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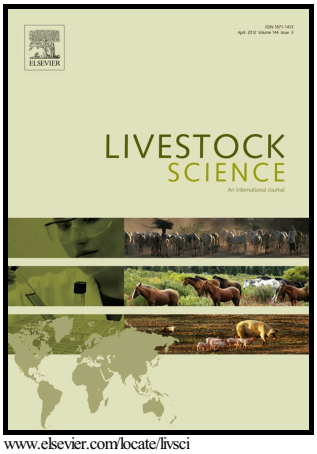

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Improving welfare and production in the peri-weaning period: Effects of co-mingling and intermittent suckling on the stress response, performance, behaviour, and gastrointestinal tract carbohydrate absorption in young pigs

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Abstract

We investigated the effect of different pre-weaning interventions on performance, aspects of behaviour, and selected neuroendocrine, inflammatory and immune indices in 593 weanling pigs (59 litters, weaning age 22 ± 1.7). Measurements were taken at various time points two weeks before and after weaning. Sugar absorption tests (20% mannitol and 20% galactose solutions?) were used to assess gastrointestinal tract (GIT) absorptive capacity. One week before weaning, litters were either co-mingled (CoM) for 8 hours daily with another litter or not co-mingled (NoCoM). Half of the litters were also subjected to intermittent suckling (IS) involving separation from their sow for 8 hours daily and the other half remained with their sow (NoIS). Hence, four treatments were produced in a 2x2 factorial design; (1) CoM IS (n = 16 litters), (2) CoM NoIS (n = 14 litters), (3) NoCoM IS (n = 16 litters), (4) NoCoM NoIS (n = 13 litters). Measurements are compared within each of the main effects (CoM or IS) unless otherwise stated. Acute