

GENERAL BREEDING STRATEGY

These objectives were approved at a meeting of the Finnish Kennel Club Council held on 27.11.2011. Valid as of 1.1.2012. The general breeding programme of the Finnish Kennel Club was approved at a Council meeting held on 27.5.2012. Valid from 1.1.2013 to 31.12.2016.

Background	3
Objectives.....	3
The Finnish Kennel Club general breeding programme	4
1. The objectives of dog breeding	4
2. Steering of breeding practices in the Finnish Kennel Club and breed associations	4
3. Implementation of the general breeding strategy	5
3.1. Hereditary characteristics	5
3.1.1. Collecting and recording general information on dogs used for breeding	5
3.2. Enhancing hereditary characteristics through breeding	5
3.2.1. Breeders.....	6
3.2.2. Basic requirements and recommendations for dogs and combinations that are used for breeding	6
3.2.3. Breed type	6
3.3. Behaviour and temperament	7
3.3.1. Basic requirements and recommendations.....	7
3.3.2. Working dogs	7
3.3.3. Companion dogs	7
3.4. Conformation and health	8
3.4.1. Conformation and anatomy.....	8
3.4.2. Other hereditary defects and diseases	8
3.5. Mating	10
3.5.1. Basic requirements	10
3.5.2. Artificial insemination	10
3.5.3. Bitches and whelping	10
3.6. Longevity.....	10
3.6.1. Charting longevity	10
3.7. Maintaining genetic diversity.....	11
3.7.1. Selection of breeding dogs and the maintenance of diversity	11
3.7.2. Life-time number of puppies.....	11
3.7.3. Breeding use of close relatives	12
3.7.4. Domestic breeds	12
3.7.5. Open studbooks as well as crosses of breeds and breed varieties	12
3.8. Communications and education	13
3.9 Cooperation with veterinarians and researchers	13
3.10 International cooperation	14

3.10.1. Breed standards	14
3.10.2. Other measures	14
4. Appendices	15

Background

The Finnish Kennel Club breeding strategy applies to all breeds. It is in harmony with the Finnish Kennel Club's general regulations and the Finnish Kennel Club guidelines, which steer breeding practices. In addition, the breeding strategy takes into consideration the Animal Welfare Act, especially Section 8 (Appendices 1 and 2) as well as Section 24 of the supplementary Animal Welfare Decree (Appendices 1 and 2) and the Council of Europe resolution pertaining to the breeding of pet animals (Appendix 4). The breeding strategy complies with Fédération Cynologique Internationale's (World Canine Organisation FCI) Breeding Rules (Appendix 6), FCI guidelines on the crosses of breeds and breed varieties (Appendix 5) and is in line with the FCI's International Breeding Strategies (Appendix 3).

Objectives

1. ***Dogs that are used for breeding shall be above the breed average in desired characteristics in order to achieve genetic improvement.***
2. ***A dog that is suitable for breeding is typical of its breed both in appearance and temperament, and it is free of ailments or characteristics that would make everyday life difficult.***
3. ***Dogs that are used for breeding have sound temperaments and a breed-typical ability to function because this helps minimise the probability of their progeny inheriting mental traits, such as timidity, that make everyday life difficult and are detrimental to wellbeing.***
4. ***The spread of defects and diseases that have a severe impact on the wellbeing of dogs (cause pain or discomfort or otherwise restrict the dog's ability to lead a normal life that is typical for the species) will be prevented. Only clinically healthy dogs can be used for breeding if such diseases are a concern.***
5. ***Only dogs that can mate naturally and care for their puppies will be used for breeding.***
6. ***Dogs from bloodlines with maximal longevity will be used for breeding. The life length of a dog shall not be unduly prolonged at the expense of its health and wellbeing.***
7. ***The genetic diversity of all breeds will be safeguarded. It must always be ensured that at least 50% of the breed's gene pool, all criteria considered, remains in breeding use.***
8. ***The Finnish Kennel Club supports and produces activities that aim to increase knowledge of the heredity, health and diseases of dogs.***
9. ***Cooperation with veterinarians and researchers in this field will be intensified. The actions undertaken by veterinarians also support the principles and objectives of the breeding strategy.***
10. ***The Finnish Kennel Club influences the international community through the Nordic Kennel Union and the FCI with the aim of promoting greater knowledge of and competence in dog breeding. Our actions within the international community always set the health and wellbeing of dogs as the most important goals.***

The Finnish Kennel Club general breeding programme

1. The objectives of dog breeding

Generally speaking, the objective of breeding is to improve the quality of animal stock. With dogs, breed standards have usually been the guidelines for breeding without, however, overemphasising any characteristic mentioned in them.

