

**FORMULATION PROCESS DEVELOPMENT OF HEALTH SUPPLEMENT
CONTAINING WATER HYACINTH (*Eichhornia Crassipes*) EXTRACT**

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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.

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ABSTRACT

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Water hyacinth (*Eichhornia Crassipes*) is an aquatic plant that usually lives on the surface of lakes, marshes or rivers. Water hyacinth is considered to be a parasitic plant that brought a negative impact for the water and the rapid growth of water hyacinth made water hyacinth population become an abundance as it is a challenge to eliminate such number of water hyacinth. Several previous research has been conducted and it is proven that water hyacinth contains relatively high antioxidant content and it could be taken the advantage of by creating a product from water hyacinth that could be beneficial for human needs. Health supplement is the product that is chosen for the utilization of water hyacinth, the form of health supplement was determined by market research by using questionnaire method. The chosen form of health supplement was a solid dosage form with the type of tablet. This process design research will discuss further about the whole manufacturing process of the production of the health supplement from raw materials into the end product through several processes such as extraction, drying, mixing, granulation and tablet compression as well as the amount of energy needed for the machine to operate.

Keywords: Water Hyacinth, Eichhornia Crassipes, Process Design, Antioxidant, Phenolic Content, Abundance.



DEDICATION

I dedicate this thesis for myself and for those who color my entire university life starting from my parents who always support me while complaining every single decision that I made and for my beloved two dogs who passed away along the way and also for my friends who always be there for me whenever I feel down and help me foresee my main goal.



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