProCROSS cows and make sure you like it, when you are done with the thought process – stay committed to your decision and follow the plan. Shut your ears to anyone that wants to talk you out of it and stay committed to the crossbred cows. Finally you will experience the results – Wow, this is better than I thought it would be!”



Every year since 2005 we organize an Open House in the dairies in Oakdale, California. Countries represented in the group this year were USA, Canada, Germany, the Netherlands, Spain, France, Sweden and Finland

PROCROSS TAKES OFF IN PORTUGAL

By Stephane Fitamand, Coopex Montbeliarde

The “Casal de Quintanelas” herd in Portugal has used ProCROSS with Montbeliarde and Swedish Red since 2007 for the herd of 200 pure bred Holstein cows. The result is stronger, healthier and more reproductive cows.

After 50 years of genetic investment in pure Holstein genetics in our 200 cow herd, which I inherited from my father, true lover of the eagerness and ability of Holsteins to produce milk, I reached a point where the fragility of the animals reached levels difficult to support. Inbreeding would be the most likely cause of this disturbing situation.

I decided, after a period of thorough search of the best solution to the problem, to join the project of breeding for heterosis “hybrid vigor” through the “ProCROSS” Program which was introduced to me from my long time friend, Carlos Serra.

Montbeliarde for cows – Swedish Red for heifers

The first doses of Montbeliarde and Swedish Red semen arrived in July 2007 at our dairy “Casal de Quintanelas” and the first cross-bred calf was born on May 11th, 2008, a beautiful Montbeliarde female calf (MO x HO)!

I decided early on to use the Swedish Red semen to breed our Holstein heifers and the Montbeliarde semen to breed our adult cows. A very small core of Holstein cows with the highest genetic level continues to be bred to Holstein semen with the aim of obtaining bulls for breeding, in order to breed repeat breeders.

ProCROSS means progress

Currently, among the 65 ProCROSS cows all in 1st lactation except 7 in second lactation with 3x milking and 169 days in milk, the average production is 34 kg/day (75 Lbs/day), with an average 106 days open and 390 days interval calvings. Dose per conception is 1.9 for those ProCROSS cows.

My 162 Holstein cows (all lactations, 3x) are averaging 33.3 kg/day (73.4 Lbs/day) with 228 days in milk, and 162 days open. 3 doses per conception is reported for those Holstein cows.

I feel that the herd is now back again on the way of progress and I intend to continue to look for the maximum possible of Hybrid Vigor for my cows, through the three breeds rotation that makes up this exciting ProCROSS Program”.

	ProCROSS	Holstein
Number of cows	65	162
Days Open	106	162
Days in Milk	169	228
No of straws/ pregnancy	1,9	3
Average production (3 times milking)	34 kg	33,3 kg

The ProCROSS cows are all except 7 in first lactation. The Holsteins are 19% 1st lactation, 32% 2nd, 23% 3rd lactation and 25% older cows.



Alexandre A. Cunha from the “Casal de Quintanelas” herd in Portugal has used ProCROSS since 2007.

FRANS TIMMERMANS

ONE OF THE FIRST PROCROSS HERDS IN GERMANY

By Liane Krauter, CRV Germany

When Frans Timmermans still managed his herd in West German Ostfriesland, he was an enthusiastic Holstein breeder. In the meantime he milks 1,000 cows in Mecklenburg-Vorpommern in Eastern Germany. Early he found that the purebred Holstein cows are not suitable for large herds with only little time for each cow and a lot of work with changing staff members. He needed robust cows metabolising the basis feeding and with better health traits, in particular hoofs and fertility.

Contents, especially protein, has high weight in the breeding goal. To reach this he has worked more with red Holstein than black and white Holstein. From the red Holstein he prefers bulls like Fidelity and Kylian, which breed a lot of protein.

ProCROSS with Montbeliarde and Swedish Red is outstanding

Already in 2004 Frans Timmermans started crossbreeding with Braunvieh, Fleckvieh, Norwegian and Swedish. In particular the Swedish Reds have convinced him to continue with Montbeliarde and the three-breed combination system ProCROSS. Travels to the USA and Italy also convinced Frans Timmermans that the ProCROSS system is used successfully worldwide. In Frans Timmermans' barn are many daughters after Peterslund and Orraryd at the moment – along with next generation crosses with Plumitif and Toliara. Good udders and high yield is important to the enthusiastic crossbreeder and therefore he first of all uses the sires R Facet and Unchoix.

Lower culling rate gives possibility to use Belgian Blue

A clear advantage of the ProCROSS crosses are the lower culling rate and therefore Frans Timmermans inseminates 20% of his herd with Belgian Blue in order to sell his calves at good profit in Belgium and the Netherlands. And still he has enough progeny to supplement his own herd.

Frans Timmermans milks 1,000 cows in Mecklenburg-Vorpommern and runs one of the first ProCROSS herds in Germany



DUTCH FARMER HAPPY WITH HIS PROCROSS COWS

By Walther Liebrecht, Koole & Liebrechts



Marc Haverman recently built a new revolutionary barn where the cows are in a free stable on compost bedding

In 2003 Marc Haverman's herd of Holstein cows in the Netherlands suffered from serious problems. Fertility problems and illness were very common. Marc was fed up with the situation and decided to change radically. He bought 50 purebred Montbeliarde cows in France and started to inseminate all his Holsteins with Montbeliardes. To maximize heterosis Marc started with the ProCROSS system. He saw his herd getting much healthier and easier to manage. Five years ago he changed to pure grass system where the cows are always housed inside. Recently he built a new revolutionary barn where the cows are in a free stable on a compost bedding. Marc has chosen for low feed cost input. The results of the crossbred are great. Production is comparable with pure Holsteins. The other costs dropped heavily. Fertility, cell count, culling rate, all secondary traits improved drastically.

Today Marc still uses the ProCROSS system where he has until now chosen to use VikingRed to protect his cows from getting too frail.

IN GERMANY PROCROSS MEANS LESS TROUBLE!

Mr Harm Bartels has used crossbreeding for 12 years. He first started with SRB and now he milks the ProCROSS 3-way crosses. The herd average is 8,700 kg at 3.5% protein and 4.2% fat. The results of the herd are excellent in terms of fertility – the calving interval average is only 368 days, and the number of straws per pregnancy is really low – 1.6 for the cows, 1.5 for the heifers.

The longevity figures are also really impressive with a culling rate at 23%.

Harm Bartels is very satisfied with his ProCROSS cows: "They are easy to handle and need less management than a pure Holstein cow. Especially around calving there is less trouble. Usually the ProCROSS daughters calve easily and the calves are agile and start very fast drinking."

PROCROSS

MONTBELIARDE / HOLSTEIN / SWEDISH RED
SWEDISH RED / HOLSTEIN / MONTBELIARDE



ProCROSS is longterm crossbreeding management system

**ProCROSS means more healthy cows, less medicine costs,
and less time lost with sick cows**

**ProCROSS means more pregnancies, higher 21-day pregnancy
rate and more options to cull more low-end cows**

ProCROSS means more financial return per cow



*Left to right: Granddam - Montbeliarde (Micmac) x Jersey x Holstein. Dam - Holstein (Clover) Daughter
– Swedish Red (Peterslund) bred to Montbeliarde (Urbaniste)*



Tel.: +33 3 81632827
Fax: +33 3 81632323
export@coopex.com
www.coopex.com



Tel.: +46 51126700
Fax: +46511 26707
export@vikinggenetics.com
www.vikinggenetics.com

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