

The Effect Of Adding Astaxanthin, Marigold Flour (*Tagetes erecta*) And Paprika Flour (*Capsicum annum L.*) In Feed On The Sensory Quality Of Duck Egg

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ABSTRACK

*This study aimed to determine the effect of adding astaxanthin, marigold meal (*Tagetes erecta*), and paprika meal (*Capsicum annum L.*) to the diet on the sensory quality of Mojosari duck eggs. The research was conducted at the Miscellaneous Livestock Unit and the Livestock Production Laboratory of the State Polytechnic of Jember. A Completely Randomized Design (CRD) and Analysis of Variance (ANOVA) were employed, using 60 ducks divided into four treatment groups with five replicates each: P0 (Control/No Treatment), P1 (0.02% Astaxanthin), P2 (1% Paprika Meal), and P3 (1% Marigold Meal). Observed parameters included color, aroma, taste, texture, and acceptability. Hedonic quality assessment utilized a 1–4 Likert scale for color (light yellow to orange-yellow), aroma (not fishy to very fishy), and texture (somewhat soft to hard). Sensory quality assessment via hedonic testing used a Likert scale: 1 (dislike), 2 (dislike somewhat), 3 (like somewhat), 4 (like), and 5 (like very much). Sensory testing was performed by 40 panelists consisting of male and female students from the State Polytechnic of Jember. Data were analyzed using non-parametric analysis via the Kruskal-Wallis hedonic test. Significant results were followed up with Duncan's Multiple Range Test (DMRT). The results showed that the addition of astaxanthin, paprika meal, and marigold meal significantly affected ($P < 0.05$) the hedonic quality of raw yolk color, raw yolk texture, cooked yolk hedonic quality, and overall acceptability. However, the additions did not significantly affect ($P > 0.05$) the hedonic quality of raw yolk aroma, cooked egg taste, cooked egg aroma, or cooked egg taste.*

KEYWORDS: *Mojosari duck, astaxanthin, marigold flour, paprika flour, egg sensory quality.*