

**GINGER JUICE CONCENTRATE AS WETTING AGENT IN  
WET GRANULATION PROCESS OF TRADITIONAL  
PHARMACEUTICAL FOR COMMON COLD  
(JAMU TOLAK ANGIN)**

By

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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

### GINGER JUICE CONCENTRATE AS WETTING AGENT IN WET GRANULATION PROCESS OF TRADITIONAL PHARMACEUTICAL FOR COMMON COLD (JAMU TOLAK ANGIN)

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The aim of this research was to evaluate the ginger juice performance as wetting agent in wet granulation process of traditional pharmaceuticals for common cold (jamu tolak angin). In this research, ginger juice was made from red ginger. There are eight formulas to determine the effects of ginger juice in wet granulation process. Experiments were done into two steps, granulation and tablet compression process with analyses during its steps. Average particle size distribution of granules is 0.23 – 1.63, Carr's index is 4.50 % – 41.00 %. Tablet performance was observed by comparing tablet weight, hardness, and disintegration time. Tablet weight is 540 - 627 mg, with hardness 8.46 – 14.78 kp and disintegration time below 300 s. The feasible formula was batch which contained maximum ginger juice content without binder. Its appearance and performance of the batch were superior to other batches.

## **DEDICATION**

I dedicate this thesis to my lovely father, my mother, and my mother for their love and support.



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