



AWN-059

EFFECTS OF SUPPLEMENTING PREPARTUM SOW DIET WITH ORGANIC ACIDS ON NEONATAL PIGLET MORTALITY

J. Yun, S. Hasan, S. Saha, C. Oliviero, O. Peltoniemi.

University of Helsinki, Helsinki, Finland.

The primary goal of the present study was to examine the effect of supplemental organic acids to the late gestation diet on neonatal piglet mortality. An additional goal was to study the effect of the loose-housed farrowing system on neonatal piglet mortality. A total of 60 sows were moved to farrowing units 7 days before the expected parturition date. The sows and their offspring were allocated to a factorial design with two factors, diet [CON (normal sow diet) vs. ORG (normal sow diet supplementing tall oil fatty and resin acids)] and housing [CRATE (crate size: 225 × 65 × 65, pen size: 325 × 250) vs. FREE (crate size: 225 × 159 × 191, pen size: 325 × 250)]. The live-born piglet mortality rate was remarkably higher in FREE than in CRATE (11.8 % ± 1.9 vs. 3.3 % ± 1.8, $P < 0.01$). This was due to the higher rate of crushed piglets seen in FREE compared to CRATE (11.5 % ± 1.8 vs. 2.4 ± 1.8, $P < 0.001$). In FREE, the sows with ORG diet had a lower rate of crushed piglets (5.6 % ± 2.5 vs. 17.5 % ± 2.6, $P < 0.01$), and thus the lower live-born piglet mortality rate (6.0 % ± 2.5 vs. 17.5 % ± 2.7, $P < 0.05$) than the sows with CON diet, whereas among sows in CRATE, the live-born piglet mortality rate was not affected by different diets (1.3 % ± 2.6 for CON vs. 5.3 % ± 2.6 for ORG). Consequently, these data indicate that supplemental tall oil fatty and resin acids to the diet of the prepartum sow could reduce mortality rates of neonatal piglets in loosed-housed system within 24 h postpartum.

P
O
S
T
E
R