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When do ad libitum fed lactating sows choose to eat?

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To better understand the instrinsic feeding behavior of lactating sows, 51 animals across two Austrian farms were fed via a sow controlled ad libitum feeding system (ADLIB) and their feeding patterns monitored from lactation day six until weaning. Sows pushed a metal rod to trigger the delivery and digital recording of small quantities of feed (50 g). The ADLIB sows were housed in the same farrowing rooms as limit-fed sows on a fixed feeding schedule of 6:00, 12:00 and 16:00. Average feed disappearance for ADLIB sows was 6.4 kg/day and was consumed across the whole day; although with peaks at 2:00, 6:00, 12:00 and 16:00 suggesting some entrainment of ADLIB sows to the fixed feeding schedule. Peaks in the feeding patterns of older sows were more well defined compared to gilts and could result from sows being familar with fixed feeding regimes during previous lactations. In summer, feed disappearance was less synchronized and shifted to the night as the 12:00 feeding peak disappeared. Taken together, these findings demonstrate an instrinsic feeding pattern more similar to their natural foraging behaviors that contrasts the experience of sows in fixed feeding regimes. Lactating sows eat small portions of feed over the whole day and will adapt their feed intake based on extrinsic factors such as environmental conditions like ambient temperature and social facilitation where animals are motivated to eat together. This work highlights new opportunities to better match lactating sow feed intake to her needs.

Piglet suckling behaviour in relation to fibre type in the maternal diet

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The present study aimed to determine whether the dietary fibre type in the maternal diet and the suckling position influence piglet growth between birth and 70 days (d) of age. From d85 of gestation to weaning, 40 sows were fed a gestation and lactation diet containing either 4% of oat hulls (OH) or 4% of inulin (IN). Piglet body weights were recorded on different days until d70 of age. On d3 and d17, the piglets were observed during two suckling sessions and were assigned to a suckling position on the sow's udder: A (anterior), M (middle), P (posterior), D (different position between the two suckles). Suckling behaviour was recorded on d10. Suckling area fidelity between d3 and d17 averaged 82% (±3) and was not affected by the maternal diet. There was no interaction between suckling position and maternal diet on piglet growth at either d3 or d17. Both the maternal diet and the suckling position on d3 tended to or influenced growth from birth to d5 ($P<0.10$). Similarly, at d17, piglets suckling on the A area had better ($P<0.05$) growth from birth to d17 than those suckling on the M and P areas. Regardless of the suckling position, piglets from OH sows tended to grow faster ($P<0.10$) from birth to d17 than those from IN sows. This suckling position effect persisted until weaning, but was no longer significant at d70. In contrast, the maternal diet affected growth until d70 ($P<0.05$). At d10, piglets from OH sows tended to have fewer fights at the udder than those from IN sows. Besides a similar suckling duration, piglets from OH sows tended to suckle less often and had a longer suckling interval than those from IN sows. The present results confirm that the A area is associated with a better growth. It also showed that the fibre type in the maternal diet affects piglet growth but also suckling behaviour.