

Behavioural observations of sows and piglets in a free farrowing pen with a focus on the piglet nest

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Background

Animal-friendly free farrowing can be associated with a higher risk of piglet losses in the early suckling period. The probability of piglet survival can be improved by a prolonged stay in the piglet nest as the risk of hypothermia and crushing or kicking by the sow is reduced. Therefore, this study investigates different methods that might encourage piglets' use of the nest.

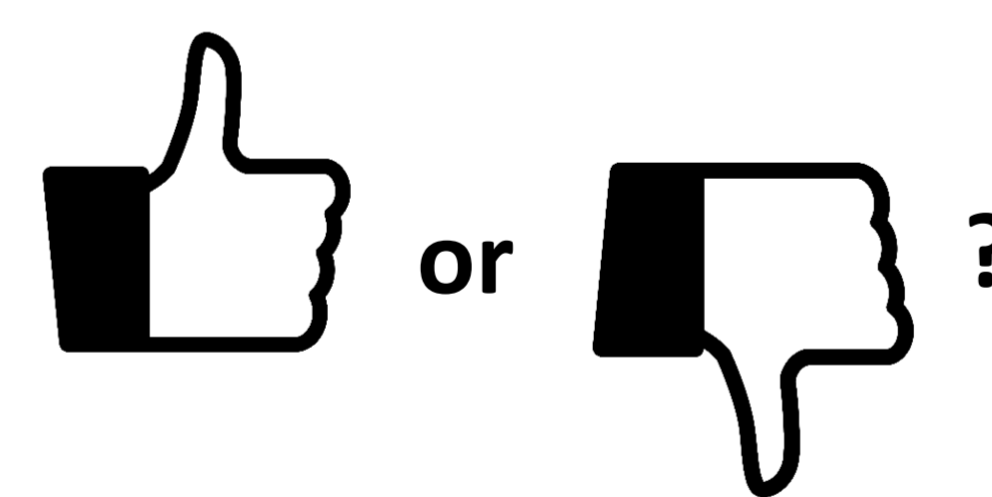
Animals, Material and Methods



- Data collection on the experimental farm of Thünen Institute started in May 2018.
- Since then, data has been collected from around 120 litters from 50 Large White x German Landrace crossbred sows inseminated using two homozygous stress stabile Piétrain boars.
- Eight solid concrete farrowing pens (7.7 m²) with access to outdoor runs (6 m²) and without fixation of the sow are bedded with straw and equipped with video cameras in the piglet nest, the pen and the outdoor run that record the first 72 h after farrowing.

- Eight combinations of different piglet nest treatments are tested:

- electric lid heating vs. underfloor heating
- with vs. without LED-light
- with vs. without confinement of the piglets in the nest during the first feeding times of the sow after farrowing



- Additional data collection: animal performance, medical treatments and animal losses, temperatures in piglet nest, stable and outdoors as well as economic indicators (energy consumption of the heating systems, labour input for confinement of the piglets)
- Videos are analysed with regard to the location and behaviour of sow and piglets using the Behavioral Observation Research Interactive Software (BORIS) and the scan sampling method using an interval of 10 minutes.

Aims

- Assessment of the examined measures regarding their effects on behaviour, growth and losses of the piglets
- Increasing the use of the piglet nest