TT farmers to get duty-free concessions, but they'll have to build drainage and irrigation - Demerara Waves, 9 September, 2013

Guyana’s Agriculture Minister, Dr. Leslie Ramsammy said that Trinidad and Tobago’s farm investors will get duty free concessions but will have to help improve drainage and irrigation at new lands to be allocated. “We have been working out arrangements with foreign investors that when they develop this land with infrastructure Guyanese farmers will also benefit,” he told Demerara Waves Online News (www.demwaves.com).

For more information see page 11

AGRICULTURE IN THE NEWS is a monthly newsletter which provides a compilation of selected news articles on issues affecting agriculture in the Caribbean region. Articles from Newspapers, Online News Service Agencies, Newsletters and Press Releases are featured.

For copies of documents cited, visit the web address or source of the information provided.
Our Vision

To be the centre of excellence in the Caribbean for the provision and application of research and development in agriculture and rural enhancement.

Our Mission

To contribute to the sustainable economic well being of Caribbean people by the generation and transfer of appropriate technology through research and development within the agricultural value chain.

www.cardi.org
Sweet Potatoes

Purple sweet potatoes among ‘new naturals’ for food and beverage colors. American Chemical Society, 8 September 2013

Full Article

INDIANAPOLIS, Sept. 8, 2013 — Mention purple sweet potatoes, black carrots or purple carrots, and people think of dining on heirloom or boutique veggies. But those plants and others have quietly become sources of a new generation of natural food colorings that are replacing traditional synthetic colors and colors derived from beetles.

That back-to-the-future trend is on the agenda here today at the 246th National Meeting & Exposition of the American Chemical Society (ACS), the world’s largest scientific society. The meeting, which features almost 7,000 reports on new discoveries in science and other topics, continues through Thursday in the Indiana Convention Center and downtown hotels.

Speakers described how natural colors used centuries ago are making a resurgence in response to consumer preferences, manufacturers’ needs and the promise that these antioxidant-rich substances may have health benefits.

“The natural colors industry for foods and beverages is gaining in value as U.S. and international companies move towards sustainable and affordable crop alternatives to synthetic red colors and red colors derived from insects,” explained Stephen T. Talcott, Ph.D., who spoke at the session. “In addition to adding eye appeal to foods and beverages, natural colorings add natural plant-based antioxidant compounds that may have a beneficial effect on health.”

One major change, he said, is the appearance of root crops like black carrots and purple sweet potatoes (PSPs), which are grown specifically for the natural colors industry. They have become primary agricultural products, compared to fruits such as grapes, which are grown for other purposes and used as secondary or byproduct-based colors.

Talcott, who is with Texas A&M University, focused on the range of colors — from light pink to rose, red and deep purple — that can be obtained through use of the pigments in PSPs. Available commercially in the United States since 2006, but still hard to find in stores, PSPs have the same anthocyanin pigments found in black cherries. Baked, used for french fries or prepared in other ways, PSPs taste like regular sweet potatoes, Talcott noted.

PSP anthocyanins have proven to be among the best for food and beverage coloring, he said, citing fruit drinks, vitamin waters, ice cream and yogurt. They are stable, for instance, and do not break down easily; have superior coloring properties; and have a relatively neutral taste (in contrast to the slightly earthy, bitter taste from grape-based colorings). The pigments, however, are very difficult to extract.

Likewise, PSP anthocyanins have advantages over traditional synthetic red food colorings and the “carmine” reds extracted from cochineal insects. Those include sustainability and ease of production. Cochineal insects feed on a certain type of cactus native to South America and Mexico. It takes about...
2,500 bugs to produce one ounce of cochineal extract, used in ice creams, yogurts, candy, beverages and other foods.

However, PSP anthocyanins are difficult to extract. Talcott reported on development of a new process extracts larger amounts of pigment from PSPs. Byproducts of the process include starch and fiber, which could be used as animal feed, in various food applications or as a raw material for biofuel production. Alternatively, the byproducts could simply be composted and used as a soil conditioner for producing more PSPs or other crops.

Such processes could encourage development of a domestic natural food coloring industry, with agriculture spreads devoted specifically to growing foods for use in making food and beverage coloring. Currently, the United States imports much of the natural food coloring it uses commercially. The small amounts of PSPs grown domestically go mainly to sales of fresh potatoes for the table.

Talcott spoke at a symposium, “The Chemistry of Functional Beverages,” which are beverages that go beyond the basics of quenching thirst or providing nutrition: They prevent disease or promote general good health. Abstracts for the symposium appear below.

Cereals and Grains

Rice industry poised to exceed 2013 target. GINA, 17 September, 2013

Full Article

Minimal paddy bug damage recorded thus far in second crop

The rice industry is set to exceed the 2013 target of 450,000 tonnes by approximately 80,000 tonnes. Agriculture Minister, Dr. Leslie Ramsammy posited that with a remarkable achievement of 263,528 tonnes in the first crop, the second crop may very well take the production beyond 500,000 tonnes.

Approximately 75,000 hectares of rice land has been cultivated for this second crop, for which harvesting has already commenced. The first crop saw the cultivation of about 82,000 hectares.

Thus far, about six to eight percent of rice has been harvested throughout the regions and the early indications are that farmers are having a good crop with a fairly good yield, averaging approximately 35 bags of paddy per acre (five-and-a-half tonnes per hectare).

“If the rest of the crop maintains that level of yield which we fully expect, of course it could get better, but we don’t expect it would be worse. We expect that this crop would produce far in excess of 220,000 tonnes of rice,” Minister Ramsammy stated.

He reminded that in the late 1980s and early 90s, rice production averaged 100,000 tonnes for a whole year, now the target is being exceeded by that amount.
He explained however, that the first crop could have easily passed 300,000 tonnes had it not been for two major challenges. These are: a drought and the paddy bug infestation, which are not unique to Guyana or unusual for rice industries around the world.

With regards to the paddy bug infestation, Essequibo was the hardest hit rice cultivating area. In the second crop, it was predicted that the entire industry, especially in Regions Two, Four, Five and Six was heading for a serious paddy bug problem. In light of this, the Ministry intensified its surveillance and involved farmers in a number of precautionary initiatives.