Dog breeding and the development of dog breeds should be based on the characteristics mentioned in the breed standard as well as on long-term planning in which the goal must be, in addition to conserving the breed's characteristics, to promote the health, functionality and longevity of dogs. The wellbeing both of the litter and its mother must be ensured in breeding and whelping.

The Council of the Finnish Kennel Club approved a plan in 2006 that lists the following objectives for the general breeding strategy:

- *maintain a conformation that enables wellbeing and normal reproduction*
- *maintain and increase genetic diversity, which decreases the probability of occurrence of genetic defects and diseases and protects against problems associated with immune defence and reproduction*
- *maintain a balanced nerve stability and a good ability to function*
- *maintain and improve the working abilities that form the basis of breed-typical behaviour and temperament*

Furthermore, the breeding strategy:

- *pays special attention to measures that promote the health of dogs*
- *strives to safeguard the status of Finland's national breeds*

2. Steering of breeding practices in the Finnish Kennel Club and breed associations

The Finnish Kennel Club's breeding-related functions and its steering of dog breeding practices shall be based on this breeding strategy, which outlines, in general terms, the main principles and objectives for breeding. The breeding strategy affects how the Finnish Kennel Club determines its focal areas and resource allocation, and it aims to develop the Finnish Kennel Club's activities in a way that enables the attainment of the objectives mentioned under section 1 and serves dog breeding appropriately and with maximal effectiveness.

The Finnish Kennel Club also steers dog breeding through its existing regulations and guidelines as well as the breed-specific *Programme to combat hereditary diseases and defects* (PEVISAs) and breed-specific breeding strategies (JTOs). A breed association's breeding activities must be based on the breed's JTO and any objectives and measures possibly presented in its PEVISA programme. Among other things, these programmes aim to ensure that hereditary diseases commonly occurring in a breed are taken under control and that their spread is prevented. Breed associations apply for a PEVISA programme to be authorised for their breed and they are responsible for monitoring the programme's impact. Breed associations and their subordinate clubs are similarly responsible for steering the breeding in their respective breeds as well as for their breed's JTO.

3. Implementation of the general breeding strategy

3.1. Hereditary characteristics

Objective:

- 1. Dogs that are used for breeding shall be above the breed average in desired characteristics in order to achieve genetic improvement.***

The desired characteristics of a breed are particular traits that can be enhanced through selective breeding and which are defined by the breed association in a JTO.

Measures:

A comprehensive information gathering effort is needed to chart the characteristics of individuals, which will be used in breeding. Most breed associations utilise various ways to accumulate information on the dogs of their respective breed. This information is collected in the databases of the breed association and the Finnish Kennel Club, and it is freely available to all parties.

3.1.1. Collecting and recording general information on dogs used for breeding

The Finnish Kennel Club will develop in cooperation with breed associations a simple behaviour and health surveys, which are suitable for all breeds, to facilitate information gathering and to collect comparable information on as many dogs as possible. Dog owners can answer these surveys on the Finnish Kennel Club website.

In the initial stage, the survey forms will be edited on the basis of accumulated information in order to develop ways of measuring the surveyed characteristics in manner that is as descriptive and simple as possible. If these surveys prove to be effective in practice, the Finnish Kennel Club and the breed associations will compile the collected information into statistics, which will be published in the breeding database. Dog owners can choose whether the dog-specific information they submit is displayed in the breeding database or if it will only be used in the compiling of statistics. Dog-specific information will, however, be made available to breed associations as well. This enables them to intervene should an undesirable characteristic become more common in an individual bloodline.

