

Wariya Kosoom 2009: Effect of Feeding Cassava Pulp on Growth Performance of Nursery Pigs.
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Seksom Attamangkune, Ph.D. 76 pages.

Two experiments were conducted in order to study the effect of feeding cassava pulp on growth performance of nursery pigs. The first experiment was carried out to determine the physical, chemical and biological properties of cassava pulp samples from 5 starch factories in the East and Northeast of Thailand. The results showed the average density value and percentage of sand contaminated in cassava pulp samples which were 365 g/L and 2.16 % with the coefficient of variation (%CV) of 12.11 and 47.69 %, respectively. The average fat and protein digestibility in young pigs were 76.48 and 66.20 % with 6.68 and 9.13 %CV respectively. The ME values of cassava pulp were 2461.34 Kcal/kg with 4.75 %CV in young pigs. None of mycotoxin was detected in all cassava pulp samples. The average protein, fat, fiber, and starch contents were 2.37, 0.39, 14.00 and 50.19 % with 32.91, 38.46, 7.71 and 4.78 %CV, respectively. The average cyanide content in all samples was 4.17 ppm with 167 %CV. The results from this study showed the degrees of variation in physical, chemical, and biological properties of cassava pulp. These variations depended upon the difference in plant's location and processing.

In the second experiment, cassava pulp at the levels of 0, 5, 10 and 15 % were incorporated in nursery rations in order to determine the piglet performance during 4-9 WOA. One hundred and ninety two 3-crosses way (D x LW x LR) piglets were randomly assigned to 4 dietary treatments with 6 replications (8 piglets per replication). Piglets subjected to diets containing cassava pulp at the levels of 0, 5, 10, and 15 % had 684.6, 662.7, 659.0 and 653.9 g/d of average daily feed intake, respectively. The average daily body weight gains were 375.6, 360.1, 361.3 and 353.5 g/d and the feed conversion ratio were 1.83, 1.84, 1.83 and 1.86, respectively. None of piglets was found death in each dietary treatment. No significant differences among dietary treatments were found in these parameters studied. It was concluded that cassava pulp can be incorporated in nursery diets up to 15% without any detrimental effects to piglet performance.

Student's signature

Thesis Advisor's signature