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Study on antioxidant activity, growth performance and carcass characteristics in broiler chicken fed with methanolic extract of *Caesalpinia sappan* L.**Eswara Prasad P, Girinath C H, Aswani Kumar K and Adilaxamma K**
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An experiment was conducted to evaluate the effects of methanolic extract of *Caesalpinia sappan* supplementation on the antioxidant status and growth performance of broiler chicken during summer months. 100 days old broiler chicks were randomly assigned into 5 groups. Control group I was given basal diet and treatment groups II, III and IV were supplemented with methanolic extract of *Caesalpinia sappan* stem bark at 100, 300 and 500 ppm respectively and group V was supplemented with vitamin E at 100 ppm as an antioxidant control through drinking water from day 0 to 8 weeks of age. All the *C. sappan* supplemented groups showed significantly lowered levels of malondialdehyde (MDA) and higher levels of reduced glutathione, GPx, SOD and catalase in liver and kidney tissues as compared to control. The serum levels of ALT, AST, CK and cholesterol were significantly lower in treatment groups III and IV when compared with control. However, serum T3 levels showed no significant change among different groups. Groups IV and III showed higher weekly feed intake, body weight gain and feed conversion ratio compared to control group. Higher dressing yields and abdominal fat percentages were observed in group IV compared to control. It could be concluded that, supplementation of *C. sappan* extract improved antioxidant status and growth performance in broiler chicken and can be considered as a replacement for synthetic antioxidant in poultry diet in heat stress conditions.

Biography

Eswara Prasad P is a Professor of Veterinary Biochemistry and is presently working as Dean of College of Veterinary Science, Tirupati, India and guided many postgraduate and doctorates in Veterinary Biochemistry. He has published more than 40 research papers in reputed journals and had Postdoctoral training at Kansas State University, USA. Presently, he is working on Nanosilver mediated herbal extracts and their effects in clinical cases and has a long experience of teaching.

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