

Abstract

This special project was aimed to develop Butterfly pea (*Clitoria ternatea* Linn.) sorbet ice cream from dried butterfly pea flower. Extraction condition of butterfly pea color was studied at 50°, 60°, and 70°C in 5, 10, and 15 minutes with 2, 4 and 6% butterfly pea solution. The highest absorbance was obtained from 2% butterfly pea solution extracted at 70°C for 15 minutes. Three commercial fruit juices – 100% apple juice, 100% pineapple juice, and 100% guava juice – were selected for incorporating with butterfly pea extract. There were slightly change of pH and °Brix after mixing with butterfly pea extract. Butterfly pea affected mostly in color of the juice due to its high color of anthocyanin in the extract. Basic sorbet ice cream containing 170 g sugar, 400 mL fruit juice, 2 g acid, 1 white egg and 330 mL water was used to develop butterfly pea sorbet ice cream. First, 11.5% of water was substituted with 2% butterfly pea extract solution. Three sorbet ice creams containing different commercial fruit juices were tested with 10 test panelists in a preference test. The result showed that apple juice sorbet incorporated with 2% butterfly pea extract was received significantly ($p < 0.05$) high average score in color 6.92 ± 0.64 (mean \pm SD), appearance 6.85 ± 0.49 , flavor 6.08 ± 0.49 , texture 6.92 ± 0.38 , sweetness 8.54 ± 0.52 , and overall liking 7.15 ± 0.68 . The amount of 2% butterfly pea extract was varied from 5 to 10 and 15% of the total water in the basic formula. JAR test indicated that apple flavor, texture, sweetness, sourness, color, and appearance were just right for all treatments except 15% butterfly pea extract sorbet ice cream that 50% of the test panelists considered it had somewhat too strong color. Thus butterfly pea sorbet ice cream containing 10% butterfly pea extract had selected as a final formula in consumer acceptance test. 88.5% of 200 consumers accepted the product with 61.5% willing to buy when it was launched at the price of 13 – 15 Bath per 70g cup. The final formula of the butterfly pea sorbet as percentage (based on total weight) were sugar 17%, apple juice 40%, water 33%, and 2% butterfly pea extraction 10%.