

Supplementing lysolecithin with emulsifier and monoglycerides to diets reformulated to lower energy on performance and lean-fat deposition in fattening pigs

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Introduction

The energy level of the feed is a determining factor for the growth and feed efficiency of fattening pigs. Meeting the energy needs of fattening pigs with high conformation has shown to improve growth rate and, above all, feed conversion ratio. This implies formulating feed with high-energy and high-costly ingredients. Minimizing feed costs while maintaining performance remains a key objective for pig producers. This is of particular concern considering that feed accounts for 70-80% of pig production costs. By improving nutrient absorption, supplementary lysolecithin has been shown to improve growth performance of growing pigs. Therefore, a study was designed to demonstrate the efficacy of supplementing a combination of lysolecithin, synthetic emulsifier and monoglycerides (LEX) to diets reformulated to lower net energy (NE), on the performance parameters and the deposition of fat and lean meat.

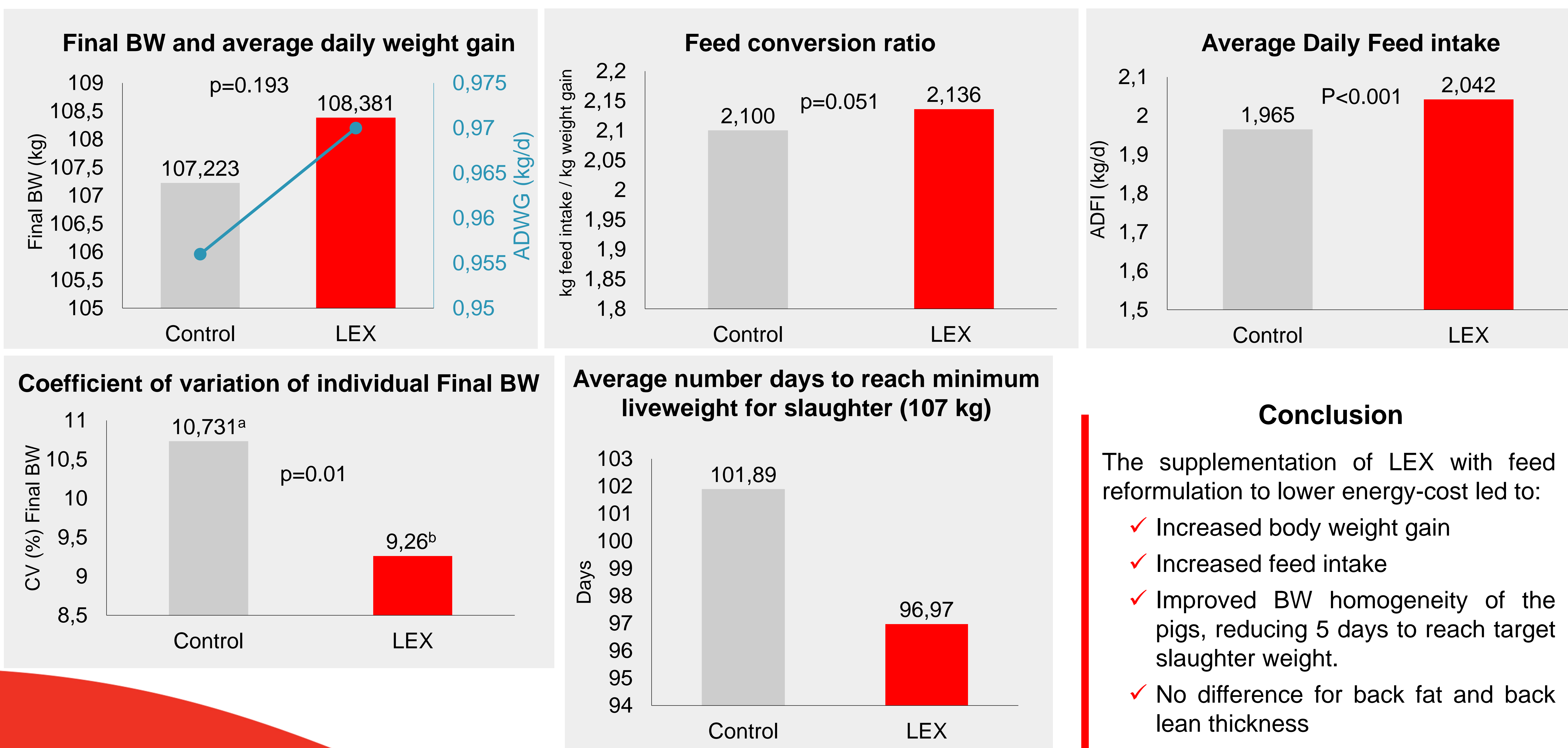
Experimental design and diets

- ✓ 560 piglets of 29 kg LW (10-12 weeks of age). Duration 88 days.
- ✓ 2 treatments. 20 pens (10♂ and 10♀) of 14 pigs per treatment.
- ✓ Treatments:
 - ✓ CONTROL
 - ✓ LEX: CONTROL reformulated with -60 kcal/kg NE + 500 g/t of LEX.
- ✓ Growth performance parameters at 6, 28, 60 and 88 days.
- ✓ The individual final BW of pigs at d88 was measured and the intra-pen coefficient of variation (CV) was calculated.
- ✓ Back fat and lean thickness at P2 were measured for every pig the day prior to slaughter.



Nutrient	Growing feed (6-28 days)		Fattening feed (28-88 days)	
	CONTROL	CONTROL REFORMULATED (-60 kcal/kg NE) + LEX	CONTROL	CONTROL REFORMULATED (-60 kcal/kg NE) + LEX
Crude Protein (%)	15.7	15.7	15.7	15.7
Ether Extract (%)	4.86	3.86	4.58	3.72
SID Lysine (%)	1.021	1.021	0.983	0.983
Net Energy (kcal/kg)	2450	2390	2450	2390
Added fat (%)	3.0	2.0	1.9	1.0
Feed cost (€/kg)	0.356	0.351	0.348	0.343

Results



Conclusion

The supplementation of LEX with feed reformulation to lower energy-cost led to:

- ✓ Increased body weight gain
- ✓ Increased feed intake
- ✓ Improved BW homogeneity of the pigs, reducing 5 days to reach target slaughter weight.
- ✓ No difference for back fat and back lean thickness