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Use of Fresh and Dry Guava Leaves as Supplement in Weaned Pig Diets

WANDEE TARTRAKOON¹, SUNYA TONGMUL², JERAPONG TONGYEN², TINNAGON TARTRAKOON³,
THERDCHAI VEARASILP², UDO TER MEULEN³

¹Naresuan University, Agricultural Science, Thailand

²Chiang Mai University, Animal Science, Thailand

³Georg-August-University Göttingen, Institute for Animal Physiology and Animal Nutrition, Germany

Abstract

Psidium guajava Linn. (guava) leaves were ground and used as supplement in weaned piglet diets to prevent post-weaning diarrhoea and reduce impaired growth performance. This experiment was conducted at Chiang Mai University, Thailand. Thirty weaned pigs (21 days old) were randomly divided into five groups of six animals each. Each pig was housed in an individual pen. Each group was allocated to one of the dietary treatments, which were formulated to meet NRC (1998) standards. Diet 1 control basal diet, Diet 2 and 3 basal diet with dry guava leaves at 2.5 and 5 g kg⁻¹, respectively, Diet 4 and 5 basal diet with fresh guava leaves at 7.5 and 15 g kg⁻¹, respectively. The design was completely randomised. The growth performance and faecal characteristics were determined for 35 days. Average daily gain (ADG), and feed conversion ratio (FCR) of pigs fed the diets 1 to 5 were: 270, 250, 310, 280, 300 g d⁻¹ and 1.92, 2.31, 1.80, 2.35, 2.16, respectively. Average daily feed intake (ADFI) were 520, 570, 550, 650 and 640 g d⁻¹. There were no significant ($p > 0.05$) differences in ADG and FCR amongst the treatments. However, the pigs fed the diet with dry and with fresh guava leaves 5 and 15 g kg⁻¹ of diet, respectively tended to have the highest ADG. The pigs fed diet supplemented with fresh guava leaves at 7.5 and 15 g kg⁻¹ of diet had significantly higher ADFI than the control. The faeces of the pigs fed diets with guava leaves at 15 g kg⁻¹ of diet had significantly ($p < 0.05$) better shape than those of pigs fed the fresh control diets but there were no significant ($p > 0.05$) differences to the pigs fed the diet with guava leaves 5 (dry) and 7.5 (fresh) g kg⁻¹ of diet. The incidences of diarrhoea in the pigs within each treatment group (as percentages) were: 33.3, 25.0, 16.7, 16.7 and 8.3 for diets 1 to 5, respectively. It is concluded that the application of dry and fresh guava leaves at 5 and 15 g kg⁻¹ of diet, respectively, as feed additive has potential in feeding weaned pigs.

Keywords: Feed additive, guava leaves, weaned pigs, Thailand