

Analyzing the Nutritional Value of Araceae Food Crops in Palau

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ABSTRACT

Colocasia esculenta, more commonly known as taro, along with other Araceae rhizomes, is one of the world's oldest cultivated root crops and serves as a staple food for millions of people, particularly in the Asia-Pacific region. The plant cultivars are valued as stable starch products and can help increase global food security. Furthermore, the long-standing breeding and cultivation across the Asia-Pacific places it at the center of traditional ecological and cultural practices. Despite its importance, limited information is available on the overall nutrient composition of taro. This research investigated the nutritional composition of taro, including carbohydrates, dietary fiber, vitamins, minerals, and beneficial bioactive compounds. The composition across different varieties were compared and will be used as baseline data for a larger-scale study. We hypothesize that taro has a nutrient-rich composition that provides starch, as well as essential minerals important to health and metabolic development for cultures that consume it regularly. Nutrient data was compiled, organized, and analyzed using descriptive and comparative statistical methods to evaluate the overall nutrient profile of taro samples and identify variations in nutrient composition. The analysis will focus on total nutrient content to determine patterns that may contribute to differences in nutritional quality among samples. Expected results include identifying nutrient profiles that demonstrate the aplant varieties' value as a nutritious staple crop and providing reliable baseline data for future studies. The findings may contribute to improved understanding of taro nutrition, support food security initiatives, and provide a scientific foundation for future agricultural, nutritional, and health-related research in the Asia-Pacific region.

KEYWORDS

Araceae, taro, nutrient analysis, food security, nutrition, Asia-Pacific

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