

Article 28, 8 Explanations

At the March VDD meetings in Fulda, VDD passed an addition to the Breeding Regulations Article 28, 8.

8. Ahnentafeln of puppies with chip or tattoo may only be issued after blood sample of the puppies have been sent off to the VDD e.V. blood bank, per request of the Zuchtbuchamt.

We have been working to clarify how this new regulation will be carried out in GNA and GC. Sending blood samples to Germany is very problematic and just won't work for us over here.

The purpose of this new direction by VDD is to provide a much wider cross section of the breed for genetic research to help reduce the incidence of HD and OCD, and to provide DNA for research for some of the other genetic problems that affect the DD.

For HD the goal is to raise the bar and improve the percentages of HD-frei dogs, and especially HD-A dogs. Since the beginning of the VDD HD program we have seen slow but steady improvement until we reached a plateau around 2005. Since then the percentages have remained virtually unchanged at around 6% HD, but some breeds have similar HD percentages but have a much higher percentage of HD-A within the HD-frei designation. It is felt that making breeding decisions based on phenotype, the grading of hip joint conformation from radiographic images, has taken us about as far as it will. Further improvement will require learning more about the genotype of our dogs. Professor Dr. Ottmar Distl at the University of Hannover (TiHo) has been conducting genetic research for HD and OCD. His research on HD was based on studies in America comparing the DNA of Labradors which have a high incidence of HD, and Greyhounds which have virtually no HD, and looking for genetic markers. He has developed tests that have shown promise in predicting the genetic potential for these diseases in the DD. Unfortunately the limited use of the tests hasn't produced a broad enough sampling of the breed to move the progress forward. Eventually it is hoped the genetic tests will replace the radiographic evaluations, though this is likely to be years in the future.

Dr. Distl is also looking at the genetics of OCD, which statistically is growing in the breed. It is believed the percentages of OCD (6%) is low because the symptoms normally show up before the OCD testing age of 12 months and owners aren't testing these dogs, so they aren't showing up in the statistics.

To work out the details and explore other options, there were two teleconferences held this past week. The first on July 1 included the Chairmen and Breedwardens of GNA and Group Canada, VDD head Breedwarden Sigurd Croneiß, and our very capable translator Astrid Geisler. At this first teleconference we discussed the purpose of the program, and voiced some of the concerns we had for meeting the requirements here in North America. We decided that a second teleconference would be needed the next day, hopefully to include Dr. Distl and the representative of Neogene Europe Ltd that owns Geneseek in America. We learned that the tests offered from Dr. Distl, which we knew were performed somewhere in America, were

actually performed by Geneseek. This makes perfect sense to use Geneseek as the choice for storage of blood samples in America, since they are the ones that will be performing the DNA tests anyway.

At the second teleconference on July 2 we learned that we had representatives of Geneseek from America, and their parent company Neogene from England on the line as well. They were both very helpful in answering questions and offering solutions. They may even have a solution for our Canadian friends that will avoid the problem of them shipping samples across the border. One of the points we had brought up to Herr Croneiß was the possibility of using a dried blood card, which would have made the shipping and handling on our end much easier. This is a problem for Dr. Distl, because a dried blood card is a one test solution, and doesn't offer the volume of DNA material to do multiple testing. They did mention the possibility of sending a higher volume of dried blood, but that is problematic in preparation. It would have to be dried in a laboratory like situation to prevent contamination. It was decided that whole blood was the only viable option. The teleconference ended with everyone having a much better understanding of the process, and some very important changes in the way the VDD Zuchtbuchamt handles litter registrations from GNA and GC, which would be needed to make the process workable.

The protocol for litter submissions has always been for the breeder to send the litter paperwork to the Group Breedwarden within 3 weeks of the whelping date. The Group Breedwarden would then mail the litter registration and the Ahnentafel of the mother to Germany. Upon receiving this VDD would process the litter registration, print the Ahnentafeln, and sent them along with the microchips and mothers Ahnentafel back to the Group Breedwarden. If a breeder waited the full 3 weeks to get the paperwork submitted, the puppies could be 5 weeks old before it arrived in Germany. Since the chips were added to the equation, it often takes 2-3 weeks for the Ahnentafeln to arrive. Starting now the breeder needs to send the litter registration **as soon as the litter is whelped.** The next business day after whelping is the time to send the litter registration to the Group Breedwarden. Breeders will register all the live puppies they have but won't send the payment at this time. The payment will come later and will be based on the number of live puppies at the time of tattooing. There is no reason to wait to avoid paying fees for puppies that might die. **Breeders will need to plan ahead and be sure to have the Stud Certificate in hand when the puppies are whelped.** Litter paperwork to the Group Breedwarden will be exactly the same, and must include the mothers Ahnentafel. Upon receiving the litter paperwork, the Group Breedwarden will send it electronically to the VDD Breedbook Office, where it will be processed and put in the mail. We could now have the Ahnentafeln and chips on their way back to America when the puppies are as young as a week old.

Procedure for Meeting the requirements of Article 28, 8

The puppies should be tattooed in the 6th week of life (Between 6 and 7 weeks), preferably closer to 6 weeks. At approximately 7 weeks, after tattooing, the Breeder will take the puppies to the veterinarian along with an instruction form, set of labels for the EDTA Tubes (Purple Top), and a form for the veterinarian to sign and stamp verifying the process. There will be a label for each puppy registered to be placed on the corresponding EDTA tube containing that puppy's blood. Identification will be made by tattoo (ZB Nr). The samples (3cc) will be sent by the veterinarian to the Geneseek lab. Upon arrival and data input at the lab, the Group Breedwarden will receive a notification from Geneseek's LIMS database showing the samples have safely arrived. GNA and GC Breedwarden will also have access to the LIMS system to

check on status of samples. When the samples have been received the Group Breedwarden will send the Ahnentafeln to the breeder.

There are still some details to be worked out as to the shipping of the samples, and I'm sure there will be some growing pains as we work our way through this. Surely this is another hoop for us to jump through as breeders, and the extra expense of the collection and shipping, but hopefully we will see some improvements to the breed in the long run. The cost for Geneseek to store the samples is \$1 per year. The blood samples at Hannover for the German dogs will be stored indefinitely, but Geneseek wasn't interested in that. Our samples will be stored for 7 years, for an initial cost of \$7 to come from puppy registration fees. If an individual owner for some reason wanted to keep his dog's sample stored for longer than the 7 years, I believe it could be done for the cost of \$1 per year. I believe there are some benefits that will come from this program. Electronic transmission of litter registrations, and receiving Ahnentafeln and chips much sooner are just a couple, and this is huge! This will also benefit breeders in another way. Some of our breeders have wanted to take advantage of the DNA tests for HD and OCD offered by Dr. Distl, but were unable to because of the problems sending whole blood to Germany. Now when these blood samples are at Geneseek, the owner can order these tests, and the samples are already where they need to be. We also talked about the DNA tests for Type II von Willebrands and the Rauhaar (Beards) test offered at Hannover. The reps from Geneseek and Neogene said they don't currently have the licenses for these tests, but would be willing to do them if the licensing can be obtained. Herr Croneiß said he was fine with this as long as the test results were sent to Dr. Distl.