

## Response of growing rabbits to graded levels of fermented and unfermented pineapple peel

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### Abstract

Forty growing rabbits were allocated equally to five groups in a 2 x 3 factorial layout and caged individually for a 56-day trial period in hutches. They were used to compare the effects of two processing methods (unfermented and fermented) and three dietary replacement levels of Pineapple peel meal (PPM) at 0%, 12.5% and 25% of maize on weight for weight basis. Parameters evaluated during the trial period included: growth rate, feed intake, feed conversion ratio and feed cost. Results show that average daily weight gain (ADG) reduced ( $P < 0.05$ ) as dietary inclusion level of PPM increased, although rabbits fed PPM at 12.5% dietary inclusion level compared favourably ( $P > 0.05$ ) with those fed the control diet (0%). However, ADG of rabbits fed fermented PPM was statistically higher ( $P < 0.05$ ) than that recorded for rabbits fed unfermented PPM. No significant ( $P > 0.05$ ) difference was observed in daily feed intake of rabbits as a result of dietary inclusion level or processing type of PPM. Better ( $P < 0.05$ ) feed efficiency was recorded in rabbits fed PPM at 12.5% dietary inclusion level than those fed at 25%. Fermentation enhanced the nutritional value of feedstuff and also improved feed efficiency. Total feed cost reduced ( $P < 0.05$ ) by 21.39% when PPM was included in the diet at 25%. However, production result was not comparable with the control. But feeding fermented PPM at 12.5% inclusion level resulted in the best ( $P < 0.05$ ) economy of production. Processing type or dietary inclusion level of PPM had no significant ( $P > 0.05$ ) effect on dressing-out percentage of experimental animals. There were neither significant ( $P > 0.05$ ) effects of processing type nor dietary inclusion level on retail cuts of the rabbits fed the different experimental diets. In all feeding rabbits with diets containing fermented PPM up to 12.5% replacement level for maize encouraged optimum performance.

**Keywords:** Rabbit performance. Pineapple peel meal. Fermentation. Retail cuts. Economy of production