

Development of whey protein enriched cranberry whey beverage

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ABSTRACT : Present study is carried out to formulate whey protein enriched whey beverage with cranberry and whey protein. Whey beverage was prepared by using commercially available cranberry concentrate and was incorporated with whey protein concentrate 70% (WPC70). The conditions were optimized to obtain beverage with high sensory scores. The experimental variables involved in the process such as cranberry concentrate (%), whey protein (%), sugar (%) and pH, were evaluated using response surface methodology. A central composite rotatable design (CCRD) was applied to study the effect of experimental variables on sensory attributes. It was shown that the sensory attributes such as flavour, colour, consistency and overall acceptability can be enhanced by varying the concentration of cranberry concentrate, whey protein, sugar and pH. The highest sensory scores for flavour, colour, consistency and over acceptability were 6.75, 6.97, 6.77 and 6.92 respectively for product prepared with 2.24 % cranberry concentrate, 0.60 % Whey protein, 10.03 % Sugar and 3.36 pH.

Key Words: Whey, Cranberry, Whey Beverage, cranberry beverage, Response surface methodology, Optimisation