



DANBRED

GenePro & Nucleus Management

ENGLISH

GenePro

GenePro is your way to reap the full benefit of DanBred genetics when establishing an on-farm nucleus herd to produce high-quality replacement gilts.

Farms all over the world can take advantage of DanBred's on-farm-replacement GenePro program, either with the purchase of DanBred breeding animals and semen, or solely with the purchase of DanBred semen.

With GenePro, you can use the best sows in your herd to form the basis for future generations, as you also get access to semen from the best DanBred boars. This ensures continuous genetic gain and helps you maintain the herd's health status.

In short, GenePro:

- ensures a continuous flow of replacement gilts with the highest possible genetic level
- ensures replacements gilts are produced with a farm specific immunity, which helps you maintain and stabilize the herd's health status
- ensures access to DanBred Landrace and DanBred Yorkshire semen from AI-stations.

Herds with GenePro can extend the program with Nucleus Management®

With GenePro, you can choose between 2 different breeding strategies



1. Nucleus herd

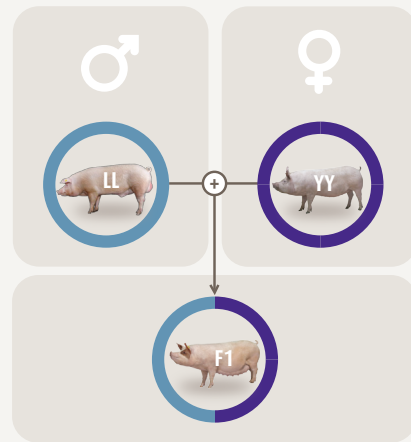
For pig producers who want full heterosis, straight away.

Herds using this strategy are using the best purebred DanBred Landrace or DanBred Yorkshire animals for replacement of the next generation of purebred.

The rest of the herd is used for producing DanBred Hybrid (F1). By using this strategy, the herd is benefitting from full heterosis of all produced DanBred F1 animals. Hybrid breeding is beneficial, because cross-breeding between two distinctive breeds – like DanBred Landrace and DanBred Yorkshire, provide heterosis.

Heterosis occurs when the productivity potential of a hybrid animal become better than the average genetic potential of its parents.

These additional genetic advances are added to the genetic level of the purebred breeds. For traits with less heritability, there is often a great benefit in taking advantage of heterosis. This applies in particular to traits such as fertility, mothering abilities and longevity.



(LL) DanBred Landrace
(YY) DanBred Yorkshire

What is heterosis?

Heterosis occurs when the productivity potential of a hybrid animal become better than the average genetic potential of its parents.



2. Criss-cross breeding

Use this method for higher uniformity, throughout your herd.

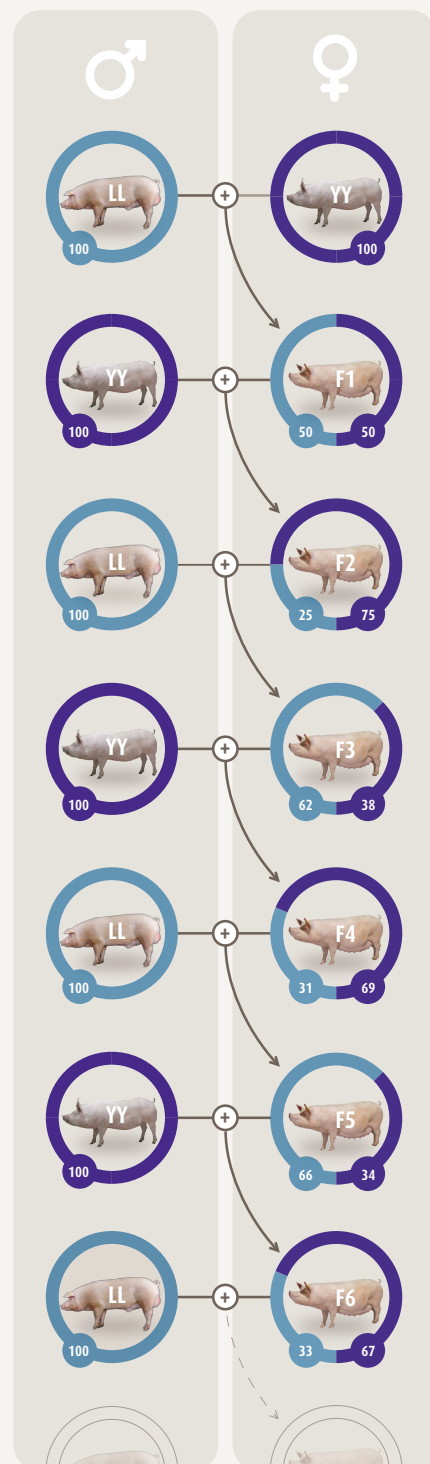
Criss-cross breeding is another way of producing the DanBred replacement gilt.

