



## MANGO

**Mango, stars down in Sando.** By Seeta Persad, Trinidad and Tobago NEWSDAY, 4 JUNE 2017  
<http://www.newsday.co.tt/news/0,244587.html>

### Full article

HARRIS Promenade in San Fernando was transformed into a marketplace as scores of vendors opened stalls piled high with mangoes of every description.

Mango-based products including soaps and skin cream were also on show.

This as the San Fernando City Corporation partnered with the Network of Rural Women Producers of Trinidad and Tobago to host the tenth annual Mango Festival on Friday.

Mayor Junia Regrello opened the festival saying he plans to host this festival on a continuous basis in the south land.

Permanent Secretary in the Ministry of Agriculture, Land and Fisheries Avinash Singh said events such as this, serve as viable opportunities in which the cultivation and reaping of agricultural produce can be celebrated both as a lucrative and rewarding vocation.

He noted that the network comprises a membership of over 60 small businesses and is one of the shining examples of government's commitment to stimulate sustainable growth through entrepreneurial activity and self-sufficiency.

"Each year the network of rural women celebrates the diversity and economic potential of mangoes by staging the Mango Festival," Singh said, adding that this year promises to see an array of fun-filled themes through the presentation of a plethora of mango varieties and mango-inspired products which is geared towards a range of competitions which include: 'D Mango Chutney Championship', 'D Mango Chow Down', 'Who's Curry Mango Licking' and 'D Best Mango Sucker'.

He outlined the main objectives of this project as being to encourage the growth of the Mango Industry in T&T and to raise awareness of the health benefits and creative uses of the mango fruit in local cuisine. He noted that the government supports the women in rural communities by creating opportunities for them to showcase their products and services through this festival and other outreach programmes similar to mango-fest.

"This event will also serve to educate the public on the mango industry, its growth, its variety and marketing potential and it also sustains the culture of mango consumption," he said, adding that

on the heels of celebrating Indian Arrival Day, one must remember that this fruit was brought here by the indentured labourers from India.

He noted that this fruit can be made into many dishes when it is both in the green and ripened stage. “I am sure you know that for Hindu prayers we must have mango-amchar and we also have kutchela, and chutney,” he said, adding that it forms part of our cultural fabric in this land.

The ripened mangoes, he says, are eaten raw for dessert and they are now being made into drinks.

He praised the network saying it was established in 1995 as an umbrella body geared toward promoting issues that affect rural women. This organisation, he says, empowers rural women to enhance their own economic and social well-being.

Under the theme: “Mango in Sando”, this year’s festival embarked on a series of activities which included a mango-meal activity which solicited the collective participation of several restaurants within San Fernando.

Also a health and cultural education exercise on mangoes as well as a practical culinary activity involving mangoes.

Singh brought greetings on behalf of Minister of Agriculture, Land and Fisheries, Clarence Rambharat.

He also said the 2016 festival took place at the Macoya Market courtesy one of our Ministry’s State agencies - the National Agricultural Marketing Development Corporation (Namdevco) - who like the Ministry, is also exhibiting at this year’s festival.

**Nevis Mango and Food Festival moving to being among Caribbean’s premier food festivals, NTA CEO says.** By Nia Charlestown Nevis, Nevis Island Administration, 30 May 2017.  
<http://www.nia.gov.kn/index.php/news-4/news-articles-3/3052-nevis-mango-and-food-festival-moving-closer-to-being-among-caribbean-s-premier-food-festivals-nta-ceo-says>

#### **Full article**

Greg Phillip, Chief Executive Officer (CEO) of the Nevis Tourism Authority (NTA) believes that the Nevis Mango and Food Festival is moving closer to becoming one of the Caribbean’s premier food festivals.

Phillip, who was at the time delivering remarks at the official launch at Chrishi Beach Club on May 28, 2017, of the festival’s fourth edition, said as the event gathers momentum, it is inching closer to making tourism on Nevis sustainable throughout the year.

“Tourism Nevis is very seasonal, it’s very cyclical but we are going to balance out that graph and this is one of the ways in which we are doing it. We are building into something that is very special,” he said.

The festival, which takes place outside the traditional tourist season, will be held from July 6th to 9th, 2017. It will offer four days of dining experience, cooking demonstrations and master cook-along classes offered by international and local celebrity chefs on Nevis all around the celebration of mangoes cultivated on the island and showcases the island’s culinary scene.

This year’s festival will highlight international chefs, Iron Chef Judy Joo and Celebrity Chef Seamus Mullen, both are affiliated with the Food Network. Chef Mullen will be accompanied by a Mixologist who will be working with a local partner.

Phillip said the chefs will be presented with a unique challenge to prepare every aspect of the meals they will create with mango included.

That’s special because everything that they cook is a new creation. It’s something that no one has ever eaten before and it’s likely something that no one will eat again,” he said.

Judy Joo specialises in Korean food and Chef Mullen specialises in authentic Spanish cuisine.

The NTA official noted that the festival is all about culinary creativity and top celebrity chefs have already shown interest in participating in the 2018 festival.

However, Phillip added that local chiefs are also important Nevis’ culinary scene and by extension the festival. He said the event provides them with an opportunity to showcase their skills on July 9th during the Nevisian Chefs Mango Fest at Oualie Beach from 12 p.m. to 6 p.m.

On Thursday July 6th, cooking demonstrations will be held with the visiting chefs at the Mount Nevis Hotel from 10 a.m. to 12 p.m. There will be a dinner at The Gin Trap restaurant with Chef Seamus Mullen from 7 p.m. to 10 p.m.

