

It's Sorrel Time Again

By Wendy-Gaye Thomas, M.D.



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For Jamaicans, the word sorrel conjures up the flavours, aromas and jollification of Christmas. But for people in other countries, sorrel is simply a great year-round addition to salads. So, while we celebrate our traditional yuletide beverage, it is instructive to know that there are many different types of sorrel, all of which are known to boost health and nutrition.

While this fascinating herb is cultivated all over the world for a wide variety of purposes, Jamaican sorrel is primarily used as a beverage and is not a true sorrel. Sorrel is the common name given to the sepals of a hibiscus plant called Roselle or *Hibiscus sabdariffa*. It's important to note that there is a leafy green herb that

is also called sorrel, but it is unrelated to this plant.

Roselle is the fleshy young calyces (the outer floral envelope) surrounding the immature fruits. It also comes in dried form. Jamaican sorrel is very acidic and resembles cranberry in color and acidity. It is used to flavor drinks, jams, jellies, wine, and sauces in the Caribbean, Mexico, West Africa, and Egypt. Roselle is used fresh in salads, especially fruit salads, with cooked vegetables, and in sauces, stews, and pies or tarts.

Health Benefits of Jamaican Sorrel

Jamaican sorrel is high in vitamins and minerals with powerful antioxidant properties. It helps lower elevated blood pressure, bad cholesterol and detoxify the entire body. Research proves the ability of sorrel tea to control hypertension. It is said to have diuretic and antidepressant properties.

Drinking Jamaican sorrel has proven to be heart friendly. However, research is ongoing to study the precise mechanism of cardio protection by sorrel.

Having about 150 ml of sorrel tea three times a day for four weeks can improve insulin sensitivity. Hence, this tea is suggested to be beneficial, particularly for those with diabetes.

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Message from the CEO

Happy Holidays and a Prosperous New Year



André Gordon, Ph.D., CFS
Chairman & CEO

As 2019 draws to a close, the TSL team extends our heartfelt appreciation to you, our stakeholders, for giving us the opportunity to be of service to you in building your business this year.

Throughout 2019, our efforts to bring you state-of-the-art technologies and training continued to bear fruit, with a number of ground-breaking collaborations. Among them was the visit to Jamaica by a world leader in the field of food

technology support, **Benjamin Pascal**, co-founder of **Invisible Sentinel (IS)**, inventors of a patented **DNA Signature-Capturing Technology**, with whom we have forged an alliance. The firm helps the food industry to detect potential problems by providing rapid detection of pathogens and spoilage organisms in food and beverages.

Earlier this year we became the first firm in the region to gain accreditation from the **American Association for Laboratory Accreditation (A2LA)**. The 41 year-old A2LA is among the oldest and most respected laboratory accreditation bodies in the world and has more than 3,000 accredited laboratories in over 45 countries globally. TSL, in transferring its ISO 17025 accreditation to A2LA, has joined this elite global group of laboratories and now also has access to A2LA's significant technical assistance programmes

and expertise, as well as the network it has created of accredited laboratories.

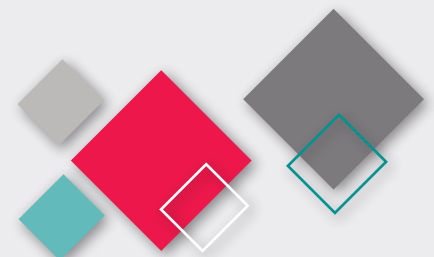
Another landmark was our partnership with the **Safe Quality Food Institute (SQFI)**, offering internationally certified training. The Safe Quality Food Institute's (SQFI) Regional Representative for Canada and the North West United States, Frank Schreurs, came to Jamaica in October to lead the training for the SQFI developed programmes. The five days of intensive Auditing SQF Systems Training, the sitting of the GFSI Knowledge Exam, as well as the SQF Quality Training, were being hosted together in the Caribbean for the first time. This provided local and regional firms with the opportunity of participating in all three activities, without having to travel to the United States to do so.

