

Questions and Answers – Bernese for the Future

What is Bernese for the Future (BFF)?

BFF is a committee under the Norwegian Bernese Mountain Dog Club (NBSK) tasked with promoting sustainable breeding of the Bernese Mountain Dog. The initiative was launched by NBSK at the request of the Norwegian Kennel Club (NKK), following a meeting with breeders in January 2025.

The work began with a mapping of the genetic inbreeding coefficient (COI) in a broad sample of the Norwegian population. The results confirmed earlier documentation showing extremely high COI levels in the breed. Combined with the breed's well-established and serious health challenges, this made it clear that a controlled crossbreeding programme is the only viable path toward sustainable breeding of the Bernese Mountain Dog. Such a programme is essential for increasing genetic diversity and improving health, fertility, and longevity.

Once the mapping was completed, NKK decided to prioritise the Bernese Mountain Dog and NBSK in the development of new breeding programmes. NKK stated explicitly that a long-term crossbreeding programme would be incorporated into the breed's official breeding strategy. NKK's executive board is responsible for developing breeding programmes that comply with the Norwegian regulations on dog breeding and ensure that all breeding occurs within the framework of Norwegian law. As the breed club, NBSK is responsible for administering the programme.

Sources: <https://www.nkk.no/helse/avlsprogrammene/article-5834>
<https://www.mattilsynet.no/dyr/kjaeledyr/hund/hundeavl>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10048372/>

Why does the Bernese Mountain Dog need a crossbreeding programme?

Research shows that the breed has an extremely high inbreeding coefficient, low genetic diversity, and a high prevalence of cancer and fertility problems. These issues cannot be resolved within the existing gene pool, which is too genetically narrow. Continued breeding within a closed studbook will only increase inbreeding further. Even with international cooperation and optimal use of the global gene pool, it is not possible to reduce the breed's overall inbreeding level.

Source: *Manage and maintain genetic diversity | The Royal Kennel Club*
<https://www.instituteofcaninebiology.org/blog/the-5-most-important-things-to-know-about-cross-breeding>

Can we not simply import “new blood” from abroad instead of crossing with another breed?

No. All available genetic data show that Bernese Mountain Dogs worldwide are closely related, regardless of country of origin. The large international study from 2023 (Letko et al.) demonstrated that:

- Bernese Mountain Dogs in Europe and the USA share the same genetic bottlenecks
- They have equally high inbreeding levels
- They share the same cancer-related risk genes
- They have only two mitochondrial haplotypes globally
- They possess large, fixed ROH regions that restrict genetic diversity

This means that a Bernese Mountain Dog from the USA, Sweden, Switzerland, or France is genetically almost identical to a Norwegian Bernese. Importing dogs does not introduce new genetic variation—it merely relocates the same genes already present in the population.

To genuinely increase genetic diversity, genes must be sourced from outside the breed, from dogs that:

- have good health
- have stable temperaments similar to the ideal Bernese Mountain Dog
- have comparable historical background and functional purpose
- do not have the same high incidence of histiocytic sarcoma (“Bernese cancer”)
- are genetically sufficiently distinct

Source: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10048372/>

Will the Bernese Mountain Dog change?

Both yes and no. The goal is to preserve breed type while reducing inbreeding and thereby improving health, longevity, and fertility. Selected individuals from crossbred litters will be bred back to Bernese Mountain Dogs over several generations. Health, conformation, and temperament will be closely monitored.

The aim is a dog that behaves and looks like a Bernese Mountain Dog, but with genetic contributions from several donor breeds. This will increase genetic diversity and reduce the risk of inbreeding-related diseases, while improving fertility and whelping ability.

Which breeds are used?

Landseer, Newfoundland, Leonberger, Old English Sheepdog, and Bearded Collie. In addition, dogs from the LeoGen project may be used later.

All donor breeds have been evaluated based on mental profiles (BPH), historical background, health status, and genetic distance from the Bernese Mountain Dog.

How are donor individuals selected?

All donor dogs must meet their own breed's health requirements and be functionally healthy, both physically and mentally. Ideally, donor dogs should already have produced several offspring, providing breeders with more information relevant to selection.

Breeders, with support from BFF/HAK, should also map health and causes of death in the donor dog's close relatives. DNA testing for inbreeding and genetic diversity may provide additional information relevant to planning a crossbreeding combination.

BFF can assist with breeding decisions, and all matings must be approved by NBSK.

How are puppies from crossbreeding litters registered?

All puppies in the crossbreeding programme are registered in NKK's ANO register as Bernese Mountain Dogs. NKK only registers litters that have been pre-approved and certified by NBSK and that meet the health requirements set for both the Bernese Mountain Dog and the donor breed.

Can ANO-registered Bernese Mountain Dogs be used for breeding?

Yes, but only with NBSK approval and after all required health examinations for the Bernese Mountain Dog have been completed and passed.

Can ANO-registered Bernese Mountain Dogs be shown at dog shows?

Yes. They have the same rights as Bernese Mountain Dogs registered in the NO register, except that they cannot receive CACIB.

What does this mean for puppy buyers?

Puppies born within the crossbreeding programme and registered in the ANO register are closely monitored with regard to health, temperament, and conformation. These dogs are important for the breed's future. It is essential that ANO-registered males and females are used in breeding if they meet the required criteria.

Puppy buyers must respond to digital questionnaires sent regularly by NKK/NBSK to track the development of these dogs. Any additional health examinations required beyond HD and ED radiographs will be covered by the breed club.

All dogs in the programme must undergo a conformation description organised by NBSK and must contribute blood or swab samples to NMBU's *Berner for Framtida* biobank.

What does this mean for breeders?

Breeders will receive guidance, clear criteria, standardised contracts, and support throughout the process. Breeders participating in the programme must sign an agreement with NBSK regulating costs and responsibilities. This includes the obligation to provide owner information for crossbred puppies and to report all health and temperament data for breeding animals and their offspring.

The agreement may also include financial support from NBSK for programme-specific expenses such as DNA testing and conformation descriptions.

I want to buy a puppy from a crossbreeding litter. Where can I find information about planned litters?

All planned and born litters in the crossbreeding programme will be listed on NBSK's website under *Berner for Framtida*.

I want to participate in the crossbreeding programme as a breeder. How do I start planning a crossbreeding litter?

Contact BFF for guidance and further information.

Where can I follow the crossbreeding programme?

On NBSK's website, the BFF page, and the project's Facebook page.