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Use of Lemon Grass Oil as Feed Additive in Weanling Pigs Diets

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Abstract

The experiment was conducted at Chiang Mai University to determine the use of lemon grass oil as additive in weanling pigs. Piglets after weaning at the age of 28 days were randomly selected and distributed into 5 groups of 6, 4, 5, 4 and 4 animals. The piglets were housed in individual cages. Diet 2 (control diet) was a basal diet containing corn-soybean meal. For Diet 2 the basal diet was supplemented with 0.75 g tetracycline/kg diet. Diets 3, 4 and 5 were basal diets supplemented with lemon grass oil at 1, 2.5 and 5 ml/kg diet respectively. A completely randomised design (CRD) was used. Diets were formulated according to NRC (1998) requirements. The productive performance and faecal characteristics of the pigs were determined beginning at 7±0.8 kg BW until 20±0.8 kg BW. Average daily gain (ADG) and feed conversion ratio (FCR) of pigs fed diet 1 to 5 were 420, 390, 330, 320 and 380 g/d and 1.89, 1.88, 1.81, 1.87 and 1.73, respectively. There was no significant difference of ADG among treatments. The inclusion of lemon grass oil at 5 ml/kg diet tended to improve FCR of piglets. The pigs fed the control diet had higher average daily feed intake (ADFI) ($p < 0.05$) than pigs fed diets containing 1 and 2.5 ml/kg diet of lemon grass oil (diets 3 and 4). There were no differences ($p > 0.05$) in ADFI of pigs fed diets containing lemon grass oils (diet 3, 4 and 5). The faecal score (shape and colour) of the pigs fed diet 4 and 5 was better than in pigs fed other diets ($p < 0.05$). It was concluded that lemon grass oil can substitute tetracycline as feed additive.

Keywords: Lemon grass oil, productive performance, weanling pig