



SCC DIAGNOSTICS TOOL BOX



R-EF-2: Association Between Hygiene Scores and Somatic Cell Scores in Dairy Cattle

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Abstract

Objective: To develop a simple system for scoring hygiene in dairy cattle and determine whether hygiene scores were associated with individual cow somatic cell scores (SCSs)

Design: Observational study

Animals: 1,191 cows

Procedure: With the aid of a chart containing line drawings and descriptive text, hygiene scores ranging from 1 (clean) to 5 (dirty) were assigned for 5 body areas: tail head, thigh (lateral aspect), abdomen (ventral aspect), udder, and hind limbs (lower portion). To determine repeatability, hygiene scores were assigned to 75 cows twice by 4 experienced evaluators. To determine accuracy and ease of use, hygiene scores assigned by 14 college students to 23 cows were compared with scores assigned by 2 faculty members. To determine association with SCSs, hygiene scores were assigned to each of 1,093 cows by a single observer.

Results: Mean correlation coefficients for hygiene scores assigned twice by 4 experienced evaluators were ≥ 0.884 , indicating high repeatability. Students indicated that the scoring system was easy to use, and mean correlation coefficient for student and faculty member scores was 0.804. Hygiene scores for the tail head, thigh (lateral aspect), and abdomen (ventral aspect) were not significantly associated with SCS. However, hygiene scores for the udder and hind limbs (lower portion) and udder–hind limb composite scores were significantly associated with SCS, with SCS increasing as scores increased.

Conclusions and clinical relevance: Results suggest that the hygiene scoring system was repeatable, accurate, and easy to use. However, only hygiene scores for the udder and hind limbs and the udder–hind limb composite score were significantly associated with SCS.

