

Breed Value Assessment HD: What is it?

The right answers to the most prevalent questions.

"Where can I take my dog to have his breed value assessed?" , or "Which Breed Value is better, over 100 or under 100?" These are the questions about the Breed Value Assessment HD, that are put to the Head Office time and again.

That's why we have again compiled the most frequently made queries and Herr Dr. Beuing, the administrator of the project, answers them for you.

1. How is the Breed Value HD worked out for my dog? What is the formula for it?

There is no precise formular in these calculations. The Breed Value of every animal is considered "unknown" at the beginning of the calculations. Then an equation is put up for every animal, of the formular:

HD = the breed average + Breed Value of this animal + variation of sex + other influences.

In this equation the breed average, breed value and the effect of the sex are formulated as the "cause" of HD. In the SV, 450,000 equations are formulated for 450,000 animals, with the 450,000 unknown Breed Values. Then some supplementary conditions (stipulations or prerequisites) of the laws of inheritance and heredity are mathematically formulated. Following this, the computer has to solve the 450,000 equations with the 450,000 unknown factors. The answers are the assessed (estimated) Breed Values. This means that there is no formular, in which a dog's breed value is worked out on its own.

2. What role does its own HD score play in my dog's HD Breed Value?

The dog's own HD grade modifies that, which was already known about the line (sire and dam). Siblings, (same father and same mother) may differ through their own HD status. If an animal has progeny, its own HD status slips more and more into the background. With 30 - 40 progeny, it is practically of no consequence.

3. How is a foreign "a" evaluated for the Breed Value Assessment?

At the this time, dogs from abroad with the "a" are evaluated in the formulations as though they were not x-rayed. Their Breed Value Assessment is gained only through their x rayed relatives. As these animals can no be clearly termed as "free" or "still Acceptable", an assumption in this case, would be unfair.

4. How can a dog, that was not x -rayed, have a Breed Value for HD?

In the system of equations (see Answer 1), there is a lateral clause, that the father (and the mother) give half of their genes to the progeny. Therefore the Breed Value of the progeny can be assessed or estimated, if nothing is known about the animal (un x-rayed), as well as the breed value of the sire and dam are known. In the same way, a parent can be assessed if the progeny is known, because progeny have one half of their genes from their parents. Siblings on the one hand help to characterise the parents, the knowledge about the breed value of the parents helps on the other hand, to assess the breed value of the untested siblings.

5. How accurate can the Breed Value Assessment be, if for more than half of the whelps, no HD information is available?

In the Breed Value Assessment, the percentage of the pups does not matter, but the absolute number. The last Sieger has at this point in time, 91 x-rayed progeny, who characterise his heredity well. In the breed Value Assessment it is not the percentage of the whelps that counts, but the total number! The last Sieger, at this point in time, has his heritage well demonstrated by 91 progeny.

6. My bitch has passed on the "a" well up to now. What happens if I mate her to a dog that has

a HD Breed Value over 100?

If the bitch has produced well, this must be seen in her Breed Value. Good progeny however, can also be the result of good matings. If the bitch, for instance, is mated to a dog with a value of 100, then the risk for the puppies is higher. The bitch is only "accredited negatively" if the pups are worse than could be expected with that dog.

Generally it is a fact that the stud dog owner would be well advised if he also accepted "poor" bitches, because with the poor bitches a dog can show plainly that he "improves"

With HD, where there is no freer than free, it is difficult to prove a positive heritability of the top bitches.

7. How do dogs that have no HD findings flow into the HD Breed Value calculations?

At this stage un-x rayed animals are neutral for the Breed Value Assessment, they are not taken into consideration.

8. What does the mean Breed Value of 100 mean, and the stated deviation of the standard of ten points mentioned in the breeding plan?

The Breed Value of 100 means, that the animal's heredity is typical for the breed. At this time the breed mean is 1,71, that is between HD free and slight HD. What is passed on, can be better or worse than 100. The average deviation above or below this, will be set at 10 points for the mean.

9. What does a Breed Value over 100 mean for my dog?

The Breed Value for one's own dog means that he passes on poorly. As the breed average itself is still unsatisfactory, matings should be strived for, that lie under 100. With this, "you must not throw out the baby with the bath water." The first priority is working ability, Temperament and so on. If one finds a stud dog who brings the expectations for the pups (the average of father and mother) below the 100 value, that is sufficient.

10. Conversely, what does a breed value below 100 mean for my dog?

A Breed Value below 100 means, that there is a greater freedom in the choice of dogs firm in character, strong in performance and of good construction, even if their breed value is around 100. With a bitch value of 83, one can even accept a dog of 117!

11. Can a Breed Value be worked out for criteria other than HD, and if yes, for which ones?

A breed value Assessment can be taken for other characteristics. For this, it is important, that the characteristic is accurately defined. The inheritance of size, it is thought, will be described next. These breed values would then be purely for the breeders' information in their breeding plans. There will be no editions published for this.

Dr. Reiner Beuing
University of Gießen