

SENSORY EVALUATION OF EGGS PRODUCED BY FREE-RANGE HENS FORAGING IN PASTURES ENRICHED WITH OCIMUM BASILICUM AND MENTHA SPICATA

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The objective of the present study was to evaluate the organoleptic characteristics of eggs produced by free-range hens foraging in pastures enriched with two aromatic plants. Two different experiments have been conducted.

In experiment 1, ninety Lohmann-Brown layers aged 20 weeks were assigned to two treatment groups consisted of three replicates each (15 birds/replicate). In treatment C (control) hens foraged in a pasture area where a mixture of grass was used, while in treatment AP (aromatic plants) the grass mixture was enriched with the two aromatic plants *Ocimum basilicum* (basil) and *Mentha spicata* (spearmint) planted in identical separate rows.

In experiment 2, *Ocimum basilicum* and *Mentha spicata* were separately cultivated in respective pasture areas with the grass mixture, so ninety layers of the same genotype and age as in experiment 1, were assigned to three treatment groups, consisted of two replicates each (15 birds/replicate), treatment C (control), treatment B (basil) and treatment S (spearmint). At the end of each experiment sensory characteristics of the produced eggs were evaluated by 12 untrained panelists with experience of sensory evaluation. In hedonic sensory evaluation the panelists were asked to rank yolk color on a 9-point scale for degree of acceptance, with 9 = like very much to 1 = dislike very much (ANOVA). Results revealed that yolk color tested by the panelists was not affected by the treatment in both experiments. As far as the taste was concerned, in experiment 1, panelists preferred AP eggs ($P > 0.05$) (AP=6.67*, C=5.67), while in experiment 2, panelists found B eggs better ($P < 0.05$) in taste than S and C eggs (B=6.92, S=5.83, C=5.25, respectively). We can conclude that the enrichment of pasture with aromatic plants could affect sensory characteristics of the produced eggs and that basil consumption could have more positive effect on egg taste.

*(mean values of Hedonic scale 9 to 1)