

Egg Production Improvement Effects of Active Constituent of *Emblca officinalis*

OBJECTIVE

To investigate the effect of polyphenolic compound: ellagic acid on the productive performance parameters in Gallus gallus laying hens.

MATERIALS AND METHODS

A total of 120-birds + 12-cocks of local yellow-brown laying hens of 28-weeks old were equally divided into 4-groups. The experimental diet was offered from 28 to 44 weeks of age as follows; Group A was control diet without ellagic acid while Groups B, C, and D had 50, 100, and 200 mg/kg of ellagic acid respectively. The productive performance parameters viz. feed intake (g/quail/day), egg production (%), egg weight (g), egg mass (g/day/bird), and broken/cracked egg (%) were evaluated.

RESULTS

Effect of different levels of ellagic acid on productive performance of laying hens

Groups	Egg weight (g)	Egg mass (g/day/bird)	Egg production (%)	Broken/cracked egg (%)
A	58.76 ± 0.01 ^a	29.84 ± 0.08	78.24 ± 0.03 ^a	1.90 ± 0.04 ^a
B	58.21 ± 0.01 ^a	28.66 ± 0.19	78.14 ± 0.02 ^a	1.86 ± 0.04 ^a
C	58.28 ± 0.03 ^a	29.47 ± 0.02	83.50 ± 0.03 ^b	0.60 ± 0.02 ^b
D	57.13 ± 0.04 ^a	28.21 ± 0.20	76.75 ± 0.04 ^a	2.1 ± 0.03 ^c

Data showed the average values ± standard error after 16-weeks of treatment. abcMean values within the same column with different superscript differ significantly (p<0.05)

CONCLUSIONS

Egg production (%) and broken/cracked egg (%) were significantly (p<0.05) increased and decreased respectively in laying hens supplemented with 100 mg of ellagic acid.

Reference:

Gul H, Geng Z, Habib G, et al. Effect of ellagic acid and mesocarp extract of Punica granatum on productive and reproductive performances of laying hens. Trop. Anim. Health Prod. 2022;54(4):228.