

## Nutraceuticals to Explore



### **TURMERIC**

Turmeric root is well known for its use in making curry powder and in other traditional Asian cuisine. The main active ingredient in turmeric is known as Curcumin. This compound functions as an anti-inflammatory and an antioxidant. Preliminary medical research has also shown that this important spice has antifungal and antibacterial properties. For these reasons, turmeric is being used in a number of high-growth nutraceutical markets to support health in areas such as: immunity, natural anti-oxidants, joint/arthritis, blood sugar control/diabetes, Alzheimer's disease/dementia, heart health, and benign prostate. Turmeric sales nearly doubled in sales from \$103 million in 2013 to \$235 million in 2014, and are projected to be among the top-10 best-selling supplements through 2016 by Nutrition Business Journal.



### **GINGER**

Ginger root has been used as a spice and herbal medicine for thousands of years. This very important spice contains anti-inflammatory and antioxidant compounds such as gingerols, betacarotene, capsaicin, and curcumin, as well as a variety of vitamins and minerals. Scientific research has shown that ginger may be useful in treating nausea caused by motion, chemotherapy or surgery. It is also used in treating osteoarthritis, lowering cholesterol and preventing the clotting of blood. The present demand for ginger is very high. This high demand is not being met because of an undersupply from Jamaica or other countries that grow the crop. In 2013, Chris Reed, founder and CEO of a successful US drink company, REED's,

said: "We are willing to buy 100 per cent Jamaican ginger if capacity is up to where it needs to be at a competitive price". This example demonstrates the huge potential which exists for the unique homegrown Jamaican ginger.



### **MORINGA**

The Moringa plant is a fast-growing, drought-resistant tree that is presently being dubbed as the 'miracle tree' for its wide range of medicinal uses. This plant is sun-and-heat loving and, therefore, more suited for dry regions of the world such as Jamaica. In some parts of the world, it is considered an important food source. It is nutrient dense and contains more than 92 nutritional values, including vitamins, minerals, and eight essential amino acids. Moringa has been used to treat and prevent a number of diseases and medical conditions, including weight management, pain relief, blood pressure regulation, and anaemia. Research findings have also suggested that nutraceuticals may be beneficial in the fight against some of the world's most urgent diseases such as cancer. A high demand for Moringa has been reported in developed countries like the United States and Japan. There is also talk of Moringa being used to produce biofuel to meet the global energy demand.



### **PIMENTO**

The pimento tree or 'all-spice', as it is commonly called, is indigenous to the Caribbean islands, although Jamaica has the longest history of continuously

producing the crop since its discovery in 1509. Pimento is an important ingredient in jerk seasoning, and its leaves and wood are commonly used to smoke meat. This very fragrant plant is also used in perfumery and as a natural pesticide. Two of the key compounds found in pimento have been found to have antiproliferative and anti-tumour properties on human cancer cells. Scientific research has also demonstrated that compounds in the pimento plant show antibacterial, hypotensive, anti-neuralgic, and analgesic properties. The United States does not produce allspice on a commercial basis, but relies on imports primarily from Mexico, Guatemala, Honduras, and Jamaica. Jamaican allspice is premium grade. According to the Ministry of Agriculture, the value of the country's international allspice exports peaked in 2005 at US\$2.8 million or 11 per cent of the island's agricultural exports. Since that year, allspice export value has ranged between US\$1.4 and \$2.1 million or three to seven per cent of all agricultural exports.



### **GUINEA HEN WEED**

The Guinea Hen Weed is a flowering plant with roots and leaves that have strong acrid, garlic-like odour. The plant reproduces all year and is used in teas, extracts, capsules, and as an insect repellent. Guinea Hen Weed is used extensively in folk medicine in South America and Colombia. Active compounds have been discovered in Guinea Hen Weed such as flavonoids, triterpenes, steroids, and sulphur compounds. The sulphur compound dibenzyl trisulfide has been identified with active properties against cancer and HIV. Other compounds contained in the plant, such as phytochemicals a stilbin, benzaldehyde, and coumarin, have been documented with antitumorous and/or anticancerous properties as well. A study has also identified it as an immunostimulant. There is an open market for a novel product with Guinea Hen Weed as the main or collaborative ingredient.