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Nutritional analysis of Jamaica's hibiscus sabdariffa (sorrel calyxes, seeds, and leaves)

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Hibiscus sabdariffa has been reported to have nutraceutic properties. Work done locally on different varieties was reported on main consumable portion, the calyxes. This research sought to include seeds and leaves. This research also sought to report on nutritional content found in the local traditional red variety, not reported prior. Extracts from sorrel's calyxes, seeds, and leaves were analyzed for presence of carbohydrate, protein, lipid, iron, sodium, potassium, calcium, magnesium, and copper. Carbohydrate was higher in leaves and calyxes while protein and lipid were higher in seeds. Seeds had higher concentrations of copper along with lowest concentration of sodium and calcium; leaves had higher concentrations of magnesium, and iron; whilst calyxes had a higher concentration of potassium. While calyxes are main consumable portions locally, data suggested that leaves and seeds were sources of good nutrition. The presence of possible anti-oxidative and anti-inflammatory properties. The heavy metals present could enhance human health. This study shows the Jamaican traditional red variety of Hibiscus sabdariffa calyxes, seeds, and leaves to have potential health benefits that can help in the prevention of diseases and contribute to good nutrition.

Biography

Paul Gyles, born in Jamaica, earned his Bachelor in Medical Technology from Howard University before going on to earn a Master's degree in Applied Microbiology and later Ph. D in Molecular Cell Biology and Endocrinology. Following his education, he joined the faculty of the Northern Caribbean University in 1996 here he would become an associate professor and chair for the departments of biology, chemistry, and medical technology. By 2003, he had been appointed dean for the College of Natural and Applied Sciences at the university. In 2009 Gyles - with the help of Patrice Williams-Gordon and Dr. Julieth Bailey-Penrod - presented their seminal research on the effect of Garlic and Jamaican Sorrel on cancer cells. What they found was that these accessible, mundane foods have the ability to help treat cancer. In addition to this, Dr. Gyles also co-wrote a research paper with Alston Miller concerning water pollution in Jamaica and how it relates to illnesses experienced by the population that was published in the International Environmental Earth Sciences Journal.