The following day Cook-along master classes directed by Chef Judy and Chef Seamus and a local chef will be held at the Ferry terminal Plaza from 10 a.m. to 2 p.m. For the Mango Beach Lime, beach bar lunches will be served from 12 p.m. to 3 p.m. at Pinneys Beach and from 6 p.m. to 10 p.m. the Mango Beach Lime Festival Party will be held.

On July 8th, Mango inspired Breakfast/ lunch events will take place at participating restaurants from 12. P.m. to 3 p.m. At 7 p.m. to 10 p.m. Dinner by Iron Chef Judy Joo will be served at the Mango Restaurant at Four Seasons Resort.

Other remarks were made by Deputy Premier of Nevis and Minister of Tourism Hon. Mark Brantley and Chairman of the Board of Directors of the NTA Tim Thuell.

## SMALL RUMINANTS

**Researchers design AI system to assess pain levels in sheep.** University of Cambridge, 1 June 2017  
<http://www.cam.ac.uk/research/news/researchers-design-ai-system-to-assess-pain-levels-in-sheep>

### Full article

An artificial intelligence system designed by researchers at the University of Cambridge is able to detect pain levels in sheep, which could aid in early diagnosis and treatment of common, but painful, conditions in animals.

The researchers have developed an AI system which uses five different facial expressions to recognise whether a sheep is in pain, and estimate the severity of that pain. The results could be used to improve sheep welfare, and could be applied to other types of animals, such as rodents used in animal research, rabbits or horses.

Building on earlier work which teaches computers to recognise emotions and expressions in human faces, the system is able to detect the distinct parts of a sheep's face and compare it with a standardised measurement tool developed by veterinarians for diagnosing pain. Their [results](#) will be presented today (1 June) at the 12th IEEE International Conference on Automatic Face and Gesture Recognition in Washington, DC.

Severe pain in sheep is associated with conditions such as foot rot, an extremely painful and contagious condition which causes the foot to rot away; or mastitis, an inflammation of the udder in ewes caused by injury or bacterial infection. Both of these conditions are common in large flocks, and early detection will lead to faster treatment and pain relief. Reliable and efficient pain assessment would also help with early diagnosis.

As is common with most animals, facial expressions in sheep are used to assess pain. In 2016, Dr Krista McLennan, a former postdoctoral researcher at the University of Cambridge who is now a lecturer in animal behaviour at the University of Chester, developed the Sheep Pain Facial Expression Scale (SPFES). The SPFES is a tool to measure pain levels based on facial expressions of sheep, and has been shown to recognise pain with high accuracy. However, training people to use the tool can be time-consuming and individual bias can lead to inconsistent scores.

In order to make the process of pain detection more accurate, the Cambridge researchers behind the current study used the SPFES as the basis of an AI system which uses machine learning techniques to estimate pain levels in sheep. Professor Peter Robinson, who led the research, normally focuses on teaching computers to recognise emotions in human faces, but a meeting with Dr McLennan got him interested in exploring whether a similar system could be developed for animals.

“There’s been much more study over the years with people,” said Robinson, of Cambridge’s Computer Laboratory. “But a lot of the earlier work on the faces of animals was actually done by Darwin, who argued that all humans and many animals show emotion through remarkably similar behaviours, so we thought there would likely be crossover between animals and our work in human faces.”

According to the SPFES, when a sheep is in pain, there are five main things which happen to their faces: their eyes narrow, their cheeks tighten, their ears fold forwards, their lips pull down and back, and their nostrils change from a U shape to a V shape. The SPFES then ranks these characteristics on a scale of one to 10 to measure the severity of the pain.

“The interesting part is that you can see a clear analogy between these actions in the sheep’s faces and similar facial actions in humans when they are in pain – there is a similarity in terms of the muscles in their faces and in our faces,” said co-author Dr Marwa Mahmoud, a postdoctoral researcher in Robinson’s group. “However, it is difficult to ‘normalise’ a sheep’s face in a machine learning model. A sheep’s face is totally different in profile than looking straight on, and you can’t really tell a sheep how to pose.”

To train the model, the Cambridge researchers used a small dataset consisting of approximately 500 photographs of sheep, which had been gathered by veterinarians in the course of providing treatment. Yiting Lu, a Cambridge undergraduate in Engineering and co-author on the paper, trained the model by labelling the different parts of the sheep’s faces on each photograph and ranking their pain levels according to SPFES.

Early tests of the model showed that it was able to estimate pain levels with about 80% degree of accuracy, which means that the system is learning. While the results with still photographs have been successful, in order to make the system more robust, they require much larger datasets.

The next plans for the system are to train it to detect and recognise sheep faces from moving images, and to train it to work when the sheep is in profile or not looking directly at the camera. Robinson says that if they are able to train the system well enough, a camera could be positioned at a water trough or other place where sheep congregate, and the system would be able to recognise any sheep which were in pain. The farmer would then be able to retrieve the affected sheep from the field and get it the necessary medical attention.

## SUSTAINABLE AGRICULTURE

**Sustainable agriculture for healthy forest.** By Katelyn Roett, International Maize and Wheat Improvement Center (CIMMYT), 5 June 2017.

<http://www.cimmyt.org/sustainable-agriculture-for-healthy-forests/>

### Full article

TEXCOCO, Mexico (CIMMYT) – Farmers in Mexico’s ecologically-fragile Yucatán Peninsula have successfully tested and are beginning to adopt innovative practices to manage “milpas,” a traditional mixed-cropping system, that can slow or even stop deforestation and soil degradation.

