Abstract

A study was conducted in order to evaluate growth performance and slaughtering parameters of broiler birds in terms of their average body weight, weight gain, feed intake, feed conversion ratio and average weight and length of internal organs after slaughtering, based on provision of poultry diets supplemented with sugarcane industrial wastes. The main objective was to evaluate optimal levels of individual sugarcane industrial wastes in finishing poultry diets to maximize growth performance in broiler. A total of 360 day-old broiler chicks were subjected to four poultry trials and were randomly allocated to six diet groups in each trial. Each group comprised of fifteen birds was further categorized to three replicates of five birds per replicate. Using 4×6×3 factorial design, chicks were provided with twenty four different diets prepared by the supplementation of four industrial wastes at levels of 0, 5, 10, 15, 20 and 30 gms of inclusion per kilogram of poultry feed. At day 24, relative weight gain and feed conversion ratio were found to be strongly associated with supplementation of sugarcane industrial wastes in poultry feed. Higher weight gain and improved FCR were observed for the birds fed diet supplemented with 5 gms sugarcane bagasse and sugarcane boiler fly. While, for supplementation of sugarcane filter cake and industrial sludge the values with maximum growth performance were 10 and 15 gms respectively. After slaughtering the birds on day 35, same values were found to be effective concerned with the evaluation of various slaughtering parameters of broiler birds. These findings suggested that the supplementation of sugarcane bagasse, boiler fly, filter cake and industrial sludge at levels of 5, 5, 10 and 15 gms respectively results in enhanced weight gain, improved FCR and better carcass characteristics, leading to maximize overall growth performance of broiler birds. The feed intake was significantly improved as a result of supplementation of sugarcane industrial residues in poultry feed. Therefore, it can be concluded that sugarcane industrial wastes can be employed as dietary supplements for poultry industry that is beneficial both nutritionally and economically for broilers production.