

Deutscher Tropentag, October 8-10, 2003, Göttingen

"Technological and Institutional Innovations for Sustainable Rural Development"

Effect of Rice Bran Replacement with Treated Cassava Peel (CaP) in Diets on Growth Performance of Indonesian Indigenous Sheep

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Abstract

A study was conducted to investigate the effect of replacing dietary rice bran with treated cassava peel (CaP) on the growth performance of Indonesian indigenous sheep. Twentyfour indigenous sheep each weighing $12.49 \pm 1.27 \,\mathrm{kg}$ were in a Completely Randomized Design assigned to one of 4 treatments diets. The control diet (diet 1) was 25% Napier grass and 75% concentrate containing 15% molasses, 16.73% coconut cake, 1.5% CaCO₃, 1.5% premix, 0.27% urea and 40% rice bran. The rice bran was in diet 2 replaced with 40% fresh CaP, in diet 3 with 40% boiled CaP and in diet 4 with 40% CaP fermented with Saccharomyces cerevisiae. Content of coconut cake and urea were adjusted to make all treatment diets iso-nitrogenous and isocaloric. Feed intake, daily body weigh gain, and feed conversion ratio (FCR) were measured. The feed intake of sheep fed diets 1 (control), 3 and 4 did not differ (p > 0.05). However, that of diets 2 differed with 1, 3 and 4 (p > 0.05). Mean feed intake was 693.87 g/day g/day, 833.95 g/day, 733.40 g/day, and 662.40 g/day for diets 1, 2, 3 and 4, respectively. Average daily gain of sheep fed diet 4 was higher than that of sheep fed diets 2 and 3 but not different from diet 1. The average daily gain was $77 \, \text{g/day}$, 65 g/day, 76 g/day and 96 g/day for sheep fed diets 1, 2, 3 and 4 respectively. Diet 4 FCR did not differ (p > 0.05) from that of sheep fed diets 3 and 1, but differed from that of diet 2. Mean of FCR was 9.01, 12.83, 9.65 and 6.90 for diets 1, 2, 3 and 4, respectively. It was concluded that treated CaP especially fermented CaP may replace rice bran in diets for improving performance of Indonesian indigenous sheep.

Keywords: Growth performance, indigenous sheep, rice bran, treated cassava peel, Indonesia