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Influence de l'homogénéité des portées sur la prise colostrale et la mortalité des porcelets

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Effects of uniformity of birth weight on colostrum intake and mortality of piglets

Within-litter variation in birth weight is a factor relevant to pig production. This study set out to compare colostrum intake and postnatal mortality in litters of uniform or heterogeneous birth weight. The study involved 52 sows (Large White x Landrace) and their litters. To create two litters, either uniform (U) or heterogeneous (Control, C) in birth weight, piglets from two sows farrowing concomitantly were used. At birth, piglets were weighed, identified and placed in a box under an infra red lamp. At the end of farrowing, piglets were re-weighed and allotted to group (U) or (C) of similar size (12 / litter) and birth weight (1391 and 1393 g in groups U and C, respectively) and allowed to suckle (time 0). They were re-weighed 24 h later to estimate colostrum intake. At time 0, the mean intra-litter coefficients of variation (CV, %) in birth weight were 9.3 ± 0.8 (sem) and 27.8 ± 0.8% in groups U and C, respectively. The U sows tended to produce more colostrum (4868 ± 159 *vs* 4526 ± 163 g, *P* = 0.06). Mean colostrum intake / piglet /litter was similar in both groups, i.e., 416 ± 14 (U) and 395 ± 13 g (C) (*P* = 0.23), but was less variable in U litters (CV = 22.1 *vs* 36.0%, *P* = 0.01). Mortality up to 21 d of age was lower in U litters (6.4 *vs* 11.9%, *P* = 0.03). Results indicate that colostrum intake is less variable and mortality lower in piglets from litters of uniform birth weight. It is suggested that genetic improvement to reduce within-litter variation in birth weight could reduce piglet mortality.