The Finnish Kennel Club encourages breed associations to organise simple breeding inspections for dogs of their breed. The Finnish Kennel Club will draft a template form and general instructions for the associations to use in these, and shall, if necessary, provide advice on how to evaluate the various characteristics of dogs. A breeding inspection involves a detailed examination of a dog's breed type as well as of its conformation and behaviour. The key points of its body structure are measured and its behaviour is noted by checking the most appropriate boxes from the form. If the breeding inspection is performed by a dog show judge and the dog is found to have normal testicles, a separate testicle certificate or dog show result will not be required for breeding. A note on the normality of its testicles will be entered into the dog's file.

3.2. Enhancing hereditary characteristics through breeding

Objective:

- 2. A dog that is suitable for breeding is typical of its breed both in appearance and temperament, and it is free of ailments or characteristics that would make everyday life difficult.***

Measures:

To further the achievement of this goal, the dogs selected for breeding shall be:

- balanced in behaviour and temperament

- mentally and physically suitable for the use for which the breed was created
- healthy
- able to mate normally
- from a bloodline with good longevity
- typical for their breed in both conformation and appearance

Measures:

3.2.1. Breeders

The aim is that breeders with a kennel affix approved by the FCI and the Finnish Kennel Club will sign the Finnish Kennel Club's breeder commitment declaration and act in accordance with its requirements when breeding dogs.

3.2.2. Basic requirements and recommendations for dogs and combinations that are used for breeding

A dog is, on the part of its conformation and health, suitable for breeding if it is free of diseases and defects that reduce its wellbeing or prevent it from leading a normal, physically active life as well as of an disease that requires constant medical treatment or a special diet. Dogs should likewise be free of defects or diseases that will be exacerbated by pregnancy or whelping. The dog must not be known to pass down defects and diseases similar to those mentioned above (an exception to this is described under the header *Hereditary defects and diseases, defects and diseases passed down through a single gene pair, i.e. qualitative inheritance*). Breeders shall avoid combinations that, in light of existing knowledge, have an above-average risk of passing down unbalanced or non-breed-typical temperament or defects or diseases which compromise wellbeing and longevity of the offspring.

If, however, a puppy exhibits such characteristics, it should be transferred to the *EJ registry* (Not for breeding registry). The Finnish Kennel Club may impose breeding restrictions for the most serious hereditary defects and diseases. This presupposes that dogs can be routinely tested regarding these defects and diseases. Such restrictions are entered into the *Dog registry guideline* and marked with the mention *Breeding restriction*.

It is recommended that a dog, which is used for breeding, be at least 2 years old and preferably older than this so that the health information available on it and its close relatives is as certain as possible (cf. also the section *Hereditary defects and diseases*). Breed associations will note their breed-specific minimum age recommendations for breeding use in the JTO.

It is recommended that breeders seek out the breeding counselling (including any information available on the planned combination) provided by a breed association or breed club based on the breed's JTO or avail of the instruction provided by the Finnish Kennel Club before they produce their first litter of puppies.

3.2.3. Breed type

Only dogs, which are typical of their breed and whose conformation is suitable for the intended use purpose, shall be used in breeding. Dog show judges also commit to upholding the principles and objectives of the breeding strategy.

We recommend that a dog, which is to be used for breeding, have an approved result from either a breeding inspection, a dog show or some other authorised review. The most important characteristics are listed in the JTO.

No breed characteristic should be over-emphasised. The education of dog show judges pays special attention to exaggerated breed characteristics, which endanger the dog's health and wellbeing, and identifying unhealthy conformation traits in dogs. Judges commit to observing the guidelines (Appendix 7) drafted for them as well as the objectives of the breeding strategy.

3.3. Behaviour and temperament

Objective:

- 3. Dogs that are used for breeding have sound temperaments and a breed-typical courage because this helps minimise the probability of their progeny inheriting mental traits, such as timidity, that make everyday life difficult and are detrimental to wellbeing.***

Measures:

The Finnish Kennel Club considers it important that dogs are used for the purpose to which the breed in question has originally been bred for according to its breed standard – supposing that this purpose is ethical, appropriate for contemporary society and that the users take the wellbeing of dogs into consideration.