Agriculture is the [second largest emitter](#) of global greenhouse gas emissions and [largest driver](#) of deforestation, making the sector one of the top contributors to climate change and biodiversity loss.

[Fifteen percent](#) of global emissions is due mostly to agricultural expansion into tropical forests. Rising populations and changes in dietary preferences for more energy intense foods, like beef and soy bean, are expected to boost agricultural emissions a further [15 percent by 2030](#).

Agricultural expansion and resulting deforestation of tropical areas also threatens [more than half](#) of all the world’s plant and animal species, contributing significantly to what many scientists say is Earth’s sixth mass extinction.

“Sustainable agriculture can bring large benefits to tropical areas by optimizing land use while improving farm management and techniques for farmers,” said Jelle Van Loon, a mechanization expert at the International Maize and Wheat Improvement Center (CIMMYT) who is working with farming communities in Mexico’s Yucatán Peninsula – an area comprising much of the largest remaining tropical rainforest in the Americas after the Amazon.

Nearly 80 percent of vegetation has been deforested or degraded in the peninsula, with more than 80,000 hectares being cut down annually.

“Agriculture in the Yucatán Peninsula is extremely diverse – there’s everything from industrial farms that operate around forest areas to small community farmers practicing the traditional *milpa* system in the interior,” said Van Loon.

*Milpa* farming – a traditional mixed-cropping system in which maize, beans and squash are grown – contributes to about 16 percent of deforestation in the region, and is typically practiced by subsistence farmers through slash and burn agriculture.

“*Milpa* systems vary across communities in the region,” said Van Loon. “Sometimes plots are burned, farmed and left within two to three years for a new plot, and others are more permanent.”

Van Loon is working with a team of CIMMYT scientists and other partners in the region to see how farmers can apply sustainable technologies and practices across the peninsula's *milpa* systems, as well as larger-scale mechanized farms that operate in the area.

“It’s extremely important that the unique circumstances of each community are taken into account when new technologies are being promoted,” said Van Loon, citing that many programs exist to support local communities, but is often challenging to organize support in an integrated fashion that’s adjusted to local conditions.

“*Milpa* provides more than crops for food – the slash and burn system also provides game and timber for these communities, so there are many factors that need to be taken into account when we try and promote sustainable practices.”

Two years ago CIMMYT successfully trialed a sustainable agriculture initiative with farmers in Hopelchén, a small community in Campeche where indigenous and Mennonite farmers grow maize following traditional farming practices.

Decades of soil degradation had forced farmers to convert rainforest areas into growing fields to continue farming, but when the farmers adopted sustainable intensification methods such as minimal soil movement, surface cover of crop residues and crop rotations, they were able to achieve higher yields even after two months of drought.

The Hopelchén farmers prove the dual benefits of sustainable agriculture in forest areas – forests that would otherwise have been cut down for farmland are preserved, acting as a ‘carbon sink’ by absorbing carbon dioxide that would have been free in the atmosphere, further contributing to climate change. These practices also help farmers adapt to the effects of climate change, like drought and erratic rainfall.

“In order to get adoption right, we are really taking a system-wide approach,” said Van Loon. “We want to integrate mechanization, soil quality, planting density and other approaches like inter-planting with trees to improve biodiversity to get the most efficient system possible.” Van Loon will specifically work with communities to explore mechanization opportunities, from improved hand tools to light weight motorized equipment like two-wheel tractors.

“The goal is to optimize the benefits from the land that farmers are working, find ways to reduce pressure on opening new land and as such slow the rate of deforestation, preserve biodiversity and provide farmers with techniques for improved and more sustainable practices,” said Van Loon. “Ultimately, we’d like to see these practices adopted across the peninsula.”

## PESTS - beet army worm

**Beating the beet army worm.** By Garfield Myers, Jamaica Observer. 5 June 2017.  
[http://www.jamaicaobserver.com/news/beating-the-beet-army-worm\\_100900?profile=1373](http://www.jamaicaobserver.com/news/beating-the-beet-army-worm_100900?profile=1373)

### Full article

Mandeville, Manchester — Experts and farmers agree that one main reason the destructive beet army worm infestation took hold in southern Manchester and southern St Elizabeth in April and May was that reaping had slowed to a crawl.

The reason was that the price of staple crops, especially escallion had plummeted to as low as \$15 per pound in the field, causing many farmers to feel it wasn't worth reaping.

That was a bad mistake, experts say, since it allowed the beet army worm to simply settle and multiply during its peak breeding season.

According to Marina Young, principal director of technical services at the Rural Agricultural Development Authority (RADA), that's a mistake that must not be repeated.

“Even if escallion (price) is down (it) must move from the field... if escallion had moved from the field we wouldn't be here today... ,” Young said during a farming forum at the New Forest/Duff House Water Users' Association Office in New Forest last week.

Young's comments came just before Minister without Portfolio in the Ministry of Industry, Commerce, Agriculture and Fisheries, J C Hutchinson, handed over seeds and equipment, including spray pumps, mist blowers and weed whackers to the water users' association to speed up production recovery from the worm infestation – said to have cost millions of dollars – and improve crop management.

Locals say the army worm outbreak in April/May badly damaged or destroyed about 150 acres of productive farms, mostly escallion, but also cucumber, melon, tomatoes and other crops at the 450-hectare, fully irrigated New Forest/Duff House Agro Park, which is home to the water users' group.

The result of the destruction is that last week escallion prices soared to up to \$150 per pound in the field and \$250 and more in markets.

However, those high prices spelt the death knell of the current beet army worm infestation. Hearing the high prices, farmers have rushed to destroy the pest using non-chemical and chemical methods in the hope they will cash in from remaining healthy fields.

