

Supawan Kidcayan 2009: Effects of Feeding Hydrothermal Starch Products in Substitution of Whey on Nutrient Digestibility and Performance of Weanling Pigs. 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. 72 pages.

Three experiments were conducted in order to elucidate the effects of feeding hydrothermal starch products in weanling pigs. In experiment 1, pure starch and full fat soybean flour (PSFFS) and rice flour (RF) were determined for nutrient composition, digestibility and metabolizable value in weanling pigs. The results showed that PSFFS and RF contained of %CP 13.0 and 8.0, % fat 6.5 and 1.0, %CF 1.3 and 1.0, ME 4,353 and 4,178 Kcal/kg, % apparent fat digestibility 83.32 and 81.48 and % apparent protein digestibility 84.18 and 82.48, respectively. In experiment 2, eighteen castrated male piglets (12-13 kgBW) were subjected to three dietary treatments. Each treatment contained 6 replications with 1 piglet per replication. The dietary treatments were control (sweet whey powder), PSFFS diet (100% sweet whey powder replacement with PSFFS), and RF diet (100% sweet whey powder replacement with RF). No significant difference in dietary ME level, % apparent fat digestibility and % apparent protein digestibility among the treatments were observed in this study. In experiment 3, one hundred and twenty piglets (7-8 kgBW) were assigned to three dietary treatments (as in experiment 2). Each treatment contained 5 replications with 8 piglets per replication. There was not significantly different in piglet performance among dietary treatments. Nevertheless, piglets subjected to PSFFS and RF diets showed lower feed cost and feed cost per gain when compared to the control diet (sweet whey powder diet)

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