RESPONSES OF GROWING PIGS TO DIET CONTAINING BLACK SOLDIER FLY LARVAL MEAL SUBSTITUTED FOR SOYA BEAN MEAL

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PG NUMBER: PG 17/0632

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A Dissertation submitted to the Department of Animal Production and Health, College of Animal Science and Livestock Production, Federal University of Agriculture Abeokuta, in partial fulfilment of the requirements for the award of Master of Agriculture in Non-Ruminant Production

September 2025

ABSTRACT

To improve the nutritional quality of livestock diets for optimum performance, Black soildier fly was investigated in this study.This study evaluated the response of growing pigs fed diets containing Black Soldier Fly Larval Meal (BSFLM) substituted for Soya Bean Meal (SBM). Twenty-four (24) crossbred (Large white x Landrace) male and female growing pigs with initial average body weight of 18.25kg were used for the study. Pigs were randomly allotted by using weight equalization tool (WE Tool) into four treatment groups, each with six replicates in Completely Randomized Design. Four experimental diets were formulated such that BSFLM replaced SBM at 0, 10, 20 and 30%. Data were collected on growth performance, carcass evaluation, intestinal morphology, faecal microbial count and nutrient digestibility throughout the 10weeks experimental period. The results showed that growth response of pigs fed the experimental diets were not significantly ($P>0.05$) affected across the levels of BSFLM used. Cost benefit analysis, cost of feed per kg and cost of producing per kg body weight were significantly inflenced ($P<0.05$) with increase use of BSFLM in pigs. Full gut, which was significantly ($P<0.05$) influenced in pigs on 0%, 10% and 20% diets recorded higher percentage while 30% recorded the least percentage of Lamina propria depth of doudenum were significantly ($P<0.05$) with the highest of 33.50% in pigs on 20% BSFLM diet. Digestability parameters measured were not significantly ($P>0.05$) influenced by the percentage of BSFLM replaced soya meal. Total bacterial count was significantly ($P<0.05$) influenced with highest of 1.25cfu/g in pigs on the control diet compared to other BSFLM replacement levels which recorded 0.57and0.87cfu/g. Urinary nitrogen, total nitrogen excretion and nitrogen retention were not significantly ($P>0.05$) influenced by the levels of BSFLM used. The study concluded that the dietary inclusion of BSFLM did not significantly affect growth performance on body weight gain,feed intake and feed conversion ratio, nitrogen balance and nutrient digestibility of grower pigs