

ABSTRACT

Thirty six young New Zealand white rabbits were used in a randomised complete block (RCB) design with a 3×2 factorial treatment experiment to study the suitability of sorghum as substitute for maize in the diet of growing rabbits in Kenya. Six different diets were formulated to contain 35% of one of the three different types of grain (maize, white sorghum or brown sorghum) and one of the two different levels of crude protein (CP) 16 or 18.5% and fed to growing rabbits for a period of six weeks. The tannin content of the grains was 0.05, 0.52 and 5.6% chatechin equivalents for maize, white and brown sorghum respectively. Weaning weight at 35 days of age was used as the blocking criterion at the beginning of the experiment. Results of feed intake, weight gain, feed conversion efficiency, feed digestibility, as well as the blood parameters, indicated that white sorghum was not significantly different from maize. Animals fed on diets containing brown sorghum had a lower average daily gain (ADG) and a poorer feed conversion efficiency (FCE) ($P < 0.01$) in comparison with those fed on diets containing maize or white sorghum. The 18.5% CP level gave a better FCE ($P < 0.05$) compared with the 16% CP level. However, increasing the level of CP did not improve the utilisation of any of the grains. It was concluded that white sorghum could effectively substitute maize in the diet of growing rabbits. On the other hand, the use of brown sorghum in the diets of growing rabbits may compromise their growth rate. This may be due to the high concentration of tannins in the brown sorghum. (Asian-Aust. J. Anim. Sci. 2002. Vol 15, No. 4: 565-569).