“The price of escallion has gone up... so farmers hunting for worms and killing them because at \$150 per pound, no little worm can't compete with that... one, two, three, dat dead,” explained leading New Forest/Duff House farmer and executive of the water users' association, Conrad Murray.

He expects that in short order escallion production will be back to normal, with prices stabilising. Crucially, said Murray, the authorities should resist any pressure to import escallion.

The farmers say they are used to the boom/bust phenomenon in agriculture. But they believe ways must be found to reduce its impact by making demand more constant from season to season.

The answer they believe is through value-added methods, using available technology to process farm products in order to radically extend shelf life and reach consumers at home and overseas in supermarkets and other retail outlets.

At the forum in New Forest, leading farmer Oswald Bent showed off sample products, including dried escallion powder, thyme powder and bagged chopped escallion which he believes can bring greater sustainability to farming at New Forest/Duff House and increase demand, thereby breaking the boom and bust cycle.

“These products, the ideas, came from New Forest/Duff House Water Users' Association. These (products) were done in collaboration with the Scientific Research Council and the RADA facility in Twickenham did the drying and milling of those products and then the Bureau of Standards has to approve,” explained Bent.

Already, Bent said, he had identified considerable consumer interest in the product at home and abroad. The problem is how to get it done efficiently and in sufficient quantities to meet market demand.

For Murray such a project would not only put money in farmers' pockets; it would reduce the risk of overproduction and minimise outbreaks such as the beet army worm.

“New Forest needs to process escallion powder, thyme powder, red pepper powder... so we can meet the market near and far to keep the beet army worm at bay,” he declared.

Hence the plea to Hutchinson last week for government to assist in the provision of appropriate facilities in south Manchester to process spices and vegetables. Hutchinson, a passionate advocate of value added in food production: “Grow what we eat, eat what we can and can what we can't”, had a quick answer.

In a few months, he said, a facility which he dubbed an “incubator” will be completed at the RADA office in Santa Cruz in St Elizabeth, about 12 miles from New Forest, which will allow farm groups such as the water users' association to process their farm produce.

“Anybody who wants to do any sort of processing of fruits, vegetables, root crops, they are able to go there (Santa Cruz) and have it processed,” said Hutchinson.

The minister later told journalists that the facility in Santa Cruz, like several others of its type around the country, will be “AESOP certified so that they (farm groups) can be able to export directly after having their products done through this process”.

Hutchinson declined to specify the capacity of the plant being developed in Santa Cruz, but said it will have “a big capacity”. Neither would he give the cost of the project. Equipment was now being delivered, he said.

“This incubator has different lines and can produce different things, for instance, mash for escallion and thyme, for cutting up escallion we have a machine that can do it, somebody wants to juice fruits, there is a line that can do it ...,” he said.

St Elizabeth apart, such facilities were being developed in several other parishes, including Trelawny, St James and Hanover, Hutchinson said.

## SEED SYSTEMS

**Seven ways seed systems help the world’s poor.** International Potato Center (CIP), 5 June 2017. <https://cipotato.org/press-room/blog/seven-ways-seed-systems-help-worlds-poor/>

### Full article

The food supply needs to grow by a 100 percent in the developing world by the year 2050 to meet the demands of booming population growth. Mounting pressures due to climate change including droughts, flooding and an increase in pests and disease hit the world’s poor the hardest. An effective seed system can help mitigate the impact of such pressures by helping smallholder farmers access quality materials that increase crop yields and are responsive to the challenges they face in their fields.

1. **Clean material leads to more bountiful crops.** Vegetatively propagated crops, such as sweetpotato, can be kept by many farmers season after season. However, with repeated planting, viruses begin to accumulate resulting in significantly lower yields. Such practices could lead to the abandonment of the crop if those yields get too low.

Poor farmers do not need to rely on deteriorated planting materials saved from previous seasons when an [effective seed system](#) is in place. The availability of quality disease-free planting materials helps enhance smallholder farmer yields and ensures sufficient food for household

consumption. In Rwanda, quality planting material led to doubling and even tripling of orange-fleshed sweetpotato (OFSP) yields in some cases.

2. **Responsive to farmer challenges.** Farmers continuously face new challenges, whether it is the effects of climate change, disease, or pest infestation. A functioning [quality seed system is responsive](#) to the traits farmers are seeking based on their particular needs. Such a system will let farmers know when new affordable varieties are available.

Ideally, these new varieties would not only have climate-smart traits; they would be disease resistant and micro-nutrient content rich without compromising the taste people seek. Ultimately providing farmers with clean varieties suited to the unique productivity challenges they face can lead to an increase in crop yields and income.

3. **Consumer benefits.** While a consumer may be a bit removed from a seed system they gain from a greater varietal availability on the market. If a seed system is functioning properly the consumer benefits from the quality and traits that the seed system is providing growers. An increase in yields from a spike in farmers using quality materials results in a surge of the available market supply, which can result in lowering prices paid by the consumer.

4. **Improved incomes for smallholder farmers.** We've seen that access to quality seeds can result in significant yield increases. In Rwanda, for example, some farmers saw their sweetpotato harvests grow by 200 to 300 percent. That means farmers with limited farm size may have a surplus to sell. By helping to [develop value chains](#) and make them more accessible to smallholder farmers, their collective surplus can feed into an existing market system. In the case of Rwanda, OFSP farmers began selling to a biscuit manufacturer.

A healthy seed system helps smallholder farmers participate in such opportunities by providing them with the materials needed to increase their productivity and improve the overall quality of the product they provide.

