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**Research Clarifies Health Costs of Air Pollution from Agriculture.** NASA, 28 March, 2014  
http://www.nasa.gov/content/goddard/research-clarifies-health-costs-of-air-pollution-from-agriculture/#.U0I5jaI-79jk

Ammonia pollution from agricultural sources poses larger health costs than previously estimated, according to NASA-funded research. Harvard University researchers Fabien Paulot and Daniel Jacob used computer models including a NASA model of chemical reactions in the atmosphere to better represent how ammonia interacts in the atmosphere to form harmful particulate matter.

For more information see page 9

**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
Rice

**Combating obesity with new Okinawan rice** by Mayumi Nishioka. Okinawa Institute of Science and Technology, 26 Mar 2014

**Full Article**

In recent years, Okinawa has recorded the dubious distinction of having the highest obesity rate in Japan. Preventing obesity-related diseases is an urgent issue. Professor Hidetoshi Saze of the OIST Plant Epigenetics Unit is leading a new research project to develop a new strain of rice that produces digestion-resistant starch to prevent these diseases. The project, fostered by the Okinawan government, involves three activities by the medical, agricultural, and food industries: development of the new rice strain, nutritional and physiological analyses, and processing and sales.

*Nanshoka-Mai*, or rice with digestion-resistant starch is a new breed of rice rich in starch that does not as readily break down into glucose. This rice strain was first developed by a research team at Kyushu University 30 years ago. The starch from most grains, which consist largely of an unbranched glucose polymer known as amylose, is normally broken down into glucose during the digestive process and serves as our primary energy source. However, excessive consumption of sugars (simple carbohydrates) can cause life-style-related diseases, such as obesity and diabetes. This new strain of rice is expected to serve as an alternative preventative measure. In addition to its anti-obesity effect, gathering evidence suggests that the rice with digestion-resistant starch may also provide other benefits, such as lower blood sugar levels, reduced neutral fat, and harmful cholesterol levels, and prevention of lipid accumulation in the liver.

Despite its great promise, when researchers planted the original strain of resistant-starch rice in Okinawa, the yield per hectare was about half that achieved in mainland Japan. Prof. Saze and his team then started hybridizing the resistant-starch rice with local strains to genetically design a new strain of rice suited to Okinawa’s climate. Using OIST’s next-generation sequencing machines, Prof. Saze is analyzing genomes of these rice strains. He is also using plant incubators in his unit to shorten the vegetation period of the new rice. It is important to obtain the support of rice producers in Okinawa by demonstrating a clear economic, as well as health benefits of the resistant-starch rice. “The resistant-starch rice can be used in many food products. I hope that our project will improve people’s health,” said Prof. Saze.

In order to assess the effects of the resistant-starch rice, the project also involves medical and physiological studies by the University of the Ryukyus, Osaka Prefectural University, and Ishikawa Prefectural University. Moreover, some local companies are working together to develop processed foods with rice powder produced from the resistant-starch rice. Whether they are staples or regional specialities, in the near future, we may be able to see many more healthy local products on store shelves.
Farmers’ support critical to rice industry’s development-Agriculture Minister tells farmers at field day at Mahaica. GINA, 23 March, 2014

Full Article

The rice industry, despite challenges has seen remarkable growth over the years, and in fact in 2013, production was in excess of 530,000 tonnes, but Agriculture Minister Dr. Leslie Ramsammy told farmers that this is just the pinnacle of what the industry can do, if Government is assured of their support at all times.

Speaking with farmers from across the region, who were present at the Farmers’ Field Day on Friday at Supply, Mahaica, Minister Ramsammy noted that, “this is an industry that has grown because of what we have all done, and it is a little unfair to say that when things are going good it’s the farmers hard work, and when things are not going good, it is the government.”

He noted that, there always will be challenges, whether political or otherwise. He said the ministry will be moving to establish a special group that will comprise experienced persons who will meet and present periodic reports of recommendations, so as to collectively address issues related to the development of the industry, Minister Ramsammy said.

He explained that this is to be a permanent group and about 15 to 20 farmers from the rice growing regions will be asked to join.

Last year, when rice production increased 27 percent over the 2012 figure of 423,000 tonnes, the industry’s success was credited to the enthusiastic participation of the farmers, who continued production despite difficult weather conditions, challenges of paddy bug infestation and invested in the procurement of tractors and combines.

Government’s interventions also created the right conditions for the farmers to produce. Among these has been the introduction of better farming techniques and new technologies for better results. The farmers’ field day is one way through which government has been facilitating this transfer of knowledge to the farmers.

The field day is an on-going exercise whereby new applied agronomic knowledge is demonstrated on a local farmer’s plot and farmers across the country are brought together to witness the results. This time around, the farmers were engaged on Mahaica rice farmer, Parsram Persaud’s utilisation of the recommended variety, seedling rate and treatment and fertiliser on his three-acre plot.

Guyana is about to reach a stage where uniformly across every rice growing rice region, every farmer will be producing about five tonnes of paddy per hectare. This is because of farmers’ enthusiasm in supporting, and with optimum speed, the new farming technologies which Government continues to invest in and roll-out to improve their farming methods.

Also in attendance at the exercise was General Manager of the Guyana Rice Development Board Jagnarine Singh, GRDB’s Extension Manager Kuldip Ragnauth, and GRDB’s Chief Scientist Dr. Mahendra Persaud.
Banana

PM reveals government’s support for agriculture with new support package for banana farmers.
GIS Dominica, 26 March 2014

Full Article

Dominica’s Finance Minister, Prime Minister Hon. Roosevelt Skerrit has revealed Government’s support for the Agriculture sector with a new support package created for banana farmers.

The Labour Party Government has continued to illustrate the importance of agriculture with numerous incentives and support programmes designed to result in profit and sustainability.

At the most recent sitting of Parliament last Wednesday, the nation’s leader rose to highlight several of those initiatives.

He said, “It is this Labour Party Government that paid off thirty-four million dollars in farmer’s debt during our austerity programme of monies owed by farmers to the Dominica Marketing Corporation. We have subsidized the price of fertilizer by as much as sixty percent. We have given free fertilizer to farmers, free planting material, and subsidized planting material, zero percent interest loans, 50/50 loan arrangement at the Aid Bank, 50 percent grant and 50 percent loan. So if a farmer borrowed 50 thousand dollars, 25 thousand dollars would be a grant from the Government... and you are saying that we are doing nothing for the farmers?”

