

Nareerat Charoenwattanasakun 2009: Effect of Feeding Cassava Pulp in Starting, Growing and Finishing Pig Diets on Growth Performance and Carcass Characteristics. Master of Science (Animal Nutrition and Feed Technology), Major Field: Animal Nutrition and Feed Technology, Department of Animal Science. Thesis Advisor: Assistant Professor Seksom Attamangkune, Ph.D. 63 pages.

Two studies were conducted in order to elucidate the effect of feeding cassava pulp in starting, growing, and finishing pig diets on growth performance and carcass characteristics. In experiment 1, cassava pulps from 5 different cassava starch manufacturing plants located in the eastern and northeastern of Thailand were determined for their apparent nutrient digestibility and metabolizable energy values in 50 kg crossbred (D x LR x LW) pigs. It was found that the average fat and protein apparent digestibility of cassava pulps samples were 71.51 % and 67.12 % with 10.24 % and 6.08 % CV, respectively. The average metabolizable energy value of cassava pulps was 2,571 kcal/kg with 3.12 % CV.

In experiment 2, Ninety six 3 way crosses (D x LR x LW) pigs were randomly assigned to 4 dietary treatments. Each treatment consisted of 6 replications with 4 pigs per replication. All the pigs were subjected to diets containing 0, 10, 20 and 30 % of cassava pulps during starting, growing, and finishing periods. Pigs fed diets containing 0, 10, 20 and 30 % of cassava pulps demonstrated the decline ($p=.1453$) in daily feed intake (2,656, 2,585, 2,560, and 2,460 g/d, respectively) with the increase level of cassava pulp and consequently decreased ($p=.0596$) in average daily gain (719.8, 710.5, 684.9, and 680.5 g/d, respectively). No significant different in feed conversion ratio was observed among the dietary treatment (3.69, 3.64, 3.72, and 3.70, respectively). Increase cassava levels in pig diets demonstrated the trend in back fat reduction ($P=.0704$) and increase in lean percentage ($P=.0606$). Under the condition of this study, cassava pulp can be incorporated in pig diets up to 30% depending on the level of fiber presented in the diet.

Student's signature

Thesis Advisor's signature