

# Determinants and Warning Signs of Inpatient Falls a Innovative Cupcake Using Giant Swamp Taro Flour (*Cyrtosperma merkusii*) and Carrot Frosting (*Daucus carota subsp. sativus*)

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**Abstract:** *The increasing rate of unhealthy eating patterns and food insecurity has intensified the demand for healthier snack options. This study examines the viability of Giant Swamp Taro (*Cyrtosperma merkusii*) flour as a substitute for wheat flour in cupcakes and carrot (*Daucus carota subsp. sativus*) frosting as a nutrient-dense icing alternative. This research advances food innovation and the utilization of indigenous crops by evaluating sensory attributes, nutritional advantages, and consumer acceptance. A developmental study approach was utilized, concentrating on product formulation and sensory evaluation. Seventy (70) randomly selected students and teachers evaluated the cupcake's flavor, texture, appearance, and aroma with a 9-point hedonic scale. The data analysis encompassed frequency distribution, percentage analysis, and computations of the weighted mean. The taro-based cupcake with carrot icing achieved elevated ratings in all sensory aspects, signifying robust consumer approval. The addition of Giant Swamp Taro flour improved dietary fiber, vital minerals, and resistant starch, whereas carrot frosting contributed additional vitamins and antioxidants. The findings underscore the product's potential as a healthful and sustainable snack alternative. This study highlights the significance of incorporating indigenous crops into contemporary food production to enhance nutrition and promote sustainable agriculture. This novel cupcake leverages locally available yet underutilized resources, addressing the demand for healthier food options while enhancing food security, dietary diversity, and economic prospects.*

**Keywords:** Sustainable Agriculture; Giant Swamp Taro Flour; Carrot Frosting; Nutritional Enhancement; Food Product Development

