

Effects of Indian cow urine on the egg production and quality

N. GARG¹, A. KUMAR¹, G. SHUKLA² and R.S. CHAUHAN^{2*}

¹Department of Animal Nutrition, College of Vety. and Animal Sciences, G.B. Pant University of Agri. &Tech. Pantnagar, 263145 India

²Cadrad, Indian Veterinary Research Institute, Izatnagar, 243122 India

*rs_chauhan123@rediffmail.com

Keywords: cow urine; egg production; egg weight; shell thickness; shape index

Abstract

Recently the cow urine has been granted U.S. patent for its synergistic properties with antibiotics and as bioenhancer. The present investigation was taken up to study the effects of cow urine on the egg production and quality of eggs in the layer birds. 50 layer birds of 20-22 weeks of age were kept under hygienic conditions in Poultry farm and were divided into 2 equal groups. Group I (25 birds) were kept as untreated control while group II (25 birds) was given distilled cow urine of Indian cow (Sahiwal breed) @1 ml/ bird daily with water for 105 days. Daily egg production, egg weight, egg length and egg width were recorded. At the interval of 15 days eggs were collected from the groups for the study of egg quality trait like albumin index, yolk index, shell thickness, shell weight, albumin length etc., using spherometer, screwguage, and vernier caliper. The daily averages egg production of control and treated group were observed 10.75 ± 0.58 and 20.25 ± 0.59 , respectively with an increase of 87.67% in the treated group. The daily averages egg weight of control and treated group were observed 51.3 ± 1.95 and 59.5 ± 1.3 grams, respectively, which was increased 16.08% in treated birds. The daily averages shape index of control and treated group were observed 73.52 ± 1.4 and 77.07 ± 1.07 , respectively with 4.82% increase in the treated group. The averages shell thickness were 0.409 ± 0.01 and 0.45 ± 0.007 in control and treated group, respectively with an increase of 10.26% in the treated group. The mean shell weight of control and treated group were 5.8 ± 0.35 and 6.7 ± 0.32 grams, respectively with 15.51% increase in the treated group. The mean yolk weight was 16.9 ± 0.8 and 18.1 ± 0.7 grams, respectively with 7.21% of increase in the treated group. The averages of albumin weight of control and treated group were 28.9 ± 1.3 and 32.97 ± 1.3 grams, respectively with 14.00% of increase in the treated group. All these results had shown significant differences in egg quality and production from the control. Thus, Indian cow urine can be used in birds to improve health as well as production traits.