



Feb 10, 2010
Sorrel Big Bang Bus Tour

ABOUT GK-FOODS NCU Partnership:

Grace Blends was conceived nearly four years ago as an innovative Caribbean response to a burgeoning global ready-to-drink beverage category, 'Functional Drinks'. The product development team at GraceKennedy Foods scoured research from around the world and discovered that Jamaica's sorrel plant had been shown to have highly potent nutraceutical powers. At the same time, the Northern Caribbean University team comprising Dr Paul Gyles, Dr. Bailey-Penrod and Mrs. Patrice Gordon-Williams had already started to see the promising beginnings of sorrel's cancer-fighting potential. With the launch of Grace Blends in 2009, the NCU sorrel research that had been ongoing since 2000 would serve as a perfect starting point to shift the sorrel-as-beverage paradigm from that of a traditional Christmas drink to a nutrient-rich wellness beverage that should be consumed year round.

GK Foods connected with Northern Caribbean University and a relationship built on the future of sorrel was borne.

A Memorandum of Understanding between the two bodies was created to facilitate sharing of information, research and support in the promotion of sorrel and the Grace Blends product. GK foods, in turn, have offered support for continued scientific research at NCU. A strategic multimedia sorrel public relations campaign has been activated as a result of the partnership. While Grace Blends sorrel-based beverage leads this initiative, it is Jamaica's power-packed sorrel plant and the sorrel industry that is at the heart of the relationship.

ABOUT NORTHERN CARIBBEAN UNIVERSITY: Northern Caribbean University (NCU) is owned and operated by West Indies Union Conference of Seventh-day Adventists. Established in 1907 as West Indian Training School, the institution has undergone several transitions over the years, the most recent of which occurred in 1999 when it achieved university status upon receiving a charter from the government of Jamaica to operate as Northern Caribbean University. Herbert Thompson, CD, PhD, JP is the NCU President.

ABOUT NCU SORREL RESEARCH: NCU's College of Natural and Applied Sciences has been engaged in rigorous investigation of the sorrel extract's nutraceutical powers. The team of scientists included Dr. Paul Gyles, NCU Dean, Dr. Juliet Bailey-Penrod, and Mrs. Patrice Williams-Gordon, currently teaching in the Bahamas, have revealed exploratory findings in which cancer cells appeared to be killed after exposure to water-based extracts, one containing garlic and, the other, Jamaican sorrel. Over a period of twelve to twenty-four hours, two types of cancer cells (laryngeal and lung) were observed under microscope for changes in shape and number. The cells responded to both the sorrel and garlic extracts in a manner that mimicked chemotherapy. Patrice Williams-Gordon was the lead researcher while Dr. Penrod, with much experience in cancer research, was the supervisor. Dr. Gyles, Dean of Natural and Applied Sciences helped guide the research and was invited to present the findings to the International Conference on Cell Biology in San Diego this past December.

ABOUT THE GRACE BLENDS LINE:

Sorrel is good...Grace Blends makes it better! Grace Blends is a range of sorrel-based functional beverages that combine the flavour and nutritional benefits of a range of fruits, roots and vegetables with the antioxidant rich sorrel extract. There are no preservatives, artificial colours or flavours added. There are currently four flavour blends:



Sorrel Fusion:

This tasty blend of sorrel, mango and assorted juices contains antioxidants, Vitamin A for eyesight and Vitamin C to fight off colds.

Sorrel Pomegranate:

Includes a pomegranate flavour best known for its contribution to heart health.

Sorrel Cranberry:

This sorrel-cranberry blend boasts the combined nutraceutical power of the 'Two Tart Reds'. Cranberry is known to help prevent and treat urinary tract infections, lower cholesterol and promote gastrointestinal and oral health.

Sorrel Ginseng:

This flavour combination is popular as the ginseng is well-regarded for its ability to counteract the effects of physical and emotional stress and improve stamina.

ABOUT GK FOODS' IMPACT ON THE SORREL INDUSTRY:

- "Sorrel reaping has increased from 50,000 pounds per year to 130,000 pounds per year to accommodate the fast growing demand for Grace Blends" - *Alvin Smith, Clarendon Sorrel Farmer*
- "We see sorrel becoming the 'Cranberry of the Caribbean' in the not too distant future" - *John Bailey, Managing Director, Virginia Dare (Sorrel Processor/Extractor)*

ABOUT SORREL:

- Sorrel (*Hibiscus sabdariffa*) produces fleshy red calyces from which the tart invigorating sorrel flavour is extracted to make 'sorrel water' or juice.
- Jamaica produces a unique strain of sorrel named 'Bashment Sorrel'. Alvin Smith's Sorrel Farm produces this variety
- Jamaica grows three varieties of sorrel, a common variety, which bears in the first and last quarter of the year; a blood red variety which bears all year round; and a white sorrel.
- Regular Consumption of sorrel water significantly decreases cholesterol and triglyceride levels – *Source: Mexican Institute of Social Security*
- Regular consumption of sorrel water can offer protection against clogging of the arteries and promote heart health.
- Extract from the sorrel plant has been shown to destroy cancer cells of the larynx and studies on the effects on lung cancer cells continue- *Source: Northern Caribbean University*
- Sorrel has been recognized for its anti-inflammatory and diuretic properties as an aid to weight loss - *Source: Public Education Unit, Scientific Research Council (Jamaica)*
- Sorrel is rich in Vitamin C, Calcium, Niacin, Riboflavin and powerful antioxidants called flavinoids - *Source: Public Education Unit, Scientific Research Council (Jamaica)*

GLOSSARY

NUTRACEUTICAL: is a substance naturally occurring in plants (food) that can enhance human health beyond its normal nutritive value by way of treating or preventing disease.

FUNCTIONAL BEVERAGE: is a beverage that offers nutraceutical benefits in its ingredients – eg. vitamins, antioxidants, minerals, free fatty acids

FREE RADICALS: Oxygen creates damaging by-products (free radicals) during normal cellular metabolism. Free radicals can cause heart damage, cancer, weaken the immune system and contribute to ageing cells.

ANTIOXIDANTS: are cell protectors that counteract free radicals by binding with them before they can cause damage. They reduce the effects of ageing. Repair cellular damage.

TRIGLYCERIDES: are fats that circulate in the bloodstream, high levels of which are associated with heart disease, bad cholesterol and elevated blood pressure.