Hon. Skerrit acknowledged that in addition to well-known challenges facing the sector, the black sigatoka fungus affecting banana and plantain crops has proven to be one of the more costly ones for both government and farmers.

“The chemicals you have to use is expensive... We have been asking and soliciting the cooperation of the farmers because to fight black sigatoka you need the absolute cooperation of the farmers. There are still farmers in Dominica who do not want us to come on their farms to treat and to deal with the black sigatoka.”

The Prime Minister revealed that Government has agreed that the bulk of fertilizer received from the Kingdom of Morocco will go to farmers who have been affected by the black sigatoka.

In light of the damage wreaked on banana and plantain crops, government has designed a support package specifically for those affected farmers. Government intends to announce what this will entail and how it will be of benefit to the farmers in a week or two.
Weed Control

Understanding plant-soil interaction could lead to new ways to combat weeds. College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign
25 March, 2014
http://news.aces.illinois.edu/news/understanding-plant-soil-interaction-could-lead-new-ways-combat-weeds

Full Article

URBANA, Ill. – Using high-powered DNA-based tools, a recent study at the University of Illinois identified soil microbes that negatively affect ragweed and provided a new understanding of the complex relationships going on beneath the soil surface between plants and microorganisms.

“Plant scientists have been studying plant-soil feedback for decades,” said U of I microbial ecologist Tony Yannarell. “Some microbes are famous for their ability to change the soil, such as the microbes that are associated with legumes—we knew about those bacteria. But now we have the ability to use high-power DNA fingerprinting tools to look at all of the microbes in the soil, beyond just the ones we’ve known about. We were able to look at an entire microbial community and identify those microbes that both preferred ragweed and affected its growth.”

Although it would seem that the logical conclusion would be to simply add anti-ragweed microbes to soil, Yannarell said that adding microbes to soil hasn’t been successful in the past. An effective strategy, however, to suppress weeds might be to use plants that are known to attract the microbes that are bad for ragweed, and in so doing, encourage the growth of a microbial community that will kill it.

The study used Manhattan, Kan. (sunflower) and Urbana, Ill. (ragweed) and conducted trials independently at agricultural research facilities in Michigan, Illinois, Kansas, South Dakota, and Oregon, using local soils gathered on site. These particular weeds were selected because ragweed is a more common weed east of the Mississippi and sunflower is more common in the West.

The experiment allowed Yannarell and his colleagues to observe how three generations of ragweed and sunflower interacted with the microbial community in the soil. The plants interact with each other indirectly due to the differing effects they each have on the microbes in the soil.

“We used the same soil continuously so it had a chance to be changed,” Yannarell said. “We let the plants do the manipulation.”

Interestingly, they did not find the same ragweed-preferring microbe across all five states. “The microbial communities are different in each of these states, and yet we found the same overall patterns in each state individually,” Yannarell said. Illinois, Oregon, Kansas, and South Dakota (and in about 50 percent of the data from Michigan) each had local microbes that preferred ragweed and had a negative effect on its growth. “That was a take-home lesson for me,” he said, “that the actual organisms can be different in different locations, but they still may be performing the same functions.”

Yannarell said that currently one of his graduate students is studying ways to use what they learned as a method for weed control. “What we’re looking at now is the use of different cover crops, many
of which are not harvested but just turned under into the soil,” he said. “We’re looking for specific cover crops that can make the microbial community bad for weeds as opposed to spraying. Can we create weed-suppressive soils?”

“An Affinity–Effect Relationship for Microbial Communities in Plant–Soil Feedback Loops” was published in the January 2014 issue of *Microbial Biology*. Others who contributed to the research are Yi Lou, Sharon A. Clay, Adam S. Davis, Anita Dille, Joel Felix, Analiza H.M. Ramirez, and Christy L. Sprague.

Livestock

**Got your Goat? Hope so – a Meat sector with great potential** by Bajan Reporter 28 March, 2014
http://www.bajanreporter.com/2014/03/got-your-goat-hope-so-a-meat-sector-with-great-potential/

**Full Article**

As the implementing agency for the Common Fund for Commodities (CFC) Project titled ‘Diversification of the Caribbean Livestock Sector through the production of small ruminants’, the Caribbean Agricultural Research and Development Institute (CARDI) hosted a Status Meeting earlier this year with key stakeholders, including Fund Administrators, the Animal Production and Health Division of Trinidad and Tobago’s Ministry of Food Production, CARDI executives, Project and National coordinator, and small ruminant farmers.

This sector has the potential for significant contribution to employment generation, foreign exchange earnings/savings through import substitution, poverty alleviation and food and nutrition security. The small ruminants sector is one of the fastest growing segments of the agricultural economy in many developed and developing countries, propelled by revenue growth and supported by technological and structural changes, coupled with an enabling environment.

“The consumption of sheep meat in the Caribbean region is twice that of goat. Ethnic, cultural and religious factors greatly influence consumption patterns. **Jamaica** is the largest importer of small ruminant meat in the Region, followed by **Trinidad and Tobago**.”

Along with the Ministries of Agriculture in Jamaica and Trinidad and Tobago, several institutions have active programmes aimed at supporting and developing the industry; including the University of the West Indies; McGill University; the Inter-American Institute for Cooperation on Agriculture; the Food and Agriculture Organisation of the United Nations; the Caribbean Development Bank; the Common Fund for Commodities; the International Development Research Centre; and CARDI.

The CFC Project is administered under four (4) key components; namely:

- Breed improvement and dissemination of stock
- Technology transfer and capacity building
- Marketing and processing
- Project coordination
The activities included field visits to Centeno Livestock Station; and the farms of livestock farmers, Christopher Springer and Wayne Bowen, both located in Wallerfield, Trinidad. Mr. Springer operates 4.5 acres of land and his flock presently comprises of 23 breeding ewes and 1 breeding ram, with 6 followers. While Mr. Bowen rears his livestock on 8 acres of land, with a flock of approximately 50 goats and 60 sheep.

