DEVELOPMENT OF HARD CANDY CONTAINING *Artemisia capillaris* EXTRACT

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DECLARATION

I hereby declare that this thesis research project is based on my original work except for quotations and citations which have been duly acknowledge. I also declare that it has not been previously or concurrently submitted for any degree at UMT or other institutions.

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(Supervisor)

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ABSTRACT

This research had been carried out to determine the finest formulation of hard candy containing *Artemesia Capillaris* extract. In this research, there is 5 samples tested which are sample A (hard candy containing 0% of *A.Capillaris* extract) where it acted as control sample, sample B (hard candy containing 0.1% of *A.Capillaris* extract), sample C (hard candy containing 0.5% of *A.Capillaris* extract), sample D (hard candy contains 1.0% of *A.Capillaris* extract) and sample E (hard candy containing 1.5% of *A.Capillaris* extract). Analysis that tested in this research is moisture content, water activity, color analysis ('L', 'a' and 'b') and carbohydrate content. For sample D it had the highest value result for water activity analysis, moisture content and carbohydrate and protein analysis. Sample A, B and C had a moderate value in overall analysis. For sample R it had the lowest value. The attributes for sensory evaluation were color, shape, fracturability, flavor, mouth feel and overall acceptance. Sample A is the most acceptable sample by panel due to the highest mean score in the overall acceptance. Besides that, sample A has the advantage in flavors and color attributes. Sample A had the most equal value to the R sample the control sample.

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PENGHASILAN GULA-GULA DARIPADA ULAM RIBU (*Artemesia capillaris*)

[1]ABSTRAK

Kajian ini dilakukan untuk mengenalpasti perumusan yang terbaik gula-gula mengandungi ekstrak *Artemesia capillaris*. Terdapat 5 sampel yang dikaji dalam kajian ini iaitu sampel A (gula-gula yang mengandungi 0% ekstrak *A.capillaris*) dimana ia bertindak sebagai sampel kawalan., sampel B (gula-gula yang mengandungi 0.1% ekstrak *A.capillaris*), sampel C (gula-gula yang mengandungi 0.5% ekstrak *A.capillaris*), sampel D (gula-gula yang mengandungi 1.0% ekstrak *A.capillaris*) dan sampel E (gula-gula yang mengandungi 1.5% ekstrak *A.capillaris*). Analisis yang dijalankan adalah kandungan kelembapan, aktiviti air, penganalisaan warna ('L', 'a' and 'b'), dan kandungan karbohidrat. Sampel D mempunyai nilai tertinggi bagi analisis kandungan lembapan, nilai aktiviti air dan kandungan karbohidrat. Sampel A, B dan C mempunyai nilai mencukupi. Akhir sekali bagi sampel R, mempunyai nilai terendah. Bagi analisis sensori, atribut yang diuji adalah atribut warna, bentuk, rasa, kepahitan, kebolehpecahan dan tahap penerimaan keseluruhan. Sampel A mempunyai nilai tertinggi pada tahap penerimaan keseluruhan. Selain itu, ia juga mempunyai kelebihan dari segi rasa dan warna. Sampel A mempunyai nilai yang hampir sama dengan nilai dengan sampel R.