“We can’t say how successful we have been thus far until more rice is harvested, what we can say however, is that in this initial stage, we have seen encouragingly very little impact of paddy bug,” Minister Ramsammy stated.

This means that the interventions made by the Guyana Rice Development Board (GRDB), the Rice Producers’ Association (RPA) and indeed the farmers themselves, have borne fruit.

Thus far in Essequibo, about 10-15 percent of the rice crop has been harvested and the damage seen is below five percent.

Last year, the rice industry was the star performer in the agriculture industry, with Region Five producing 37 percent of the total quantity of rice, exceeding 150,000 tonnes. Region Six recorded 108,000 tonnes or 25 percent of the overall production followed by Regions Two, Three and Four, in terms of their production.

**Pest Control**

**Substance that gives grapefruit its flavor and aroma could give insect pests the boot.** American Chemical Society, 11 September 2013


**Full Article**

INDIANAPOLIS, Sept. 11, 2013 — The citrus flavor and aroma of grapefruit — already used in fruit juices, citrus-flavored beverages, and prestige perfumes and colognes — may be heading for a new use in battling mosquitoes, ticks, head lice and bedbugs thanks to a less expensive way of making large amounts of the once rare and pricey ingredient, a scientist said here today.

A report on the new technology for making the ingredient, nootkatone, which previously had to be harvested from tons of grapefruit, was part of the 246th National Meeting & Exposition of the American Chemical Society (ACS), the world’s largest scientific society. The meeting, which includes almost 7,000 reports on new advances in science and other topics, continues here through tomorrow.

“A new product based on nootkatone would have multiple advantages over existing mosquito repellants based on DEET,” said Richard Burlingame, Ph.D., who presented the report. “Nootkatone is a broad-spectrum ingredient that has been shown to be effective as a control agent for mosquitoes,
ticks and bedbugs. Nootkatone has been used for years to give beverages a grapefruit flavor. It is safe to eat, has a pleasant citrus flavor, is not greasy, both repels and kills insects, and should not have the toxicity concerns that exist for DEET.”

Burlingame, who is with Allylix, Inc., a renewable-chemical firm in Lexington, Ky., spoke at a symposium entitled “Bioppesticides: State of the Art and Future Opportunities.” It includes presentations (abstracts appear below) on progress in developing new pesticides isolated from natural sources, or patterned closely after natural products that are effective in pest control.

“The goal of the symposium is to discuss the science behind these products, many of which are effective at lower doses and are less toxic to humans than conventional pesticides,” said James N. Seiber, Ph.D., of the University of California, Davis. He co-organized the symposium with Aaron Gross and Joel Coats, Ph.D., both of Iowa State University, and Stephen Duke, Ph.D., of the U.S. Department of Agriculture-Agricultural Research Service.

Burlingame cited nootkatone as an excellent example of the potential for developing new pesticides based on natural sources. Nootkatone is a component of the oil in grapefruit, and has been on the U.S. Food and Drug Administration’s list of substances generally recognized as safe for use in food. It has been in commercial use for years as a flavoring for foods and beverages and as a fragrance ingredient in perfumes. Those applications require only tiny amounts of nootkatone, and price — $25 per ounce when extracted from grapefruit — was not a major concern. It was slightly less expensive when produced from a substance called valencene, extracted from oranges.

The need for a more economical source of nootkatone intensified after scientists at the U.S. Centers for Disease Control and Prevention (CDC) discovered nootkatone’s effectiveness in controlling ticks, mosquitoes and other insects. Nootkatone extracted from grapefruit, however, would be too expensive for development of a consumer product. That use would require larger amounts of nootkatone. Allylix is now working with scientists at CDC to develop nootkatone for commercial use as an insect-control agent.

Burlingame described how Allylix used proprietary technology to develop a way of producing valencene from yeast growing in industrial fermentation vats. Technicians harvest the valencene and use a chemical process to convert it into nootkatone. Allylix said the process made it possible to market nootkatone at a competitive price.

“The effects of nootkatone last much longer than those of repellents currently on the market,” he said. “And nootkatone shows promise for being the most effective agent for the ticks that cause Lyme disease.”

Nookatone also works in a new way, so it can be used against insects that develop resistance and shrug off conventional pesticides, and yet would be very unlikely to harm people or pets.

Allylix currently sells nootkatone only for use in flavor and fragrance applications. The next step involves getting approval from the U.S. Environmental Protection Agency to sell nootkatone for insect control. “They haven’t approved it yet, so no products currently on the market in the U.S. include nootkatone as an active ingredient to control pests,” noted Burlingame. “But in the future, it could be a key ingredient in repellents for use on clothing or on skin as a spray, or even as a soap or shampoo.”

The scientists acknowledged funding from the National Science Foundation through the SBIR program and the Department of Energy.
New weapons on the way to battle wicked weeds. American Chemical Society, 8 September 2013

Full Article

INDIANAPOLIS, Sept. 8, 2013 — A somber picture of the struggle against super-weeds emerged here today as scientists described the relentless spread of herbicide-resistant menaces like pigweed and horseweed that shrug off powerful herbicides and have forced farmers in some areas to return to the hand-held hoes that were a mainstay of weed control a century ago.

The reports on herbicide resistance and its challenges, and how modern agriculture is coping, were part of a symposium on the topic at the 246th National Meeting & Exposition of the American Chemical Society (ACS), the world’s largest scientific society. The meeting with almost 7,000 scientific and other reports continues through Thursday in the Indiana Convention Center and downtown hotels. Abstracts of the symposium presentations appear below.

Costs of weed control have doubled or more in some areas and crop yields have suffered, according to experts.

“The problems associated with herbicide-resistant weeds are spreading and intensifying, especially weed species resistant to multiple products, including the mainstay of 21st century agriculture, the herbicide glyphosate,” said Bryan Young, Ph.D., who spoke at the symposium. He is with Southern Illinois University in Carbondale.

“More than 200 individual weed species have been confirmed resistant to at least a single herbicide, with infestations covering millions of acres in the United States and 60 other countries. It is spreading beyond soybeans and cotton. Weed management in corn has become more and more difficult in recent years due to herbicide-resistant weeds.”

