

THESIS

**EVALUATION OF LOZENGES MADE BY WET
GRANULATION METHOD FROM *HABBATUSSAUDA*' (*Nigella
sativa*) EXTRACT**



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Lozenges By Wet Granulation Method

I sincerely declare that the research contained in this thesis is my own work and does not belong to anyone else. This thesis has never been published before, except for some parts with original references.

If in the future it is found that this work is plagiarism, I am ready to be given administrative and academic sanctions.

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ABSTRAK

UJI KARAKTERISTIK SEDIAAN TABLET HISAP EKSTRAK *HABBATUSSAUDA'* (*Nigella sativa*) DENGAN METODE GRANULASI BASAH

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Habbatussauda' (*Nigella sativa*) telah digunakan secara luas oleh masyarakat karena berbagai kandungan didalamnya seperti *thymoquinone* dan *nigellone* yang dipercaya dapat meningkatkan kekebalan tubuh. Pada penggunaannya *habbatussauda'* diaplikasikan dalam bentuk kapsul yang berisi serbuk maupun minyak, namun penggunaan tersebut dinilai kurang efektif dan efisien sehingga perlu adanya inovasi sediaan. Salah satu inovasi dalam sediaan dengan zat aktif *habbatussauda'* adalah tablet hisap. Penelitian ini dilakukan untuk mengetahui pengaruh perbedaan karakteristik dan mutu pada sediaan tablet hisap ekstrak *habbatussauda'* akibat variasi konsentrasi dari ekstrak *habbatussauda'*. Tablet hisap dibuat dalam 3 formulasi, pada formulasi 1 konsentrasi ekstrak *habbatussauda'* sebesar 7.5%, formulasi 2 sebesar 10 % dan pada formulasi 3 ekstrak *habbatussauda'* sebesar 12.5%. Metode yang digunakan dalam pembuatan tablet hisap ekstrak *habbatussauda'* adalah granulasi basah. Hasil dari evaluasi fisik pada granul dan tablet menunjukkan bahwa variasi konsentrasi dari ekstrak *habbatussauda'* mempengaruhi sifat fisik granul dan tablet hisap. Formulasi 1 merupakan formulasi terbaik dengan rata-rata kekerasan 4.74 kg dan kerapuhan 0.29%

Kata kunci: *Habbatussauda'*, granulasi basah, karakteristik *habbatussauda'*, tablet hisap

ABSTRACT

EVALUATION OF LOZENGES MADE BY WET GRANULATION METHOD FROM *HABBATUSSAUDA'* (*Nigella sativa*) EXTRACT

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Habbatussauda' (Nigella sativa) has been widely used by the community due to its various compound such as thymoquinone and nigellone which are believed to increase immunity. Habbatussauda' commonly served in capsules containing powder or oil, it is considered less effective and efficient so that there is a need for dosage innovation. One of the innovations in dosage form of habbatussauda' is lozenges. This study was conducted to determine the characteristics and quality on the preparation of habbatussauda' extract lozenges with variations of its concentration. Lozenges were made in 3 formulations, in formulation 1 the concentration of habbatussauda' extract was 7.5%, formulation 2 was 10% and in formulation 3 the habbatussauda' extract was 12.5%. The method used in the preparation of habbatussauda' extract lozenges is wet granulation. The results of the physical evaluation of granules and tablets showed that the variation in concentration of habbatussauda' extract affected the physical properties of granules and lozenges. Formulation 1 is the best formulation with an average hardness of 4.74 Kg and friability of 0.29%.

Keywords: *Habbatussauda', wet granulation, characteristics, lozenges*

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