

**THE EFFECT OF SUBSTITUTION OF BRAN WITH FLOUR  
FERMENTATION OF CATTLE RUMEN DIGESTA ON THE INTERNAL  
QUALITY OF KHAKI CAMPBELL DUCK EGGS**

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**ABSTRACT**

The purpose of this study was to determine the effect of flour substitution of bran with flour fermentation of cattle rumen digesta on the internal quality of the egg white index, egg yolk index, *haugh unit* and the color of the egg yolk of Khaki Campbell ducks. This study used 25 Khaki Campbell ducks aged 24 weeks with Complete Random Design method divided into 5 treatments and 5 replications. The treatment used in this study was in the form of flour fermentation of cattle rumen digesta as a substitute for bran with doses of 0%, 7.5%, 12.5%, 17.5% and 25%. Data will be analyzed using Analysis Of Variance (ANOVA) and continued with Duncan's Multiple Range Test. The results showed that there was a significant difference ( $P < 0.05$ ) on the egg white index, egg yolk index and *haugh unit*, whereas in the egg yolk color there was no significant difference ( $P > 0.05$ ). The administration of flour fermentation of cattle rumen digesta can maintain the egg white index, egg yolk index and *haugh unit* up to dose of 7,5% and cannot increase the color of the egg yolk to dose of 25%. The conclusion is substitution of bran with flour fermentation of rumen can maintain internal quality of Khaki Campbell duck eggs.

**Keywords:** Khaki Campbell Duck, Egg White Index, Egg Yolk Index, *Haugh Unit*, Egg Yolk Color.