Farmers, he pointed out, are not battling the mild-mannered dandelion or snow thistle that home gardeners visualize at the mention of “weed.” Rather, the battle involves nightmares like Palmer amaranth pigweed, which has been termed the master blueprint for the perfect weed. Under good conditions, Palmer amaranth grows an inch or more a day to heights approaching 10 feet with a stem tough enough to damage farm equipment. It crowds out crops and drains moisture and nutrients from the soil. Resistant plants thrive despite multiple soakings with glyphosate, and a single plant may produce almost 1 million seeds to perpetuate the menace.

Young said that growers are responding to such challenges by integrating alternative herbicides into their weed control programs, herbicides that work a different way and thus sidestep the resistance. They also are turning to herbicides that have residual activity in the soil, preventing weed seeds from growing into a new generation of weeds. When those measures fail, farmers are turning to cover crops to block weed growth and tilling the soil to kill emerged weeds or bury viable seeds deep below the soil surface.

Herbicides, however, remain the most effective tools for managing weeds in terms of overall control and for cost efficiency, Young emphasized. They have other benefits, such as reducing the need for plowing and other soil tillage — which is costly in terms of energy use and may contribute to soil

Agriculture In the News September 8 – 14, 2013. Issue compiled by CARDI
erosion. And a number of products are on the way to help. They include new herbicide formulations that work in ways that sidestep the resistance mechanisms in today’s weeds. And they include crop seeds with genetic traits that enable farmers to apply herbicides to their fields without harming the crops.

“We must remember that herbicides or herbicide-resistant crop traits don’t create herbicide-resistant weeds,” Young said. “Rather, the use and management of these technologies to gain control of weeds by practitioners determines the risk of herbicide-resistant weeds evolving. We need to be better stewards of herbicides to reduce the impact of herbicide-resistant weed species.”

Livestock

Minister of Agriculture Congratulates PHD by Aisha Reid, 11 September, 2013

Full Article

The Minister of Agriculture, Food, Fisheries and Water Resource Management, Dr. David Estwick, has congratulated the Pine Hill Diary (PHD) for achieving four International Organization for Standardization (ISOs) certifications.

Dr. Estwick’s comments were made following a tour of the PHD Plant, yesterday morning.

He said: “It is indeed a commendable achievement and we have to appreciate that sometimes what it says to us, is that size sometimes doesn’t determine your capacity. For [the] Pine Hill Diary to be designated as a world class dairy is, therefore, now on the records.”

The Agriculture Minister also lauded the PHD’s plant, stating that the system allows them to have evidence of traceability. “As the Minister of Agriculture, I am now battling with this Agricultural Health and Food Safety System, what I saw today is probably an example of the achievements of that particular type of system, where you not only have all the evidence of traceability enforced, but you have the capacity to manage your traceability from the farm to the consumption side,” he added.

Dr. Estwick revealed that there are a number of manufacturers on the island who are not able to export, because they are unable to meet certain international standards. He said that his Ministry would continue to move ahead with the new international standards regime, so that manufacturers would be allowed to penetrate various markets worldwide.

Managing Director of Pine Hill Diary and CEO of Banks Holdings Limited, Richard Cozier, thanked the Ministry for its support. He said that the four new accreditations were very important because the company would now be able to trade internationally.

Mr. Cozier also expressed the hope that within the next six months, other departments within the BHL group would also be accredited with various ISO certifications.
Climate Change

Caribbean water sector managers to benefit from CCORAL by CCCCC, 14 September, 2013

Full Article

A new initiative by the Caribbean Climate Change Centre (5Cs), the UK-based Climate Development and Knowledge Network (CDKN) and the Global Water Partnership – Caribbean is focusing minds on climate risk in the water sector.

In July, the 5Cs launched an innovative online tool to help governments and businesses to assess the climate-related risks of different investment options. The Caribbean Climate Online Risk and Adaptation tool (CCORAL) is a decision support tool that aims to encourage climate resilient choices. In this region of small island states that are vulnerable to sea level rise, droughts and increasingly frequent, intense storms, the tool couldn’t have come at a better time.

Also read CCORAL Is Here! Endorsed by the IPCC Chair

CCORAL is intended to embed a risk management ethic in decision-making processes across the Caribbean region. When it was launched, it received a rare endorsement by the Chairman of the Intergovernmental Panel on Climate Change (IPCC) Dr. Rajendra Kumar Pachauri. Now, a new project will fine-tune CCORAL’s online support system for the specific use of managers in the water sector.

Most Caribbean countries are vulnerable to water scarcity and drought. One of the contributing factors to vulnerability is climate change, which will trigger significant changes in temperature and precipitation. Average rainfall is expected to decrease by 7% in 2050, and salt water intrusion will arise as a result of increased sea levels. This water scarcity will impact agriculture, tourism and public health.

The Centre, together with the Global Water Partnership Caribbean are working with government agencies and businesses in the water sector to understand how the CCORAL tool could help them. They are currently consulting with a range of regional organisations (such as international financial institutions, NGOs and universities), national agencies (government departments, water utilities) and businesses (water utilities, consultants, major industrial and commercial water users).

They are exploring the following key questions:

What are the priority water services which would benefit from more climate resilient decision making? (for example; water resources allocation, water supply, agricultural / industrial / commercial / tourism / energy)

What water information, planning, operational or legal and regulatory activities would benefit from increased consideration of climate variability and risk? (for example; water supply planning, hydrological modelling, risk assessment, water system regulation, operational procedures)

Which organisations and specific capacities would benefit from being involved in the development and application of the CCORAL-Water tools? (for example; strategic water planners in governmental departments, consultants engaged in technical services for water planners, investment planners in water utilities, regulatory agencies for water)
If this project is successful, it will lead to improved climate risk management in water sector planning and management activities, which in turn will lead to improved levels of service for water users in the Caribbean.

The CCORAL-Water project is being developed in consultation with water managers in five countries: Barbados, Belize, Jamaica, Saint Lucia and Suriname. The CCORAL-Water tool itself will be applicable and available to all Caribbean countries through the CCORAL online system, hosted by the 5Cs, from March 2014. Watch this space for progress with CCORAL – Water!

