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The welfare of growing pigs in five different production systems in France and Spain: assessment of health

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Abstract

This study was carried out to compare the health of growing pigs in five different production systems in France and Spain using measures provided by the Welfare Quality[®] protocol. A total of 11,647 pigs housed on 91 commercial farms were evaluated over a two-year period (2007–2009). Farms considered as conventional were close to the European dominant production system, rearing 'white' pigs (eg Large White; Landrace × Pietrain) housed on concrete floors. Systems considered as differentiated had specifications to distinguish them from the conventional one. Farms that housed 'white' breeds of pigs on straw were then considered as a different production system. Mallorcan Black pigs managed extensively on family farms in the Balearic islands represented a third production system. The remaining two systems assessed were represented by the methods used for Iberian pig rearing extensively or intensively. Multiple Generalised Linear Mixed Models were performed for each animal-based measure of health. The straw-bedded and the conventional systems did not differ in the prevalence of any animal-based measures. Mallorcan Black pigs and Iberian pigs kept extensively had a lower prevalence of severe wounds than pigs in the conventional system and the lowest prevalence of tail biting. Focusing on pigs housed in the conventional system, several possible causal factors (such as the feeding system and the type of floor) were identified relating to severe wounds, tail biting and lameness. Therefore, the recording of simple environmental-based factors can be useful in detecting farms that are more likely to show these problems.

Keywords: *animal welfare, causal factors, growing pig, health, housing systems, Welfare Quality[®]*