

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CONSUMPTION AND APPARENT DIGESTIBILITY OF SHEEP FED WITH DIETS CONTAINING DIFFERENT LEVELS OF PALM KERNEL MEAL

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Ruminants, due to their physiological adaptation, have the ability to convert by-products and residues into noble foods, but it has to meet the animal's nutritional requirement for maintenance, growth and production. Palm kernel oil is used in the pharmaceutical, cosmetics and food industry, placing the cultivation of this specie as a focus of research and investments, which may increase the availability of palm kernel meal (*Elaeis guineensis*), with potential to be used in animal feed. The present study aims to identify the use of increasing levels of palm kernel meal (PKM) to replace corn silage (CS) in sheep feed. The experiment was conducted at the Animal Experimental Unit of Embrapa Amazônia Oriental, Belém, Pará. A metabolism trial was performed for 20 days, using 20 sheeps subjected to five diets and four replicates. The diets were 100% CS, 85% CS and 15% PKM, 70% CS and 30% PKM, 55% CS and 45% PKM and 40% CS and 60% PKM. The consumption and apparent digestibility of dry matter, organic matter, crude protein, neutral detergent fiber, acid detergent fiber, ether extract, non-fibrous carbohydrate, hemicellulose and cellulose from the experimental diets were studied. The nutrient intake presented an increasing linear response to the different levels of palm kernel meal, except for ether extract. The inclusion of the by-product had a quadratic effect on the apparent digestibility coefficient of all nutrients, with maximum values in the levels of 31 to 40.4% inclusion of PF in the diet. The palm kernel meal is an alternative to feed supplementation of ruminants, replacing corn silage, since it provides good acceptability; however, an inclusion limit should be respected, from 31.93%, 40.42%, and 31.76% of substitution, decreases occurred in the digestibility of dry matter, crude protein and organic matter, respectively.

Keywords: by-product, *Elaeis guineensis*, ruminant

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