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OF TURKEY**

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**ZOOTECNICAL ANALYSIS OF
AKBASH SHEPHERD DOG
>> STUDY <<**



**Belgrade
September, 2014.**

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BASIC FACST ABOUT THE PROJECT

Title of the project:	Zootechnical analysis of Akbash with the aim of standardizing as a Turkish indigenous dog breed.
Aim of the project:	Mathematical-statistical analysis of exterior parameters of the Akbash shepherd dog
Deadline for project completion	30 th September 2014
Start of project activities	April 2012
End of project activities	16 th September 2014
Project orderer	Cynology Federation of Turkey– Istanbul, Turkey
Organization in charge of the project	Center for preservation of indigenous breeds – Belgrade, Serbia www.cepib.org.rs office@cepib.org.rs ; projekti@cepib.org.rs
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INTRODUCTION

With the aim of creating a definitive standard, considering the situation in the population and taking necessary selection moves, we have organized a measuring and created a zootechnical study on the Akbash shepherd dog.

Shepherd dogs are large and powerful doogs, which faithfully and loyally guard flocks, of their beloved masters from the dangerous that dwell in the wilderness.

There is hypothesize that the Turkish livestock protection dog breeds were among the earliest dog breeds created. One plausible theory is that white dogs were selected in parts where there was an abundance of water. This is because with surplus water, sheep's wool could be dyed with artificial colors. In the dry parts sheep were preferred with a variety of colors in the wool. There was not enough water to be able to afford using it for dyeing wool, so natural color variation was sought. Livestock protection dogs were selected for the same color characteristics of the sheep, so that predators could not easily tell a sheep from a dog.

METODOLOGY

Determining the exterior parameters was performed measurements, which were carried out in Turkey on location, where the number of these dogs are greatest. The location are:

Measured dogs, males and females were older than 9 months and they are based on observations, were healthy. Measured a total of 96 dogs in populations.

All measurements were performed by one person's, so the subjective error is minimized. The measurements were performed according to the usual method of zootechnic and at the standard methods, in general known and recognized methods of measurement with a measuring instrument that is used for the measurements of this kind. Data processing was done the usual mathematical statistical methods. Based on these measures, an analysis medium, minimum and maximum values of 30 exterior parameter, and their recurrence interval for each measured parameter. Calculate was the relative statistical parameters and indices for each of the measured parameters.

The results obtained by mathematical and statistical analysis are valid and may be used for creation of Standard proposal, according to the FCI formula for Standard writing. These data also represent a good foundation for national breed Standard.

SUGGESTIONS

The observed population of white Turkish dog Akbaş is rather inhomogeneous. This essential fact must be taken into serious consideration when it comes to planning of the definitive standardization of this breed. Inhomogeneity was found in both males and bitches. The obtained results of the parameters that were observed on the level of the entire population clearly indicate that the road to standardization shall be long and hard.

Height at the withers, which ranged from 57.00 cm. to 73.00 cm. clearly indicates the level of inhomogeneity in the observed population. Extremes on both ends of the scale must be eliminated through systematic work on improvement. The obtained mean value of height at the withers of 65.73 cm is quite good, but the fact that 21.88% of observed dogs had height at the withers of 69.00 cm and more is far from good. Height at the withers in 9.38% of observed dogs is 60.00 cm and less, which is also not good. Akbaş is not a low-legged dog, but it is also not long-legged. Both of these extremes reduce the functional capacity of the dog.

Back height: values obtained by this research are typical for the biostatic model of a shepherd dog, where back height is lower than height at the withers. Still, it should be noted that there were dogs that are somewhat swayback, with index 91. That means that the back is 9% lower than the withers, which is more than appropriate. It should be noted, though, that some dogs were in poor condition, so swayback of such dogs was more a matter of circumstances than of biostatics.

Croup height: the obtained values for this parameter, which can be considered as crucial for shepherd dogs, should put all breeders on alert! We observed dogs whose croup was lower than the withers, with index 96%. That means that the back line is falling, which is atypical for shepherd dogs and must absolutely be eliminated from the population by unforgiving selection. The croup must be on at list the same height as the withers, preferably higher, because the croup of shepherd dogs must be higher than the withers. This is implied by basic principles of biostatics and biodynamics of shepherd dogs.

