

REPLACEMENT OF FEED INGREDIENT CORN BY WHEAT IN BROILER DIET ON PERFORMANCES IN BAIRAHA PLC

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The impact of COVID-19 pandemic on the poultry sector in Sri Lanka is enormous. Due to the outbreak, importation of most of the feed ingredients was temporary restricted and feed manufactures were taken different solutions to overcome the situation. Bairaha PLC suffered from these control measures and they have substituted corn with wheat which was used as the main energy source in poultry rations. However, feed raw material change could affect the broiler performances, meat quality and hence the profitability. Thus, the effect of replacing corn with wheat on broiler performances in Bairaha PLC was investigated. Data on live body weight of birds, dead birds, rejections and carcass yield were collected for the broiler chicken fed corn and wheat as the main energy source. Mortality rate, average body weight at slaughter, total feed intake, feed conversion ratio (FCR), production index and daily weight gain were calculated. Data were analyzed using two-sample t-test by RStudio statistical software (version 4.0.4). The mortality rate, average body weight at slaughter, daily weight gain, feed intake, production index, average process weight, dead on arrival, mortality pending slaughter, liver rejections, gross yield, net yield and the yield difference were not significantly different ($p>0.05$) between birds fed corn and wheat as the main energy source. However, significantly ($p<0.05$) higher FCR (1.70 ± 0.07) and lower dress weight (1.46 ± 0.13 kgbird⁻¹) were observed in the birds fed corn as the main energy source compared to the birds fed wheat (1.65 ± 0.04 and 1.51 ± 0.07 kgbird⁻¹, respectively). The study concludes that corn could be substituted with wheat as the main energy source for broilers given the better FCR and dress weight.

Keywords: Body weight gain, Covid-19, Dress weight, Feed conversion ratio, Production index