To feed the world in 2050, we need to discuss agriculture at UN Climate Change talks. The Huffington Post, 10 September 2013

Full Article

The relationship between climate change and agriculture is still an area that needs more emphasis at a global level. Particularly due to the uniqueness of the relationship, as agriculture methods affect the climate and changing weather patterns impact food production.

Climate change is already having a huge effect on farming, with droughts causing damage to crops in developed and developing countries and unpredictable weather patterns disturbing thousand-year-old farming methods and traditions, threatening the livelihood of farmers around the world.

Therefore, we need to discuss agriculture in the UN Climate Change negotiations.

We Need to Act Now - Water Scarcity and Sustainable Solutions

Agriculture requires natural resources to produce higher yields and achieve global food and nutritional security. In the shadow of World Water Week, which took place from 1-6 September, it is important to highlight that agriculture currently requires 70 percent of the entire world's freshwater to produce the food necessary to feed a growing population.

Water scarcity is becoming an increasingly important issue all over the world; with farmers having to develop innovative irrigation methods to ensure crops survive dry seasons. In the Sahelian countries the CGIAR Research Program in Climate Change, Agriculture and Food Security (CCAFS) found that smallholder farmers were able to adapt to changing weather patterns by developing an interesting and sustainable method to ensure no water was wasted.

Farmers in the Sahel region were using stone bunds, which are small walls of stones laid in fields, to direct water to crops, ensuring that rainfall does not runoff land and reaches all crops.

Employing sustainable farming methods, such as the stone bund walls, is just one example of the case studies available in a new guide launched today by Farming First, which hopes to illustrate the role of agriculture in climate change and the potential for farmers around the world to adapt and mitigate.

A Guide to UNFCC Negotiations
With just two months to go before the start of climate change discussions at COP19, due to take place 11 - 22 November, Farming First has launched a Guide to the United Nations Framework Convention on Climate Change (UNFCCC) Discussions on Agriculture.

The guide comes at a time when the relationship between agriculture and climate change has started to gain momentum in development discussions.

Events, such as this years Hunger, Nutrition and Climate Justice conference, hosted in collaboration between the Irish government and the Mary Robinson foundation, have underlined the impact of climate change on agriculture and food and nutritional security.

Extreme weather, such as droughts and flooding, are already having a devastating impact on food security. Last year the U.S. was victim to one of the worst widespread droughts since the 1950s, with around 80 percent of agricultural land experiencing drought in 2012. The extensive drought led to food prices increasing by six percent by July 2012, according to the United Nations' monthly Food Price Index.

In developing countries climate change is predicted to have an even bigger impact, with yields in Africa predicted to decrease by 15 percent and yields in South Asia by 18 percent by 2050.

Therefore, agriculture needs to be part of UNFCCC discussions. In particular the guide aims to highlight how the sector would benefit from a Work Program on Agriculture under the Subsidiary Body for Scientific Advice (SBSTA). SBSTA supports the work of the COP through the provision of timely information and advice on scientific technological matters.

SBSTA can act as a hub for agriculture and can handle the very unique aspects of agriculture in a way that cannot be handled elsewhere. SBSTA can also inform the various aspects of the UNFCCC so that agriculture is better incorporated into the various convention mechanisms.

A One-Stop Source of Information

Designed as an aid for those taking part in discussions the guide acts as a one-stop source of information about the role of agriculture at climate change discussions, collating videos, farmer quotes, case studies and factsheets to support six key messages Farming First believe are vital to follow the role of agriculture at future UNFCCC discussions.

We hope the guide can be used by a variety of stakeholders, from farmers on the ground to policy makers, to demonstrate why the UNFCCC should further support agriculture at climate change discussions.

Lani Eugenia, General Secretary of Puantani Indonesian Women Farmers' and Rural Women's Organisation, and one of the farmers who contributed to the Farming First guide, spoke to Farming First about the urgency to act on climate change in agriculture:

"There should be an immediate effort to address climate change, we can't just wait to see what happens. Climate change has affected our yields, drained our food stocks and is impacting the nutrition of children and people in rural areas."

To illustrate how this devastating impact of climate change can be alleviated in agriculture the guide also features a series of case studies from around the world. One such case study is from Tanzania, where small-scale subsistence farming is one of the main causes of forest los. In order to preserve land
the Tanzanian government established participatory forest management (PFM) to thousands of villages living within the margins of forests and natural woodlands.

The PFM aims to improve forest quality, livelihoods in the area and food security through increased forest revenues and food and a secure supply of subsistence forest products.

So far, the government have provided a legal basis for communities to own and manage forest resources through Community based Forest Management (CBFM) and by 2008 they had 7,000 participating households and had preserved 4.0 million hectares of forests and woodlands.

The Tanzanian government has continued to develop the scheme, demonstrating to local communities how conserving the natural environment is beneficial to their livelihoods in the long run.

Looking Ahead to Sustainable Development

The PFM in Tanzania demonstrates, that the sooner we act to control the use of resources and emissions from agriculture the sooner we can begin to preserve land, sustain crop yields and grow enough nutritious food.

As the UN begins to plan the Post-2015 Sustainable Development Goals, it is vital that the correlation between agriculture and climate change is part of sustainable development discussions.

With today marking two months before COP19 in Warsaw, we hope the Guide to UNFCCC Discussions on Agriculture will provide a useful resource for everyone wishing to understand the UNFCCC process and will provide a selection of evidence for why climate change should have a voice at climate change discussions.

Climate Change Policy and Action Plan to be tabled in Parliament. Jamaica Information Service, 12 September 2013

Full Article

A draft Green Paper on the Climate Change Policy Framework and Action Plan will be tabled shortly in the House of Representatives.

This was disclosed by Minister of Water, Land, Environment and Climate Change, Hon. Robert Pickersgill, during Tuesday’s (September 10) sitting of the House of Representatives.

The Minister was responding to a motion brought by Member of Parliament for North Western St. James, and Opposition Spokesman on Climate Change, Dr. Horace Chang, on climate change and its impacts.

Mr. Pickersgill said that the Policy and Action Plan calls for the development of climate change sector plans as well as the implementation of special initiatives within key sectors.

