

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

**FAECAL SOILING ON EWES WITH DOCKED AND UNDOCKED TAILS AND INTER-ASSESSOR RELIABILITY OF THIS WELFARE MEASURE**

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Faecal soiling is a welfare indicator in the AWIN welfare assessment protocol for sheep and it is measured by dag scores. Studies on dag scoring for ewes with docked and undocked tails provided controversial results. The aim of this study was to compare faecal soiling between ewes with docked and undocked tails and to evaluate inter-assessor reliability as repeatability amongst assessors. This study was conducted in October 2017, on a farm in Southern Brazil and included 66 undocked and 94 docked ewes, which were 12-13 months of age, crossbred Corriedale and Ile de France. The docking procedure was conducted under anesthesia and analgesia. Dag score was independently recorded by three assessors on a 1 to 5 scale, where increasing scores indicated more faecal soiling on animals. The dag score median was 3 (1-5). There was no significant difference on faecal soiling comparing docked and undocked ewes ( $P=0.733$ ). Repeatability amongst assessors by intra-class correlation coefficient of dag scores on docked and undocked ewes was 0.49 and 0.40, respectively; these repeatabilities were no different ( $P=0.340$ ). The fair repeatability between three assessors on dag scoring indicates caution in the use of faecal soiling as an indicator and that it requires further studies. The best field results may be obtained by increasing assessment sample to at least 160 ewes or by rising the number of assessors up to five to promote better inter-assessors repeatability. In addition, detailed descriptors such as the inclusion of number and size of dags, percentage of area covered by soiling considering the tail, and the combination of these traits for each score are suggested tools to improve reliability. Since removal of a portion of the tail does not promote cleanness on the breech area, it seems unnecessary docking ewes for this reason. However, as the assessment of soiling needs refinement, the conclusion regarding dag scores between docked and undocked sheep needs further confirmation.

**Keywords:** faecal soiling, intra-class correlation coefficient, inter-assessor repeatability, sheep welfare indicator

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