

# **Effect of Mung bean as Local Feed Ingredients to Substitute Soybean Meal in the Diet on the Performance of Broilers**

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## **ABSTRACT**

In response to feed antibiotics ban and feed security, a research was carried out to study the effect of local feed ingredients in the diet based on corn or sorghum in combination with soybean meal or mung beans on broilers performance. A completely randomized design with 4 treatments and 5 replicates was employed. Each replicates consisted of twelve birds. Two hundreds and forty day old broiler chicks with initial body weight of  $45.85 \pm 3.01$  gr were randomly assigned into four treatment diets i.e. D-1 (diet based on corn and soybean meal), D-2 (diet based on corn and mung bean), D-3 (diet based on sorghum and soybean meal), D-4 (diet based on sorghum and mung bean). Isoenergy and isoprotein diet and water were given *ad libitum*. Body weight, feed consumption, feed conversion ratio, apparent metabolizable energy (AME), protein digestibility, and protein efficiency ratio were measured and determined on day 35. All data were analyzed by ANOVA, and Duncan's multiple range test was conducted when means were significantly different ( $p < 0.05$ ).

The results showed that local feed ingredients in the diet affect significantly all performance parameters of broilers except for protein digestibility. Diet-1 had the highest body weight and AME. Diet 2 and 4 had similar AME and lower than Diet 1 and 3. Diet-1, 2, and 4 had similar feed conversion ratio. Diet-3 had the lowest consumption and feed conversion ratio and the highest protein efficiency ratio. However, considering the ability of mung bean to substitute imported soybean meal, it can be concluded that Diet-2 or Diet-4 with similar feed conversion to Diet-1 can be used as local feed ingredients to substitute imported soybean meal. Further research is needed to optimize these local feed ingredients to support broiler performance.

*Keywords : local feed, sorghum, mung beans, soybean meal, broiler, performance*