Our expertise as a company continues to be sought after by

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Our services include:

- Comprehensive Laboratory Services
- Systems Auditing and Assessments against multiple regulatory requirements (BRC, GAPEU, FDA, HACCP, GFSI, FSMA others)
- Export Market Access & Development
- Thermal Process Evaluation, Development & Validation
- Traceability and Recall Systems Design
- Plant and Facilities Layout and Design
- Research & Product Development
- Tailored Technical and Specialist Training
- Food Safety and Quality Systems Implementation and Training



Appointment • Lisa L.P. Grant

Technological Solutions Limited and its affiliate, TSL Certification Services International is pleased to announce the appointment of Ms. Lisa Grant as Company Secretary and Executive Director, respectively.

Ms. Grant is an attorney-at-Law with twenty years' experience at the bar. She also holds a Bachelor of Arts degree in History and Politics from the University of the West Indies, and a Masters of Law in Comparative Law from McGill University, where she studied International Trade Law and Intellectual Property Law. She also received a Diploma from the International Tribunal for the Law of the Sea in Hamburg, Germany being one of seven selected recipients of a Nippon Fellowship, and having the distinction of being the first Jamaican participant in that



programme, and a diploma in Legal Compliance in Business. She has served as Counsel in several government regulatory bodies, including most recently, the Bureau of Standards Jamaica, prior to her appointment to TSL in 2019. She was the Director of Heritage Protection, Research and Information at the Jamaica National Heritage Trust for several years prior to that.

Ms. Grant also serves as the Vice-Chair of the National Conservation Trust Fund of Jamaica and as a Director on the Caribbean Biodiversity Fund, the Holy Childhood Preparatory School and the St. Richards Infant School boards. Before coming on board as a full-time employee of TSL, Ms. Grant served actively on the board from 2002 to 2014.

Message from the CEO *(continued from page 2)*

companies and government agencies across the region who are becoming increasingly aware of the need to comply with international standards. Recently, the Government of St. Vincent and the Grenadines has taken steps to significantly move forward with the development of their cannabis industry, having established the Medical Cannabis Authority (MCA) in 2018. They have contracted the services of TSL Technical Services Limited, our affiliate, to train farmers in good agricultural practices, and help to guide them on international production standards.

Next year is shaping up to be another dynamic one and we will keep you abreast of our continued expansion to serve you better. In this our final issue of TSL Connect for 2019 we have prepared some interesting information which includes the FDA's report on Microbiological Sampling for Cucumbers and labeling requirement deadlines for in 2020.

We wish you and your families a safe holiday season enriched with good health and prosperity as we look forward to a very prosperous year for us all in 2020.

Quality and Standards Must Become 'The Norm'

Minister Shaw, JAMPRO President Edwards commend TSL for pivotal role in sector

Minister of Industry, Commerce, Agriculture and Fisheries, the Hon. Audley Shaw has called for greater adoption of standards by Jamaican producers. He also pointed out that the global economy is standards-driven, and that the Jamaican productive sector needed to align itself with that culture.

Minister Shaw was addressing a reception held by TSL on October 14 at the Courtleigh Hotel in Kingston, to observe World Standards Day and the opening of the TSL/Safe Quality Food Institute (SQF) Workshop and Examination, the first of its kind to be held in the Caribbean.

"Our ascension in the global marketplace must be driven by standards. The acceptance of our goods and services depends on an infrastructure that is built on internationally recognized standards of quality," the Minister said. He commended TSL for the pivotal role it has been playing in providing a comprehensive range of technical services to the sector in Jamaica and the Caribbean, as well as for "helping organizations and companies to deal with the practical realities of competing."

