Inter- and intra-observer reliability of experienced and inexperienced observers for the Qualitative Behaviour Assessment in dairy cattle

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Abstract

Qualitative Behaviour Assessment (QBA) is part of the Welfare Quality® protocol for dairy cattle, although its inter- and intra-observer reliability have not been reported. This study evaluated inter- and intra-observer reliability of the QBA for dairy cattle in experienced and inexperienced observers using videos. Eight experienced observers performed the QBA (20 descriptors) twice for 16 video clips (60 s per clip; series 1) showing 4–17 animals. They assessed another 11 video clips showing herds (4 shots of 30 s per clip; series 2). Ten inexperienced observers performed the QBA on both video series one time. Inter-observer reliability of experienced observers ranged from slight to moderate (both assessments of series 1), and from low to high (series 2) for descriptors, and from slight to moderate for the QBA score. Inter-observer reliability of inexperienced observers ranged from low to moderate (series 1), and from low to high (series 2) for descriptors, and was moderate (both series) for the QBA score. Intra-observer correlations varied largely per descriptor and observer. They were both negative and positive, and ranged from low to very high. High correlations, however, were not necessarily associated with low paired differences. Values of half of the descriptors and the QBA score differed amongst experienced and inexperienced observers. The QBA appears insufficiently reliable as a tool for welfare assessment in dairy cattle.

Keywords: *animal welfare, dairy cattle, Qualitative Behaviour Assessment, reliability, repeatability, Welfare Quality®*