3.3.1. Basic requirements and recommendations

In the case of any breed, no dog with a poor nerve stability or that is timid or angry will be used for breeding. Each breed association will record in the JTO its recommendation for evaluating the temperament of individual dogs and what types of results it recommends for breeding dogs, i.e. what type of behaviour is typical for the breed. Surveys on behaviour shall also strive to accumulate more necessary information.

3.3.2. Working dogs

Keeping breed-typical behaviour as one breeding criterion in most cases facilitates the maintenance of both balanced behaviour and a healthy conformation in dogs. Long-term and successful engagement in mentally and physically demanding work is usually an adequate demonstration of an individual dog's appropriate behaviour and state of health. The characteristics of working dogs can also be gauged in a working trial or test. The Finnish Kennel Club will establish a separate register for dogs, which serve in a breed-typical function (the so-called working dog registry). The criteria for acceptance into this database will be established in cooperation with the pertinent breed associations. A separate entry will be added in the registration documents of working dogs.

3.3.3. Companion dogs

The characteristics of companion dogs can also be seen as working characteristics: a companion dog that is used for breeding must be social and have adequate nerve stability.

In addition to breed-typical trials, an evaluation can be provided by one of the following tests/assessments or some other corresponding assessment:

- Finnish Kennel Club's mental test
- Mental description (MH)
- Companion dog test (Begleithundprüfung, BH)
- a breeding inspection or a review arranged by the breed association, if it includes a behavioural analysis
- dog shows, numerical behaviour grading

A description of the dog's behaviour entered into a dog show grading form will be accepted if no other temperament analysis is available. We recommend that such an evaluation be provided by at least two judges, in addition to which we recommend that they are achieved during the dog's adulthood.

3.4. Conformation and health

Objective:

- 4. The spread of defects and diseases that have a severe impact on the wellbeing of dogs (cause pain or discomfort or otherwise restrict the dog's ability to lead a normal life that is typical for the species) will be prevented. Only clinically healthy dogs can be used for breeding if such diseases are a concern.**

Measures:

The breeding use of a dog known to pass down a defect or disease that impairs wellbeing can be allowed only if genetic testing ensures that the coupling's other dog has a genotype which, in relation to the defect or disease in question, prevents the birth of genetically affected progeny (cf. also the header *Hereditary defects and diseases, defects and diseases passed down through a single gene pair, i.e. qualitative inheritance*).

3.4.1. Conformation and anatomy

The conformation of a breeding dog must suit the use for which the breed was developed. The dog must not display signs of disease or of breathing or mobility difficulties. A dog like this cannot be awarded and, if necessary, a vet must inspect the dog's condition.

A Council of Europe resolution (Appendix 4) stipulates that breeding should not extend to dogs, which exhibit the following characteristics in exaggerated form relative to their **breed**:

- very large or small size
- height-length ratio in the case of short-legged dogs
- short skull or nose

The resolution also states that a breeding dog must not have the following characteristics:

- persistent fontanella
- abnormal positions of legs (e.g. very steep hind angulation)
- abnormal teeth (e.g. brachygnathia)
- abnormal size and shape of eyes or eyelids (entropium, ectropium, large protruding eyes)
- very long ears
- markedly folded skin

The conformation and appearance of a breeding dog must be free of wellbeing-impairing defects mentioned in the Finnish Kennel Club list of unhealthy characteristics (Appendix 7).

In addition, breeders must ensure that the genotype of the expected puppies will not cause health problems or defects in relation to, for example, hairlessness, Merle, harlequin, blue dilution, bobtail or ridge hair alleles (Appendix 2). If necessary, the Finnish Kennel Club can impose breeding recommendations or restrictions on such breeds.

Dogs that have been surgically altered to repair a hereditary defect or weakness (e.g. exaggeratedly loose skin as well as lip and nose folds, drooping eyelids, tight nostrils, front leg chondrodystrophy, luxating patella, abnormal bite) must not be used for breeding and they should be transferred to the EJ registry.

