

## Development of a Vegan Jelly Dessert Powder Mix using Carrageenan and *Clitoria ternatea* Flower Powder

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Jelly products are popular among the consumers of all ages as a dessert. Gelatin is the main ingredient in jelly products. Currently, there is a higher demand for vegan jelly products than gelatin based jelly products. This research was to develop a vegan jelly dessert as a powder mix using carrageenan and *Clitoria ternatea* (blue butterfly pea) flower powder. *C. ternatea* is grown naturally and a potential colourant in food preparations. It is a plant with great medicinal value. Carrageenan is a polysaccharide extracted from certain species of red seaweeds. The compound is widely used for the structure forming functions in foods. *C. ternatea* flower petals were cleaned, dried, ground and sieved to powder preparation. Carrageenan 3.5% to 3.75%, with and without CaCl<sub>2</sub> and citric acid 0.7% to 0.95% and flavouring agent 0.35% to 0.6% were used in 16 treatments and experimented to develop the jelly powder mix. The most acceptable treatment for jelly was selected using ranking test and Hedonic test (7-points). Texture, proximate composition, pH, titratable acidity, colour, were determined for the selected final product. Final product was possessed significantly higher ( $P < 0.05$ ) consumer preference for taste, flavour and overall acceptability. Proximate composition was 2.4% moisture, 0.48% Ash, 0.94% protein and 3.3% of fat. Final jelly product consist of 83.34% water, 0.60% gelling agent, 0.12% citric acid, 0.04% CaCl<sub>2</sub>, 15.70% sugar, 0.08% flavor and 0.12% *C. ternatea* flower powder. pH and titratable acidity were 4.1 and 0.12% respectively. The best formulation of dry jelly powder mix was 3.6 % carrageenan, 0.25% CaCl<sub>2</sub>, 0.7% citric acid, 94.25% sugar, 0.6% nature identical blackcurrant flavor and 0.7% *C. ternatea* flower powder.

**Keywords:** Blue butterfly pea, Gelatin, Jelly dessert mix, Vegan

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