All animals in the hybrid herd are evaluated, and the best are inseminated with either DanBred Landrace or DanBred Yorkshire semen.

By using this strategy, the herd is benefitting from 67% of the full potential for heterosis (i.e. DanBred Hybrid F1) and the total herd is used for breeding, which gives a higher uniformity.

Criss-cross breeding is also known as alternating or zig-zag breeding.

(LL) DanBred Landrace
(YY) DanBred Yorkshire



Nucleus Management®

Optimize your breeding strategy with access to DanBred's databank.

As a user of GenePro, you can choose to extend your agreement with Nucleus Management®, which is an online breeding management tool. Nucleus Management® makes it possible for you to optimize your breeding strategy with the option to produce DanBred replacements gilts on the same genetic level as purchased DanBred Gilts.

DanBred Nucleus Management® lets you select the highest ranking animals to become future nucleus sows. This way the genetic level of the in-house production of breeding stock is optimized even further.

Nucleus Management® can be used for purebred nucleus breeding and for criss-cross breeding. All sows are registered in the DanBred Databank and their DanBred G-BLUP indexes are calculated on a weekly basis. Using the DanBred index for selection enables you to identify the breeding animals in your herd with the highest indexes and greatest genetic potential.

Nucleus Management® can be integrated into most management programs, and adapting your herd's existing daily registrations to the system is easy. DanBred's own Technical Team is always ready to support you.

What is G-BLUP?

Genomic best linear unbiased prediction (G-BLUP) is a statistical method that utilizes genomic relationships to estimate the genetic merit of an individual - also known as G-BLUP indexes.

100% Genomic selection

DanBred performs genome tests on 100 % of all performance tested animals per year – more than 105.000 individuals annually.

Get in touch with your local DanBred office and learn more – go to danbred.com/contact-us

Clear economic benefit by using Nucleus Management®

The level of extra gain coming from the use of Nucleus Management® depends on the breeding strategy and the increase in DanBred index. An increase of 25 index points will gain excess profits of \$ 92 for a DanBred Hybrid (LY or YL) gilt when the gilt has 60 slaughter pigs during its lifetime.

	Index of purebred Danbred Yorkshire in the nucleus ¹ (10 % best sows)			Index of criss-cross sows ² (10 % best sows)		
Index	Unknown	Known	Improvement	Unknown	Known	Improvement
Index in herds with HIGH genetic level	100,0	123,2	23,2	70,1	103,4	33,3
Index in herds with LOW genetic level	63,6	95,5	31,9	54,9	85,8	30,9

This profit is gained due to a higher genetic level which leads to:

- an increase in the number of live piglets (LP5)
- improved longevity of the sow
- higher daily weight gain
- lower feed consumption.
- higher lean meat percentage.

When using DanBred Duroc as the terminal sire-line for producing DanBred DLY finisher pigs, you will use the full potential of our DNA through our crossbreeding program.

1. Index with high genetic level, is based on index in DanBred breeding herds, index with low genetic level is based on the average from purebred DanBred Yorkshire in Nucleus Management herds outside Denmark.
2. Index with high genetic level, is based on the index from top 10 herds that use Nucleus management with Criss-Cross sows. Index with low genetic level, is based on the index from bottom 10 herds.

Your business. Our DNA.

DanBred is one of the world's leading international pig breeding companies supplying genetics and service solutions.

DanBred has highly reliable breeding data and is the first pig breeding company in the world to use genomic information from all breeding candidates when calculating breeding index, which amounts to more than 100,000 animals per year.

DanBred sets long-term, balanced breeding goals, which are revised regularly. This ensures that the genetic progress for the DanBred Duroc, DanBred Landrace and DanBred Yorkshire breeds delivers maximum profit and creates a sustainable high investment return for our customers. See our breeding goals at www.danbred.com.

Well-documented genetics and comprehensive service solutions are the foundation of DanBred. This has made DanBred the first choice for leading pig producers all over the world who expect optimal, predictable business results.

DanBred P/S is owned by the Danish Agriculture and Food Council, Danish Agro and the former DanBred International A/S (now Holdingselskabet DBI A/S).