

7th Proceedings of the Seminar on Veterinary Sciences, 27 February – 02 March 2012

EFFECTS OF INSULIN-LIKE GROWTH FACTOR-1 ON WEIGHT GAIN IN WEANERS IN A PIG FARM, PENANG, MALAYSIA

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Abstract

The aims of this study were to compare the effects of insulin-like growth factor-1 (IGF-1) on body weight, average daily gain, percentage of body weight gain, health status and faecal coliform counts in weaner pigs. Fifty commercial breed (Landrace and Duroc) weaner pigs were selected from a pig farm in Penang, Malaysia. The weaners were equally distributed into control and treatment groups. The control group was fed commercial diet while the treatment group fed commercial diet with IGF-I added. Body weights of weaners were recorded every 15 days. In this study, IGF-1 treatment group showed statistically significant ($p < 0.05$) improvement in body weight and average daily gain towards the end of the study (45 days). No significant difference in percentage body weight gain between control and treatment groups was observed. From the blood parameters, there was no sign of toxicity or infection in the control and treatment groups. The study showed that IGF-1 treated group had lower coliform count compared to controls, which indicates that IGF-1 may have beneficial effects on the digestive system of weaner pigs.

Keywords: insulin-like growth factor-1 (IGF-1), weaners, growth, faecal coliform count