

## Beef on Jerseys



**Beef x Jersey crosses are part of a modern sustainable and profitable breeding & management strategy for Jersey breeders**

**Add Beef to your Jersey breeding program and increase genetic progress and profitability**

**Viking Jersey herds has specialized in using sexed semen to avoid worthless Jersey bull calves and experienced the positive effects of the sexed semen strategy. Today 72% of all Jersey inseminations are with sexed semen, and this is expected to increase to 90% during 2021 (already now the ratio is 93% sexed semen on Jersey heifers). Main drivers are higher genetic trend in the herds (by only using top animals to breed next generation of Jersey), less work, space and costs from lower number of Jersey young stock and not least the fact that culling of newborn bull calves will be banned from 2022.**

During later years, export of Jersey heifers from the VikingJersey population, to smaller European Jersey populations, has grown to app. 10,000 heifers per year. But livestock export and demand from Holstein herds is not able to take all surplus heifers, if Jersey breeders stick to 100% Jersey semen and nearly all of this being sexed. For that reason, Jersey breeders has implemented a new strategy, using sexed Jersey semen to the highest ranking 30-40% of the herd and Beef semen for the rest of the herd. This strategy has a huge positive effect on the profitability of the Jersey herd.

### How to be sure Beef x Jersey does not cause problems?

The Nordic Cattle evaluation Center, NAV, has developed a breeding value called NBDI (Nordic Beef on Dairy Index). This index is a very important tool for Jersey breeders when selecting Beef bulls to use on their Jerseys.

The NBDI index is combining traits of importance for both Jersey breeder and bull calf producer (normally not the Jersey breeder, but someone having socialized in producing bull calves for slaughter). Traits of importance for the Jersey breeder are: Calving ease, calf weight, vitality, health and early survival. Traits of importance to the calf producer are: Health, later survival, daily weight gain, carcass conformation and carcass fat score. Two economic sub-indices are calculated, - one with focus on the traits of importance for the Jersey breeder and one focusing on the traits of importance for the slaughter calf producer. The index is calculated across Beef breeds, to enable users to make optimal selection decisions. The following breeds has NBDI bulls available: Angus, Charolais, Danish Blue, Simmental, Limousine, Hereford, Blonde and Crosses (INRA).

Results of trials on the effects using Beef on Dairy (Jerseys) has not proven any negative effects on milk production (during pregnancy or after), on calving ease, calf vitality and survival (if bulls are selected for these traits (using NBDI index)). In current trials (Future Beef Cross project) we are following up on previous trials and furthermore there is focus on carcass classification, eating quality, genomic selection, etc.

We have no experience with Beef on Jersey heifers, and we still do not recommend this. When developing the NBDI Beef breeding program further, Beef on Jersey heifers will also be an option.

### What breeds are the most popular and why?

Jersey breeders uses the Beef bulls giving easy born calves that are easy to manage (very vital calves, starting to drink immediately and having a good health) taking production traits into consideration (as this is what calf producers demand and pay for).

Most popular beef breeds used on Jersey in 2020:

Breed	Blue	Angus	Charolais	Blonde	Crosses	Limousine	Others
Ratio of ins. on Jerseys	66%	17%	10%	3%	2%	1%	1%

The reason for Danish Blue being the most popular Beef breed to be used on Jerseys are that the calves are very easy born (double muscular does not develop until after birth), the calves are small, very vital and highly valued by the calf producers. Angus is known for small and easy born calves, but they are lacking a little in meat production ability, especially if the calves are slaughtered at young age. When slaughter later (1½ to 2 years), Angus is an ideal breed for crossing. Charolais and other “French breeds” are used when meat production traits are highly prioritized. For several of these breeds a systematical breeding program has been introduced to breed more bulls with NBDI profile.

### Positive reproduction results with Beef on Jerseys

Below you can see the non-return rates when using different types of semen on Jerseys. Beef bulls used on Jersey in general show very high conception rates

	Conv. Jersey	Sexed Jersey	Beef
First parity	64.0	58.4	67.6
Third or later parity	59.5	54.9	63.5

First results of sexed beef on Jerseys are also very positive, showing a non-return rate higher than on sexed Jersey semen and a sex rate of more than 92% bull calves. As we have only been using sexed beef for 15 months it is still too early to make final conclusions. During 2020, Danish Jerseys have been using 5,000 doses of sexed beef on Jerseys. This is expected to increase to 25,000 doses in 2021, due to positive results and profitability on the bottom line.

### VikingGenetics offers semen from Beef bulls ideal for Jerseys crossing

Demand for Beef semen for Dairy has increased a lot and is still increasing. Today 20% of the total semen sale is Beef semen, but this is expected to double over the coming years.

If you focus on the following:

- Genomic selection and high accuracy when ranking your Jerseys
  - Reduced Jersey young stock
  - Sexed Jersey semen on your best females
  - Increase the value of surplus calves
- Then use Beef semen on your poorest females and preferable sexed beef, so that you end up with 90% male Beef x Jersey crosses

VikingGenetics offers both conventional and sexed beef semen, ideal for use on your Jersey – and all with full declaration on traits of importance for crossing.