Abstract:

Five diets containing guar germ (250 g/kg) were fed to growing broiler chickens for six weeks. The germ was either autoclaved (diet 1), moistened with acid (diet 2), alkali (diet 3) or water (diet 4) or left untreated (diet 5). Birds receiving the treated guar germ consumed significantly (P<0.05) more feed compared to those fed the untreated germ. Autoclaving and moistening with acid and alkaline solutions significantly (P<0.05) increased gain in live-weight. Efficiency of feed conversion was improved significantly (P<0.05) in birds fed the autoclaved and the acid-treated germ. The absolute and the relative (g/kg live-weight) weights of the liver were significantly (P<0.05) increased in birds fed the raw and water-treated germ. Pancreatic relative weight was significantly (P<0.05) reduced by inclusion of the autoclaved germ. All treatments significantly (P<0.05) improved the activity of intraluminal trypsin and α-amylase. Chymotrypsin was the least enzyme affected by the treatment of the germ.