The two main beneficiaries of the programme are Jamaica and Trinidad and Tobago. Other funding partners are the Government of Jamaica; the Government of Trinidad and Tobago; and the Caribbean Development Bank (CDB).

25 Drug companies to phase out animal antibiotics by Maggie Fox. NBC News, 26 March 2014

Full Article

Twenty-five pharmaceutical companies are voluntarily phasing out the use of antibiotics for growth promotion in animals processed for meat, the Food and Drug Administration said Wednesday.

Citing a potential threat to public health, the agency in December asked 26 companies to voluntarily stop labeling drugs important for treating human infection as acceptable for use in animal production.

The companies will either withdraw the drugs from animal use completely or revise them so they would only be able to be used with a veterinarian's prescription.

Pharmaq AS was the only company that declined to follow the voluntary guidelines. Pharmaq makes an antimicrobial powder used to treat certain conditions in salmon, trout and catfish. The Norwegian company's product already is for therapeutic uses only, but is available over the counter, according to nutritionists.

Many cattle, hog and poultry producers give their animals antibiotics regularly to ensure that they are healthy and to make the animals grow faster.

Withdrawing the animal drugs is designed to limit antibiotic-resistant diseases in humans as that resistance has become a growing public health problem. Repeated exposure to antibiotics can lead germs to become resistant to the drug so that it is no longer effective in treating a particular illness.

In September, the Centers for Disease Control and Prevention released estimates that more than 23,000 people a year are dying from drug-resistant infections.

The biggest risk is from germs spread in hospitals, and it's not clear how much of the problem is related to the use of drugs in meat. But the FDA has said this is one step toward addressing the problem.

FDA said it was working with industry on the issue because it was an easier and faster route than the protracted regulatory process. Two of the largest companies selling such animal antibiotics, Zoetis and Elanco, said they would comply.
Critics argue that the guidelines give drugmakers too much discretion in policing their own use of antibiotics and provide no mechanism for enforcement, and were unconvinced by Wednesday's announcement. -The Associated Press and Reuters

**FDA Update on Animal Pharmaceutical Industry Response to Guidance #213.** U.S. Food and Drug Administration, 26 March, 2014

[http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/JudiciousUseofAntimicrobials/ucm390738.htm](http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/JudiciousUseofAntimicrobials/ucm390738.htm)

**Full Article**

On December 11, 2013, the FDA announced the implementation of its plan to help phase out the use of medically important antimicrobials in food animals for food production purposes. As part of this plan, FDA asked the animal pharmaceutical industry to seek withdrawal of animal drug approvals relating to any production uses and transfer the remaining therapeutic uses of these drugs under the oversight of a veterinarian. FDA asked affected sponsors to notify the agency in writing within three months, or by March 12, 2014, of their intent to engage with FDA as defined in Guidance for Industry (GFI) #213. FDA is encouraged by the response thus far and will continue to monitor ongoing participation and provide public updates on a periodic basis. Following is a summary of the responses FDA received from the affected sponsors.

- The number of affected sponsors is 26.
- 25 sponsors confirmed in writing their intent to engage with FDA as defined in Guidance #213 and have given FDA consent to list their names in this update.
- These 25 sponsors hold 99.6 percent of the applications affected by Guidance #213.
- These applications represent 99.95 percent of the total sales of products affected by Guidance #213, based on 2011 data. (Because the majority of sponsors indicated their intent to engage in this process, publicly releasing the total volume of sales of all products affected by GFI #213 would indirectly reveal the sales data of sponsors that did not notify FDA of their intent to engage or did not wish to make their intent public. FDA is legally prohibited from sharing confidential business information, including the sales data of individual sponsors.)

FDA will update its listing of Applications Affected by GFI #213 to indicate what actions have been finalized regarding individual drug applications (e.g., removal of production indications, change to veterinary oversight). Some sponsors may opt to voluntarily withdraw their approved applications for certain products. After an application is voluntarily withdrawn, those product(s) can no longer be marketed or sold in the United States.

As of March 26, the following sponsors have agreed in writing that they intend to engage in the judicious use strategy by seeking withdrawal of approvals relating to any production uses and changing the marketing status of their products from over-the-counter to use by Veterinary Feed Directive or prescription, and have consented to allow FDA to publicly acknowledge their participation:

- ADM Alliance Nutrition, Inc.
- Agri Laboratories, Ltd.
- Bayer Healthcare LLC, Animal Health Division
- Boehringer Ingelheim Vetmedica, Inc.
On December 11, 2013, FDA identified 27 sponsors holding a total of 287 affected applications, but the agency has revised these numbers based on the following changes:

- After the publication of GFI #213, Provimi North America, Inc. requested voluntary withdrawal of all three of its affected applications. Although this request has not been finalized with publication in the Federal Register, Provimi North America, Inc. has given FDA consent to publicly acknowledge this request. Once these changes are finalized, this company will no longer have any applications affected by GFI #213. These applications no longer appear in the listing of Applications Affected by GFI #213.
- One combination application (140-955) for Coban/Flavomycin was inadvertently included in the list of affected applications. Since neither of the ingredients in this combination (monensin and bambermycin) are important in human medicine, this application has been removed from the current list of affected applications.

The current listing of Applications Affected by GFI #213 reflects these changes. There are currently 26 sponsors holding a total of 283 affected applications. These include new animal drug applications (“pioneer”), abbreviated new animal drug applications (“generic”), and combination new animal drug applications (which can be either pioneer or generic).
Ammonia pollution from agricultural sources poses larger health costs than previously estimated, according to NASA-funded research.

Harvard University researchers Fabien Paulot and Daniel Jacob used computer models including a NASA model of chemical reactions in the atmosphere to better represent how ammonia interacts in the atmosphere to form harmful particulate matter. The improved simulation helped the scientists narrow in on the estimated health costs from air pollution associated with food produced for export—a growing sector of agriculture and a source of trade surplus.

"The 'cost' is an economic concept to measure how much people are willing to pay to avoid a risk," Paulot said. "This is used to quantify the cost for society but also to evaluate the benefits of mitigation."

