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Animal Welfare 2011, 20: 239-251 ISSN 0962-7286

Assessment of sheep welfare using on-farm registrations and performance data

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Abstract

Farm animal welfare is a societal concern, and the need exists for scientific protocols to assess welfare. This paper describes the development of a protocol to assess the welfare of sheep (Ovis aries) and its application in 36 farms in Norway. There were two parts to the protocol; the animal- and resource-based measurements obtained during farm visits, and the analysis of production data. Data collection took place during visits to 36 farms in the lambing season (April-May) in 2007 (n = 11) and 2008 (n = 25). A fear test was conducted, and ewes were scored on a scale from 0 to 3. Forty-one percent of the ewes tested had a fear score of 3, indicating the lowest level of fear. Mean (\pm SD) fear score across farms were 1.9 (\pm 0.5). Higher fearfulness was found to be associated with lower ewe body condition scores (BCS). Mean (\pm SD) BCS across farms was 2.6 (\pm 0.6). A relatively large proportion of the ewes had a BCS of 2 (41%), which may be associated with an increased risk of nutritional stress, disease and low productivity. Eight farms had more than 5% (range 5.4–24.4%) of lamb carcases categorised in the lowest conformation class, which may be an indication of a welfare problem. This study is the first step in the development and validation of a welfare assessment protocol for sheep, and further research is needed to assess the overall reliability of the protocol.

Keywords: animal-based measures, animal welfare, production, resource-based measures, sheep, welfare assessment protocol