

THESIS

**THE DIFFERENCE OF FEED CONSUMPTION, BODY  
WEIGHT AND FEED CONVERSIONRATIO BETWEEN  
MALE MUSCOVY DUCK (*Cairina moschata*) AND  
MALE MULE DUCK AT THE GROWTH AGE**



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FEED CONVERSION RATIO BETWEEN MALE MUSCOVY DUCK  
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Thesis

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Co-Supervisor

## DECLARATION

Hereby, I declare that in this thesis entitled:

**THE DIFFERENCE OF FEED CONSUMPTION, BODY WEIGHT AND  
FEED CONVERSION RATIO BETWEEN MALE MUSCOVY DUCK  
(*Cairina moschata*) AND MALE MULE DUCK AT THE GROWTH AGE**

There is no other work ever published obtain a college degree in certain college and to my knowledge there is also no work opinion ever written or published by others, except those in writing referred to this paper and mentioned in the references.

Surabaya, 28<sup>th</sup> March 2022



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## SUMMARY

**Citra Ayu Wening**, Research under the **The Difference of Feed Consumption, Body Weight and Feed Conversion Ratio Between Male Muscovy Duck (*Cairina moschata*) and Male Mule Duck at the Growth Age** under the guidance of Prof. Dr.Sarmanu, Drh., MS. as the main supervisor and Dr. Tjuk Imam Restiadi, Drh., M.Si. as the co-supervisor.

Poultry is one of the livestock commodities that many people enjoy because it has a source of animal protein that is economically affordable compared to other livestock origin meat. Waterfowls is also one of the poultry that can supply quite large in meet the needs of animal protein. Waterfowl species in Indonesia are very diverse, including Muscovy Duck, Duck and Mule Duck.

The study focused on two waterfowls, there is Muscovy Duck and Mule Duck. Muscovy duck is one of the type domestic poultry that has enough potential to be cultivated. Mule duck is a type of waterfowl that is a cross between Muscovy Duck and Duck. Both of these waterfowl are superior livestock because they have growth that tends to be faster compared to other waterfowl. The difference between these two waterfowl can be seen from the different characteristics and performance. The specific differentiators of these two waterfowls can be seen from the feathers, body shape, and legs as well as different weight growth rates.

Differences in body size between Muscovy Duck and Mule Duck can be observed from feed consumption, weight gain and feed conversion ratio. To find out the difference in body size of Muscovy Duck and Mule Duck can use

Muscovy Duck and Mule Duck that are still in the growth age (*grower*) to be clear the difference in body weight between the two animals. The use of male Muscovy Duck and Mule Duck because it has faster growth compared to female Muscovy Duck and Mule Duck.

Muscovy duck (*Cairina moschata*) and Mule Duck used are male Muscovy Duck and male Mule Duck that are maintained at the age of the growth phase that is from the age of 5 weeks to 9 weeks. Each species has 10 males Muscovy Ducks and 10 male Mule Ducks. So that the total sample used is 20 tails by measuring feed consumption, weight gain and feed conversion ratio of each Muscovy Duck and Mule Duck. Measurement of feed consumption is carried out every day as much as 2 times a day, which in the morning and evening using a digital scale of 1 gram accuracy. Measurements of weight gain are carried out every week using a digital scale of 1 gram accuracy. And measurements of feed conversion ratio are carried out every week after the results of weight gain and feed consumption are collected.

The results of this study are used to find out the performance between Muscovy Duck and Mule Duck to find out the best waterfowl as a cut poultry and can find out characteristics that reflect fitness and health of body shape so that it can be used in selection. The result is Mule Duck performance are more superior compared to Muscovy Duck seen from the rate of weight growth, feed consumption and feed conversion ratio.

The measurement of feed consumption is done by reducing the amount of feed provided with the rest of the feed, the result is the consumption of Mule

Duck feed is much more than Muscovy Duck. Weight gain measurements are done by calculating the final weight reduced by the initial weight of treatment, the result is the weight gain of Mule Duck is much more than Muscovy Duck. And the feed conversion ratio can be done by calculating the ratio between the resulting weight gain and the feed consumed, the result is that Mule Duck can convert feed into meat very well by resulting in a lower feed conversion ratio compared to the Muscovy Duck.

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Citra Ayu Wening

**ABSTRACT**

This study aims to collect data on comparisons of the differences in body size between Muscovy Duck and Mule Duck that can be observed from feed consumption, weight gain and feed conversion ratio between *Cairina moschata* and Mule Duck to find out the best waterfowl as a cut poultry. *Cairina moschata* and Mule Duck that are maintained at the age of the growth phase that is from the age of 5 weeks to 9 weeks with gender male *Cairina moschata* and male Mule Duck were used in this study. The number of samples that were used was 10 *Cairina moschata* and 10 Mule Duck. The results of the data processing of this study used a ttest method in SPSS. The results of this study were the consumption of Mule Duck feed is much more than Muscovy Duck, the weight gain of Mule Duck is much more than Muscovy Duck, and Mule Duck have a lower feed conversion ratio compared to the Muscovy Duck. This experiment concluded that Mule Duck performance are more superior compared to Muscovy Duck.

**Keywords:** *Cairina moschata*, Mule duck, Feed consumption, Weight gain, Feed conversion ratio.

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### **ABBREVIATION**

cm : Centi Meter

CRD : Completely Randomized Design

DOD : Day Old Duck

EM : Energy Metabolism

FCR : Feed Conversion Ratio

g : Gram

Kcal : Kilocalorie

Kg : Kilo Gram

SD : Standard Deviation

SPSS : Statistical Package for the Social Science