Development of a group-adapted housing system for pregnant sows: a field study on performance and welfare aspects

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Supplementary Materials

Table S1. Sorting of the SWOF sows to the low or high energy diet according to their parity and body weight (kg).

Parity	Body Weight Objective (kg)	Sorting to Feeding Area A—Low Energy Diet (kg)	Sorting to Feeding Area B—High Energy Diet (kg)
1 and 2	270	> 280	< 260
3 and 4	300	> 310	< 290
≥ 5	325	> 335	< 315

Supplementary Results

Body Weight

Table S2. Effect of the parity class on focus sows' body weight (in kg as LSM ± SE) in the existing and SWOF systems.

Parity Class*	Existing System	SWOF System
1	302.4 ± 5.2	302.7 ± 6.3
2	306.8 [b] ± 5.2	291.0 [a] ± 5.9
3	317.5 ± 5.2	306.5 ± 6.0
4	316.1 [b] ± 3.3	285.5 [a] ± 4.9

*Parity class 1 = second gestation; 2 = third gestation; 3 = fourth gestation; 4 = fifth to eleventh gestation

LSM with different superscript letters within one line are significantly different with $p < 0.05$

Integument Injuries and Injury Index

Table S3. Sows' injury index* (LSM ± SE) during gestation.

Day of Gestation	Injury Index
38	0.86 [a] ± 0.04
45	0.67 [b] ± 0.04
52	0.67 [b] ± 0.04
71	0.57 [c] ± 0.03
94	0.60 [bc] ± 0.04
109	0.45 [d] ± 0.04

* Based on the observation of 679 injuries, rated between 0 and 3, from the 114 focus sows. LSM with different superscript letters within one column are significantly different with $p < 0.05$

Table S4. Effect of the parity class on sows' injury index (LSM ± SE) in the existing and SWOF systems.

Parity Class	Injury Index
1	0.77 [a] ± 0.05
2	0.65 [ab] ± 0.05
3	0.57 [b] ± 0.06
4	0.56 [b] ± 0.04

* Based on the observation of 679 injuries, rated between 0 and 3, from the 114 focus sows. LSM with different superscript letters within one column are significantly different with $p < 0.05$

Lameness

Table S5. Effect of the day of gestation on the percentage of lame sows (in %; back-transformed LSM ± SE).

Day of Gestation	Lame Sows (%)
31	4.96 [b] ± 2.14
38	21.64 [a] ± 4.75
45	5.80 [b] ± 2.44
52	6.58 [b] ± 2.49
71	5.78 [b] ± 2.46
94	9.76 [b] ± 3.19

* Based on 680 observations from the 114 focus sows, rated as either non lame (score 0) or lame (score 1 or 2). Data are presented as back-transformed LSM and different superscript letters within one column are significantly different with $p < 0.05$