The new research by Paulot and Jacob calculate the health cost associated with the ammonia emissions from agriculture exports to be $36 billion a year—equal to about half of the revenue generated by those same exports—or $100 per kilogram of ammonia. The study was published December 2013 in Environmental Science & Technology.

The new estimate is about double the current estimate by the U.S. Environmental Protection Agency, which suggests a cost of $47 per kilogram of ammonia. The scientists say the new estimate is on the high end of the spectrum, which reflects the need for more research into characterizing the relationship between agricultural ammonia emissions and the formation of the harmful fine particulate matter—a relationship that’s not as straightforward as previous estimates assumed.

"The effect of ammonia on fine particulate is complex, and we believe that the models previously used in the United States to price ammonia emissions have not captured this well," Paulot said.

Manure from livestock and fertilizer for crops release ammonia to the atmosphere. In the air, ammonia mixes with other emissions to form microscopic airborne particles, or particulates. The particulates that pose the greatest health risk are those that measure no more than 2.5 micrometers across, or about 1/30 the width of a human hair, which when inhaled can become lodged deep within the lungs. Long-term exposure has been linked to heart and lung diseases and even death. As such, the particles are on the list of six common air pollutants regulated by EPA’s National Ambient Air Quality Standards.

An increase in ammonia, however, does not translate to an equal increase in particulates. The relationship depends on meteorology as well as the concentration of other precursors to particulate formation, such as sulfate and nitric acid.

To clarify the effect of ammonia on fine particulates, Paulot and Jacob first modeled the agricultural sources of ammonia emissions utilizing a relatively new ammonia emissions inventory. Next they...
used the NASA GEOS-Chem model of atmospheric composition to simulate the complex chemistry that converts agricultural emissions – in this case ammonia – into fine particulate matter.

This information was then combined with food export data from the U.S. Department of Agriculture and the United Nations Food and Agriculture Organization, averaged from 2000 to 2009. Results show that U.S. food exports account for 11 percent of the total U.S. emissions of ammonia.

"Our study suggests controls on ammonia emissions from agriculture could help reduce particulate matter and provide significant societal benefits," Paulot said.

The impact, however, is not equal everywhere. Areas downwind of large agricultural regions often set the stage for more mixing of ammonia with man-made emissions from combustion, such as from traffic and power plants. More mixing means the formation of more fine particulate matter. For this reason, the largest health costs are most often carried by the more populated states in the Northeast and Great Lakes region.

The research was sponsored by NASA as part of the Air Quality Applied Sciences Team (AQAST) program.

NASA monitors Earth’s vital signs from land, air and space with a fleet of satellites and ambitious airborne and ground-based observation campaigns. NASA develops new ways to observe and study Earth’s interconnected natural systems with long-term data records and computer analysis tools to better see how our planet is changing. The agency shares this unique knowledge with the global community and works with institutions in the United States and around the world that contribute to understanding and protecting our home planet.

For more information about NASA’s Earth science activities in 2014, visit: http://www.nasa.gov/earthrightnow; Kathryn Hansenn NASA’s Earth Science News Team

Longstanding CARICOM Negotiator on Climate Change Reflects on the UNFCCC’s 20th Anniversary. CCCCC, 23 March, 2014

Full Article

Today, Friday, 21 March 2014, marks the 20th anniversary of the entry into force of the United Nations Framework Convention on Climate Change. As we celebrate the landmark Convention and the investment in its implementation over the last two decades, Caribbean Climate, the region’s premier climate change focused blog, asked Carlos Fuller, a long-standing Caribbean negotiator who now functions as the International and Regional Liaison Officer at the Caribbean Community Climate Change Centre, to reflect on this milestone. His comments are featured below.

Having been involved in the climate change negotiation process since its inception, I look back at the past 20 years with mixed emotions. I have witnessed first-hand the assimilation of vague ideas on the elements of a climate change agreement which were crafted into a Convention with perhaps too rigid elements that have hindered the actions required to reduce the emissions of greenhouse gases instead of facilitating a process which would have produced the change in productive and
consumption patterns to address the causes of climate change. Nevertheless, a series of decisions including the development and adoption of the Kyoto Protocol provided the impetus for a small group of countries to reduce their emissions and have raised the awareness among a significant segment of the population that the world must take action to cope with a changing climate.

The Caribbean has certainly benefited from the process. All CARICOM States are now aware of the threat climate change poses to the region. Institutional processes have been established in the region in response to the threat including the establishment of the Caribbean Community Climate Change Centre which is mandated to coordinate the region’s response to climate change, the development of a Master of Science programme in climate change in CEREMES at the Cave Hill Campus of the University of the West Indies and the creation of the Climate Change Impacts Group at the Moina Campus of UWI among others. The region has attracted over US$100 million in funding to enhance its capacity to address climate change, to assess the impacts of climate change on the region, to assess the region’s vulnerability and to undertake action to reduce that vulnerability. Unfortunately, the region has emulated the example of the international community and has not undertaken the transformational changes that will make the region resilient to climate change.

The region and the international community have another chance to get it right. The global community has embarked on a process to develop a new climate change agreement which should be finalized in Paris in December 2015 and which will come into effect in 2020. That agreement must stimulate all countries to contribute to an international effort to drastically reduce emissions of greenhouse gases and provide the financial and technical support to adapt to the impacts of climate change. The next two years will be especially crucial as the international community seeks to craft a global agreement that involves all actors (developed, developing, LDC’s etc.) in a massive effort to keep global temperature increase below the 2 deg. C mark and for the capitalisation of the Green Climate Fund at a level that ensures adequate resources are available to allow significant implementation of Adaptation measures in CARICOM and other developing countries.

Agricultural Development

Haiti - Agriculture: Towards agricultural statistics online, reliable and relevant. Haiti Libre, 26 March, 2014

Full Article

As part of the process of building capacity and dissemination of reliable and relevant agricultural statistics by the Substructure of Agricultural Statistics and Computing (SSSAI) of the Unit of Study and Planning of the Ministry of Agriculture, the Ministry will receive 7 to 11 April 2014, the mission of an expert team of Agricultural Marketing Service (AMS) and of Economic Research Service (ERS) of the Department of Agriculture of the United States of America (USDA).

