Palm Oil Fiber Waste Product Bioconversion to be Component of Complete Ration with Essential Organic Mineral to Promote Growth Rate and Increase Mutton Quality

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Abstract

The research about Palm Oil Fiber Waste product to be Component of Complete Ration with Essential Organic Mineral to Promote Growth Rate and Increase Mutton Quality was conducted in microbiology laboratory and biochemistry PPSHB, Bogor Agriculture Institute, Feed Technology and Dairy Nutrition Laboratory Bogor Agricultural Institute.

The aims of this research is to increase the utility of palm fiber with digestibility and nutrient content with the highest chrom yeast, the researchs consists of two periods. First periode is the fermentation of palm oil fiber with *Aspergillus niger* and added chrom in order produce synthetic organic chrom. This periode have 3 levels of inoculum (5, 10 and 15 %) and 3 levels of chromium (2,4 and 6 mg/kg). The research using Completely Randomized Design with factorial pattern. The parameters were the contents of crude protein, fiber and organic chrom, ADF, NDF, sellulose and hemisellulose. Periode II, about in vitro to evaluate the digestibility of palm oil fiber in the rumen. There were nine levels of fermentation of palm oil fiber involved in this periode using CRD and factorial patterns. The parameters werw NH_3, VFA, dry matter digestibility and organic matter digestibility.

The result was indicated that the inoculum persentages and chrome levels have non significant effect content of fiber, ADF, NDF, hemisellulose, sellulose, NH_3 and VFA, and significant effect on dry matter digestibility and organic matter digestibility. The best result was indicated by 15% inoculum and 6 mg/kg chrome level.