

THE PHYSIOLOGICAL EFFECT'S OF POLYPHENOL ON SOME PRODUCTIVE AND REPRODUCTIVE TRAITS IN THE LOCAL CHICKEN STRAIN UNDER HEAT STRESS

By

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The aim of this work was mainly to investigate the effect of polyphenol supplementation to local birds (Silver Montazah) diets under heat stress exposure on productive performance and reproductive parameters of birds. The study included two experiments: A total of 60 Silver montazah chicks at 8 weeks of age were randomly divided into 3 equal treatment groups. They were fed diets supplemented with polyphenol by levels of 5 and 10 mg/kg diet. Effect of polyphenol on body weight and some blood physiological parameters, hormones and age at first egg were determined. A total of 60 Silver montazah laying hens and 20 cocks at 22 weeks of age were randomly divided into 3 equal treatment groups. Effect of polyphenol on egg production and male reproductive performance and semen quality Results indicated that body weight and body weight gain was significantly higher, and some blood hematological and biochemical parameters were improved. Egg production, egg weight egg quality were significantly improved and significant increases in semen ejaculate volume, sperm concentration and live sperm by supplemented of polyphenol to the cocks diets before , under and after heat stress .

Supplementation of polyphenol at least(5-10) mg/kg diet provided before, during and after heat stress is desirable to maintain Silver Montazah performance, egg production traits and cocks semen quality under heat stress and beneficial in counteracting the adverse effect of heat stress during the early live period and during the reproductive period.

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