5. **Improved nutrition.** A seed system alone doesn't improve overall nutrition, but it can influence it when there is a focus on creating varieties with high micronutrient content. Improved nutrition through seed systems is possible when a country emphasizes the development of nutritious varieties as part of their mandate.

Smallholder farmers prioritize household consumption over sales making it essential to get the highest nutritional value possible from the foods they grow. One surefire way of increasing the nutritional content of a family's diet is through the bio-fortification of the foods they commonly eat such as sweetpotato, maize, and even beans. This was the case with the biofortified OFSP.

6. **Climate change adaptation.** With the [pressures of climate change](#), we have to intensify our breeding efforts and focus on breeding for the emerging constraints. CIP has made a large investment in drought tolerant and heat tolerant varieties with the expectation that the incidence of viruses and the number of vectors such as aphids and white flies may increase. But our new method of accelerated breeding means that new, more adapted varieties get out in 4 years instead of 7 to 8.

As new varieties with adaptive traits are developed an efficient seed system is essential to get those materials to farmers. Partnerships with government, the private sector and NGO's are also vital. CIP has worked with the Agricultural Research Institute of Mozambique (IIAM) to develop over 20 climate smart OFSP varieties. Over 150,000 drought-affected families received planting materials. Today, more than 80 percent of those households produce and consume nutritious OFSP.

7. **Post-disaster recovery.** Strong seed systems help agricultural economies devastated by natural disasters or conflict revive more quickly – this can prevent much of the suffering endured by post-catastrophe farm communities and the urban populations that depend on them for supplies of affordable food. A strong seed system helps well-developed networks of suppliers go quickly to scale and help revive the food economy.

We have seen in many instances that in the absence of a quality system, emergency organizations and governments just buy anything they can find. They'll purchase vines of whatever sweetpotato is available and distribute it to households in need. This can become a source of possible disease transmission in areas that were previously unaffected. The subsequent overall yields would be lower than would have been with an effective seed system.

## AGRICULTURE DEVELOPMENT

**Agriculture Minister Confident Sector will Rebound** by Judith A. Hunter , Jamaica Information Service, June 8, 2017

<http://jis.gov.jm/agriculture-minister-confident-sector-will-rebound/>

### Full article

Minister of Industry, Commerce, Agriculture and Fisheries, Hon. Karl Samuda, says he is confident the agricultural sector will rebound to continue its growth contribution to the economy.

The agricultural sector contributed 7.5 per cent to the gross domestic product (GDP) in 2016, but the heavy rains in May affected some 10,000 farmers, resulting in losses worth \$800 million.

Speaking at the launch of the 2017 Denbigh Agricultural, Industrial and Food Show at the Hi-Pro Ace Supercentre in White Marl, St. Catherine, yesterday (June 7), the Minister pointed out that the Government has committed some \$118 million to assist farmers who were impacted, noting that more than \$18 million has already been disbursed.

“We are hopeful that not only will the sector rebound, but that by August when we meet at Denbigh, we will be back on track and surpassing expectations,” Mr. Samuda said.

Meanwhile, President and Chief Executive Officer of Jamaica Broilers Group, Christopher Levy, said he is excited about the future of agriculture in Jamaica.

He said that he has seen where Government has finally taken on board the seriousness of the role of agriculture in the development and growth of the country.

For his part, President of the Jamaica Agricultural Society (JAS), Norman Grant, said this year’s Denbigh Show is expected to generate more than \$1 billion worth of economic activities.

The annual show will be held from August 5-7 at the Denbigh Showground, May Pen, Clarendon, under the theme ‘Grow What You Eat... Eat What You Grow: A Salute to Our Farmers, Nation Builders’.

**REGION 9 FARMERS, AGRO-PROCESSORS BENEFIT FROM ‘COST OF PRODUCTION’ TRAINING.** Ministry of Agriculture Guyana, 5 June 2017. <http://agriculture.gov.gy/2017/06/05/region-9-farmers-agro-processors-benefit-from-cost-of-production-training/>

#### **Full article**

The Guyana Marketing Corporation (GMC) through a collaborative effort with the Promotion of Regional Opportunities for Produce through Enterprises and Linkages (PROPEL) and the Inter-American Institute for Cooperation in Agriculture (IICA), recently facilitated a Cost of Production Workshop targeting farmers and agro-processors.

The workshop which was held at the St. Ignatius Village, Region 9 was aimed at better equipping farmers and Agro-processors with the knowledge to identify and compute input costs for their farming or agro-processing operations.

It served as a follow-up to the fact-finding mission which was undertaken last November by personnel from the Guyana Marketing Corporation. During last year’s interactions with the stakeholders, the team recognized the shortfall which often results in flawed management decisions made by producers.

Forty-seven participants from the villages of St. Ignatius, Parshana, Moco-Moco, Shulinab, Quarrie, Nappi, Bina Hill, Surama Aranaputa, and Annai benefitted from the cost of production training for the production of peanuts, cassava bread, pepper sauce, plantain chips and guava jam.

Notably, the model that was used during the workshop also enabled participants to calculate other costs of production.

General Manager of the Guyana Marketing Corporation (GMC), Ms. Ida Sealey Adams in an invited comment stated that the benefit from such a workshop remains an important component if farmers are to boost their production level and take advantage of the opportunities which exist.

“The benefit of which is not limited to being in a better position to negotiate prices offered to them for their produce,” she said.

Guyana Marketing Corporation through its Marketing and Crop Extension Officers provide ‘Marketing Extension Services’ to farmers and Agro-processors. Officers continually make regular visits to farms and Agro-processing establishments to educate both farmers and Agro-processors on the importance and know-how to compute the cost of production. This is done to maximize the profits of the producer whilst at the same time focus on lowering the costs of production.

