EFFECTS OF CARCASS CHARACTERISTICS OF SWINES ON THE RESIDUAL EFFECT OF MICRONIZED SOYBEAN MEAL

CARACTERISTICA DE CARCAÇA DE SUÍNOS SOBRE EFEITOS RESIDUAIS DE SOJA MICRONIZADA

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The process of micronizing soybean meal can reduce eating disorders in piglets in the nursery phase. The treatment reduces the soybean meal into smaller particles and eliminates the non-nutritional factors, which can help animal performance. The focus of this experiment was to evaluate the residual effect of the inclusion of micronized soybean meal in the diet of piglets in the nursery phase on the carcass characteristics of these animals after slaughter. Seventy piglets were used with the 21 days of age. In this phase, the animals were submitted to treatments with five levels of substitution of regular soybean meal with micronized soybean meal (SM) (T1- 0% SM, T2- 25% SM, T3- 50% SM, T4- 75% SM, T5- 100% SM). After the first phase, the pigs were taken to growth and termination facilities, where they were kept in individual stalls, distributed in a completely randomized design, with 5 residual treatments and 14 repetitions. In this period, the animals received feed based on corn and soybean meal, formulated to respect each physiological phase. At the end of the second phase of the experiment (growth/termination), the animals were slaughtered at a commercial slaughterhouse. The carcass characteristics observed were: backfat thickness of first, second and third ribs (BT 1, BT 2, BT 3), lumbar depth, loin length, carcass length, carcass yield and hot and cold carcass weight. The data were analyzed by the SAS PROC GLM software. Regression analyses were applied to the treatment data to evaluate the linear and quadratic effects. The animals fed with micronized soybean meal showed lower results for the parameters cold carcass weight, hot carcass weight and carcass length, while backfat thickness (BT1, BT2 and BT3), loin depth, and loin length (used for carcass classification) were not influenced by the addition of micronized soybean meal ($p>0.05$). Moreover, the carcass yield and loin eye area, used to predict the amount of meat in the carcass, were also not different between the treatments when analyzing the diet factor ($p>0.05$). Females presented higher carcass yield, with mean of 80.7 % linear regression $p = 0.2275$ and quadratic regression $p = 0,285$, and loin length, with mean 10.45 mm, linear regression $p = 0.8096$ and quadratic regression $p = 0.4087$. Males showed greater backfat thickness (BT1), with mean of 34.18mm, linear regression $p = 0.0525$ and quadratic regression $p = 0.756$, and loin depth, with mean 10.45mm, linear regression $p = 0.7516$ and quadratic regression $p = 0.5028$. The inclusion of micronized soybean meal in the diet of piglets in the nursery phase negatively affected the carcass characteristics of these animals at the time of slaughter, resulting in lower weight and carcass length.

Keywords: backfat, carcass yield, loin eye area.

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