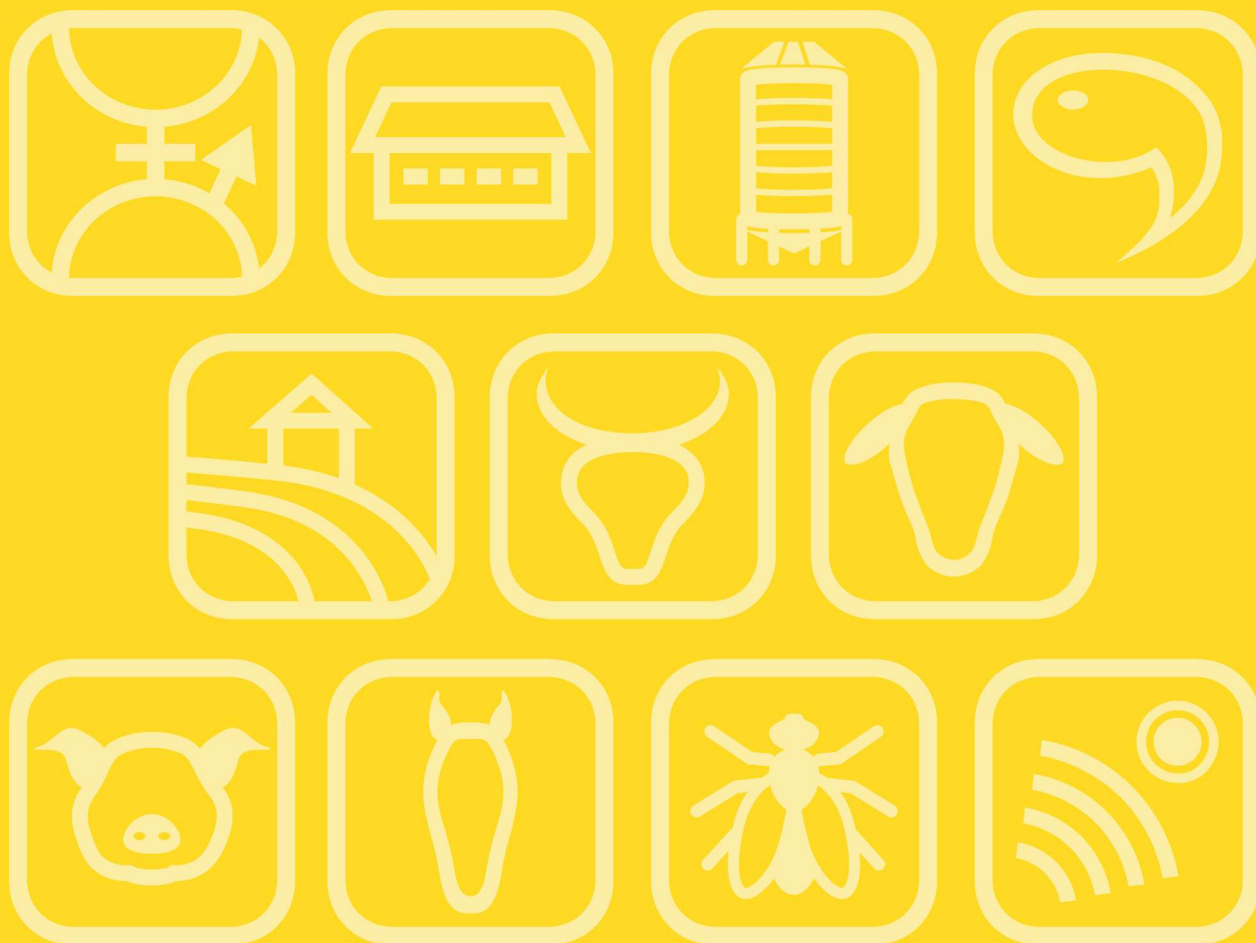


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Feeding a gestation diet to sows in early lactation and liquid creep feeding of suckling pigs

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Feeding a gestation diet to sows in early lactation and liquid creep feeding can increase sow and piglet feed intake, respectively, leading to increased pig weaning weight (ww) and post-weaning (pw) growth. The objective was to determine the effect of feeding sows a gestation diet for the first 5 days of lactation and liquid creep feeding suckling pigs on pre- and pw growth in pigs. The experiment was a 2×2 factorial arrangement with 50 sows, that combined sow feeding (lactation diet throughout lactation or gestation diet for the first 5 days of lactation, followed by lactation diet) and creep feeding from day (d) 5 after birth (dry pelleted starter diet or liquid mixture of milk and starter diet). All sows were limit-fed a gestation diet until farrowing. Sow feed intake, weight and back-fat depth and piglet weight and creep feed dry matter disappearance during lactation and piglet growth to d14 pw were recorded. Sow milk was collected on d5 of lactation. Data were analysed using PROC MIXED (SAS v9.4). There was no sow x piglet treatment interaction for any parameter. Feeding the gestation diet in early lactation did not influence sow feed intake, back-fat depth or weight loss during lactation but reduced milk solids and fat % ($P < 0.05$), tended to reduce ww ($P = 0.06$) and reduced pw average daily gain ($P < 0.05$). Creep feed disappearance was higher for dry-fed compared to liquid-fed litters but there was no effect of creep feeding on pre- or pw pig growth. In conclusion, feeding a gestation diet in early lactation did not increase lactation feed intake in sows and liquid creep feeding did not increase feed intake and growth in pigs compared to dry creep feeding.

Session 50

Poster 10

Maternal and/or direct feeding of organic acid-preserved grain improves pig lifetime growth performance

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Manipulating sow nutrition and incorporating organic acids (OA) into pig diets can improve pig health and performance post-weaning. This study evaluated the effects of including cereal grains preserved with an OA mould inhibitor (650 g/kg propionic acid) on the production performance of sows and their offspring. The 80 sows (Large White x Landrace) were blocked according to parity, body weight, and backfat on d 100 of gestation and assigned to one of two diets throughout lactation. On d 10 postpartum, the sow treatments were further divided. Their litters were assigned to one of two diets in a 2 x 2 factorial design (n = 20), resulting in 4 treatments: (T1) DSDP (dried grain sow diet + dried grain pig diet); (T2) DSPP (DS + preserved grain pig diet); (T3) PSDP (preserved sow diet + DP); and (T4) PSPP. The piglets remained on their respective diets post-weaning and were monitored until slaughter, at d 168. Sows offered the OA-preserved grain had improved apparent total tract digestibility of nitrogen and gross energy ($P < 0.05$). There was no effect of diet on sow reproductive performance (gestation length, liveborn, milk production, and wean to oestrus interval), body weight loss, backfat loss, or feed intake during lactation ($P > 0.05$). There was no effect of treatment on pre-weaning piglet performance ($P > 0.05$). However, a direct feed effect was observed between d 26 and 168 postpartum where pigs offered the OA preserved grain had improved daily gain, feed efficiency, final body weight and carcass weight at slaughter compared to dried grain ($P < 0.05$). Pigs weaned from OA-preserved grain-fed sows had improved FCR during the finisher stage ($P < 0.05$). In conclusion, OA-preserved grain improved the lifetime growth performance of pigs.