Through this mission, the USDA will support the SSSAI, in structuring its database on prices of agricultural products, to offer an interactive online service, users of agricultural statistics.
Labour shortage hits $3m farm. Shaliza Hassanali, Trinidad and Tobago Guardian, 23 March, 2014
http://guardian.co.tt/news/2014-03-23/labour-shortage-hits-3m%E2%80%88farm

Full Article

A grave labour shortage is hindering the start-up of the Caribbean and T&T’s first $3 million “Pick Your Own Vegetables” mega farm, which is expected to be launched next month. Several advertisements placed in the print media seeking labourers for the 100-acre Chaguaramas Farm in Tucker Valley, has yielded little or no results in the last three months. For the farm’s managing director Joe Pires, it’s his biggest headache.

Pires’ efforts to woo labourers have brought frustration and stress, as he gets set to open his sprawling. The latest statistics obtained from the Central Statistical Office showed that from the first to the fourth quarters of 2012, there were altogether 13,500 people employed in the agriculture, forestry, hunting and fishing sectors. The farm operates under Five Stars Farms Ltd, owned by Pires. “What we want to offer is a one-stop shop for high quality produce at competitive prices,” Pires said.

Pires said while the concept of the farm was not new, it will be the first for T&T and the Caribbean. In 2012 Five Star Farms Ltd won a bid to operate the land managed by the Chaguaramas Development Authority. Pires first thought of growing onions on a large scale with a 30-year lease in hand. “That was our original idea. But we realised that a stand-alone farm would not be viable...it would not generate enough revenue for our business and therefore, we needed to think outside of the box.”

Farms abroad specialise in one crop, but Pires intends to offer a variety, many of which would be new to consumers.

Jones: We approached Rebirth House
Perry Jones, the farm’s manager, and a few workers have been painstakingly cultivating the farm. Jones said while the farm has been operating, its biggest setback was acquiring labour. For months they have been searching for workers without success. As a last resort, Jones said, he approached Rebirth House, a drug rehabilitation centre, to source recovering addicts, but many had little or no agricultural skills, while others were not interested.

“We are really in a crisis. It’s like searching for a needle in a hay stack. I never thought we would have reached to this stage in the agriculture sector, but this is the reality.” Jones said they retained some workers without checking their background, only to discover they were not trustworthy and had to dismiss them. “Now we have to screen and ask everyone interested in working for a police record as a precautionary measure.”

Maharaj: People do not see agriculture as viable
Food Production Minister Devant Maharaj described the labour shortage as “a real problem.” Maharaj said the shortfall was attributed to several reasons, but its main basis “is people do
not see it as a viable source of income.” This, he said, is not so. In the last year, Maharaj said, his ministry has been working with URP, OJT and Cepep to train individuals to work, but the issue continues to linger on.

Haywood: Our hands are tied
President of the National Foodcrop Farmers’ Association Terrence Haywood admitted they have a high demand for labour, but few people have been coming forward. Haywood said farmers have been sourcing labour from Guyana. “The farmers go to Guyana and bring back people who are willing to work on farms for $150 to $200 per day.” Haywood said locals have been gravitating towards Cepep, which requires less hours of work for a full day’s pay.

“This is the culture we are accepting and encouraging. People just want everything easy. Many of the farmers have complained to the association, but our hands are tied. This is a matter for the ministry to deal with.”

David Abdulah responds
Movement for Social Justice leader, David Abdulah said T&T was facing national labour shortage. Abdulah said in 2009 Fitun had recommended to the then PNM government to transform part of Cepep into a farmpep programme to boost the industry, which never materialised. The establishment of community based co-operatives was also recommended, Abdulah said. He said while the issue generated a lot of debate, little was done.

Sections of the labour market, Abdulah said, are faced with employees who have little skills and paid minimum wage.

Lab Equipment to Improve Standards in Agriculture by Andrea Braham, Jamaica Information Service, 25 March, 2014

Full Article

Minister of Agriculture and Fisheries, Hon. Roger Clarke, says the recent acquisition of laboratory equipment will have far reaching effects on the Ministry and the country.

“The receipt of the equipment is very timely as it will assist us in fulfilling some of our strategic objectives, including the upgrading of our Plant Quarantine/Product Inspection Branch into a Division; to enable us to effectively facilitate agricultural exports; and ensure compliance to global food safety regulations, as we enhance laboratory operations at the Veterinary Services Division, with a view towards seeking laboratory accreditation,” Mr. Clarke said.

He informed that the goal is to receive ISO 17025 certification for the laboratories, which is important, as it addresses the internationally recognized standard under the provisions of the World Trade Organization (WTO) Agreement on technical barriers to trade.

The laboratory equipment was acquired under the European Union Economic Partnership Agreement (EPA) Capacity Building Project. The project, which is valued at $240.8 million (€2.25 million), aims to build the capacity and infrastructure of facilities which support the export industry, in order to promote export competitiveness and food security.
“This EPA project has far-reaching benefits for us as a country. Not only will we see increased access to export markets, but it will contribute to environmental sustainability, good governance and poverty reduction. And, with increased and diversified exports, employment should be impacted positively,” Mr. Clarke said.

The Minister further added that it will also lead to greater recommended control in the use of chemicals in agricultural production; wider implementation of environmentally friendly management schemes; and greater emphasis on international food safety standards, which will have a positive impact on domestic standards, thereby allowing access to safer food for Jamaicans.

The items include: a rotavapor, refrigerator, safety cabinet, water softener, 10 desktop computers and an LC/MS 640 machine. They have been placed at the Ministry’s Veterinary Services Division in Kingston, and the Plant Virology and Plant Pathology laboratories at Bodles Research Station in St. Catherine.

Mr. Clarke informed that this project is one of several that the Ministry has implemented with assistance from the European Union.

Others include the recently completed Banana Support Programme, which benefitted over 30,000 banana and plantain farmers and others in the traditional banana dependent communities; the Banana Accompanying Measures Programme, being implemented over 48 months in St. Thomas, St. Catherine, Clarendon, St. James and St. Mary, and sugar cane resuscitation under the Sugar Transformation Programme.

