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Supplementation of Jackfruit By-Product Concentrate in Combination with Two Types of Protein Sources for Growing Kids

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Abstract : An experiment was conducted to assess the potential of jackfruit by-product concentrate (JBC) in combination with two types of protein sources, soybean meal (SBM) and liquid acid whey (LAW), given at two different ratios as supplement for growing kids fed a basal diet of 70:30 napier grass (Pennisetum purpureum) and kakawate (Gliricidia sepium) soilage ratio. The experiment was set-up in randomized complete block design (RCBD) with sex-age combination as basis for blocking, with the following dietary treatments: T1 = 0.50:0.50% BW, DM basis, JBC:SBM, T2 = 0.75:0.25% BW JBC:SBM, T3 = 0.50:0.50% BW, DM basis, JBC:LAW, and T4 = 0.75:0.25% BW JBC:LAW. Analysis of JBC showed high contents of crude fiber with medium levels of crude protein and nitrogen-free extract, appearing to be fitting for ruminants and a potential energy source. Results showed significantly higher voluntary dry matter intake (VDMI), cumulative weight gain (CWG), and average daily gain (ADG) of growing goats supplemented with JBC in combination with SBM than with LAW. The amount of JBC can range from 0.50% to 0.75% BW with SBM making up the difference, but a JBC:SBM ratio of 0.75:0.25% BW, DM basis, is best in promoting highest voluntary dry matter intake and is, therefore, highly recommended in the light of savings in feed cost. A long-term study on the effects of JBC supplementation on meat qualities of growing kids (aroma, marbling characteristics and taste) is also recommended.

Keywords : jackfruit by-product concentrate, liquid acid whey, soybean meal, grower kids
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