

**THE USE OF NATURAL PLANTS EXTRACT AS COLORING AGENT IN
YOGURT**

By

Farhana Diandra
14211016

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SWISS GERMAN UNIVERSITY
EduTown BSD City
Tangerang 15339
Indonesia

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

Farhana Diandra

Student

Date

Approved by:

Ir. Abdullah Muzi Marpaung, MP

Thesis Advisor

Date

Irvan S. Kartawiria, ST, M.Sc

Thesis Co-Advisor

Date

Dr. Dipl. -Ing. Samuel P. Kusumocahyo

Dean

Date

Farhana Diandra

ABSTRACT

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By

Farhana Diandra

Ir. Abdullah Muzi Marpaung, MP, Advisor

Irvan Kartawiria, ST, M.Sc, Co-Advisor

SWISS GERMAN UNIVERSITY

The aim of this research was to evaluate the effect of temperature towards the monomeric and polymeric anthocyanin content stability in yogurt from different sources of natural plants and to determine the most suitable anthocyanin extract as a natural coloring agent in yogurt. Total monomeric anthocyanin, percent polymeric anthocyanin and color density were analyzed to determine anthocyanin degradation and their color variations. Analyzing the total phenolic content of the four extracts in yogurt for characterization. Two levels of temperature were used for the stability test. They are 4°C and 25 °C. Four levels of type of natural plant sources were used and they are Red Cabbage, *Lasiandra*, *Senduduk* and Bauhinia Purple. The method that was used for the anthocyanin content analysis and color density stability was the pH differential method. Results showed that the stability of anthocyanin content and color density was strongly dependent on temperature. The pH of yogurt affecting the color stability and intensity of anthocyanin extracts in yogurt and it is resulted that the most suitable extract, as natural coloring agent in yogurt is *Senduduk*.

Keywords: Anthocyanin, yogurt, storage, coloring agent, extract



DEDICATION

I dedicate my thesis work for my parents, best friends and people all over the
world



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