**Cariforum Agriculture Gets 8.6 million Euro Boost**

CTA - Brussels Office Newsletter N° 390, 19 March 2014


**Full Article**

Secretary-General of the Caribbean Community (CARICOM) Ambassador Irwin LaRocque has welcomed an €8.6 million euro programme to boost the Region’s agriculture sector. In his capacity as Secretary-General of the Caribbean Forum of African Caribbean and Pacific States (CARIFORUM), Ambassador LaRocque was one of four speakers at a signing ceremony of a Contribution Agreement on the 10th EDF Intra-ACP Agriculture Policy Programme for the Caribbean between the European Commission and the Inter-American Institute for Cooperation on Agriculture (IICA) at the European Union’s Delegates office in Georgetown, Guyana. His Excellency Donald Ramotar, President of Guyana who is Lead Head of Government for Agriculture in the quasi-cabinet of CARICOM topped the list of speakers which also included the Delegate of the European Union (EU) to Guyana, Ambassador Robert Kopecky and the Co-ordinator of IICA’s Regional Integration for the Caribbean Region, Mr Gregg Rawlins.

IICA is the principal implementing agency of the Programme on behalf of CARIFORUM, with the Caribbean Agricultural Research and Development Institute (CARDI) and the CARICOM Secretariat as implementing partners. Such an arrangement exemplified the strength of the
partnership between IICA and the CARICOM/CARIFORUM Secretariat and reflected the continued commitment of the EU to the on-going development of the Region, the Secretary-General said.

The four (4) year programme is specifically planned to further strengthen policy regimes and incentive schemes for agricultural smallholders across the Region who form the bulk of producers. It would also improve food security by increasing production and productivity of selected commercially and nutritionally valuable agricultural produce. In the execution of the programme, there is a specific bias to women and youth as these groups have been identified as important to the sustainability of the sector.

The design of the programme followed intensive consultations among stakeholders in the sector across the Region and also benefitted from a number of policy instruments including CARICOM’s Liliendaal Declaration and the Jagdeo Initiative on the nine key binding constraints to agricultural development in the Region.

Agro-processing

**Inaugural agro-processors forum addresses industry’s future.** GINA, 28 March, 2014

Full Article

As the Ministry of Agriculture continues the drive to add impetus to the growth and development of diversified agriculture production in Guyana, the first agro-processors’ forum was held today to chart a roadmap for the industry to 2020 and beyond.

Held under the theme ‘Shaping the future of Agro-processing in Guyana,’ the forum, held at the Guyana International Conference Centre (GICC,) was organised by the ministry through the Guyana Marketing Corporation (GMC) and the Guyana Agro-Processors Association (GAPA.)

Discussions were focused on the issues affecting the industry, on emphasising the opportunities available, and the role of the agro-processors in making the industry more competitive and viable towards Guyana’s economic development.

Addressing the forum were Minister in the Ministry of Agriculture Alli Baksh, the ministry’s Permanent Secretary (PS) George Jarvis, President of GAPA, Ramanand Prashad and General Manager of GMC, Nizam Hassan.

There were also presentations from the other various bodies that influence the industry; including the regulatory bodies, the Food and Drug Department and the Institute of Applied Science and Technology (IAST).

Prashad explained that it was felt that there was the need to have the forum to ensure the forging of a synchronised and harmonised approach towards the building of the industry. He said that the goal is to ensure a pro-active daring approach towards the sector, rather than a reactive uncertain one, and to do so by ensuring that all stakeholders understand that they have a role to play and the time to do so.
is now. “We must synchronise and harmonise our efforts and resources in order to have the success that we are looking for,” he said.

In charting the way forward, Prashad suggested that parallel to agro-processing, the development of an agro-engineering sector be considered. “For example the IAST should be working on, and sharing technology that is relative to the industry. I am suggesting that the Government Technical Institute (GTI) be given the impetus to work on programmes and machines that will foster development within the targeted sector,” he said.

He noted that this parallel development of the agro-engineering sector has helped to propel countries like Brazil, India and China as some of the top food producing nations of today. He called for Guyana to use its diplomatic relations with these countries to garner support from these countries in developing the local industry. “Indulging these countries who have had great success stories can certainly revolutionise our sector here in Guyana,” he pointed out.

Prashad also further suggested that the Carnegie School of Home Economics, the Guyana School of Agriculture (GSA) and the Home Economics Department of every school be used as testing grounds for new intermediate products.

Minister Baksh supported this idea of using the schools as testing grounds, but went further to suggest that the science and technology developed for the use in production of the diversified crops be applied in the school, as a way of commencing early, the transfer of technology needed to drive the industry.

Minister Baksh also suggested that cooperatives can play an important role in overcoming some of the challenges to the industry, including those of tapping into markets. He suggested that the agro-processors seek to join, or form themselves into small cooperatives.

To make the industry stronger in the future, GMC’s General Manager Hassan Nisam urged full participation of all stakeholders, the focusing on the solution rather than on the problem, listening to consumers and customers and responding to needs and diversifying product range. He also encouraged the agro-processors to join GAPA, to make the body stronger and more effective in knowing and meeting their needs.

In driving diversified agriculture production in Guyana, the Ministry of Agriculture has been employing several strategies. PS Jarvis pointed out that the ministry through the Agricultural Export Diversification Programme (ADP) and Rural Enterprise and Agricultural Development (READ) programme has been providing affordable credit to agro-processors. He pointed out as well that the ministry also put in place several pieces of legislation, farmers’ organisations and also helping with the provision of infrastructure and good agricultural practices.

The deliberations on emerging issues from the forum will be used a guide the development of the roadmap for the industry to 2020 and beyond.
Global Health Security Agenda

Addressing the global health security agenda. The Lancet Infectious Diseases, Volume 14, Issue 4, Page 257, April 2014
http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(14)70719-4/fulltext

Full Article

Pathogens can spread quickly through the globalised system of travel, trade, and food distribution presenting a threat to the entire world. They recognise no borders. “A threat anywhere is a threat everywhere”, says Kathleen Sebelius, US Secretary of Health and Human Services. In today's interconnected world, emerging infectious disease threats have created the need for new global solutions such as the International Health Regulations (IHR; 2005), signed by all 194 WHO member states. However, fewer than 20% of countries complied with the 2012 deadline and are fully prepared to detect and respond to disease threats. To help non-compliant nations meet the IHR requirements, on Feb 13, US officials together with representatives from more than 25 nations and international organisations convened in Washington, DC, USA, for the launch of the new Global Health Security Agenda (GSHA). Participating organisations include WHO, the World Organization for Animal Health, and the UN Food and Agriculture Organization. The aim of the Agenda is to prevent, detect, and respond to infectious diseases threats, thus promoting security as an international priority. The Agenda will include programmes to help countries to develop national infectious disease laboratories, public health electronic reporting systems, and emergency operations centres.

