# EFFECTS OF SOME HERBAL ADDITIVES ON PHYSIOLOGICAL AND PRODUCTIVE PERFORMANCE OF A LOCAL STRAIN of chicken under HOT CLIMATIC CONDITIONS

**Wagdy, A. Z.; M. M. Sabry and M. A. Abdel Al-Galil**
**Animal Prod. Inst. Agric. Res.Center, Ministry of Agric.Giza, Egypt.**

## ABSTRACT

A total of 108 pullets and 12 cocks of Bandrah strain at sexual maturity (24 wks old) were randomly chosen. Birds were divided allocated into three equal groups. The 1st group was fed a basal diet and used as a control while, the 2nd and 3 th groups were fed basal diet supplemented with 2% black seeds or fresh garlic (as herbal additives), respectively. Treatments were conducted during summer season under38°C at daylight and 30°C night from 24 to 36 weeks of age.

Results indicated that there were no significant differences in body weight gain due to supplementing studied herbal additives. Feed consumption was ($P<0.05$) increased and feed conversion was ($P<0.05$) improved by adding herbal additives. Supplementing the basal diet with garlic significantly increased egg production rate and egg mass while, black seeds supplementation was insignificantly increased the same parameters compared with control group. Besides, total protein as well as albumin and globulin, and $T_3$ were increased significantly while, creatinine, GPT and GOT were not affected. Also, plasma glucose was decreased significantly by feeding diet supplemented with herbal additives. Moreover, herbal additives decreased significantly plasma, liver and egg total cholesterol and total lipids. The, relative weight of thymus and thyroid glands were increased significantly due to herbal additives. Furthermore, fertility, hatchability, hatched chick weight percentages and egg quality improved numerically comparing with un-supplemented control group. This study suggested that herbal additives could be used in laying hens diets to improve the productive performance, blood biochemical, egg quality and immune glands weight of laying hens without any harmful side effects on the human health.