Evaluation of Butirex C4 efficiency on fattening pigs feed with variations in the energy a protein value, over performance parameters

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OBJECTIVE

The aim of the trial was to evaluate the efficiency of Butirex C4 in growing and fattening pigs and the interaction with the feed energy level on the performance parameters.

The interest was to evaluate if the butyrate inclusion allows reducing the energy concentration of the feed by a better digestibility, keeping the performance parameters.

METHODS AND MATERIAL

A total of 216 pigs were used, 50% males and 50% females of 82 days of age (25 Kg). Pigs were distributed in 24 pens, resulting in 6 replicates by treatment (3 males and 3 females).

Two different feeds were used: Growing (80-130 days) and fattening (130-150 days). The feed was manufacture in pellet and was administered ad-libitum. Not antibiotic growth promoter was used.

Experimental treatments: factorial model with two main effects (butyrate and energy), resulting in 4 treatments.

[1] Butyrate: Control (CON; 0 kg/ton) and Butirex C4 (BUT; 1 kg/tn)
[2] Net energy: Hight energy (SE; 2,375 kcal/kg) and Low energy (LE; 2,300 kcal/kg)

Treatment	Butyrate (Kg/tonne)	Energy[1]
1	CON	HE
2	CON	LE
3	BUT	HE
4	BUT	LE

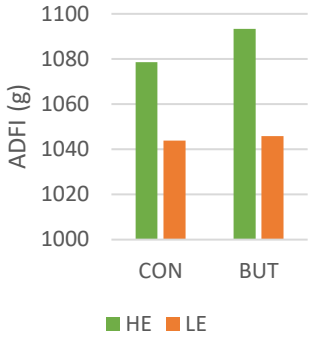
Controls

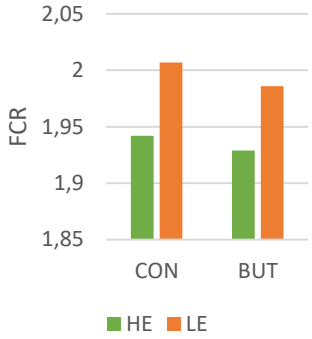
- Individual weight at 82, 103, 130 and 150 days of age → daily weight gain (DWG).
- Feed intake by period 82-103; 103-130; 130-150 and 82-150 days → daily feed intake (DFI).
- Mortality and pathology incidence.
- Feed conversion rate (FCR)

Statistical analysis of results: The performance parameters were analyzed using the GLM procedure of SAS v. 9.0 (SAS, 2002). In the statistical model were included the main effect of butyrate, energy of feed and their interaction with room and sex.

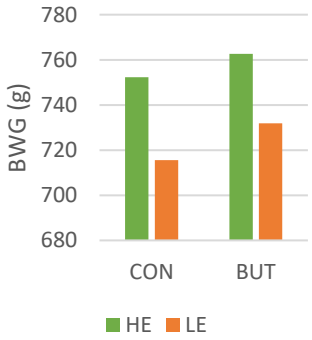
RESULTS

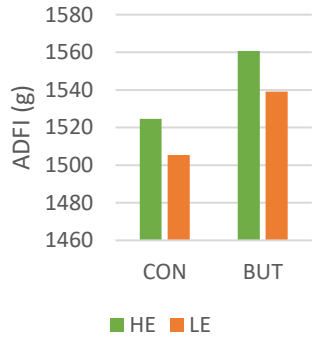
Performance parameters from 82 to 103 days of live:

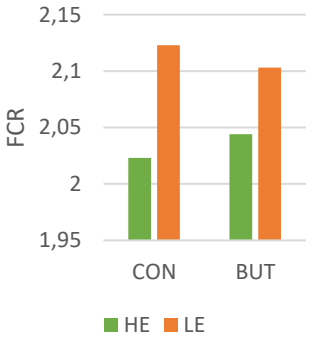




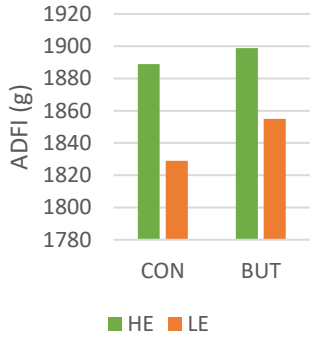
Performance parameters from 103 to 130 days of live:

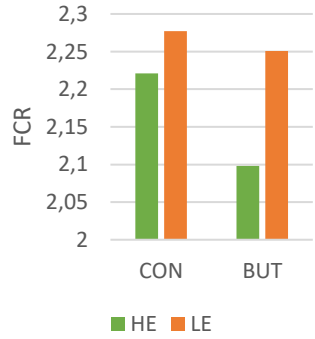






Performance parameters from 130 to 150 days of live.





CONCLUSIONS

- ✓ HIGH ENERGY feed with BUTIREX C4 obtained the better performance.
- ✓ The energy reduction of the feed of 3.3-3.4% was not compensated with a feed consumption increase, the experimental animals intake similar amount of feed and grew less, so the feed conversion was increased.
- ✓ With the BUTIREX C4 inclusion at 1 Kg per tonne in low energy feed, it was not completely compensated the energy level to standard results. But performance results were intermediate between the two energy levels for daily gain and feed conversion.
- ✓ It can be expected that smaller energy reduction (1.5-2%) should be compensate with the inclusion of VFA C4 at 1 Kg per tonne, reducing the feed cost and improving the intestinal health benefit promoted by butyrate.

Do you want to know more?

butirexC4.net