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COW MILK REPLACEMENT ON THE QUALITY OF PUDDING

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2007**

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COW MILK REPLACEMENT ON THE QUALITY OF PUDDING**

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## DECLARATION

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



**NURSYAKIRAH BINTI AHMAD KAMIL**

**Date:** 30 JUNE 2007

**Approved by**

**(PUAN FARIDAH BINTI YAHYA)**

**Date:**

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## THE EFFECT OF INCORPORATION OF GOAT MILK AND SOY MILK AS A COW MILK REPLACEMENT ON THE QUALITY OF PUDDING

### ABSTRACT

This study was conducted to determine the effects on chemical, physical and sensory characteristics of puddings when in combination with goat milk and soy milk are used instead of cow milk. Six sample of puddings were prepared in which one sample control with 100% of cow milk and five samples which are pudding with 100% of goat milk, 100% of soy milk, 50% of goat milk and 50% soy milk, 25% of goat milk and 75% soy milk and also 75% of goat milk and 25% soy milk. Research shown that percentage of ash, protein, fat, pH, total soluble solid and texture of pudding increased with increased proportions of goat milk. Addition of soy milk increased the 'a' and 'b' value and percentage of moisture of pudding. A group of 50 untrained panels were involved in the sensory evaluation. Affective test of pudding showed significant differences at  $p < 0.05$  in all of the sensory attributes such as colour, texture, odour, foreign odour, taste and overall acceptance. Pudding with 100% of goat milk was widely accepted by panelists followed by pudding with 100% of cow milk and pudding with 75% of goat milk and 25% soy milk. Pudding with 100% of goat milk also showed highest mean score for attribute colour, odour and foreign odour. From the physicochemical characteristics and affective test result indicate that goat milk is suitable to replace cow milk in pudding production without show different quality with cow milk's pudding. Soy milk is also suitable to replace cow milk in pudding but in a low percentage.



## KESAN PENGGABUNGAN SUSU KAMBING DAN SUSU SOYA SEBAGAI PENGGANTI SUSU LEMBU KE ATAS KUALITI PUDING

### ABSTRAK

Kajian ini dilakukan untuk menentukan kesan penggabungan susu kambing dan susu soya bagi menggantikan susu lembu terhadap ciri-ciri fizikokimia dan sensori puding. Terdapat enam sampel puding yang dihasilkan yang terdiri daripada satu sampel kawalan iaitu puding daripada 100% susu lembu dan lima sampel lain iaitu puding daripada 100% susu kambing, 100% susu soya, 50% susu kambing dan 50% susu soya, 25% susu kambing dan 75% susu soya serta 75% susu kambing dan 25% susu soya. Kajian ini menunjukkan semakin tinggi pertambahan susu kambing, semakin tinggi peratus abu, protein, lemak, nilai pH, kandungan pepejal larut dan tekstur puding. Pertambahan susu soya pula meningkatkan nilai 'a' dan 'b' serta peratus kelembapan puding. Seramai 50 orang panel telah terlibat dalam penilaian sensori ke atas enam sampel puding. Ujian Afektif menunjukkan bahawa terdapat perbezaan yang signifikan ( $p < 0.05$ ) antara semua atribut sensori yang diuji iaitu atribut warna, tekstur, bau, bau asing, rasa dan penerimaan keseluruhan. Puding daripada 100% susu kambing adalah merupakan puding yang paling diterima oleh pengguna diikuti oleh puding dengan 100% susu lembu dan puding dengan 75% susu kambing dan 25% susu soya. Puding daripada 100% susu kambing juga menunjukkan min skor yang tertinggi bagi atribut warna, bau dan bau asing. Hasil daripada ciri-ciri fizikokimia dan ujian afektif menunjukkan susu kambing sesuai digunakan untuk menggantikan susu lembu dalam penghasilan puding tanpa menunjukkan perbezaan kualiti berbanding puding daripada susu lembu. Susu soya juga sesuai untuk menggantikan susu lembu dalam produk puding tetapi pada peratusan yang rendah.