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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

BÍSARA BREED AND DIVERSITY OF THE PRODUCTION SYSTEMS FOR HIGH QUALITY TRADITIONAL PRODUCTS

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Bísara is one of the three autochthonous Portuguese pig breeds belonging to the Celtic trunk, located in the North of Portugal, recognized for its high prolificacy and excellent sensorial quality of meat. The adaptation to environmental conditions and traditional farming systems, coupled with the quality of their meat and fat, define it as a valuable genetic resource. The project TREASURE "Diversity of local pig breeds and production systems for high quality traditional products and sustainable pork chains", includes Bísara and nineteen other European autochthonous breeds. The main goal is to enhance the knowledge and skills required to develop pig production systems and develop renewed production chains. To reach this, the project tackles their genetic uniqueness and adaptation by genomic and phenotype information; their performance, potential and needs to scientifically support rearing practices; links these aspects with specific qualities of their products; and focuses development of sustainable pork value chains on products with regional identity. In Bísara breed some tasks were made to test and demonstrate an alternative building system for fattening pigs (hoop bar with free access to open air – GR1), comparing the growth and carcass performance of pigs with traditional confinement – GR2. During the growing phase and until 80 kg LW, animals were submitted to a starter concentrate diet for 21 days (1.5 kg/pig/day) and substituted with concentrate growth diet (1.5 kg/day) and corn meal (0.4 kg/day). During the finishing phase, until slaughter, the concentrate growth diet was maintained, and the corn meal was increased (0.6 kg/day).
The results of this study revealed high levels of animal welfare in GR1, suggesting that this system can be a viable solution that will enable sustainable high quality Bísaro products. During the growing phase no differences ($P>0.05$) were observed in the average daily gain (ADG) between GR1 (0.546±0.10 kg/day) and GR2 (0.563±0.05 kg/day). Similar results were observed during the finishing phase with ADG of 0.535±0.09 kg for GR1 and 0.505±0.07 kg for GR2. There were no differences in carcass weight (94.2±7.55 kg), killing

out (75.5±1.48%) and carcass morphometric parameters between GR1 and GR2. The dorsal fat thickness indicated a high and homogeneous degree of fattening. It has been proven that Bísara breed perfectly fits the food and accommodation systems tested, responding with performances and parameters of high quality meat. This breed powered by the most natural, traditional or extensive production systems allows the development of high-quality products for 'Top Range' market niches.

Keywords: animal welfare, autochthonous breeds, meat quality, Treasure project.

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