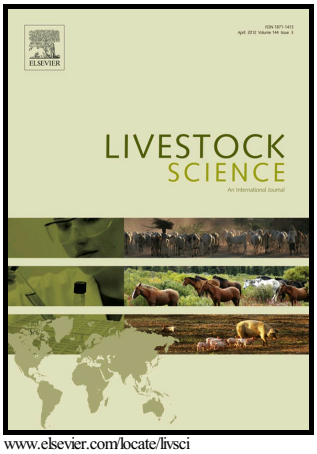

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Abstract

In organic pig production, pigs are often provided with concrete areas outdoors. These outdoor areas are frequently used for urination and defecation by the pigs, which results in high nitrogen emissions. This is inconsistent with the goal of organic farming to minimise the environmental impact of agricultural production.Introduction of a well-designed rooting yard with an optimal rooting material could possibly be a way to improve the conditions in the outdoor area. In an earlier study, we tested different designs of rooting yards.In the present study, we compared outdoor areas without enrichment (Reference, R) with outdoor areas with rooting yards filled with one of three different kinds of rooting material: wood shavings (W), peat (P) or peat + a small amount of pelleted feed (PF).

In total, three batches (batch 1: Dec-April (winter/spring); batch 2:May-Sept (summer); batch 3: Oct-Jan (autumn/winter), in a research facility with eight pens of 16 pigs each, were studied. Data on performance and activity, hygiene and ammonia emissions in the outdoor area were used for the evaluation.

No significant differences in performance were seen between treatments.The pigs found the rooting yards with rooting material outdoors attractive and pigs with rooting material outdoors tended to be outdoors more often than pigs in the reference pen. However, the differences were generally not significant, due to large variations. Hygiene outdoors was