

THE INFLUENCE OF COAT MILK AND SOY MILK AS A
SUBSTITUTE FOR COW'S MILK ON THE GROWTH OF GOATS

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The effect of incorporation of goat milk and soy milk as a cow milk replacement on the quality of yogurt / Mohamad Zulfadli Mustafa.

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DECLARATION

I hereby declare this research project is based on my original work except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

This study was conducted to determine the effects on physical and sensory characteristics of yogurts when incorporation with goat milk and soy milk as a cow milk replacement. There are six sample of yogurts were prepared in which one sample control with 100% of cow milk and five samples which are yogurt with 100% of goat milk, 100% of soy milk, 50% of goat milk and 50% of soy milk, 25% of goat milk and 75% of soy milk and also 75% of goat milk and 25% of soy milk. Research shown that increasing proportions of goat milk caused decreasing in pH value. ‘L’ value of colour and yogurt’s texture were increased by increasing the proportions of soy milk. A group of 50 consumer panels were involved in the sensory evaluation. Affective test of yogurt showed significant differences ($p<0.05$) between 100% of cow milk and 100% of goat milk and 50% of goat milk, 50% of soy milk and 100% of soy milk samples in overall acceptance. Besides the control sample, yogurt with 100% goat milk is widely acceptable by consumers while yogurt with 100% soy milk is the least acceptable by consumers. Yogurt with 100% goat milk also showed highest mean score for attribute colour, texture and taste of sourness. Overall, goat milk is suitable to replace cow milk in yogurt production. Soy milk is not suitable for yogurt making as the texture became solid.

KESAN PENAMBAHAN SUSU KAMBING DAN SUSU SOYA SEBAGAI PENGGANTIAN SUSU LEMBU TERHADAP KUALITI YOGURT

ABSTRAK

Kajian ini dilakukan untuk menentukan kesan penggabungan susu kambing dan susu soya sebagai gantian susu lembu terhadap ciri-ciri fizikal dan sensori yogurt. Terdapat enam sampel yogurt yang dihasilkan iaitu terdiri daripada satu sampel kawalan iaitu yogurt daripada 100% susu lembu dan lima sampel lain iaitu yogurt daripada 100% susu kambing, 100% daripada susu soya, 50% daripada susu kambing dan 50% daripada susu soya, 25% daripada susu kambing dan 75% daripada susu soya serta 75% daripada susu kambing dan 25% daripada susu soya. Kajian ini menunjukkan pertambahan susu kambing menyebabkan penurunan bagi nilai pH. Pertambahan susu soya pula meningkatkan nilai 'L' dan tekstur yogurt. Seramai 50 orang panel telah terlibat dalam penilaian sensori ke atas enam sampel yogurt. Ujian Afektif menunjukkan bahawa terdapat perbezaan yang signifikan ($p<0.05$) antara sampel 100% daripada susu lembu dan 100% daripada susu kambing dan 50% daripada susu kambing, 50% daripada susu soya dan 100% daripada susu soya. Selain daripada sampel kawalan, yogurt daripada 100% susu kambing adalah yogurt yang paling diterima oleh pengguna manakala yogurt daripada 100% susu soya adalah paling kurang di terima oleh pengguna. Yogurt daripada 100% susu kambing juga menunjukkan min skor yang tertinggi bagi atribut warna, tekstur dan rasa kemasaman. Secara keseluruhan, susu kambing sesuai digunakan untuk menggantikan susu lembu dalam penghasilan yogurt. Susu soya tidak sesuai dalam penghasilan yogurt akibat penghasilan tekstur yang pejal.