

TOWARDS A GENETIC EVALUATION FOR CONFORMATION TRAITS: LINEAR SCORING IN TWO DAIRY GOAT BREEDS

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Abstract: In modern livestock breeding, especially conformation traits that support the breeding of healthy and long-lived animals are important. Linear scoring of conformation traits, i.e. describing the traits between the biological extremes, is widely used in dairy cattle. In Austria, it was introduced for two goat breeds, Saanen (SG) and Chamois Coloured (CG) Goats, in 2018, with the aim of establishing a routine genetic evaluation. In total, 19 different traits from the complexes frame (1 trait), form (3 traits), feet and legs (5 traits) and udder (10 traits) are described from 1 to 9; 13 of those traits have intermediate optima. Additionally, 5 measurements are recorded. For the genetic analyses, linear scorings of 4,239 SG and 1,227 CG were available. In the model, the effects scorer-year, year-season, time since parturition, time since milking (udder traits only), age at first lambing, farm-year and the random genetic animal effect were considered. Heritabilities were in the usual range for linearly scored traits, ranging from close to zero to about 0.30. A routine genetic evaluation will be introduced in January 2024. As more data are available, selected conformation traits shall be used as auxiliary traits for longevity based on their genetic correlations.

Keywords: dairy goats, linear scoring, genetic evaluation

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