



Oral presentation ☒ / Poster ☐

Visual inspection and ultrasound examination of the reproductive tract of culled breeding boars

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Introduction

Optimal reproductive performance is very important in sow farms, as fertility problems or suboptimal results lead to huge economic losses for the farmer (Maes 2009). This study investigated the effect of adding an herbal mixture to the feed of breeding gilts and sows before weaning on reproductive and litter performance.

Materials and methods

The study was conducted in a high-health sow farm practicing a 5-week batch-farrowing system. Six successive weaning batches of approximately 50 sows each (300) were included. The animals of each batch were allocated to either treatment (T) or control (C) using stratified randomization (5 strata based on parity). Animals of the T group received 50 grams of the product Estral®, once orally by top-dressing. Animals were treated in the morning; sows the day before weaning, and gilts the day after the last Altrenogest treatment. The animals of the control groups were left untreated. Management, housing, nutrition, and other factors were kept the same for both groups. Parameters related to estrus, pregnancy, and litter performance were monitored (see Table). The data were analyzed using a generalized linear model, with treatment as the independent variable, and batch and parity as covariates. Gestation length was analyzed using Kruskal-Wallis ANOVA.

Results

The results are shown in the Table. The gestation length was significantly shorter in animals from the T group ($P < 0.05$).

Table. Results of estrus, pregnancy, and litter performance

	C	T	P-value
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% of sows in estrus post-weaning	98.1	98.0	0.899
Weaning-to-estrus interval (h)	113.1	112.9	0.723
Number of inseminations per estrus	2.4	2.3	0.387
Pregnancy rate (%)	93.2	97.4	0.072
% of stillborn pigs	7.3	7.1	0.958
% of sows with stillborn pigs	42.9	41.2	0.756
% of mummified pigs	2.7	2.8	0.961
% of sows with mummified pigs	66.2	64.1	0.699
Gestation length (d)	115.7	115.4	0.036
Total born pigs per litter	16.5	16.7	0.651
Liveborn pigs per litter	15.1	15.3	0.605
Litter weight 24h post-partum (kg)	21.1	21.3	0.663

Discussion and Conclusions

The treatment with Estral® was simple and easily implementable in normal management. Most parameters were better in the T group than in the C group, but the differences were generally small and not statistically significant. This might be because reproductive performance was already very good on this farm. The gestation length was significantly shorter in animals from the T group ($P < 0.05$), but this difference is less important. The pregnancy rate was 4.2% higher in the T group ($P = 0.072$). Such a difference is economically important as it results in fewer non-productive days. Further research is warranted to investigate the effect of the treatment on more farms and farms with variable reproductive performance.

References

Maes D, 2009. Non-infectious reproductive problems in the sow: an overview. Proceedings of the 1st ESPHM, Copenhagen, Denmark, 14-21.