

## Abstract

Sweet potato (*Ipomoea batatas*) in ginger (*Zingiber officinale*) syrup is a Chinese origin Thai dessert known to Thai people for a long time. Currently this dessert started to disappear from the market. The aim of this project is to bring it back and transform into ice cream. Two varieties of sweet potato were selected - yellow sweet potato, Taiwanese and purple sweet potato, Japanese to prepare sweet potato in ginger syrup ice cream. Sensory evaluation showed that there was no significant difference ( $p \leq 0.05$ ) in both varieties. Two-sided directional difference test of pair comparison indicated no significant difference but 63% of the untrained test panelists chose the purple sweet potato. Thus, purple sweet potato was selected in formulation of the sweet potato in ginger syrup ice cream. JAR test resulted in adjustment of sweetness and ginger flavor. The sugar was varies from 3.8% (control) to 4.5% and 5.2% and 4.5% obtained significantly different scores in sweetness, 7.6, and overall acceptance, 7.5 out of 9-point scale and was selected. The amount of ginger used in aging was varied from 1.5% (control) to 2.2% and 3.0% and 3.0% was selected as it gained significantly different scores in ginger flavor, 7.3, and overall acceptance, 7.4. The prototype ice cream had 29.6% overrun, 40.7% melt resistance, efflux time of 325.6 centistokes as heavy thick consistency, high foam stability of 4% decreased in 2 hours,  $L^*a^*b^*$  color of 61.032, 9.37, and -7.56 for light magenta blue, and hardness of 9.7 kg in 25 seconds. Consumer acceptance test from 100 consumers showed product acceptance by 96%, acceptance price of 25-30 Baht by 47% and buying decision of 97% from the total consumer. Consumers rated the product of 7.4 out of 9-point hedonic scale in moderately like level.