

Parinya Khama 2012: Effects of Different Processing Soybean Meal in Diet of Sheep on Nitrogen Balance and Productive Performance. Master of Science (Animal Nutrition and Feed Technology), Major Field: Animal Nutrition and Feed Technology, Department of Animal Science. Thesis Advisor: Assistant Professor Lerchat Boonek, Ph.D. 85 pages.

The aim of this study was to determine the effect of different processing soybean meal as a main protein source in diet of sheep on nitrogen balance and productive performance. Sixteen lambs (7-8 months of age) were randomly allocated to 4 experimental groups in Completely Randomized Design trial. The animals received total mixed ration (TMR) containing concentrate, mixed pineapple peel and bagasse silage and fresh para grass. Experimental treatments were of TMR1 TMR2 TMR3 and TMR4 which contained either solvent extracted soybean meal, expeller soybean meal, extruded solvent extracted soybean meal or extruded expeller soybean meal, respectively as a main protein source. The results showed that N retention in lambs received TMR1 and TMR2 was lower ($p < 0.05$) than those of lambs in TMR3, and TMR4 with mean values of 5.55, 5.60, 6.88 and 7.37 g/head/day respectively. Average daily gain and feed efficiency of experimental lamb were all similar among experimental groups ($p > 0.05$) with the mean values of 219.02, 219.02, 233.69 and 233.92 g/day and of 4.58, 4.49, 4.30 and 4.42 for TMR1, TMR2, TMR3 and TMR4, respectively.

Student's signature

Thesis Advisor's signature