

Experiences with Breed Value Assessments

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The HD Breed Value Assessments, which depict the risk factor for the heritability of Hip Dysplasia (HD) are now generally available in the SV. On the internet (www.schaeferhund.de) as well as on CD-ROM (SV-Genetics) these findings on heritability, given as relative figures, are there for the world to see. The opinions expressed so far are overall positive, there are two main reasons for this:

1. **The application of the BV Assessment is very simple for the breeder. A Breed value of 100 characterises an animal whose heredity is typical for the breed.**

Dogs with a breed value under 100 reduce the HD risk in the progeny, animals with breed values over 100 would intensify the problem of HD.

The breeder can select a stud dog for his bitch, whose breed value he knows, from the huge selection of breed surveyed dogs, who also conform to his wishes in respect of anatomy and performance.

2. **The breeding plan to combat HD is comprehensively formulated and easy to apply.**

The aim is to breed puppies with a value of under 100, that is with an under average HD heritability. This value is gained from half the Father's breed value plus half of the mother's breed value, just as the genetic makeup of the puppy comprises half of the father, and half of the mother's genes. With the clear understanding of the HD findings that is created through the publication of the breed value of all animals, and updated every 3 months, the bitch owner now has the opportunity to breed, meeting his responsibilities. The SV has joined the avant garde of cynology by implementing the Breed Value Assessment.

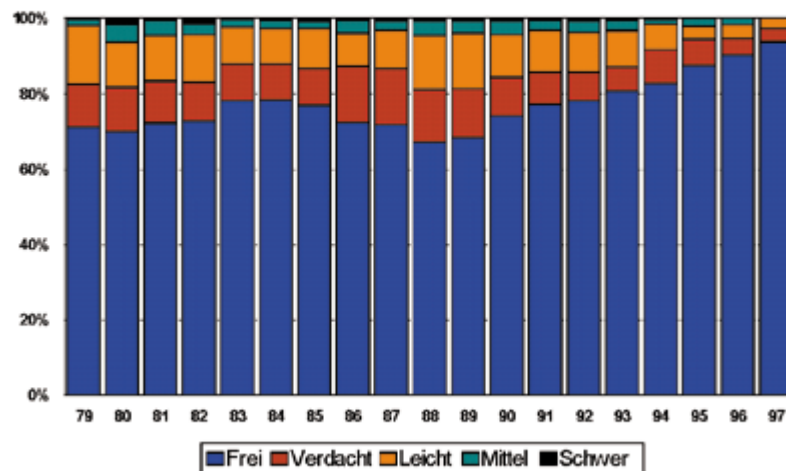
Modern breed value assessment for HD in the dog, taking into consideration all related animals, was commenced in 1983 with the German Spaniel. (D.Wachtelhund) The German Hunting Terrier followed suit with the Breed Value Assessments for the heritability of lense luxation. (LL) This eye defect, typical for Terriers, had a frequency of around 2%. Together with this, the breeders were offered the Breed Value for heritability of size and of four hunting attributes. (Nose, giving tongue, working under ground and love of water)

With the availability of a Breed Value Assessment, there arose insecurity in the application of the findings. As the breed value figures are only an assessment, an estimation, and therefore depend largely on the current documented findings, a selection with the view of a general disqualification from breeding for animals burdened with a hereditary disposition towards the defect does not make sense. It is not feasible that a bitch is barred from breeding today, and readmitted with the next breed value assessment, and then barred again. The manner of dealing with this, must be made more flexible.

he concept, of not depending on the suitability of breeding animals (parents) as prerequisite, but to build on the suitability of a mating, was absolutely new in animal breeding. The principle of a "strategic mating" was born. Every animal is suitable for breeding if, with a suitable partner, it produces below average hereditary disease factor progeny.

The principle of this breeding plan was adopted by the German Retriever Club (DRC) for Golden Retrievers, and was also adopted by the Hovawart Breed Club as their breeding strategy. While the Retriever breeders have altered their mandatory clause to "recommendation to responsible breeders" after the first (successful) year, the Hovawart breeders have strictly adhered to their breeding plans.

Hüftgelenksdysplasie beim Hovawart



The positive principle fell upon fruitful ground in the Retriever club, because even though they only bred with HD free dogs, the up till then positive trend dropped back from 1984 onwards. Fig. 1 shows that the number of HD-free animals went steadily down. With introduction of the Breed Value Assessment 1989, taking the HD grades of all relatives into consideration, it was now possible to differentiate between those HD free dogs that are producers of good hips, and those that are not.