“In addition, all Ministries and Departments will be required to designate a focal point to facilitate the coordination of climate change actions across government,” he stated.
The policy was prepared under the Climate Change Adaptation and Disaster Risk Reduction (CCADRR) Project funded by the Government of Jamaica, the European Union (EU) and the United Nations Environment Programme (UNEP).

The United States Agency for International Development (USAID) also supported this process.

Mr. Pickersgill also mentioned that under a project with the Office of Disaster Preparedness and Emergency Management (ODPEM), a National Comprehensive Disaster Risk Management (CDRM) Policy and Strategy for Jamaica is being developed.

Agricultural Development

TT farmers to get duty-free concessions, but they'll have to build drainage and irrigation - Demerara Waves, 9 September, 2013

Full Article

Guyana’s Agriculture Minister, Dr. Leslie Ramsammy said that Trinidad and Tobago’s farm investors will get duty free concessions but will have to help improve drainage and irrigation at new lands to be allocated.

“We have been working out arrangements with foreign investors that when they develop this land with infrastructure Guyanese farmers will also benefit,” he told Demerara Waves Online News (www.demwaves.com).

Ramsammy’s comments Monday afternoon came moments after the Finance Minister of the twin-island republic, Larry Howai announced in his budget presentation that talks were underway with Guyanese authorities on the investment package.

“We have requested of the Government of Guyana that investors from Trinidad and Tobago be eligible to access incentives currently available to Guyanese farmers and be allowed to repatriate profits,” he said.

Ramsammy assured that Trinidad and Tobago farmers would benefit from a level playing field in receiving concessions such as duty-free waivers on all machinery and inputs.

“They are not going to get a deal that is any less than Simpson at Santa Fe (the Barbados-owned entity in Rupununi),” he told Demerara Waves Online News (www.demwaves.com).

Through the Food Security Facility, Guyana will immediately make available 10,000 acres of land in Berbice and a further 90,000 acres as time progresses. Allocation of the land, Ramsammy said, would depend on what the T&T investors want to focus on.

He said that Guyanese would not be disadvantaged by the allocation of lands to T&T farmers. “No land that is presently available for Guyanese will be part of that allocation. They will be new lands.”
The Trinidad and Tobago government will invite private sector investors to plough money into agricultural production in Guyana. Georgetown will in turn facilitate and support such investments.

The Guyanese Agriculture Minister said priorities could include the production of corn and soya bean to help bring down the cost of poultry and other stock-feed. He hopes that the lower prices will trickle down in the cost of chicken and other meat.

The Caribbean needs two million tonnes of corn and soya bean annually.

Tilapia, vegetables, rice and livestock are among the several types of produce that have been explored by technical teams that have visited Guyana in recent months.

While the bulk of employees would be Guyanese, Ramsammy said the emphasis would be on mechanised farming. “We have not yet concluded on what they are doing,” he said, adding that “It is going to target import substitution for things that we are importing into the region.”

In an apparent effort to address concerns that the Trinidad and Tobago government was not maximizing and allocating lands to farmers there, that country’s Finance Minister highlighted the allocation of large acres.

He said 4,111 acres of land formerly owned by Caroni Limited and 100 acres of State lands at Tucker Valley have been divided into six small and eight large farms for distribution to farmers. He also said that 5,800 acres of agriculture lands leased to former employees of Caroni are being brought into cultivation through Growers Responsible for Evolving and Enriching the Environment. “Cultivation and harvesting have already begun and members of the public are benefitting from the farm-fresh produce cultivated through environmentally friendly methods,” he said.

10,000 acres Guyana land for TT farmers by Andre Bagoo. Sunday, Trinidad and Tobago Newsday 8 September, 2013
http://www.newsdai.co.tt/news/0,183325.html

Excerpt

FINANCE Minister Larry Howai is tomorrow poised to announce in the Budget presentation that 10,000 acres of land in Guyana will be made available for use by local farmers under the terms of a new facility to be administered by the Ministry of Food Production.

The facility is the result of the recent signing of a Memorandum of Understanding with the Government of Guyana which, sources last week told Sunday Newsday, Howai is to announce.

Under the facility, investors will be able to apply to the Ministry of Food Production for licence to use the lands in Guyana.

These applications are to be made in the form of business proposals which will be evaluated by the ministry. The land must be used for the purposes of food production and to address demand for food locally.
It is expected that the initial amount of land to be made available will be 10,000 acres but this could be increased to 100,000 acres.

In the 2013 Budget, Howai had noted that steps were being taken to establish such a facility.

“The Ministry of Food Production, with agricultural land becoming less and less available in Trinidad and Tobago, is moving to establish a Food Security Facility with the Government of Guyana,” Howai said. “The Facility would commit both Governments to expanding agricultural production in Guyana through the establishment of commercial relationships for funding the establishment of several large agricultural estates in Guyana.”

The announcement of the new facility is likely to trigger debate on the question of local land-use and the accessibility of land.

Howai is also expected to note that the agriculture sector has recorded, for the first time in years, two successive periods of growth, and to underline efforts to encourage economic diversification. …..

**Aid Bank initiates line of credit for projects utilizing renewable energy.** GIS Dominica, 10 September 2013.


**Full Article**

Nationals interested in getting involved in renewable energy projects can now get financing from the Agricultural Industrial and Development Bank.

Mathilda Jno. Rose who is the Manager of the Credit Operations Department, says a line of credit has been introduced for people involved with renewable energy projects.

She says, “If you have a project and a component of it utilizes renewable energy the interest rate is currently at 5%.”

In order to increase awareness in this area, the AID Bank is working in collaboration with the Caribbean Technological Consultancy Services that is an arm of the Caribbean Development Bank.

A two day seminar on renewable energy and energy efficiency initiatives and procedures will be hosted from September 23-24th.

John Rose says, “The seminar will provide an insight to the most effective, cost effective and appropriate energy saving measures suited for particular businesses. An important component of this seminar is the importance of undertaking an energy audit in order to determine the costs and benefit analysis of utilizing the particular energy efficient measure.”
Food waste harms climate, water, land and biodiversity – new FAO report, 11 September 2013

Full Article

Direct economic costs of $750 billion annually – Better policies required, and “success stories” need to be scaled up and replicated.

