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## Stockhaar-type coat: DNA test for coat length

This is a follow-up to my announcement of January 18, 2006.

I am pleased to announce that the DNA research test group was done on Weimaraners with stockhaar-type coat. Just as a reminder, the Company does not provide coat testing until a research group has been tested and proven.

Again working with DNA Diagnostic Center (DDC), I proposed a follow-up research test group for the Stockhaar-type coat. This was a smaller research group and was intended to be more of an elimination-type test. Discussions with the research department revealed that there were slight differences between coats in breeds they have proven, attributed to the mode of inheritance from original stock for each breed, and they were indeed interested in this research group to round out their testing for Weimaraners. I had noted however, that the formula universally used does not seem to allow for the blended coat expression so I was curious to know the DNA outcome of a stockhaar-type coat in Weimaraners.

For this test group, the stockhaar-type coat tested as N/F – Carrier, (longhair carrier). This valuable information will be most helpful in decision-making in breeding programs. I find it very interesting that this test proved the individuals as shorthair and carrying (and expressing to a small degree) the longhair gene.



Once again, a Canadian breeder was eager to step forward and assist with the research and provided samples from their breeding program within just a few days. My gratitude goes out to Stonepoint Reg'd, Ontario Canada for their willingness to assist in this endeavour and provided excellent examples of the stockhaar-type coat. Also, Stonepoint has agreed to allow me to attach a couple of photos to this announcement. It is interesting to note that this lh x sh breeding produced 9 puppies. This of course is known to produce 100% carriers according to the usual formula used. This litter contained 5 shortcoats and 4 stockhaar-type coats. The shortcoat dam was DNA tested with a result of N/N Clear (shortcoat). Therefore, even with the stockhaar-coated puppies, the formula is still 100% carriers.

The original group I chose for the longcoat test group of five generations, also began with an lh x sh breeding (again equals 100% carriers) and 2 littermate sisters from that breeding. No stockhaar-type coat has been produced down through the five generations of breeding to date. Those generations have been bred to shorthairs, longhair carriers and longhairs.

Stockhaar/Stockhaarig:



The Stockhaar is achieved only when a longhair is bred to a shorthair in Weimaraners. Other breeds have a true stockhaar coat. The correct German Shepherd Dog's coat is a stockhaar coat. Stockhaar coat is short to medium in length and always with a full undercoat. It is symmetrical over the entire dog. In Weimaraners the tail (undocked) has no plume. With or without Marcel (waves) down the back of the neck, &/or over the wither, &/or down the spine, and/or top side of the tail.

As an aside, when I was researching other breeds with stockhaar, I note that in other breed histories, breeders have found that separating out the two coat types leads to changes in the phenotype in their breeds. Most likely due to unintentionally carrying over and separating out other breed traits and can of course include health issues/concerns. Also in other breed histories, a stockhaar-coated dog is sometimes used in breeding to longhairs, as the breeders felt this improved a longhair coat that needed correcting.

This new information is very informative. However, I personally don't believe it is the full story. The canine genome has been mapped. Hopefully in the coming years, we will be able to access the precise alleles that are responsible for this/these trait(s) and the mode of inheritance in the Weimaraner. I believe when that level of testing is achieved, we will then have the rest of the answers to our two coat varieties and the blended coat.