**Production results on the "Sow comfort" farrowing pen for loose housed sows**

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**Introduction and Aim**

The SowComfort farrowing pen was developed some years ago with the aim to satisfy basic behavioural needs and increase sow resting comfort during farrowing and lactation. Due to promising results regarding sow-piglet communication and piglet survival in the first prototype pen, the objective of the present innovation project was to develop a commercial version of the pen and collect production data from this and traditional, similar sized farrowing pens with a corner creep area, with no mattress and without hay rack in one commercial herd.

**The “Sow Comfort” pen**

The “Sow Comfort” farrowing pen (7.68 m²) comprises two compartments: a “nest area” and an activity/dunging area. The nest area has solid side walls, sloped walls on three of the sides and a hay rack on the fourth wall allowing free access to hay or straw. The nest area has two zones with floor heating covered by a 30 mm thick rubber mattress.

**Sow material and analysis**

1st commercial herd: 162 healthy FY sows of different parities and their litters, of which 61 litters were from three different batches in an old pen system vs. 101 litters were from four different batches in the SowComfort pen.

2nd herd: 156 healthy FY sows and their litters distributed between three different batches kept in an old pen system. We collected production data from 343 healthy sows with different parities in the new pen, distributed between 7 consecutive batches.

The data within each of the two herds were analyzed separately as they differed in management routines, and we used a generalized model in SAS.

**Results**

Production results showed that % mortality of live born piglets was around 13% in both pen systems, but causes of mortality in the two pens differed. While the SowComfort pen resulted in lower mortality (1.7 ±0.5%) due to starvation (i.e. no milk in the stomach), more piglets were crushed in this pen compared to the old system (SowComfort pen: 11.8±1.4 vs. old pen system: 9.6±1.2).

1st herd: Percentage of piglets per litter without knee lesions were significantly higher in the SowComfort pen (28.8±3.1) than in the old pen system (11.0±2.4; P<0.0001). Mortality due to starvation was rare while crushing was the most common cause of death.

**Conclusion:** With an average of 14 liveborn piglets, these results show that this pen is a promising alternative to other farrowing pens for loose housed sows with great potential for the future.