3.4.2. Other hereditary defects and diseases

Breed associations and breed clubs outline their breed-specific areas of emphasis for health-promoting breeding practices and other breeding recommendations/restrictions in their JTOs and PEVISA programmes.

Breed associations, the Finnish Kennel Club and researchers will cooperate in investigating the mode of inheritance of the most serious hereditary defects and diseases, and existing genetic tests will be adopted into use and their results recorded into the Finnish Kennel Club breeding database. Veterinarians will, if necessary, be consulted to determine the severity of identified health problems.

The aim is to support the development of genetic tests for defects and diseases that are determined by a single gene pair, so that carriers could be identified with certainty. Guidelines regarding the testing needs and measures for each breed should be included in the JTO and, when necessary, obligations and breeding restrictions can be defined in the PEVISA programme. If no genetic test is available, the aim will be to develop, in cooperation between the breed association, the Finnish Kennel Club and veterinarians, a standardised examination method for the defect or disease (such as exists for, e.g., hip dysplasia) that can be included in the breed's PEVISA programme.

If a serious hereditary disease exists in a near family (coefficient of relationship 25% or more) of a dog, a healthy individual whose near family is free of the same disease or defect should be selected as its breeding partner.

Receiving worst score on a Finnish Kennel Club -approved health test prevents the breeding use of a dog in the case of diseases that endanger the dog's health and wellbeing or shorten its longevity. Standardised examination protocol and measuring scales are required for these diseases. At present, such defects are hip and elbow dysplasia, luxating patella and spondylosis (cf. also Appendix 6; FCI Breeding Rules).

Measures associated with serious defects and diseases passed down through a single gene, i.e. qualitative inheritance

If a genetic test can determine dog's genotype regarding a hereditary defect or disease, it should be used as an aid to preventing the birth of affected offspring. Genetic testing is not performed so that a disease-causing gene can be quickly removed out of the gene pool; instead, its purpose is to enable the breeding use of carrier dogs. Recommended tests are noted in the breed's JTO and mandatory tests in the PEVISA programme.

If a genetic test is not available, attempts will be made to determine the mode of inheritance of the disease, the dog's genotype or disease risk on the basis of its relatives (cf. the so-called EPI-figure for Finnish Spitz dogs). When necessary, the Finnish Kennel Club can help breed associations determine the mode of inheritance.

If a disease is **autosomal recessive**, combinations including one genetically healthy (both chromosomes have normal alleles) party can be used for breeding, as this prevents the birth of individuals with defective genotypes.

If a disease is **X-chromosomal recessive**, the bitch of the combination must have a healthy genotype (both X chromosomes have normal alleles), and the male can be either healthy (X chromosome has a normal allele) or affected (mutation in the X chromosome).

When the inheritance of a disease is either **autosomal** or **X chromosome dominant**, only a combination of two healthy dogs (neither parent is even a carrier of the defect allele) can guarantee that no affected progeny will be born.

On the part of other qualitative modes of inheritance, instructions regarding serious diseases will be determined breed-specifically in the JTO or the PEVISA programme.

Measures associated with defects and diseases passed down through several genes, i.e. quantitative inheritance

When defects and diseases are determined by several genes, only dogs that are above the breed average in relation to the characteristic in question should be used for breeding to enable genetic progress. Evaluations of the potential breeding dogs will exploit available health test data, either in the form of estimated breeding values (BLUP-EBVs) or, when these are not available, by ascertaining the average health situation of close relatives. The accuracy of breeding value estimation increases when

as many progeny of a breeding dog as possible are examined before the dog in question produces its next litter. When necessary, measures will target defects and diseases that have been identified to afflict the breed to a substantial degree; these will be more precisely determined in the breed-specific JTO or, if necessary, the PEVISA programme.

3.5. Mating

Objective:

5. Only dogs that can mate naturally and care for their puppies will be used for breeding.

Measures:

3.5.1. Basic requirements

Information on litter size and the breed's mating success as well as any associated problems will be entered into the breed-specific JTO. Both the bitch and the male must be willing to mate naturally. Bitches, which were unable to give birth naturally or care for their progeny in the normal manner without good reason, should not be used in breeding again. Males, which have been unable to mate normally or display a deficient libido, should not be used in breeding. The development of a breed's average litter size will be monitored.