TSL, which this year marks a 23-year milestone of service to food producers and exporters, recently formalized a licensing agreement with the Virginia, USA-based Safe Quality Food Institute (SQFI) as a Licensed Training Center for SQF. Dr. Andre Gordon, TSL's Chief Executive Officer said this was further evidence of the core role of partnerships in TSL meeting its objectives and continuing to serve the productive sector.

"We at TSL are committed to the process of making standards live, in driving the productive sector in the Caribbean towards greater competitiveness, both in



Minister of Industry, Commerce, Agriculture and Fisheries, Hon. Audley Shaw (left), engages in a light moment with (from second left), President, Jamaica Promotions Corporation (JAMPRO), Diane Edwards; Senior representative, Safe Quality Food Institute (SQFI), Frank Schreurs; and Chief Executive Officer (CEO), Technological Solutions Ltd.(TSL), Dr. André Gordon. (JIS Photo)

our local markets, and in the global markets that we participate in," he pointed out. He added that the sector would shortly be made aware of more international collaborations towards that process.

JAMPRO President, Diane Edwards, also addressing the gathering, spoke to TSL's critical role in creating a real opportunity for Jamaicans to attain market access in the most demanding markets around the globe.

Calling TSL "a pioneer in making standards matter", Ms Edwards noted that for Jamaica, as a small producer of world class niche products, standards formed the base upon which the nation's international reputation stood. "Consumers know what they are getting in a cup of Jamaica Blue Mountain Coffee or a bottle of Appleton Estate rum and standards are their guarantee of continuing quality." Stringent quality standards, she added had also benefitted Jamaica greatly in limiting foodborne disease and food poisoning.

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Sorrel (continued from page 1)

Sorrel tea can inhibit pathogenic avian influenza viruses and several drug-resistant viruses. In laboratory experiments, among 11 tea varieties, this tea showed the most potent antiviral property, followed by black tea.

Another bonus is the vitamin C content. Abundant ascorbic acid (vitamin C) boosts your immunity.

The flavonoids in sorrel have antidepressant effects. Extracts of these flowers have shown antidepressant-like activity on postpartum disorders. Postpartum depression in mothers has a significant effect on the cognitive and emotional development of children. But not much is written about how sorrel would work on depression and anxiety.

The polyphenols in sorrel flowers are proven antioxidants. Polyphenols are a category of plant compounds that offers various health benefits. Regularly consuming polyphenols is thought to boost digestion and brain health, as well as protect against heart disease, type 2 diabetes, and even certain cancers. However, further research is needed to identify the compounds that possess such anticancer properties.

While traditionally, Jamaican sorrel has been associated with Christmas, in recent times, it has become available year-round, and is dried for retail

distribution. Today, it is enjoying brisk sales, not only for its delicious taste, but also because more people are learning about and appreciating its health benefits. Our sorrel is not at all common in the USA, but its popularity is sure to grow, the more people learn about its benefits. Given the penchant of Jamaicans in the Diaspora to cling to their “home food”, there is great potential for export of sorrel. However, there is far more to exporting foods to North America and Europe than simply packaging and shipping.

The US Food and Drug Administration (FDA), the Canadian Food Inspection Agency (CFIA) and the European Union have regulations which require all producers or handlers of food for export to their countries to fully comply with stringent regulations. For example, FDA requires comprehensive, prevention-based controls across their food supply chain to prevent or significantly minimize the likelihood of food borne illnesses occurring. Technological Solutions Limited (TSL) has been instrumental in helping several Caribbean countries address these export challenges. TSL has been retained by several multilateral agencies, Caribbean governments, regional organizations and companies to assist them in growing exports from the region.

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Are you prepared for the new labelling requirements for 2020?

