



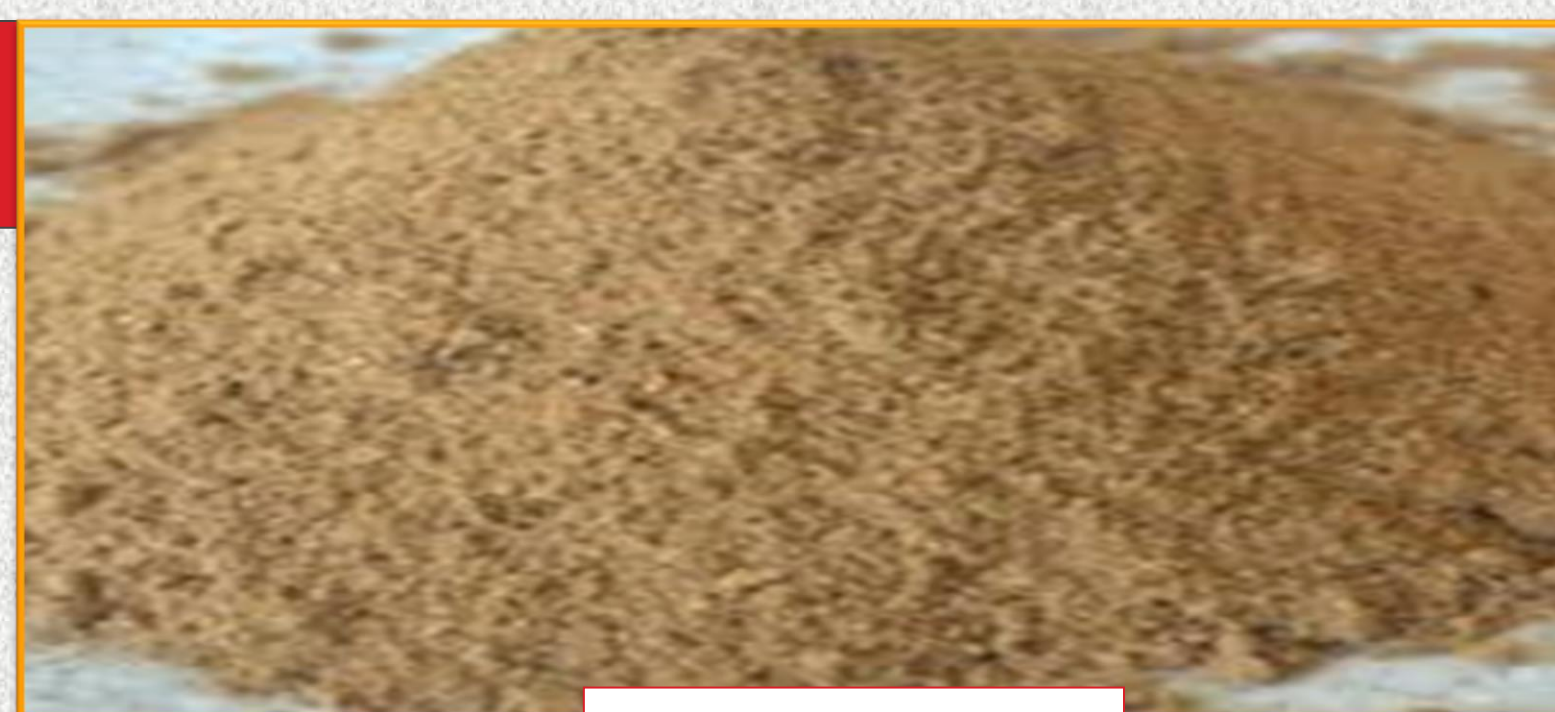
# The Effect of Dietary Supplementation of Hong Kong (*Tenebrio molitor*) Caterpillar on Quail Egg Quality

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## INTRODUCTION



Fish meal



*Tenebrio molitor* Caterpillar

SUBSTITUTED  
by

- Fish meal premium (High CP = 64%) : expensive
- Imports
- Local fish meal : quality is not up to standard (CP 30-35%)
- The availability fish meal is not continuous

*Tenebrio molitor* Caterpillar :

