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Use of Kithul Flour as a Gelatinizing Agent in Food Industry



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ABSTRACT

Food habits in the world have started to change in the recent past, more people are becoming vegetarians and there is an increasing demand for vegetarian food. Therefore animal based product and animal origin ingredients are rejected by a group of people in the society. Gelatin being the main gelatinizing agent used in food industry which is of animal origin, desperately need a non animal origin substitute to meet the increasing demand. On the other hand, health problems are increasing rapidly all over the world. In ancient times, people consumed plant based foods. However, locally available underutilized fruits and herbal ingredients are rich in Vitamins, Pigments and minerals. Kithul flour is one of such herbal ingredient, which is highly underutilized, and which has a high medicinal value. Moreover, this valuable flour has gelatinizing property which can widely use in food industry as plant base gelatinizing ingredient. Kithul flour brings the solution for these requirements which is a low cost and nutritious alternate solution for Gelatin.

Using kithul flour jelly type dessert was produced by using wood apple pulp as base fruit. Three dessert samples were prepared after number of primary experiments with different flour and fruit pulp ratios as 1:1, 1:1.5 and 1:2. Sensory evaluation was conducted by trained sensory panel and was done subjectively using 7 point hedon of 8th trained panel and 12th of untrained panelists. Results were analyzed using computer aided MINITAB 14 statistical Analysis Package according to Friedman test at 95% level of significant. Proximate analysis was carried out for the best sample which was identified by the above tests. The selected best sample, brix value 26^o. In the proximate analysis protein content was 0.14% and fiber content was 0.14%. The mineral content also was in comparely good position as Iron 3.55ppm, Zinc 1.79ppm, potassium 989.92ppm and Sodium 459.5ppm. According to the microbiological analysis, there was no colony formation observe even after two month storage the sample which prepared with potassium sorbate as preservative and store in room temperature. With these results, it was concluded that, the production of new dessert by using Kithul flour as gelatinizing agent is successful.

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