

Effect of Electron Beam Irradiated Cottonseed Meal on Carcass and Blood Parameters of Broiler Chickens

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Abstract : This study was conducted to evaluate the effect of electron beam- irradiated cottonseed meal at a dose of 30 KGy on carcass characteristics and some blood parameters of broiler chicks. Various levels of cottonseed meal (CSM) (0, 12, and 24%, radiation and no radiation) were used with 5 dietary treatments, 4 replicates and 10 birds of each for 42 days in completely randomized design. At 42 d of age, two birds per pen were randomly selected for determination of carcass characteristics and blood parameters. Relative weights of liver, gastrointestinal tract (GI), pancreatic, gizzard and abdominal fat were increased with increasing levels of CSM in the diet ($p < 0/05$). Glucose, cholesterol, HDL, triglyceride, and phosphorous concentrations increased and LDL concentration decreased as the dietary CSM levels increased ($p < 0/05$). But radiation had not significant effect on blood parameters. Electron irradiation seems to be a good procedure to improve the nutritional quality of CSM but it seems higher dose of it was needed to improve blood parameters of chickens.

Keywords : blood parameters, carcass characteristics, cottonseed meal, electron beam

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