Why has such an initiative been deemed necessary? A prime motive is concern arising from the emergence of new infectious disease threats. Every year new infections, together with the emergence of drug-resistant pathogens, pose challenges to global health and political and economic stability. SARS, which infected some 8000 people, took the lives of 775 individuals, and inflicted US$30 billion in damage to regional economies in only 4 months in 2003, remains in the consciousness of the international community. The 2009 H1N1 influenza pandemic killed an estimated 284 000 people in its first year alone. Further examples include the recent outbreak of Middle East respiratory syndrome coronavirus, first reported in 2012, and the 2013 outbreak of H7N9 influenza in China. The risk of political instability from the growing HIV epidemic in sub-Saharan Africa was certainly a motivating factor behind the establishment of the US President's Emergency Plan for AIDS Relief (PEPFAR) 11 years ago. The growth in cases of multidrug-resistant tuberculosis might soon pose a similar threat.

Another initiative to strengthen global health security was described in a Comment in The Lancet Infectious Diseases in January. Jake Dunning and colleagues emphasise how in the light of past experience with SARS and pandemic H1N1, the International Severe Acute Respiratory and Emerging Infection Consortium, launched in December 2011, should be used as a shared global platform to support clinical data collection and biological sampling protocols during epidemics. Good examples of how efforts to improve surveillance, laboratory, and emergency response systems could limit the damage of an epidemic and contribute to meeting the IHR requirements are provided by two pilot projects undertaken by the US Centers for Disease Control and Prevention (CDC). In 2013, the CDC worked together with ministries of health in Uganda and Vietnam to modernise diagnostic testing for high-risk pathogens. In Uganda, for example, improvements included transportation systems supported by PEPFAR. A courier system was established in which motorcycle couriers travel through rural areas to pick up blood samples from newborn babies born to HIV-positive mothers and transport the blood to laboratories for quick diagnosis.
The CDC plans to spend $40 million on such projects in another ten countries, and the Obama administration intends to allot a further $45 million to support similar projects. The US government will collaborate with international partners through different programmes, platforms, and partnerships to build capacity and strengthen the Global Health Security Agenda. Such programmes include the Global Disease Detection Program, the Emerging Pandemic Threats Program, the Cooperative Biological Engagement Program, and the Global Emerging Infections Surveillance and Response System. These programmes will help the GSHA to develop an enhanced and secure system to prevent, treat, and respond to disease in a more effective way.

The achievement of this goal will depend on a shared effort and responsibility among the health, security, and agriculture sectors. Political determination, technical expertise for early detection, and the right economic investments will be of fundamental importance for the rapid response to and successful management of outbreaks.

For more on the **Global Health Security Agenda** see [http://www.cdc.gov/globalhealth/security/why.htm](http://www.cdc.gov/globalhealth/security/why.htm)

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**Global Health Security Agenda partnership meeting:** A statement by FAO Director-General José Graziano da Silva, FAO 13 February 2014


**Full Article**

Thank you for the invitation to participate in the launch of the Global Health Security Agenda.

As you all know, FAO’s mandate is to eradicate hunger and malnutrition and to promote sustainable agricultural and rural development.

Food safety and animal health cut across these issues and are a relevant part of FAO’s technical work.

We have seen the human and financial cost of dealing with pandemic outbreaks in the past and how fast animal diseases can spread.

Whether you live in a farm in the area where an animal disease outbreak started or in a city across the globe, the potential impact exists and needs to be properly addressed.

The H5N1 Avian Influenza outbreak that started in 2003 and still circulates in some countries has cost over 20 billion dollars; has caused the death of hundreds of millions of poultry deaths; and has cost the lives of hundreds of people.

FAO and funding partners have invested over 380 million dollars since 2004 in attempts to better control it.

We have increased our efforts to attack the problems as soon as possible, through robust early warning mechanisms.

That means working to prevent outbreaks, detect threats at an early stage, and to respond rapidly and effectively when needed. This is resilience.
These are the focus areas of the Global Health Security agenda, which also recognizes the importance of partnerships. They are central elements to the success of our common efforts.

Ladies and gentlemen,

FAO works along the entire food chain to contribute to global health security, from the land to our hands.

Together with W-H-O, we provide the secretariat to the Codex Alimentarius Commission that establishes food standards and other recommendations used in international trade and that provide guidance to governments.

Through the FAO Emergency Prevention System (EMPRES), FAO, W-H-O and O-I-E provide on-ground assessments, early response, coordination and capacity building to control health threats.

FAO is committed to build global capacity to tackle endemic animal diseases at their source, including the Rift Valley fever, foot-and-mouth disease, or emerging diseases such as H7N9 influenza.

We are also committed to addressing the complex challenge and growing biological threat of antimicrobial resistance.

These actions are examples of the principles of One Health, the multi-disciplinary approach to optimal health for people, animals and the environment.

These actions will support and will also benefit from the implementation of the Global Health Security agenda.

To end, I would like to reaffirm that FAO is committed to building and maintaining global capacity to tackle endemic animal diseases at their source. That is why we welcome this initiative.

Thank you for your attention.

Youth


Full Article

The Ministry of Trade and Employment has launched the third element of its National Employment Programme - the Community Employment aspect - in Mero on Thursday March 20, 2014.

This took place with a small donation ceremony where tools were handed to nine young farmers of the Mero community.
The aim of the programme is to empower individuals in various communities to be self-employed in the areas where they are best skilled.

Gloria Joseph, Coordinator of the NEP stated, “We are undertaking, as part of our National Employment Strategy, the commencement of community employment initiatives that are geared at not only stimulating employment among our youth but ensuring that they are able to do things in the areas they are best skilled.”

