



Deutscher Tropentag, October 8-10, 2003, Göttingen

“Technological and Institutional Innovations
for Sustainable Rural Development”

Effect of Replacing Yellow Maize with Sweet Potato in Diet on Performance of Piglets in Lower Mekong River Basin of Cambodia

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Abstract

Fertile basin irrigated by Mekong River, where the major staple food crops and vegetables were planted, provided an important source of Cambodian economic. Sweet potato, one of the energy-providing crops, is being cultivated mostly on this land. Surplus of yield is a profound problem whilst it had to be harvested prior flooded period. While sun-drying sweet potato tuber is less palatable for human consumption, utilization in animal diet, therefore, become an objective of this study. An experiment was carried out in the animal experimental station of the Royal University of Agriculture, Cambodia, for 15 weeks to determine the effect of replacing yellow maize with sweet potato in the diet on the performance of weaned piglets. Under completely randomized design, 32 six week old piglets, with 7.61 kg (SEM 0.8) in initial body weight, were divided into 4 groups A, B, C and D, with four replications. Diets were assigned by subtracting yellow maize mixed 42% in the diet with sun-dried sweet potato tuber in the level of 0, 20, 30 and 40%. Body weight of piglets in group B (28.94 kg) was found to be better than those in A (23.46 kg), C (23.29 kg) and D (25.16 kg) ($p < 0.01$). While the average daily feed intake in gram among groups was not detectable (608.11, 651.62, 607.95 and 652.96 of A, B, C and D respectively), it was investigated that feed conversion ratio was lower in group B (3.72) followed by A (4.56), C (5.20) and D (4.40) respectively. Moreover, unless sweet potato was charges, the gross economic gained of group B was better than the other groups. It is concluded that utilization of sweet potato in the level of 20% in piglet diets is an optimum amount for farmer income.

Keywords: Piglets, sun-dried sweet potato, yellow maize