3.5.2. Artificial insemination

Artificial insemination is subject to separate Finnish Kennel Club and FCI guidelines. The reason for artificial insemination must not be unwillingness or inability to mate normally on the part of the bitch or the male.

3.5.3. Bitches and whelping

In addition to meeting the basic requirements, only bitches whose wellbeing is not expected to be impaired by mating, pregnancy or whelping because of the anatomical features of the bitch or the puppies should be used for breeding.

Puppies that required resuscitation and special support to ensure their survival especially during their first week should not be used for breeding.

3.6. Longevity

Objective:

6. Dogs from bloodlines with maximal longevity will be used for breeding. The life length of a dog shall not be unduly prolonged at the expense of its health and wellbeing.

Measures:

Breeding will favour healthy dogs from bloodlines with great longevity.

3.6.1. Charting longevity

The development of the average longevity and most common causes of death within a breed will be monitored. These will be analysed breed-specifically in the JTO. The longevity of as many ancestors as possible (3-4 generations) and the longevity of close relatives will be charted in breeds with an

exceptionally low average lifespan. The longevity of relatives will be taken into consideration when selecting dogs for breeding.

3.7. Maintaining genetic diversity

Objective:

7. The genetic diversity of all breeds will be safeguarded. It must always be ensured that at least 50% of the breed's gene pool, all criteria considered, remains in breeding use.

Measures:

The JTO defines a breed's breeding criteria. These should not exclude more than 50% of a breed's individuals from breeding, so that a sufficient amount of dogs remain available for breeding to safeguard genetic diversity.

The aim is to define the genetic diversity of as many breeds as possible. Domestic breeds are a focus of special attention in the studying and maintaining of diversity.

Inbreeding as a factor, which decreases the genetic diversity, shall be evaluated on a breed-specific basis. Necessary measures, which will be defined in the JTOs and PEVISA programmes of the breeds, shall be introduced.

3.7.1. Selection of breeding dogs and the maintenance of diversity

To maintain genetic diversity, compromises may be allowed with respect to the quality of breeding dogs, when the case involves defects that are of minor significance to the wellbeing of dogs. Compromises made for the sake of genetic diversity may not, however, permit the breeding of dogs that are clinically ill or of unbalanced temperament, nor should the same defect be repeated in a combination. Diseases, which endanger the wellbeing and health of dogs or shorten longevity, are taken into special consideration when evaluating breeding dogs.

A sufficient amount of dogs must remain available for breeding use after the implementation of restrictive measures (e.g. PEVISA or breed-specific conditions for registration). The breed's litter size can be taken into account when calculating the amount of dogs that should remain available for breeding use by dividing the figure 2 with the breed's average litter size. For example: if the breed's litter size is 6, at least 2/6 (33%) of the breed's dogs should be left available for breeding use, and if the breed's litter size is 3, at least 2/3 (67%) of the breed's dogs should be left available for breeding use. In other words, selection can be stricter in breeds with large litter sizes than in the case of breeds with small litters. Breeding dogs will be selected from different litters as equally as possible while considering the most important characteristics.

3.7.2. Life-time number of puppies

Breed associations will mark the recommended maximum number of progeny of a breeding dog in each breed's JTO and, if necessary, the breed-specific conditions for registration, which will limit the number of progeny through registration procedures. The general recommendation is that the lifetime progeny number of an individual dog should not exceed 5% of the puppies born over a one-generation period in the breed's population. A male's progeny should be divided as evenly as possible across different years. When evaluating the recommended maximum number of progeny, breed population sizes should be scrutinised on the national as well as on the international level, in particular in cases involving breeds consisting of a small number of dogs.

3.7.3. Breeding use of close relatives

Breeding restriction: combinations consisting of first-degree relatives (sire/dam*offspring - inbreeding coefficient 25%, full siblings - inbreeding coefficient 25%) may not be performed. Puppies born from such combinations can only be registered in the EJ registry.