“In addition, GMC is cognizant of the importance of developing and expanding agriculture business enterprises. Of paramount importance to farmers, Agro-processors and Agricultural marketers are the ability to sustain markets for their commodities,” Sealey-Adams said.

As such, one critical service that is provided by the Guyana Marketing Corporation is a collaboration with stakeholders in the development of Agri-businesses to realize their full potential. To this end services that are provided by the Agriculture Business Development unit include:

- Train farmers and farmer groups to develop and sustain markets for their produce.
- Train Agro-processors to attract new markets and penetrate existing markets for their products.
- Conduct Value Chain Analysis
- Develop and Coordinate linkages among stakeholders of the Value- chains for Agro- processed items.
- Assess the marketing opportunities and target markets for agricultural produce and products through Intelligence Gathering of Consumers and Competitors, among others.

**Agriculture Sector in Grenada poised for growth.** By Marketing and National Importing Board (MNIB) Media Release, 1 June 2017. Posted on Organization of Eastern Caribbean States website <https://pressroom.oecs.org/agriculture-sector-in-grenada-poised-for-growth>

### **Full article**

On Tuesday, May 30th 2017, the agriculture sector in Grenada got a much needed boost, as part of the Marketing and National Importing Board's (MNIB) thrust to develop the sector.

The MNIB was able to secure funding and technical assistance from the Technical Center for Agricultural and Rural Development Cooperation (ACP-EU), commonly called the CTA.

The CTA has listed Grenada as one of the countries poised for further agricultural diversification and has thrown its support behind the sector, which will contribute to the development of smallholder farming through the MNIB.

The project will see the marriage of some of the major supporting sectors, such as Tourism, and explore the ways in which agriculture and agro-processing can be mutually beneficial to further the development of the sectors.

Minister for Economic Development, Hon. Oliver Joseph, elaborated on the ways in which a combination of the various Ministries can assist in making Grenada more economically stable, as the country moves to focus its efforts on Agro processing, Health Care through proper healthy diets, and improve exports of locally grown Grenadian foods.

Chief Executive Officer of the MNIB, Mr. Ruel Edwards, gave an overview of the entire project, before a large gathering of Farmers, Hoteliers, Restaurant and Supermarket owners and operators.

Mr. Edwards was very careful to remind stakeholders that their continued commitment to the project was critical for its success as it lays the foundation for further assistance from the CTA and other agencies. This commitment is especially important as Grenada is now on the launch pad for further economic growth and sustainable development.

Farmers were specifically targeted as this project will assist in enhancing their capability to achieve better quality production, improve efficiency, and to take a more serious business approach to their livelihood.

CEO Edwards said these specific objectives will form the nucleus of the expected achievements of the project.

"The CTA has built up a reputation in the region as a vibrant and determined actor to enhance the agricultural agenda.

"Over the years we have seen the support for high level dialogue in bringing finance to the agricultural sector, significant support of the Caribbean Week of Agriculture and the promotion of development of sustainable and profitable value chains and agribusinesses" said Mr. Edwards.

This project fits into the overall strategy of CTA, as reflected in its regional business plan, to focus on linkages between small farmers, particularly women and youth, into the value chain through agricultural development and to do so through enhancing their capabilities. This will be achieved through:

Provision of critical business development services to allow for consistent production;

Streamlining horizontal coordination to ensure that market demands from the hospitality sector are satisfied;

Capacity enhancement of the MNIB and other value actors in regards to the use of ICT; and

The updating of a web-based forecasting system and online mapping that link all actors within the value chain.

The project has a total value of just over Euro 93,000 and is expected to be completed by the end of 2017.

**Editor's Note**, see also: **CTA Supports MNIB with sustainable Agri-business Value Chain Project in Grenada**, June 7, 2017 [Video] <http://www.mnib.gd/single-post/2017/06/07/CTA-Supports-MNIB-with-sustainable-Agri-business-Value-Chain-Project-in-Grenada>

## FOOD AND NUTRITION SECURITY

**Latin America and the Caribbean promotes an international code of conduct to prevent and reduce food losses and waste.** FAO Regional Office for Latin America and the Caribbean, June 09, 2017 <http://www.fao.org/americas/noticias/ver/en/c/893041/>

### Full article

The region will submit a proposal to the Committee on World Food Security at the end of June.

June 09, 2017, Santiago, Chile - Countries in Latin America and the Caribbean today announced their interest in promoting an international code of conduct to serve as a global guideline to prevent and reduce food losses and waste.

FAO has supported countries in the region to create [a technical support note](#) for the code, which will be submitted to the Committee on World Food Security (CFS) in June.

The note that will be presented to the CFS contains a methodological framework to identify critical points, practices and key actors associated with losses and wastes.

This proposal was debated by parliamentarians, government officials, representatives of the private sector, civil society and the academy of sixteen countries of the region during the [III Regional Dialogue on Food Loss and Waste](#).

"That a great part of the food produced in the world ends up in the garbage, when more than 795 million people are still suffering hunger all over the planet, it is a real crime," said Julio Berdegú, FAO's Regional Representative, during the dialogue.

If accepted by the international community, the proposal will serve as a basis for constructing a non-binding legal instrument - such as that for pesticide use - that will enable countries to meet target 12.3 of the Sustainable Development Goals, which aims at a 50% cut in per capita food losses and waste by the year 2030.

The Code of Conduct will enable the overall response to be coordinated through a shared vision and strategies involving all actors in the food system.

