

Effects of high fiber diet on growth performances, carcass traits, meat drip loss and cooking loss in finishing black pigs ⁽¹⁾

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Abstract

The purpose of this study was to evaluate the effects of dietary high fiber on growth performances, blood biochemical traits, carcass characteristics, meat drip loss and cooking loss of finisher black pigs. A total of thirty two (16 barrows and 16 gilts) crossbred pigs (25% Meishan × 75% Duroc) with an average body weight (BW) of 57.8 kg, were randomly divided into two groups which fed the control and high fiber diet. The crude fiber levels in diets were 3% and 14%. Pigs were allocated into quadruplicate with 4 pigs in each pen. Water and feed were provided *ad libitum*. Experiment was ended when pigs reach BW 117 kg. 12 pigs from each group were phlebotomized and sacrificed for further analysis. The results showed that, the daily weight gain and feed conversion rate were significantly ($P < 0.05$) poorer and the age to market was significantly ($P < 0.05$) prolonged in high fiber diet group. In blood biochemical traits, the concentration of plasma triglyceride and activity of amylase and alanine aminotransferase were significantly ($P < 0.05$) higher whereas the concentration of blood urea nitrogen and albumin were significantly ($P < 0.05$) lower in high fiber diet group. The dressing percentage, backfat thickness and fat percentage were significantly ($P < 0.05$) decreased and bone ratio was significantly ($P < 0.05$) increased in high fiber diet group than control group. The carcass quality grading was elevated ($P < 0.05$) in high fiber diet group. In addition, the pH and temperature of meat at 24 hr postmortem and cooking loss were significantly ($P < 0.05$) lower in control group than those of high fiber diet group. The results showed that feeding the finisher black pigs with high fiber diet decreased backfat thickness and increased carcass quality grading. However, it had negative effect on the growth performances, dressing percentage, cooking loss of meat and function of liver and pancreas.

Key words: High fiber diet, Black pigs, Growth performances, Carcass characteristics, Meat cooking loss.

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