



EFFECT OF CONSUMPTION OF A1 AND A2 MILK, BIOFORTIFIED OR NOT, ON WEIGHT GAIN AND CARCASS YIELD OF PIGLETS

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INTRODUCTION

Although no animal model perfectly mimics the human condition, the swine has emerged as a superior non-primate experimental animal model due to its much closer resemblance to human anatomy, physiology, and dietary needs (KUZMUK et al., 2011; PATTERSON et al., 2008). Due to these similarities and Brazil's significant participation in the pig production chain. The aim was to evaluate the effect of ingesting biofortified or non-biofortified milk from cows with genotypes A1A1 and A2A2 for the beta-casein gene on performance in the growth phase and carcass yield of Landrace Large White hybrid piglets.

MATERIAL AND METHODS

Forty piglets, aged 28 days with an initial average body weight of approximately 9 ±1.0 kg, were housed in collective pens.

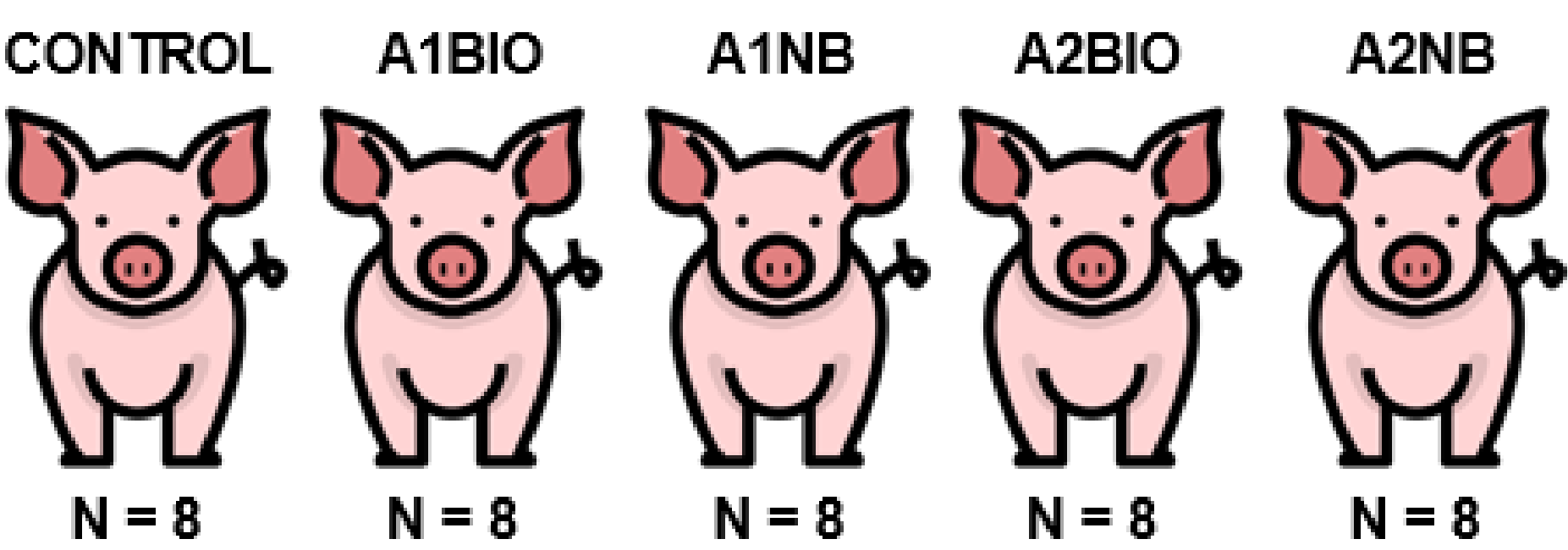


Table 1. Description of treatments

Treatments	Description
CONTROL	solid diet + dehydrated lactose
A1BIO	solid diet + biofortified A1 milk
A1NB	solid diet + non-biofortified A1 milk
A2BIO	solid diet + biofortified A2 milk
A2NB	solid diet + non-biofortified A2 milk

The piglets were weighed at birth, weaning (28d) and then at 42, 58, 75, 84 days (slaughter) and carcass yield was calculated. All analyzes were carried out in SAS version 9.4 (SAS Institute Inc.) using a completely randomized block design in a 2 · 2 + 1 factorial arrangement, in which genotypes were considered as factor 1, biofortification as factor 2 and the control as an additional factor.

RESULTS

For the variable weight at 58 days, a significant interaction effect was observed between the factors (p-value = 0.01) in which A1NB (18.7) and A2BIO (19.9) presented the highest means. For the variable weight at 84 days, a significant interaction effect was also observed between the factors (p-value = 0.04) in which A1NB (37.6) presented the highest average. Piglets subjected to A1NB and A2BIO treatments showed the highest weights at 58 days and 84 days, indicating that feeding increased the animals' growth potential.

CONCLUSION

There was an effect of the ingestion of A1NB and A2BIO milk on the body weight of piglets from 58 days of age.

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