The waste of a staggering 1.3 billion tonnes of food per year is not only causing major economic losses but also wreaking significant harm on the natural resources that humanity relies upon to feed itself, says a new FAO report.

Food Wastage Footprint: Impacts on Natural Resources is the first study to analyze the impacts of global food wastage from an environmental perspective, looking specifically at its consequences for the climate, water and land use, and biodiversity.

Among its key findings: Each year, food that is produced but not eaten guzzles up a volume of water equivalent to the annual flow of Russia's Volga River and is responsible for adding 3.3 billion tonnes of greenhouse gases to the planet's atmosphere.

And beyond its environmental impacts, the direct economic consequences to producers of food wastage (excluding fish and seafood) run to the tune of $750 billion annually, FAO's report estimates.

"All of us - farmers and fishers; food processors and supermarkets; local and national governments; individual consumers -- must make changes at every link of the human food chain to prevent food wastage from happening in the first place, and re-use or recycle it when we can't," said FAO Director-General José Graziano da Silva.

"We simply cannot allow one-third of all the food we produce to go to waste or be lost because of inappropriate practices, when 870 million people go hungry every day," he added.

As a companion to its new study, FAO has also published a comprehensive "tool-kit" that contains recommendations on how food loss and waste can be reduced at every stage of the food chain.

The tool-kit profiles a number of projects around the world that show how national and local governments, farmers, businesses, and individual consumers can take steps to tackle the problem.

Achim Steiner, UN Environment Programme (UNEP) Executive Director, said: "UNEP and FAO have identified food waste and loss --food wastage-- as a major opportunity for economies everywhere to assist in a transition towards a low carbon, resource efficient and inclusive Green Economy. Today's excellent report by FAO underlines the multiple benefits that can be realized-- in many cases through simple and thoughtful measures by for example households, retailers, restaurants, schools and businesses-- that can contribute to environmental sustainability, economic improvements, food security and the realization of the UN Secretary General's Zero Hunger Challenge. We would urge everyone to adopt the motto of our joint campaign: Think Eat Save - Reduce Your Foodprint!".

UNEP and FAO are founding partners of the Think Eat Save - Reduce Your Foodprint campaign that was launched earlier in the year and whose aim is to assist in coordinating worldwide efforts to manage down wastage.
Where wastage happens

Fifty-four percent of the world's food wastage occurs "upstream" during production, post-harvest handling and storage, according to FAO's study. Forty-six percent of it happens "downstream," at the processing, distribution and consumption stages.

As a general trend, developing countries suffer more food losses during agricultural production, while food waste at the retail and consumer level tends to be higher in middle- and high-income regions -- where it accounts for 31-39 percent of total wastage -- than in low-income regions (4-16 percent).

The later a food product is lost along the chain, the greater the environmental consequences, FAO's report notes, since the environmental costs incurred during processing, transport, storage and cooking must be added to the initial production costs.

Hot spots

Several world food wastage "hot-spots" stand out in the study:

Wastage of cereals in Asia is a significant problem, with major impacts on carbon emissions and water and land use. Rice's profile is particularly noticeable, given its high methane emissions combined with a large level of wastage.

While meat wastage volumes in all world regions is comparatively low, the meat sector generates a substantial impact on the environment in terms of land occupation and carbon footprint, especially in high-income countries and Latin America, which in combination account for 80 percent of all meat wastage. Excluding Latin America, high-income regions are responsible for about 67 percent of all meat wastage.

Fruit wastage contributes significantly to water waste in Asia, Latin America, and Europe, mainly as a result of extremely high wastage levels.

Similarly, large volumes of vegetable wastage in industrialized Asia, Europe, and South and South East Asia translates into a large carbon footprint for that sector.

Causes of food wastage - and options for addressing them

A combination of consumer behavior and lack of communication in the supply chain underlies the higher levels of food waste in affluent societies, according to FAO. Consumers fail to plan their shopping, overpurchase, or over-react to "best-before-dates,” while quality and aesthetic standards lead retailers to reject large amounts of perfectly edible food.

In developing countries, significant post-harvest losses in the early part of the supply chain are a key problem, occurring as a result of financial and structural limitations in harvesting techniques and storage and transport infrastructure, combined with climatic conditions favorable to food spoilage.

To tackle the problem, FAO's toolkit details three general levels where action is needed:

High priority should be given to reducing food wastage in the first place. Beyond improving losses of crops on farms due to poor practices, doing more to better balance production with demand would mean not using natural resources to produce unneeded food in the first place.
In the event of a food surplus, re-use within the human food chain-- finding secondary markets or donating extra food to feed vulnerable members of society-- represents the best option. If the food is not fit for human consumption, the next best option is to divert it for livestock feed, conserving resources that would otherwise be used to produce commercial feedstuff.

Where re-use is not possible, recycling and recovery should be pursued: by-product recycling, anaerobic digestion, composting, and incineration with energy recovery allow energy and nutrients to be recovered from food waste, representing a significant advantage over dumping it in landfills. Uneaten food that ends up rotting in landfills is a large producer of methane, a particularly harmful GHG.

Funding for the Food Wastage Footprint report and toolkit was provided by the government of Germany.

**Farmer’s Market Day** by Alisha. Ally, 13 September 2013

**Full Article**

One of the highlights of Friday’s Health Fair will be a farmer’s market. Phillip Sydney, a communications consultant within the Ministry of Agriculture, Rural Development and Fisheries, says eating healthy is the first step to longevity.

There will be locally produced vegetables, ground provisions and concessionaires for the public at the Farmer’s market. The health fair, organised by the Ministry of Health, Wellness, Human Services and Gender Relations, is part of the observance for Caribbean Wellness Day 2013.

Phillip Sydney from the Ministry of Agriculture, Rural Development and Fisheries, is encouraging the public to come on down to the William Peter Boulevard today Friday to see the benefits of local produce on your health, your pocket and the economy.

“We want people to eat healthy and it has to be local. We don’t want any macaroni and cheese. So we want our green fig salad and our tilapia, our pot fish well grilled. And we do not want any imported chicken. We want our locally produced chicken. That’s what we’re pushing. And that is healthy. Local, healthy, fresh produce from Saint Lucia. That’s what we’re pushing.”

