

Ladda Kaewta 2006: Effects of Feed Forms and Levels of Cassava on Pelleting Process, Nutrient Digestibility and Growth Performance of Weaning Piglets. 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. 86 pages.  
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Three experiments were conducted in order to study the effects of the levels of cassava on pelleting process, nutrient digestibility and piglet performance. In experiment 1, three levels of cassava (0, 10, and 20%) were included in the diets in order to determine the feed production rate, pellet quality, and starch utilization (enzyme assay). The inclusion of cassava in the diet at the level of 10% decreased electrical energy for feed production by 15% and had no effect on rate of feed production. Pellet quality of diets containing cassava at both levels was in the range of feed industry standard. The increase ( $P < 0.01$ ) in starch utilization was found in pellet diets with the increase levels of cassava from 0 to 20%.

In experiment 2, feed forms (mash and pellet) and cassava levels (0, 10, and 20%) in swine diets were studied to determine both effects on pelleting process and nutrient digestibility. The dietary treatments were as following: 1) mash feed + cassava 0% 2) pellet feed + cassava 0% 3) mash feed + cassava 10% 4) pellet feed + cassava 10% 5) mash feed + cassava 20% 6) pellet feed + cassava 20%. The results indicated that the pellet form and the increase levels of cassava enhanced the digestibilities of dry matter, protein, and metabolizable energy.

In experiment 3, a pen study was designed to determine the effects of feed forms (mash and pellet) and cassava levels (0, 10, and 20%) in swine diets on piglet performance. There was no significant interaction between feed forms and cassava levels on piglet performance ( $P > 0.05$ ). Piglets fed cassava diets (10 and 20%) were significantly increased in body weight gain, final weight, and average daily gain ( $P < 0.05$ ) compared to piglets fed no cassava diet. In term of feed forms, piglets fed pellet diets showed significant improvement ( $P < 0.05$ ) in feed conversion ratio and feed cost per gain and tended to improve average daily gain compared to the mash feed.

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