

## Abstract Submission Form

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**Preferred presentation**

Oral

**Preferred session**

Session 10: New approaches in the field of functional traits for management and breeding

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**Title of your paper**

Body Conditions Scoring – first proposal for recommendations for recording and use for herd management, genetic improvement and welfare assessment.

### Insert ABSTRACT text

Body condition scoring (BCS) is a subjective method of accessing the amount of metabolizable energy stored in fat and muscles in a live animal. It provides a rapid indication of levels of body fat reserves, which play an important biological role in early lactation by buffering the cow against negative energy balance while she partitions her energy mainly towards milk production. However, this rapid mobilization of body fat reserves causes fertility and health problems. Thus, keeping cows in the correct body condition is important and can be achieved through regular monitoring of BCS, which can be used to troubleshoot problems and improve the health, wellbeing, fertility, productivity, and feed efficiency of the dairy herds. Most animal scientists agree that BCS is a good indicator of body fat reserves. BCS is an intermediate-optimum trait. Related to BCS health, reproductive disorders arise from having cows that are either too thin or too fat. The visual and tactile (palpation) appraisal of cow's body condition score recording started in the 1970s, and this has been rationalized into various numerical BCS systems with many scales of BCS

in use depending upon the country, organization, and purpose. For welfare assessment, scales with few grades are commonly used; optimisation of feeding requires very detailed scales to detect changes at an early stage; and more. The frequency and recommended time of recoding also differ depending on the requirements for use.

Different scoring systems can cause confusion when comparing responses and targets, and it can be challenging to interpret results, especially across farms and programs. Studies have suggested that BCS can be converted mathematically, although these methods are inaccurate when the scales are nonlinear. The other approach could involve the conversion of BCS scores obtained from various scales into Snell's score and subsequently mapping the values. However, there aren't many studies done using this methodology. Although automated BCS recording is emerging as a reliable measure, it is still challenging to accurately score BCS in dairy cattle using this technique. Reference standards to relate to and consider for validation and interpretation of results.

Thus, this proposal for guidelines is a direct continuation of the ICAR-IDF webinar on "Recording and evaluation of BCS and its relationship with health and welfare" and the work done by the Joint Expert Advisory Group for BCS Guidelines. The manuscript for the guidelines consists of important takeaways from the initial work, a thorough literature review on body condition scoring, and crucial factors to take into account when recoding BCS in cows. This proposal for comprehensive guidelines will now be reviewed by the Joint Expert Advisory Group and the FTWG and contribute to the initial migration of guidelines to an ICAR Wiki system.

**Enter keywords**

Animal Health, Body condition Score, Bovine, ICAR, Welfare