High Crude protein = **62%**,  
 ME = 3.362 kcal/kg  
 High of Amino acids  
 glutamic acid = **6.86**  
 alanine = 5.37%,  
 aspartic acid = 4.80%,  
 lysine = 4.75%,  
 Unsaturated fatty acids:  
**linoleic acid (omega 6) = 34.24%**,  
 oleic acid (omega 9) = 21.28%,  
 linolenic acid (omega 3) = 1.15%  
 (Nuraini et al., 2021)

## METODE

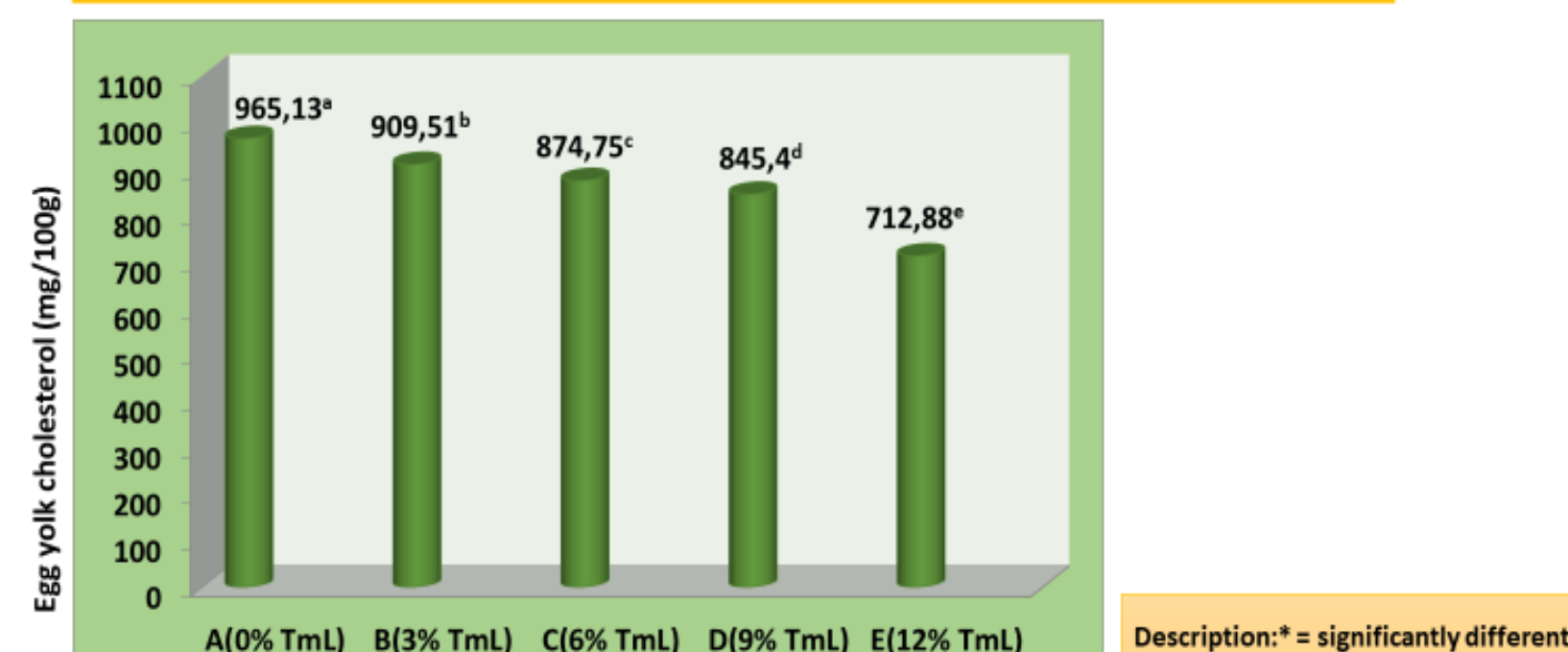


FERMENTED MEDIUM  
For *Tenebrio molitor*

## RESULT

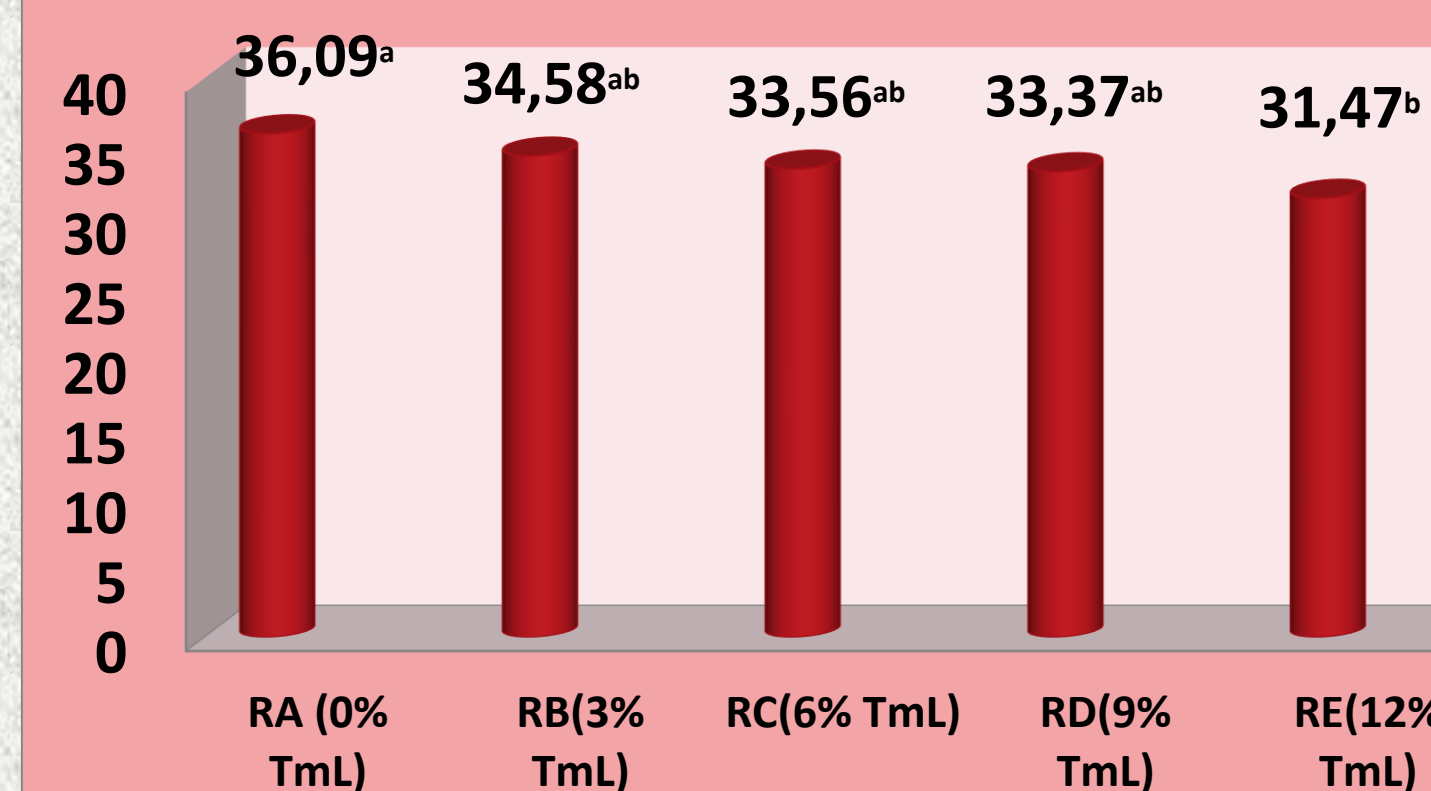
### RESULTS

Average Egg Yolk Cholesterol of Laying Quail Aged (8-13 Weeks)



Grafik 1. Egg yolk cholesterol of laying quail

Egg Yolk Fat of Quail



## CONCLUSION

The use of *Tenebrio molitor* caterpillars up to a level of 12% in laying quail diet can replace 100% of imported fish meal and can maintain the production performance of laying quail, and also can reduce egg yolk cholesterol (26,14%) and reduce egg yolk fat of quail.

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## Laying Quail



*Tenebrio molitor* caterpillar