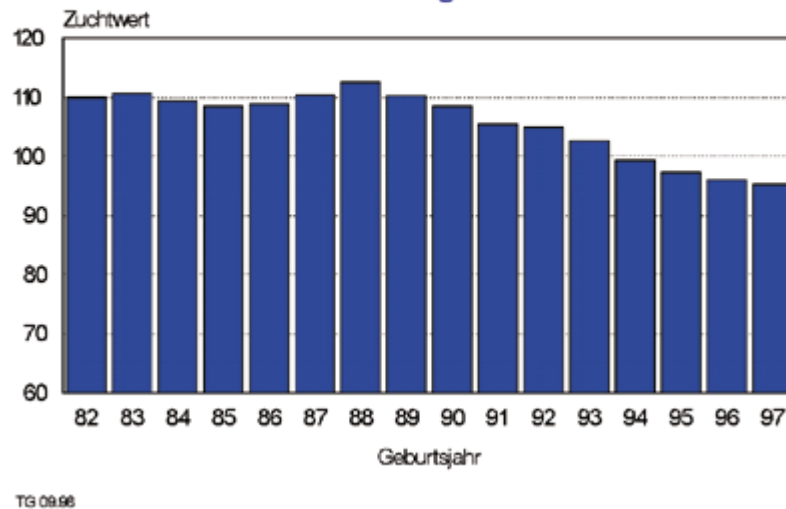
The flexible breeding plan, that leaves all bitches in the kennels principally untouched, and therefore maintains the breeding potential and the continued breeding programme in the kennels, immediately reversed the trend. Today, the 90% mark for HD free animals has been surpassed with pride, with an x-raying quota of 70%!

The Hunting Terrier breeders however, found it more difficult. Lense Luxation appears between the 3rd and 5th year of life, and was often kept secret. The honest ones felt deceived, and the diagnosis was not always made by competent ophthalmologist. That's why a breeding plan had to be formulated that as well as the Breed Value Assessment also had supporting conditions in regard to the obtaining and accuracy of information.

A network of appointed veterinarians was created, entrusted with giving the concerned owners competent advice and help. A communal treasury was put into effect, into which every breeder paid DM 10.00 per puppy. From this treasury, assistance to the tune of DM 500.00 was paid to owners to soften the cost of the necessary eye operation. DNA testing ensured that the affected puppy was not accredited to the wrong parents.

Overall a campaign of education with articles and breeder seminars, has led to this hereditary defect being dealt with in a responsible and less emotive manner. How strongly the breeders now feel the responsibility towards their breeding aims, is shown in fig. 2. When the Breed Values were published, and the principles of Strategic Matings were begun to be understood, (limit for matings not higher than 105) the yearly average for LL dropped from year to year. The breed standard that has swung up to 112 in the beginning, has dropped, today, down to 95. The frequency of affected animals lays at 0,8% even though the reporting of cases has risen through the guarantee certificate that is issued with every pedigree.

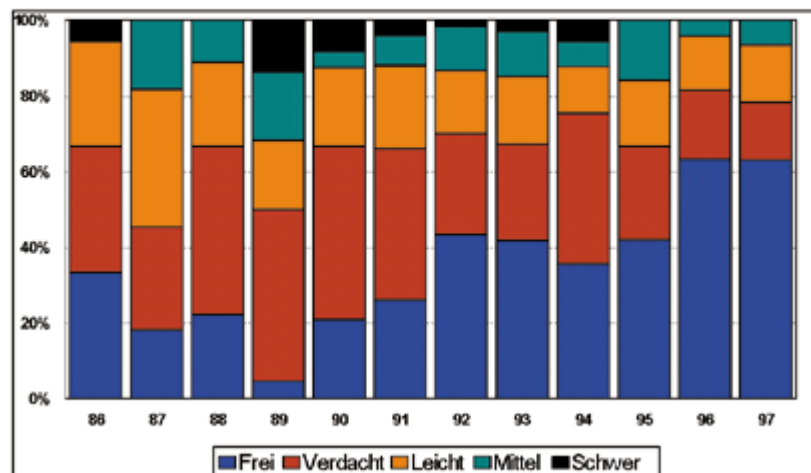
Genetischer Trend für Linsenluxation Deutsche Jagdterrier



The fact that through the Breed Value Assessment, a measurable criterion is within reach, and a breeder can now document his efforts towards producing soundness, seems to me, to be the driving force. Successful breeding in respect to conformation and performance was honoured, up to now, with the Sieger title, Championships and trophies. Now it will certainly become attractive to present animals free from hereditary disease. How important a breeding programme such as that of the SV is, and how important it is to put it into effect unwaveringly, shall be demonstrated with the Club Berger des Pyrenees (Pyrenean Mountain Dog), who, as a new club instituted the Breed Value Assessment with Strategic Matings (limit 102). The first x ray campaign did not give a rosy picture with less than 10% of free animals. The Breed Value Assessment however immediately placed the finger on the root of the problem, and already in the next year there was a rise in the HD free animals. (Fig 3) As a result of this breeding strategy no longer being mandatory from the year 1992, but "only" as a recommendation, the number of HD free animals dropped again. The club was well advised in 1995, to decree that the breeding regulations were to be mandatory again. Fig 3 shows the ensuing rapid rise. In the graph, it is to be noted, that the year 1997 x-rays have just begun to come in.

Today, HD is practically no longer a restricting problem in the Pyrenean Mountain Dog. Through a bond for x raying, a figure of around 60 to 70 % of submission is achieved. Almost every bitch finds a sufficient number of breeding partners which safeguard the upper limit-value for the mating.

Hüftgelenksdysplasie beim Berger des Pyrenees



Further breeds could be named, whose successful breeding is supported by breed value figures. The SV will score its own successes when the plates of the year 1999 enter the x ray programme. up to then there is no other way for the breeders, but to put their faith in the experiences of other clubs, and to see how the breeders accept and utilize the offered programme.

The image of the SV in the public eye, will profit from it because Champion and Working Dog Breeding will not be practised at the expense of, but in unison, with soundness.