Other combinations of close relatives (grand sire/grand dam*offspring – inbreeding coefficient 12.5%, half siblings – inbreeding coefficient 12.5% as well as aunt/uncle*offspring – inbreeding coefficient 12.5%) are not recommended.

The guideline is to recommend combinations in which an individual dog does not appear more than once during the first three generations of a pedigree, creating an ancestor loss coefficient of 1.0 (100% of the pedigree consists of different dogs), and in which the ancestor loss coefficient of four generations of a pedigree is more than 0.90 (90% of the pedigree consists of different dogs). Breed associations will include their recommendations in the breed-specific JTO and enter possible restrictions in the breed-specific conditions for registration.

3.7.4. Domestic breeds

The maintenance of genetic diversity is the focus of special attention on the part of domestic breeds. The Finnish Kennel Club will chart the genetic diversity of domestic breed populations in Finland and the other Nordic countries and, to the extent that resources allow, elsewhere in nearby regions. Diversity analysis will be developed into an aid for the breeding of domestic breeds.

3.7.5. Open studbooks as well as crosses of breeds and breed varieties

The breeding use of landraces is encouraged by enabling the introduction of unregistered dogs to breeds that have populations of original, unregistered individuals in the breed's birth or development country or in the surrounding region. The procedure detailed in the Dog registry guideline also allows for dogs, which are registered in non-FCI-approved registers, to be introduced into breeds. DNA identification will be recorded for all dogs, which are introduced into a breed.

If a breed's average effective population size over the last 3-4 generations, taking overseas populations into account, has been 50 or less when calculated on the basis of inbreeding rate, or 200 or less when calculated using a formula based on the number of breeding dogs, the genetic variation of the breed should be increased through breed crosses and/or the introduction of native breed dogs.

Crosses of breeds and breed varieties can also be approved if a breed or one of its varieties threatens to accumulate such a large amount of serious defects, diseases or disease genes that it makes the testing of breeding dogs for all these conditions impossible, and the breed does not include a sufficient amount of healthy dogs, with a breed-typical behaviour, to enable breeding. The same procedure can be followed if the breed's original working traits have been lost and there is a desire to reintroduce them to the breed.

The third situation, which permits the making of breed crosses, is an effort to repair the conformation of the breed's dogs. If the conformation of a breed's dogs is not healthy enough to enable normal mating, breeding can be continued by crossing the breed with another one that has a healthier conformation; the method here is to pair a bitch with a healthier conformation with a male from the original breed in the combination.

Plans for breed crossing and opening of studbooks will be drafted in cooperation between the breed association, the Finnish Kennel Club and the breed's country of origin. The Finnish Kennel Club will draft general guidelines for the practical realisation of breed crosses. The Finnish Kennel Club observes the principles of the FCI Breeding Rules (Appendix 6) and other FCI guidelines in its authorisation of breed crosses.

The occurrence of native dog populations in Finland and the nearby regions will be charted on the part of domestic breeds. Opening the studbooks or crossing breeds will be performed at the initiative of breed associations.

3.8. Communications and education

Objective:

8. The Finnish Kennel Club supports and produces activities that aim to increase knowledge of the heredity, health and diseases of dogs.

Measures:

Dog organisations shall commit to the goal of producing dogs whose conformation, temperament and working characteristics are as breed-typical as possible and which can, first and foremost, live long and healthy lives and mate normally. All persons involved in organised dog activities shall aim to promote general awareness of dog-related issues through their actions.

The Finnish Kennel Club organises regular education for breeders, the breeding counsellors of breed associations, districtal trainers and kennel advisers. The education provides information on topical matters related to the breeding and wellbeing of dogs. The Finnish Kennel Club produces education material on dog breeding, heredity and the raising of dogs. It instructs breeders, dog owners and buyers of puppies to seek out information on the wellbeing, breeding and buying of dogs from breed associations and, with the aid of experts from various fields, educates these associations and their representatives on how to realise this task.

The Finnish Kennel Club keeps in contact with researchers and veterinarians to maintain its knowledge and competence in matters related to dog breeding. Significant new research findings, which have an impact on the breeding selections of breeders, and breeding guidelines will be communicated to breed associations and published on the forums of the Finnish Kennel Club.