Sydney says Saint Lucians need to be more cognizant of what they put into their bodies. The Ministry of Agriculture is advocating that organic is the way to go.

“We want to ensure that Saint Lucians eat healthy and eat what is grown locally. We do not know what is being imported. What are the growth hormones in the chicken; those big chicken thighs that look like ostrich thighs. But we know from our standpoint locally, we know we are not vaccinating anymore. That’s gone years. The only animals we vaccinate here in Saint Lucia, as far as I know, from a Ministry of Agriculture perspective, is pets, cats and dogs.”

The Caribbean Wellness Day Health Fair is on today from 9:30am on the William Peter Boulevard in Castries and will be followed on Saturday with a Dance Extravaganza from 10am at the same venue.
Guyana set to pull-off ‘special’ Caribbean Week of Agriculture. GINA, 9 September, 2013

Full Article

Guyana will host from October 5 to 12, the twelfth edition of the region’s premier agriculture event, Caribbean Week of Agriculture (CWA), with the stage set for the pulling off an exceptional 2013 event, Minister of Agriculture Dr. Leslie Ramsammy said.

“We are now at the stage of implementation; we went through a lot of time planning this thing because we wanted to make this a special Caribbean Week of Agriculture,” he said.

There will be 40 science sessions to mark the week-long celebrations, and several workshops including one on monitoring and management pest population under a changing climate, and another on the development of the coconut industry in the Caribbean.

Several meetings are scheduled including with the Council for Trade and Economic Development (COTED) on Agriculture, Organisation of Eastern Caribbean State (OECS) and Caribbean Regional Fisheries Mechanism (CRFM) Ministers, and Caribbean Agricultural Research and Development Institute (CARDI).

There will, as well, be forums on Food and Agriculture Organisation (FAO) Food Prices and FAO Food Security Policy, and Agro-tourism among others that will benefit Guyanese farmers, students at the University of Guyana and the Guyana School of Agriculture among others.

Minister Ramsammy said that “these sessions would sometimes be going concurrently. So you will have different rooms with different meetings and farmers and technical people can choose which meeting they are going to.”

From October 9-12, an Exhibition and Trade Show will be staged. Minister Ramsammy said that thus far the ministry has received commitment of participation from 11 exhibitors outside of Guyana. The exhibition will have some competition for local exhibitors because of the hosting of GuyExpo.

That event however, will wrap up just two days before CWA’s exhibition is scheduled to open and Minister Ramsammy expressed hope that this would allow enough time for the local exhibitors to get involved. He said that the ministry is hoping for at least 20 local exhibitors’ participation.

“So we are expecting a high quality, a big reception for Caribbean Week of Agriculture. Already several ministers from the Caribbean have committed to come. We also are expecting for the first time at a Caribbean Week of Agriculture visitors from the Pacific; at least three Ministers have requested that they might want to come, the Regional Director from FAO will be coming to Guyana,” Minister Ramsammy said.

“It is great time for us, not only to show what we are doing, but for the Caribbean to show how it is securing its food and how we are engaging in using agriculture to address other needs.”

The Caribbean Week of Agriculture brings together stakeholders for activities to promote agriculture and agri-industry via policy dialoguing, learning sessions and an exhibition showcasing the sector.

The 2013 CWA will be held under the theme ‘Linking the Caribbean for Regional Food and Nutrition Security and Rural development.’
National Budgets - Agriculture (Trinidad and Tobago)

Mr. Speaker, we are continuing to give priority to the agriculture sector in our efforts to enhance the national income and to ensure food security. We are sustaining food security through a number of initiatives, in particular:

- the distribution of state lands to our farmers:
  - 4,111 acres of lands formerly owned by Caroni (1975) Limited and 100 acres of state lands at Tucker Valley have been divided into 6 small and 8 large farms for distribution to farmers; 3 of the large farms are already in operation; and
  - 5,800 acres of agricultural lands leased to the former employees of Caroni are being brought into production through the Green Initiative: Growers Responsible for Evolving and Enriching the Environment which is managed by Caroni. Cultivation and harvesting have already begun and members of the public are benefitting from the farm-fresh produce cultivated through environmentally-friendly methods. At full capacity, 5,800 acres will be under cultivation, providing the national community with a wide range of freshly harvested produce at affordable prices.

Mr. Speaker, we have also increased investment through the Agricultural Development Bank with the approval of over 1,066 new loan applications and disbursement of over 1,400 loans valued at approximately $150 million.

The shared-value business model represents a novel approach to farming as we have combined unutilized lands, capital from private farmers and Caroni together with best-practice techniques from the various learning institutions into a profitable food enterprise. In 2014, we are targeting a significant increase in local agricultural production.

Mr. Speaker, we are moving ahead with a Food Security Facility with the Government of Guyana. We have executed a Memorandum of Understanding with the Guyanese Government which will provide in Berbice initially 10,000 acres of land for immediate agricultural production and subsequently a further 90,000 acres. The Government of Trinidad and Tobago will invite private sector investment in agricultural production in Guyana, and will work with the Government of Guyana to provide a facilitating environment and the necessary support to attract such investments. We have requested of the Government of Guyana that investors from Trinidad and Tobago be eligible to access incentives currently available to Guyanese farmers and be allowed to repatriate profits.


Excerpts

Agriculture

pp.18-19

Pursuant to our public policy agenda the allocations to the various Ministries are as follows:

- Education and Training: $9.820 billion
- National Security: $6.497 billion
- Health: $5.096 billion
- Public Utilities: $3.786 billion
- Housing: $2.708 billion
- Local Government: $2.448 billion
- Works and Infrastructure: $2.431 billion
- Transport: $2.324 billion
- Agriculture: $1.324 billion

**Government of the Republic of Trinidad and Tobago. Review of the Economy 2013.** Ministry of Finance and the Economy, Port of Spain, Trinidad and Tobago, 2013


**Excerpts**

**pp.20**

Trinidad and Tobago’s real Gross Domestic Product is expected to grow by 1.6 percent in 2013, a marginal improvement on its estimated 1.2 percent expansion in 2012.

Agriculture, the other non-petroleum subsector, is also expected to expand by 5.1 percent in 2013. This is a marked turnaround from its estimated contraction of 4.9 percent in 2012.

