

Towards ICAR guidelines on conformation traits in dairy sheep recording

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Conformation of an animal refers to the combination of structural correctness of feet and legs, muscling and udder conformation. Feet and leg traits may be useful indicator traits for claw health while proper udder conformation directly affects milk production, resistance to mammary gland diseases, and improved machine milkability. Favourable conformation has a direct relationship with the productivity, longevity, animal health, disease resistance, and adaptability. Dairy sheep breeders widely recognize the importance for inclusion of the conformation traits in the breeding program. However, there is no recommendation on conformation traits recording, with precise description of each trait, recommended scale of linear classification, and statistical models for genetic evaluation. Therefore, this study aims to provide an overview of the current state of conformation recording in Mediterranean dairy sheep breeds in order to develop ICAR guidelines for conformation recording.

Hence, a survey was developed, and members of the breeding associations were invited to participate. The survey consisted of basic information's (country and breeding organisation contact), and specific questions (size and details of dairy sheep population in the conformation recording, breeds involved, and information on the traits recorded). Altogether, eight breeding organizations have responded to the survey. The scored traits included 11 frame traits, 7 leg traits, and 9 udder traits.

The most frequently recorded traits were loin strength, rump angle, rump width, body length, chest width as frame traits, foot angle, rear legs set, and fore legs set as leg traits, and teat position, teat length, udder depth, udder attachment, and udder cleft as udder traits. The core set of traits identified in this study will provide a crucial foundation for the international harmonization of conformation recording in dairy sheep breeds, soon available in the section 5 on conformation recording in ICAR guidelines.