

EFFECTS OF *TURMERIC* ROOT POWDER INCLUSION IN DIETS ON EGG PRODUCTION AND QUALITY OF HISEX BROWN LAYING HENS FROM 30-40 WEEKS OF AGE

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ABSTRACT

The study was carried out to determine the effect of *Turmeric* root powder (TR) inclusion in the commercial diet on performance and egg quality of laying hens. Two hundred and forty Hisex Brown laying hens at the 30 weeks of age were randomly distributed into a completely randomized design, with 4 treatments and 15 replicates (pen), each replicate consisted of 4 birds/pen, and the experimental data was collected during 10 weeks. Treatments used: TR0: Basal diet + 0% TR(control); TR1: Basal diet + 0.1% TR; TR2: Basal diet + 0.2% TR and TR3: Basal diet + 0.3 %TR. The results showed no effect of *Turmeric* root powder on feed intake, egg weight and feed conversion ratio, but a little improvement of hen-day production and egg mass in the TR2 and TR3 diets compared to control and TR1 treatments. There was no significant effect of treatments on egg shell weight, shell thickness, albumen weight, yolk weight and Haugh Unit. But there was a significant improvement of (b) yellowness value of yolk color in the TR2 and TR3 supplemented groups compared with control group. However, the higher TR inclusion in the diets resulted in the higher expense of feed/kg egg. In conclusion, adding *Turmeric* root powder at 0.2 and 0.3% in diet could slightly improve hen- day production, egg mass and egg yolk color of commercial laying hens, but increase the expense of feed/kg egg.

Keywords: *Turmeric root powder, hen- day production, laying hen, egg yolk color, egg mass*