Growth, nitrogen metabolism and carcass composition of goats fed palm oil by-products

ABSTRACT

Thirty-two Kacang × Boer crossbred male goats were used in a 100-day experiment to assess effects of feeding palm oil decanter cake (DC), palm kernel cake (PKC) and palm oil (PO) on growth, carcass quality and nitrogen metabolism. Goats were assigned randomly to one of four total mixed rations with approximately 16% crude protein on a dry matter basis: control diet (CD), DC diet (DCD), PKC diet (PKCD) and CD plus 5% PO diet (CPOD). The CD was based on corn grain, soybean meal and rice straw and was fed to all goats for 21 days before the start of the experiment. In the last 10 days of the experiment, four animals from each group were placed in metabolic crates for collection of feces and urine. At the end of the experiment, four animals from each treatment were sacrificed after overnight fasting for measurements of carcass quality. Goats fed PKCD had higher ($P < 0.05$) feed intake compared with other treatments. Daily gain, slaughter weight, and hot and cold carcass weights were higher ($P < 0.05$) in goats receiving CD and CPOD than in other goats (DCD and PKCD). It was concluded that a high dietary level of DC or PKC (80% of DM) might have an adverse effect on growth performance and carcass quality in goats.

Keyword: Decanter cake; Goat; Growth and carcass characteristics; Palm kernel cake; Palm oil