

Effects of dietary crude protein and metabolizable energy levels on the growth performance of Duroc x KHAPS black pig in growing period ⁽¹⁾

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Abstract

Two trials were conducted to investigate the effects of dietary different crude protein (CP) and metabolizable energy (ME) levels on the growth performance and blood parameters of Duroc x Kaohsiung Animal Propagation Station black pig (DK black pigs) during growing period. In each trial, sixteen pigs (eight males and eight females) were randomly allotted to different diets and were fed for six weeks. In experiment 1, sixty-four pigs (30 kg BW) were assigned to one of the dietary treatments in a 2 × 2 factorial arrangement with two CP levels (14% and 15.5%) and two ME levels (3,100 kcal/kg and 3,250 kcal/kg). In experiment 2, forty-eight pigs (30 kg BW) were assigned to one of the three dietary CP treatments (18%, 16.5% and 15%) to assess the effect of higher CP levels under 3,250 kcal/kg ME. In experiment 1, the results showed that the average body weight in CP 15.5% was higher ($P < 0.05$) than CP 14%. The average daily gain (ADG) of CP 15.5% was higher ($P < 0.01$) than CP 14% and the Gain/Feed (G/F) of CP 15.5% was higher ($P < 0.05$) than CP 14%. The blood urea nitrogen (BUN) and creatinine in CP 15.5% at the 4th week were higher ($P < 0.01$) than CP 14%. In experiment 2, the results showed that the increase of CP levels did not influence the ADG, Average daily feed intake and G/F during the whole experimental period. The BUN in CP 18% at the 4th week was higher ($P < 0.05$) than CP 16.5%. In conclusion, the CP level was more important than ME level on the growth performance while the diet with CP 18% did not improve the growth performance of DK black pig growers.

Key words: Crude protein, Metabolizable energy, Growth performance, Blood parameters.

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