By identifying the critical points at each stage of the food life cycle, countries will be able to prevent and reduce losses throughout the food chain. By linking local, regional and global strategies, it will serve as a reference to create laws and foster cooperation between the parties involved.

#### *The region strengthens its laws and institutions*

Since 2015, several countries in the region have incorporated this theme into their legislative agendas and their institutions.

During the regional dialogue, [Chile announced the creation of an intersectoral committee](#) on this subject, adding Argentina, Brazil, Costa Rica, Colombia, Dominican Republic and Uruguay. Ecuador, Honduras and Paraguay have already started similar processes.

Currently, there are about 19 bills related to the losses and waste that are being debated in the parliaments of Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru and Uruguay.

During the regional dialogue, ten members of the Parliamentary Front against Hunger in Latin America and the Caribbean participated in a special training session and defined a joint road map to drive these initiatives.

"Legislation is needed to minimize food loss from a multidimensional and preventive approach, not only linked to punishment," said Mexican Senator Luisa María Calderón, General Coordinator of the Parliamentary Front Against Hunger.

According to the FAO, one of the outstanding challenges is to advance not only in the reduction but also in the prevention of losses and wastage at all stages of the food supply chain.

### *A problem with multiple repercussions*

Food losses and waste have important environmental, economic and social implications, and have great negative impacts the sustainability of food systems.

While in developing countries 40% of the losses occur in the post-harvest and processing stages, in industrialized countries more than 40% of losses occur in retail and at the consumer level.

According to FAO, about 1.4 billion hectares of land are used each year to produce food that is not consumed, a larger area than that of Canada and India as a whole.

## **LASER-ASSISTED LAND LEVELLING**

**In Indonesia: Laser levelling of farmland steps up agricultural production.** International Rice Research Institute (IRRI). 5 June 2017

<http://news.irri.org/2017/06/in-indonesia-laser-leveling-of-farmland.html>

### **Full article**

The swampy land areas of South Sumatera, Palembang are poised to become the next rice granary in Indonesia. Recently, to step up the region's agricultural productivity, local extension professionals, farmers, and students were trained on the use of laser-assisted land leveling and tractor driving in Palembang.

Marto Suwarno, local owner of a 3-hectare rice-corn farm and leader of Gabungan Kelompok Tani (Association of Farmers' Group) in Mulya Sari village, pointed out a problem that he has been experiencing on his farm. "I always have uneven plant growth in my rice and corn fields, but I hope there can be a solution," he said.

Laser leveling of the land could be that solution and it was demonstrated for the local extensionists, farmers, and students on Pak Suwarno's farm during an event on 24-25 May. Budi Raharjo, who spearheads the Assessment Institute for Agricultural Technology (BPTP), partnered with Pak Suwarno to illustrate the benefits of the laser leveling technology.

"After successfully conducting the land leveling during the 2-day event, Pak Suwarno will continue to plant corn and rice," Budi pointed out. "Over the next 2 seasons, we will observe the productivity of his farm to see if there is any difference between manually leveled and laser-leveled fields."

Caling Balingbing, postharvest and mechanization expert at the International Rice Research Institute (IRRI), presented the principles and advantages of laser-assisted land leveling and

answered queries on issues related to timing and soil type. He also guided BPTP staff members on properly doing automatic land leveling on Pak Suwarno's fields.

Dr. Priatna Sasmita, BPTP director, witnessed the demonstration and actually operated the laser-leveling equipment himself. "I think this event was a good learning opportunity for everyone," he said. "Laser-leveling technology will help Indonesia farmers to accelerate their land preparation. It addresses the issues associated in land leveling such as labor, skills, and efficient tools. The technology is more efficient in terms of labor and time and it fits well with Indonesia's goal to improve rice productivity as we are developing new farming areas to increase agricultural production outside of Java. It can be managed by farmer groups and BPTP can help by introducing new practice."

Dr. Priatna lauded everyone's active participation. "This event brought many sectors together. We will introduce the technology through farmer groups such as Gabungan Kelompok Tani. I hope IRRI can help other agencies, such as the Indonesia Center for Rice Research (ICRR), to build our capacity to use the equipment to bring the technology forward."

"Farmers in Indonesia have a 'see is to believe' attitude when evaluating a new technology, said Pak Suwarno. "So, I invite my fellow farmers to see my fields so they can observe the results with their own eyes. Looking at my field now (after the laser leveling), I can already see the difference."

The students were able to actually drive a tractor with a disc-plow attachment, which is another land preparation implement. "I enjoyed driving the tractor for the first time and found it is easy to use," said Hanip Nurdiansyah, a 20-year old student from the University of Sriwijaya. "We don't usually see tractors and big machines, so it was a happy experience to handle such equipment that can improve land productivity." Another student, Alkahim, felt that the hands-on experience enabled him to appreciate his agricultural education even more. "I am an animal science major and experiencing this for the first time has expanded my horizons that there are more things to do in agriculture," he said.

The event was organized by BPTP South Sumatra, in collaboration with ICRR in Sukamandi, the Indonesian Center for Agricultural Engineering Research and Development (ICAERD) in Serpong, and IRRI through the CORIGAP project. Other participants were Syngenta Jakarta and students from SMKN Tanjung Lago and University of Sriwijaya in Palembang. The BPTP South Sumatra staff members, who were earlier trained on laser leveling by the IRRI-CORIGAP project last September 2016, also trained the students on how to conduct a topographic survey. The CORIGAP project is funded by the Swiss Agency for Development and Cooperation

## WORLD ENVIRONMENT WEEK

**OECS Commission Celebrates World Environment Week.** Organization of Eastern Caribbean States, 6 June 2017.

<https://pressroom.oecs.org/oecs-commission-celebrates-world-environment-week#>

### Full article

The year 1972 marked a defining moment in the development of international environmental politics with the hosting of the first major conference on environmental issues—The United Nations Conference on the Human Environment, held from June 5 - 16 in Stockholm, Sweden. The main aim of the conference was to devise a basic common outlook on how the challenges of preserving and enhancing the human environment could be addressed (United Nations).

