

ABSTRACT

Chicken eggs are foods which commonly consumed by Indonesian people. Eggs have highest quality of protein. So, many eggs used as a ingredients of processed food. However, not all of eggs have high quality and freshness because eggs in the livestock have different quality with eggs in the store. The quality and freshness of eggs can be seen from the height of the egg itself then the yolk color can be seen by using a tool called Yolk Color Fan as a reference where the higher the value of yolk means the higher carotene contained. However, in measuring the height of the egg as well as matching the yolk color using a measuring instrument and Yolk Color Fan in plain view, the results will be subjective due to several factors like light and one's vision ability.

In this thesis, the writer will discuss how to detect the quality and freshness of the height and eggs yolks of domestic chicken itself. In this thesis the writer uses “Color Matching and Template Matching Method”

The purpose of the research of this thesis, is to facilitate the detection of quality and freshness of the egg yolks with more effective and accurate result. The sistem created for the quality of the egg yolk with Color Matching method getting accuracy by 87%, while for the quality and freshness of the eggs with Template Matching method by 76%.

Keyword : Egg, Color Matching, Template Matching