By Rochelle Williams

Technical & Regulatory Compliance Manager

With the new FDA Nutrition Facts Panel deadline set for January 1, 2020 targeting food manufacturers with \$10 million or more in annual sales, preparation and changes should have already started. However, manufacturers with less than \$10 million in annual sales have up until 2021 to comply with the new regulations. On October 24, 2019 the FDA announced that the agency is exercising enforcement discretion for the required updated labelling of nutrition and supplement facts panels for six months following the first compliance deadline, for manufacturers with more than \$10 million in annual sales. This means FDA is not expected to sanction for noncompliance with the new regulations before July 1, 2020. The enforcement deadline remains unchanged for manufacturers with less than \$10 million in annual sales.

The new label requirements include: an updated list of required nutrients; reference amounts for serving sizes; the daily values, as well as the amount of added sugars.

There are also updated information requirements for the Nutrition Facts Panel (NFP). These include a new design/style with Calories larger and bolder to immediately attract the consumer's attention, and an update on the nutrients to be declared such as: (Vitamin D, potassium and added sugars); also the removal of Calories from Fat, Vitamin A, and Vitamin C. The declaration of vitamins and minerals will now

Original Label

Nutrition Facts	
Serving Size 2/3 cup (55g) Servings Per Container About 8	
Amount Per Serving	
Calories 230	Calories from Fat 72
% Daily Value*	
Total Fat 8g	12%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	16%
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

New Label

Nutrition Facts	
8 servings per container Serving size 2/3 cup (55g)	
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

require a quantitative amount to be listed in addition to the % Daily Value. Additionally, the footnote on the label has to be changed to better explain the meaning of %DV (Daily Value) which should help the consumer understand the nutrition information, in the context of a total daily diet of 2,000 calories.

The Dietary Reference Intakes (DRI) have also been updated. This means that many of the Daily Values have to be recalculated, following analyses to ensure the accurate % DV is declared. The FDA outlined on its website the Reference Amounts which should be used to figure out proper serving sizes of particular foods for many food categories. For example ice cream used to be declared as nutrition per 1/2 cup, but the new reference amount is now 2/3 cup based on what is

generally consumed in one sitting. With this in mind, products that have a net weight that falls between 200-300% of the Reference Amount will be required to use a Dual Column label that displays nutrition per serving as well as per the entire container

The new regulations further state that added sugars must be declared. The consumer should be made aware of the amount of the total sugar coming from other sources during processing, which did not exist in the product naturally. For example, if a sweetened juice product contains both natural sugar from the fruit and added sugar from refined sugar, there will be a different value for total sugar and added sugar. The total sugar value will include natural sugar from the fruit plus the refined sugar added. This new value must be calculated using the product's formulation.

In the case of the Dietary Fibre, the FDA has published a list of synthetic fibres that are no longer considered Dietary Fibre. The fibres on the updated list have no physiological benefits to the body. This may mean that if your product uses any of these synthetic fibres, their contribution to the analytically tested fibre content must be deducted from the final Dietary Fibre value declared on the label.

Technological Solutions Limited offers Nutritional Analyses to determine the content of these required nutrients, and the added benefit of drafting the revised NFP if requested. The company also provides label assessments (against the US, Canada, UK and EU regulations/legislations) to assist manufacturers in ensuring the labels displayed on their products are compliant with the market in which the products will be consumed.

Center for Food Safety and Applied Nutrition Constituent Update

FDA Shares FY16-17 Microbiological Sampling Summary Report for Cucumbers

November 5, 2019

The U.S. Food and Drug Administration has released the summary report of its sampling of cucumbers which was conducted as part of an ongoing effort to help ensure food safety and prevent contaminated products from reaching consumers.

The FDA's proactive approach to sampling is intended to help the agency learn more about the prevalence of disease-causing bacteria in certain foods and identify patterns that may help prevent future contamination.

The cucumber assignment was issued by the FDA in November 2015 under its then new sampling model. The agency collected and tested 1,601 samples to determine the prevalence of *Salmonella* spp. and *Escherichia coli* (*E. coli*) O157:H7 in the commodity. About 76 percent of the samples collected and tested were from imported cucumbers and the rest were from domestically grown cucumbers, comparable to their respective U.S. market shares at the start of the assignment. The agency designed its sampling plan to detect rates of contamination of one percent or greater if present in the commodity.