**pp. 26 - 27 Agriculture**

The sector is expected to be boosted in 2013 by output from large commercial farms as Government seeks to both reduce the nation’s food import bill and also generate surplus produce for export. In this regard, reports have already surfaced that the entry of output from the large farms onto the local market is serving to drive down prices for several crops below some farmers’ costs of production. **Notwithstanding the improved outlook for 2013, the contribution of the agricultural sector to real GDP is expected to remain unchanged at 0.7 percent for a fourth successive year.**

**Root Crops**

Cassava production increased by 15.2 percent to 239,032 kilogrammes in the October 2012 to March 2013 period, from 207,436 kilogrammes during October 2011 to March 2012. This increase was due to additional acreages under cassava cultivation and favourable weather conditions. Yam production rose by 57.2 percent to 36,580 kilogrammes, from 23,266 kilogrammes, on account of favourable weather conditions and improved planting material. Sweet potato production also rose more sharply, by 58.7 percent to 632,060 kilogrammes, in the 2012/2013 period, from 398,188 kilogrammes one year earlier. This was on account of increased sweet potato acreage under cultivation due to greater emphasis being placed on supplying sweet potatoes for the local food processing industry.

**Vegetable Production**

The performance of the vegetables sub-sector was mixed. Increases in production were recorded for a number of crops including: melongene (27.2 percent), pumpkin (15.8 percent), cucumber (13.9 percent), water melon (25.4 percent) and ochroes (24.5 percent). Declines in production however occurred for:
cabbage (17.2 percent), lettuce (24.6 percent), cauliflower (3.9 percent), tomatoes (19.0 percent), sweet pepper (12.5 percent), hot peppers (23.5 percent) and bodi (14.1 percent).

Agricultural Trade


**Full Article**

A 2.1 million dollar loan secured from the Caricom Development Fund is expected to address a number of concerns related to the trading of agricultural produce.

Trade Minister Hon Dr. John Colin McIntyre told GIS News this week that these funds will facilitate the improvement of the quality of agricultural exports and address issues of marketing and labeling.

“For a long time now, we’ve been speaking about the poor quality produce that leaves Dominica and we are a country that produces solid agricultural produce. As a matter of fact, most of the markets globally and I’m speaking of the international markets, they prefer the Dominican produce.” The Minister noted.

Thus, Hon Dr. McIntyre said that Government has realized the need to inject funds into packaging, labeling, sorting and grading, as their inferior standards sometimes tend to lower the value of Dominica’s prize produce.

“So with our pack houses being operationalized along with the investment that Government has put in there so far,” the Minister informed, “we would like to take it to the final stage right now where we can look at implementing a fresh produce act, select proper produce, sort and grade the product, package and label them properly and put them in the market as fresh Dominican produce for our consumers.”

Upcoming Events

**September 2013**

**2013 National Goat Conference - North Carolina A&T State University**
**Date:** 15-18 September 2013  
**Location:** Joseph S. Koury Convention Center, Greensboro, North Carolina, USA  
**Theme:** “Looking Towards the Future”  
**Website:** [http://www.ncat.edu/academics/schools-colleges1/saes/cooperative-extension/goatconf.html](http://www.ncat.edu/academics/schools-colleges1/saes/cooperative-extension/goatconf.html)

**Science Forum 2013**
**Date:** 23-25 September 2013  
**Location:** Bonn, Germany.  
**Description:** Will focus on “Nutrition and health outcomes: targets for agricultural research”  
CGIAR Research Program on Roots, Tubers and Bananas (RTB) Annual Meeting  
**Date:** 26 September - 28 September 2013  
**Location:** Montpellier, France  
**Website:** [http://www.rtb.cgiar.org/](http://www.rtb.cgiar.org/)

First International Conference on Global Food Security  
**Date:** 29 September - 2 October 2013  
**Location:** Noordwijkerhout, The Netherlands  
**Website:** [http://globalfoodsecurityconference.com/index.html](http://globalfoodsecurityconference.com/index.html)

October 2013  
**First Global Yam Conference “Yams 2013”**  
**Date:** 3-6 October, 2013  
**Location:** Accra, Ghana  
**Description:** First Global Yam Conference “Yams 2013” will be held in conjunction with the 12th Symposium of the International Society for Tropical Root Crops (ISTRC)-African Branch, from 3 to 6 October 2013 in Accra, Ghana  
**Website:** [http://www.iita.org/web/yams2013](http://www.iita.org/web/yams2013)

**12th Caribbean Week of Agriculture (CWA)**  
**Date:** 4-12 October, 2013  
**Location:** Guyana International Conference Centre, Guyana  
**Theme:** Linking the Caribbean for Regional Food and Nutrition Security and Rural Development  
**Email:** cwaguyana2013@gmail.com

Cassava–Based feed system in Africa: Roadmap to a commercial feasibility  
**Date:** 28-30 October 2013  
**Location:** IITA, Ibadan, Nigeria  
**Description** The Global Cassava Partnership for the 21st Century, the Nigerian Federal Ministry of Agriculture and Rural Development (FMARD), the CGIAR research programs – Roots, Tubers and Bananas, Livestock and Fish, Humid Tropics, and the feed private sector, having common interests in the development of a cassava-base feed system in Africa are partnering to organize a workshop in IITA, Ibadan, Oct 28-30, 2013, to ask the question: What is the best way to develop a cassava-based feed system in Africa? [http://livestockfish.cgiar.org/2013/08/19/cassava-feed/](http://livestockfish.cgiar.org/2013/08/19/cassava-feed/)  
**Contact:** Dr. Claude M. Fauquet, Director GCP21, CIAT. Email: c.fauquet@cgiar.org

November 2013  
**International Conference on ICT4ag**  
**Date:** 4-8 November 2013  
**Location:** Kigali, Rwanda  
**Website:** [http://www.ict4ag.org/en/](http://www.ict4ag.org/en/)

Entomology 2013: Entomological Society of America (ESA) 61st Annual Meeting  
**Date:** 10-13 November 2013  
**Location:** Austin, Texas, USA  
**Theme:** Science Impacting a Connected World  
**Website:** [http://www.entsoc.org/entomology2013](http://www.entsoc.org/entomology2013)