

Dusit Bulan 2014: The Addition of Jerusalem Artichoke (*Helianthus tuberosus* L.) Powder for Thai Dessert. Master of Science (Home Economics), Major Field: Home Economics, Department of Home Economics. Thesis Advisor: Mrs. Marisa Phuphinyokul, Ph.D. 136 pages.

The objective of this research were studied physical, chemical and sensory qualities of Jerusalem Artichoke Powder in Thai dessert. Samples were analyzed by ANOVA, Bonforoni and Friedman Test of Ranking for statistical analysis. Results showed that Product by the Jerusalem Artichoke Powder soak in potassium metabisulfite 0.05% prior to drying to inhibit browning better than soaking in distilled water and a solution of citric acid 0.5%. The developed of Jerusalem Artichoke powder showed that moisture, protein, fat, fiber, ash and carbohydrate was 4.24, 9.66, 0.05, 4.58, 4.89 and 76.56% a_w 0.160 and the colors L^* a^* b^* is 89.92, 0.21 and 8.45. Then added Jerusalem Artichoke powder in Thai dessert was kha-nonm-luam-kluan, kha-nom-nam-dok-mai and kha-nom-khai varying the ratio of Jerusalem Artichoke Powder in as follow 20, 40 and 60%. The sensory acceptance kha-mon-luam-kluan and kha-mon-man-dok-mai added 40% Kha-mon-khai added 20%. Analyze physical Thai Dessert Added Jerusalem Artichoke Powder that has color values L^* 35.14, 35.21 and 74.20 a^* -2.46, 0.94 and 2.32 b^* -10.12, 0.51 and 26.75. the texture of Thai dessert Hardness 1,035.37, 3,725.74 and 3,430.36 (g) Springiness 0.88, 0.66 and 0.89 (mm) for Cohesiveness 0.70, 0.56 and 0.67 (g/sec) for Chewiness 640.35, 1,495.51 and 2,090.55 (g/sec). The test overall of kha-nom-luam-kluan, kha-nom-nam-dok-mai and kha-nom-khai was 7.06, 7.12 and 7.52 in the preferences. And consumer acceptance of kha-nonm-luam-kluan, kha-nom-nam-dok-mai and kha-nom-khai representing 98, 96 and 97%. Total bacterial count of Jerusalem Artichoke Powder in Thai dessert did not exceed the standard value.

Student's signature

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