**Titre d’article**: Growth Performance, Carcass and Viscera Yields, Blood Constituents and Thyroid Hormone Concentrations of Chronic Heat Stressed Broilers Fed Diets Supplemented with Cumin Seeds (Cuminum cyminum L.

**Abstract**

This study was conducted to determine the effect of dietary supplementation with cumin (Cuminum cyminum L.) seeds on growth

performances, relative weights of carcass and viscera, haematological and biochemical parameters, and thyroid hormones concentrations

of broiler chickens subjected to natural fluctuation of Algerian summer ambient temperatures. A total of 440 28-day old chickens were

divided into 2 groups (5 replicates of 44 birds) with similar body weight (971±48 g): a “Control” group fed with a standard diet and a “Cumin”

group receiving a basal diet supplemented with 0.2% of cumin. As a result of this study, dietary cumin supplementation did not significantly

modify the growth rate and final body weights of heat-exposed chickens but it slightly improved feed conversion ratio (-7%, P=0.1). Carcass

traits, viscera (liver, heart, gizzard, spleen, bursa and thymus) intestine morphology and abdominal fat of heat stressed birds did not reveal

any changes by cumin inclusion compared to the control ones. Also, thyroid hormones (T3 and T4) concentrations were not significantly

influenced by dietary cumin (P>0.05). However, heat-exposed chickens supplemented with cumin exhibited a significant (P<0.01) lower

values of plasma glucose, cholesterol, triglycerides and total proteins and higher calcium concentrations than those of control group. Cumin

dietary may be a successful means to enhancing diet conversion and reducing glaecimic, lipidaemic and calcaemic disorders in chronicallyheat exposed chickens.