Impact of Sow Lameness on Piglet Weight and Mortality

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Pre-weaning mortality in the US swine industry averages 15% and results in an economic loss of $193 million to the swine industry. Sows that are lame during the farrowing period may not only represent a compromised population on farm but their ability to care for their young may be limited. The objective of this study was to determine the impact of sow lameness on total weight and mortality of pre-weaned piglets. 246 multiparous commercial sows were evaluated by a veterinarian during the last week of gestation and assigned to one of two treatments; 1) lame and 2) non-lame (control). Sows were moved to the farrowing room and the following data was collected: litter weight; total litter weight was recorded during the 1st week (0-7 days old) and one week prior to weaning (14-21 days old). On farm staff recorded the following for each sow: total born alive, stillbirth, mummies, and pre-weaning deaths. Sow lameness status had no impact on litter weight with average litter weight during the 1st and 3rd week at 4.6 ± 0.2 and 12.8 ± 0.2 respectively ($P>0.05$). Lameness status had no effect on total pre-weaning deaths (Non-lame: 1.5 ± 0.2 vs. Lame: 1.9 ± 0.2), including deaths attributed to low viability (Non-Lame: 0.02 ± 0.02 vs. Lame: 0.05 ± 0.02), laid on (Non-Lame: 0.9 ± .2 vs. Lame: 1.1 ± 0.2) or starved piglets (Non-Lame: 0.1 ± 0.1 vs. Lame: 0.2 ± 0.1). However, lameness status had an effect on mortality attributed to injury (Non-Lame: 0.001 ± 0.04 vs. Lame: 0.1 ± 0.04). Although lameness did not influence litter weight and total mortality, sows identified as lame prior to farrowing demonstrated greater piglet mortality with a higher incidence due to injury, which may be a result of the sow unable to effectively maneuver in the stall.