The agency found the prevalence of *Salmonella* in the cucumbers sampled to be 1.75 percent. The agency did not detect *E. coli* O157:H7 or other pathogenic *E. coli* in any of the samples.

The findings of this assignment underscore the need for growers and others in the cucumber distribution chain to comply with the FDA's Produce Safety Rule, as applicable, and for importers of cucumbers to comply with the FDA's Foreign Supplier Verification Programs (FSVP) Rule, as applicable. This assignment concluded prior to the applicable Produce Safety Rule and FSVP Rule compliance dates. The agency has published draft guidance to help the industry comply with these rules. The Produce Safety Rule draft guidance and the FSVP Rule draft guidance are available on the FDA's website. The FDA will continue to work with cucumber growers and distributors to make them aware of the findings of this assignment and to provide additional information on resources and steps to mitigate contamination of cucumbers.

You can access the full report on the FDA Microbiological Surveillance Sampling page.

For Additional Information: <https://www.fda.gov/food/cfsan-constituent-updates/fda-shares-fy16-17-microbiological-sampling-summary-report-cucumbers>

QUALITY AND STANDARDS (continued from page 4)

She observed that as the Government's Investment and Export Promotions Agency and the leading marketing agency of Jamaica's business mandate, JAMPRO supported TSL in its mandate and would continue to be a stalwart partner in co-hosting workshops on market access requirements for Jamaica's key markets, on testing and verifying new products and helping to drive exports in the manufacturing sector.

The gathering also heard from participating companies, notably East Caribbean Limited from St. Vincent and the Grenadines, which manufactures a range of consumer food and beverage products, Jamaican Teas Limited and Virginia Dare. The companies expressed their satisfaction with TSL as an important strategic partner, particularly in assisting them in attaining the HACCP certification, which allowed them to increase their exports to the US and other countries. They also had high praises for the workshop, which they said was educational and informative and would assist them in driving the food safety agenda as a priority.

Senior representative from the SQFI, Frank Schreurs, facilitated all five days of the training as well as invigilated the examination. Mr. Schreurs, is a highly sought-after resource in the industry, having more than 30 years' experience in the entire supply chain and a wealth of knowledge of risk management throughout that chain. He is a former President and Chief Technical Officer of the Guelph Food Technology Centre and was also instrumental in the development of the current edition, the 8th Edition, of the SQF Food Safety System.

Technological Solutions Limited, is the premier provider of ISO 17025-accredited laboratory, technical, environmental and scientific support services. The 23 year-old company continues to bring cutting edge



Minister of Industry, Commerce, Agriculture and Fisheries, Hon. Audley Shaw (left), is presented with a book titled, 'Food Safety and Quality Systems in Developing Countries: Export Challenges and Implementation Strategies', by Chief Executive Officer (CEO), Technological Solutions Ltd.(TSL), Dr. André Gordon at the TSL's Safe Quality Food (SQF) training seminar series at the Courtleigh Hotel and Suites in New Kingston. (JIS photo)

training and science-based technical support to the Caribbean's manufacturing and productive sector to help them to achieve their business objectives.

Each year on October 14, the members of the International Electrotechnical Commission (IEC), International Organization for Standardization (ISO) and International Telecommunication Union (ITU) celebrate World Standards Day, which is a means of paying tribute to the collaborative efforts of the thousands of experts worldwide who develop the voluntary technical agreements that are published as International Standards.



TECHNOLOGICAL SOLUTIONS LIMITED

The premier provider of world class technical, environmental and scientific support services in Jamaica and the Caribbean.

We operate a full service laboratory that is ISO 17025 accredited to offer an extensive range of analyses by the American Association for Laboratory Accreditation (A2LA).

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