As a result, World Environment Day has been celebrated on June 5th since 1974 amidst growing concerns such as the depletion of the ozone layer, toxic chemicals, desertification and global warming. The annual celebration was started by the United Nations General Assembly and aims to raise global awareness about the importance of a healthy and green environment to human lives, to urge the implementation of positive environmental actions and to make societies aware that everyone has a role to play including governments and organisations working in the area. Over the years, participants have helped to drive change in consumption habits, as well as in national and international environmental policy. Also, since 1974, the celebration campaign of World Environment Day is hosted in different cities of the world. This year, celebrations will be hosted in Canada under the theme “*Connecting People to Nature*” (United Nations)

### OECS ENVIRONMENTAL SUSTAINABILITY

Closer to home, the OECS Commission’s mandate under the St. Georges Declaration of Principles for Environmental Sustainability in the OECS Region includes the goal of *Achieving the Long-term Protection and Sustained Productivity of the Region’s Natural Resource Base and the Ecosystem Services it Provides*. The Commission is implementing effective actions on behalf of the OECS Member States through the following focal areas:

- Biodiversity and Ecosystems
- Climate Change and Disaster Risk
- Land and Water Resources
- Ocean Governance and Fisheries
- Sustainable Energy

Recent and current actions include strengthening the organisational, legal and regulatory frameworks and enhancing the capacity of institutions and communities at national and regional levels to effectively manage natural resources and to build resilience.

## IMPORTANCE OF NATURE

The theme for 2017, “*Connecting People to Nature*”, urges us to get outdoors and into nature, to appreciate its beauty, think about how much we depend on it and to find fun and exciting ways to experience and cherish this vital relationship. Farmers, fishers and people in rural communities around the globe are the ones who spend most of their work day in nature and fully appreciate their dependence on natural resources and how they provide their livelihoods. In addition, they are among the first to feel the negative impacts of threatened or damaged ecosystems by issues such as pollution, over-exploitation and climate change.

Services of the natural environment like clean air and water are hard to value in monetary terms and are often taken for granted until they become scarce. Economists are therefore developing ways to measure these many ecosystem services ranging from insects pollinating fruit trees to the leisure, health and even the spiritual benefits of a hike up a mountain or a bath in a waterfall.

More recently, the 2030 Agenda for Sustainable Development affirms the need “to ensure the lasting protection of the planet and its natural resources”. Sustainable Development Goals 14 and 15 focus on protecting critical ecosystems under water and on land and on the sustainable use of marine and terrestrial resources.

## Upcoming Events

June

### **Information and Communication Technologies for Evaluation - International Conference**

**Date:** Tuesday, 6 June 2017, 8:00 - 18:00 and Wednesday, 7 June 2017, 9:00 - 17:30

**Location:** IFAD headquarters, Via Paolo di Dono, 44, Rome, Italy

**Description:** The conference will review the latest advances in using Information and Communication Technologies to evaluate the results of development projects. It will share global best practices and key findings from development organizations and the private sector. Data collection, data analysis and data dissemination will be the three topics guiding the discussion.

**Follow us via webcast:** [https://webcasting.ifad.org/it\\_evaluation](https://webcasting.ifad.org/it_evaluation)

**Website:** [https://www.ifad.org/en/newsroom/press\\_release/tags/alert9/y2017/43337919](https://www.ifad.org/en/newsroom/press_release/tags/alert9/y2017/43337919)

### **Animal Quantitative Genetics and Genomics annual training workshop**

**Date:** 19–30 June 2017

**Location:** Biosciences eastern and central Africa-International Livestock Research Institute (BecA-ILRI) Hub

**Description:** The training is strengthening the capacity of researchers in Africa to apply an in-depth

understanding of livestock genetics to the design of livestock breeding programmes.  
**Website:** <http://hub.africabiosciences.org/blog/scientists-applying-genomic-intelligence-to-sustainable-livestock-development-in-africa-at-the-beca-ilri-hub/>

July

**Caribbean Food Crops Society (CFCS) Annual Meeting**

**Date:** July 16-22, 2017

**Location:** Puerto Rico

**Description:** The theme for the meeting is: The Role of the Caribbean as a Research Hub to Advance Global Agriculture and Food Security.

**Website:** <http://cfcs.eea.uprm.edu/article/annual-meeting-cfcs-puerto-rico-july-16-22-2017-call-submission-presentations-deadline-extend>

August

**Denbigh Show, Jamaica**

**Date:** August 5-7

**Location:** Denbigh Showground, May Pen, Clarendon,

**Theme:** ‘Grow What You Eat... Eat What You Grow: A Salute to Our Farmers, Nation Builders’.

**32<sup>nd</sup> West Indies Agricultural Economics Conference 2017**

**Date:** 6-11 August 2017

**Location:** Georgetown, Guyana

**Description:** Theme: Food & Nutrition Security: the pathway to sustainable agricultural development in the Caribbean. Organised by Caribbean Agro-Economic Society

**Website:** <http://www.caestt.com/home/32nd%20W.I.A.EConference.php>