

DEVELOPMENT OF PUMPKIN ICE CREAM

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SCHOOL OF AGRICULTURE AND FOOD SCIENCES
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DEVELOPMENT OF PUMPKIN ICE CREAM

By
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FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU

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I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

This study was conducted to determine the effect on chemical, physical and sensory characteristics of ice cream after incorporation of pumpkin puree and pumpkin juice. There are 7 formulations of ice cream that was prepared in which one formulation as a control sample where there is no pumpkin was added in this ice cream, 3 formulations are ice cream from pumpkin puree and 3 formulations are from pumpkin juice. The result in this study shows that, pumpkin ice cream is a good and health product because of high in mineral and protein content. The content of carbohydrate also is low and it is suitable especially for diabetic patient to consume it in a right amount. In this study also, it was found that total soluble solid influence the sweetness of pumpkin ice cream whereas total of fat in this ice cream is related to the creaminess and fluffiness of pumpkin ice cream. There are 40 panelist were involved in the sensory evaluation. Sensory evaluation of ice cream shows significant different ($p < 0.05$) in most sensory attributes of pumpkin ice cream from paste and juice. From this study, incorporation of 100g pumpkin paste in pumpkin ice cream is the most acceptable by the panels. There were also observed that, pumpkin ice cream from paste 100 improving color, appearance, sweetness, creaminess, fluffiness, flavor and overall acceptance for ice cream. Result shows that, pumpkin ice cream from paste 100 defined as the most optimum formulation based on high percentage of mineral content, fat, protein and also low percentage of carbohydrate also rated between acceptable in color, appearance, sweetness, creaminess fluffiness, flavor and overall acceptance by consumer panelist.

ABSTRAK

Kajian ini dijalankan untuk mengetahui kesan kimia dan fizikal serta karakter rasa ais krim apabila ditambah dengan puri dan jus labu. Terdapat 7 formulasi ais krim yang telah disediakan dimana 1 formulasi adalah sebagai kawalan, 3 formulasi aiskrim daripada puri labu dan 3 formulasi daripada jus labu. Keputusan daripada kajian ini menunjukkan aiskrim labu merupakan satu produk yang bagus dan sihat kerana ia mengandungi kandungan mineral dan protein yang tinggi. Kandungan karbohidrat juga adalah rendah dimana ia adalah sesuai untuk pesakit diabetes jika diambil dalam jumlah yang betul. Kajian ini juga menunjukkan jumlah bahan terlarut (TSS) mempengaruhi kadar kemanisan ais krim sementara jumlah kandungan lemak pula dikaitkan dengan krim dan kegebuhan bagi aiskrim labu. Terdapat 40 panel yang terlibat dalam ujian rasa. Ujian rasa bagi ais krim menunjukkan terdapat perbezaan yang signifikan ($p < 0.05$) dalam kebanyakan ciri-ciri aiskrim labu. Daripada kajian ini, aiskrim yang diperbuat daripada puri 100g mempunyai ciri-ciri yang paling baik dari segi warna, kemanisan, lemak berkrim, kegebuhan, rasa dan penerimaan keseluruhan bagi aiskrim labu. Keputusan menunjukkan, ais krim daripada puri 100 boleh diklasifikasikan sebagai formulasi yang terbaik berdasarkan kepada peratusan mineral, lemak dan protein yang tinggi serta rendah peratusan kandungan karbohidrat juga paling tinggi penerimaan dari segi warna, kemanisan, lemak berkrim kegebuhan, rasa dan penerimaan keseluruhan oleh panel pengguna.