



Application of Lianol® Ferti in sows to increase the number of piglets per litter

Schillebeekx, Jos ¹ Forier, Rudi ² Kanora, Alain ³ De Gussem, Koen ³

1. DAP Schillebeekx, Koersel, Belgium; 2. Ardol BV, Susteren, Netherlands; 3. Huvepharma NV, Antwerp, Belgium

Introduction

Lianol® Ferti is a highly digestible fermented potato protein of which the use results in prometabolic regulators (peptides). The fertility effect of the Negative Energy Balance (NEB) can be countered by feeding Lianol® Ferti to sows, increasing peptide levels and enhancing milk production. These effects are mediated by an elevated IGF-1 level in serum, known to increase these parameters. Lianol® Ferti has the proven ability to enhance the heat to shorten the weaning to insemination period and to reduce the number of empty sows.

This trial aimed at confirming the influence of Lianol® Ferti administration to sows around weaning on the number of piglets born in the next litter.

Materials and methods

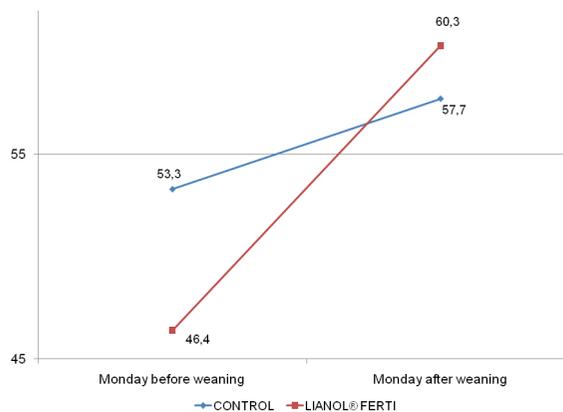
A group of 30 F1 sows (Belgian landrace and French Landrace) on a Belgian breeding farm were equally split in an untreated control group (parity: 3.5) and a Lianol® Ferti group (parity: 3.7) receiving 10 g Lianol® Ferti per sow per day, during 5 consecutive days, starting on Monday before weaning until Friday after weaning (weaning on Thursday).

IGF-1 serum levels were measured at the start on Monday and again the next Monday, at insemination. Secondly, the number of piglets born and weaned in the next litter, were registered.

Results

The IGF-1 levels of the untreated control group showed an increase of 4.4 ng/ml, being 8.25%. However, the IGF-1 levels of the group having received 10 g of Lianol® Ferti for 5 days showed a noticeable increase of 14.0 ng/ml, which is an increase of 30.2%.

Figure 1. Impact of Lianol® Ferti on IGF-1 levels (ng/ml)

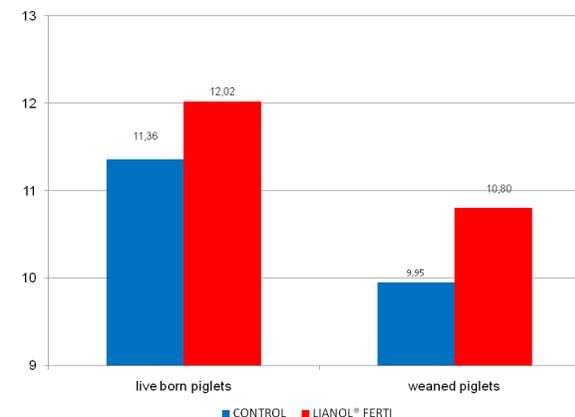


Secondly, the litter size numbers of the consequent parturition were compared in terms of live born piglets, number of piglets weaned and mortality rate. The untreated group showed 11.36 live born piglets whereas the treated group had 12.02 live born piglets, i.e. an increase of 5.8% or 0.66 piglet more at birth.

When evaluating the number of weaned piglets, the control group had a total of 9.95 piglets, whereas the Lianol® Ferti group produced 10.80 weaned piglets, i.e. an improvement of 8.54% or 0.85 piglet more at weaning.

Moreover, the mortality rate in the Lianol® Ferti group (10.1%) was considerably lower than that of the untreated control group (12.55%).

Figure 2. Influence of Lianol® Ferti on litter size



Discussion and conclusion

IGF-1 influences the ovarian activity by increasing the sensitivity and response of the follicles to FSH and LH. It is also crucial for the survival and nidation of the embryo, but also for its quality. Therefore, the IGF-1 increase at insemination is clearly reflected in the litter size of the parturition following Lianol® Ferti treatment.

The use of 10 g Lianol® Ferti per day per sow during five days in the period around weaning was confirmed to increase the IGF-1 levels and the litter size.

References

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