Tail set-on also has too broad a range. This indicates that the position of the croup varies greatly, from steep to slightly inclined. Shepherd dogs have neither steep croup, nor almost horizontal.

Hock height: an important exterior parameter. Hock is invaluable for proper gait. The obtained results clearly indicate that the variability is high, that there are dogs whose hock is set low (index 22%), as well as dogs whose hock is set high (index 36%). This is too irregular and must be corrected.

Elbow height: the calculated range of elbow joint index indicates that there are dogs with high elbow joint (index 64%), which must be eliminated in the forthcoming period.

Knee height: Knee is invaluable for proper gait. It is the most important generator of kinetic energy. Index of knee height clearly shows that there are Akbaş dogs that are unstable – dogs whose knee is too high (index 64%).

Chest bone tip height: it should be noted that the dog's center of gravity lies in a horizontal plane that stretches through the tip of the chest bone. Depending on the chest bone height/location of the center of gravity, the dog is more or less stable. A shepherd dog must be stable. The obtained results clearly indicate that there are dogs in the population whose chest bone tip is set too high, which results in a high center of gravity and brings to insufficient stability in motion.

Body format: Trot is the principal type of motion of shepherd dogs, due to the elongated body shape. Note that the body of a shepherd dog must not be quadratic! Still, the obtained results indicate great heterogeneity of this exterior parameter. While there are dogs who are barely not quadratical (format index 104%), and the elongation cannot be discerned by naked eye, there are also dogs whose body is too elongated (index 117%). Such dogs, being too long, lack the hardness, that is, compactness of the body.

Rib cage depth: rib cage of shepherd dogs should not reach to the elbow. The obtained results show that some dogs in the population have a deep rib cage, and that there are those with shallower rib cage.

Rib cage width: as is the case with other observed parameters, rib cage width also shows great variability. In general, a shepherd dog should not have a wide rib cage, but it should not be narrow, as in sighthounds.

Rib cage circumference: this trait is also unbalanced, as there are dogs with deep and dogs with shallow rib cage. The range of measured values is overly wide.

Boniness index: Unlike other exterior parameters, pastern circumference, used to calculate boniness index, is a fairly stable trait. The range is not too large. The calculated index shows that the build of these dogs is strong, which is desirable for shepherd dogs.

Pelvis length: according to the obtained results, this trait is too variable in the observed population of dogs. Pelvis length index range was from 23 to 36%, which confirms the find.

Pelvis width: this parameter is one of the most uneven exterior parameters. The maximum observed value is almost twice the size of minimal observed value.

Sit bone width: as a consequence of great pelvis width variability, sit bone values for width also cover a wide range. The maximum observed value is three times greater than minimal observed value. Such variability cannot be tolerated in breeding.

Head length: unlike other exterior parameters, head length belongs to traits with a moderate range. When the extreme values are eliminated (21.00 cm and 32.00 cm), the range is acceptable.

Skull length: unlike the previous exterior parameters, whose indexes are calculated in relation to height at the withers, skull length index is calculated in relation to head length. The difference between minimal and maximal values is 10 index points, which might be regarded as a wider range. It is peculiar that the maximum value was observed in just one dog, while the minimal value was observed in almost 10% of the dogs.

Muzzle length: this parameter follows the variability of skull length. The difference between min. and max. value was 10 index points.

Head width: Obtained data show that there are dogs in the observed Akbaş population whose skull is quadratic. The skull is massive, the minimal recorded value of skull width is only slightly smaller than the minimal value of skull length, which also goes for the maximal value.

Nozzle width: Akbaş has a powerful, wide nozzle, which is desirable in such dogs.

Muzzle depth: the strength of the muzzle greatly depends on its depth. Akbaş has a fairly deep nozzle. If the minimum and maximum value are excluded, the range was from 8.00 cm to 10.00 cm, which is quite narrow.

Ear length: These dogs have relatively long ears.





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