The National Employment Programme was officially launched in December 2013 and continues to successfully maintain various elements of the programme.

Careen Prevost, Permanent Secretary in the Ministry of Trade remarked further that, “The National Employment Programme has sought to provide employment opportunities for young people and adults alike around the island. There are several elements of the programme, some of which have been launched already and have been in full swing. We have had the internship programme which has been ongoing from December and we have almost 200 individuals who have been placed in various institutions in both public and private sector organizations around the island. In addition to that, the Apprenticeship Training Programmes that have been done through the Ministry of Employment, Trade, Industry and Diaspora Affairs in hospitality, stone cutting, manicure, pedicure and culinary arts, the individuals that have graduated from this programme have now been placed.”

Prevost commended the young men of Mero for coming forward with the initiative and seeking the support of their Parliamentary Representative and the N.E.P in this venture.

Support will be provided in two main areas: equipment and finance.

“This is an initiative I am very happy to say, which started before the National Employment Programme and it is not something that we are pushing onto the young people but it is an initiative that they have come to us with and we have pledged our support and we are supporting in two areas. We will be providing some tools and equipment which we will hand over a little bit later and also to give you a start, a push, we will be providing stipends through the NEP to the young men for a period of six months which will be paid through the St. Joseph Village Council.”

The nine young farmers form the first group to benefit from the National Employment Programme’s Community Employment Initiative.

Hon. Kelvar Darroux, Parliamentary Representative for the St. Joseph constituency commended these young men for being first onboard noting that they are the ones who took the initiative to approach Government for assistance.

He said, “This is a move in the right direction because I believe you are not only advancing yourself but the community of Mero.”

A variety of farming tools were handed over to assist the young men in their farm work. These included pick axes, cutlasses, sprayers, boots and garden forks.

Hon. Darroux noted that this gesture indicates Government’s commitment to the agricultural sector and its direct involvement in getting young persons interested in the trade.
“I believe this initiative in the community of Mero goes a long way in the advancement of the Agricultural sector in this country.”

The Parliamentary Representative was happy that he was able to keep his promise to assist the young farmers and pledged his continued support to their future endeavors.

Inputs for the farms will be made available through the Ministry of Agriculture. The group was also encouraged to work closely with the Ministry of Agriculture and their extension officers.

Careen Prevost, Permanent Secretary in the Ministry of Employment also pledged the N.E.P’s assistance in locating markets for their produce.

A cheque for the first installment was presented to the Chairman of the Village Council to pay fortnightly stipends of four hundred dollars.

“My challenge to you all now is to take up the responsibility and to ensure that you remain committed to your farms and the work that is before you and that you manage your farms properly and in an efficient manner,” emphasized Darroux.

The launch of the community employment facet in Mero means that the community will essentially serve as a model for other communities across the island.

Upcoming Events

2014 International Year of Family Farming (IYFF). FAO

Description
The 2014 International Year of Family Farming (IYFF) aims to raise the profile of family farming and smallholder farming by focusing world attention on its significant role in eradicating hunger and poverty, providing food security and nutrition, improving livelihoods, managing natural resources, protecting the environment, and achieving sustainable development, in particular in rural areas.

The goal of the 2014 IYFF is to reposition family farming at the centre of agricultural, environmental and social policies in the national agendas by identifying gaps and opportunities to promote a shift towards a more equal and balanced development. The 2014 IYFF will promote broad discussion and cooperation at the national, regional and global levels to increase awareness and understanding of the challenges faced by smallholders and help identify efficient ways to support family farmers.

May 2014
Building Resilience for Food and Nutrition Security. IFPRI 2020 Conference
Date: 15-17 May 2014
Location: Addis Ababa, Ethiopia
Website: http://www.2020resilience.ifpri.info/

7th Caribbean Beekeeping Congress and the 2nd Annual Caribbean Bee College
Date: 26-30 May 2014
**Location:** St. Croix, United States Virgin Islands at the Albert A. Sheen Campus, University of the Virgin Islands, Kingshill,

**Contact:** CBC.CBCVI@gmail.com

June 2014

**The International Seed Testing Association (ISTA) Annual Meeting**

**Date:** 16-19 June 2014

**Location:** Edinburgh, UK

**Website:** [http://seedtest.org/en/annual-meeting-2014- _content---1--1409.html](http://seedtest.org/en/annual-meeting-2014- _content---1--1409.html)

July 2014

**50th Caribbean Food Crops society (CFCS) Annual Meeting, United States Virgin Islands.**

**Date:** 5-12 July 2014

**Website:** [http://cfcs.eea.uprm.edu/](http://cfcs.eea.uprm.edu/)

XII World Congress of Computers in Agriculture and Natural Resources

**Date:** 27-30 July, 2014

**Location:** San Pedro, San José, Costa Rica

**Description**

This congress provides a forum for agriculture related professionals to exchange information on applications and developments in the use of Information Technologies. It covers a wide array of topics. These include new applications of well established and understood technologies to innovative and entrepreneurial applications of emerging technologies, in addition to issues related to policy and knowledge dissemination. Contributions from various countries will allow a broadened perspective for all attending. This congress is sponsored by International Network for Information Technology in Agriculture and the University of Costa Rica (UCR).

**Abstracts submission deadline:** 15 February, 2014


**Conference on Ecological and Ecosystem Restoration 2014**

CEER is a Collaborative Effort of the leaders of the National Conference on Ecosystem Restoration (NCER) and the Society for Ecological Restoration (SER).

**Date:** 28 July - 1 August, 2014

**Location:** New Orleans, Louisiana, USA

**Website:** [http://www.conference.ifas.ufl.edu/CEER2014/](http://www.conference.ifas.ufl.edu/CEER2014/)

August 2014

**XI International Congress on Management of Amazonian and Latin American Wildlife**

St. Augustine, Trinidad and Tobago,

**Date:** 17 - 22 August 2014

**Location:** St. Augustine, Trinidad and Tobago,

Theme: “Alternative Sustainable Conservation & Utilization Methods for Neo-tropical Animals”

**Website:** [http://xicimfauna.org/](http://xicimfauna.org/)