The breeding strategy will be included as an aspect of the education of dog show, trial and competition judges.

The *Koiranet* breeding database will be developed and enhanced.

The Finnish Kennel Club will draft wellbeing guidelines for dog keeping and raising that will help puppy buyers, dog owners and breeders evaluate the wellbeing of their dogs and whether or not they are suitable for breeding use.

3.9 Cooperation with veterinarians and researchers

Objective:

9. Cooperation with veterinarians and researchers in this field will be intensified. The actions undertaken by veterinarians also support the principles and objectives of the breeding strategy.

It is essential to accumulate information on the health and diseases of individual dogs in order to make progress in breeding. Cooperation with veterinarians and researchers aims to improve the diagnosing of hereditary diseases and defects as well as to make the determination of clinically healthy and ill dogs more effective. The Finnish Kennel Club educates and instructs veterinarians on the performance of official health tests and on the issuing of reports.

Measures:

The Finnish Kennel Club develops its cooperation with veterinarians through separate agreements. The effectiveness of communications aimed at veterinarians will be enhanced. The Finnish Kennel Club and veterinarian databases will be made compatible, which will enable the development of data transfers to the breeding database. Awareness of the joint Finnish Kennel Club and Faculty of Veterinary Medicine *Dog Health Research Fund* will be promoted.

3.10 International cooperation**Objective:**

10. The Finnish Kennel Club influences the international community through the Nordic Kennel Union and the FCI with the aim of promoting greater knowledge of and competence in dog breeding. Our actions within the international community always set the health and wellbeing of dogs as the most important goals.

Measures:

The content of FCI-approved breed standards, which form the guidelines for breeding, always adhere to the breed ideal and take the health of dogs into account. Finnish people who engage in organised dog-related activities will promote this also in the international communities they are involved with. The FCI's Breeding Rules and its International Breeding Strategies (Appendix 6 and Appendix 3) are considered general guidelines, which are applied nationally.

3.10.1. Breed standards

Finland and the other Nordic countries will make proposals to the FCI regarding breeds, whose breed standards still permit characteristics that endanger the wellbeing of dogs, so that the FCI would urge the countries responsible for drafting these breed standards to amend and clarify them.

It is appropriate to observe the Council of Europe resolution and set a maximum and minimum height and weight for dogs in breed standards (with the purpose of preventing problems associated with excessively large or small size) and limit the ratio between length and height to avoid spinal injuries. Furthermore, the proportions of the head need to be defined to enable a sufficiently long skull and nose to prevent breathing difficulties, blocked tear ducts or whelping difficulties caused by puppies with large heads. Breed standards should aim for a conformation that avoids persistent fontanella, abnormal positions of legs, abnormal teeth (e.g. brachygnathia), abnormal size and shape of eyes or eyelids (entropion, ectropion, large protruding eyes), very long ears as well as marked, health-impeding skin folds.

In addition to mutation variants, breed standards should always allow for so-called wild type individuals, which are also created normally in couplings, when a mutation can also cause health problems in the breed (including Merle colouring, natural bobtail, hairlessness, ridge hair).

3.10.2. Other measures

We will petition the FCI through the Nordic Kennel Union to define breeds, which share a common origin and are separated by national borders, geographical obstacles or just minor conformational details or colour, as breed variants that can be cross-bred after careful deliberation. An alternative is to ease the granting of approval of inter-breed crosses between such breeds.

The shared use of national databases will be promoted among the kennel clubs of the Nordic countries.

4. Appendices

- Appendix 1 Section 8 of the Animal Welfare Act and Section 24 of the supplementary Animal Welfare Decree
- Appendix 2 EVIRA submission regarding the breeding of breeds, whose genes carry lethal factors
- Appendix 3 FCI International Breeding Strategies
- Appendix 4 Council of Europe resolution concerning the breeding of pet animals
- Appendix 5 FCI guidelines on crosses of breeds and breed varieties
- Appendix 6 FCI Breeding Rules
- Appendix 7 Guidelines for judges in Finnish and English
- Appendix 8 Glossary