
While the Caribbean can boast the hottest peppers in the world, exports have been hampered by variable quality and quantity. But now the industry is being fired up by a range of initiatives.

For more information see page 1
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.

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Hot Pepper

Hot pepper - a piquant passion. Spore, no. 161, Dec 2012 - January 2013 issue, pp. 20
http://spore.cta.int/en/component/content/article/17-spore/8/6643-hot-pepper

Full Article

While the Caribbean can boast the hottest peppers in the world, exports have been hampered by variable quality and quantity. But now the industry is being fired up by a range of initiatives.

With traditional Caribbean commodities facing stiff competition in world markets, Caribbean countries are recognising the need to diversify their export portfolio. Of great potential are the indigenous pepper landraces, used to make the hot pepper sauce synonymous with Caribbean cooking. Belonging to the Capsicum chinense Jacquin species, they span the entire range of pungency levels from mild to superhot. Most popular are the hotter varieties, which surpass the C. annuum L. types grown in Mexico, Europe and Asia, in pungency and capsaicin content. The Trinidad Moruga Scorpion variety currently occupies top spot as the 'hottest pepper on the planet'. And beyond food production, Caribbean capsaicin has great potential for making value added products, such as nutraceuticals (food product with health benefits).

According to a 2007 study commissioned by the Caribbean Community (CARICOM), the United States is by far the most attractive international market, in terms of size, proximity and potential for growth in pepper exports. Miami, in particular, offers lower freight costs and high, relatively stable prices. Currently, around 0.45 million kg of fresh hot peppers are exported each year from the Caribbean to the US, but to compete effectively and increase market share, the Caribbean pepper industry must overcome problems with both variable quality and quantity of production.

Firing up production

To meet this target, the Caribbean Agricultural Research and Development Institute (CARDI) has been mandated to develop the industry with a programme designed to address challenges in the value chain. These include seed quality, poor yields and the improvement of key pepper varieties. Currently, quality seeds of two varieties – West Indies Red and CARDI Green – are being produced and marketed by the Institute, with these varieties now dominating exports, together with Caribbean Red and Yellow Scotch Bonnet. Several other varieties have been identified for commercialisation, including Tiger Teeth, Pimento, Seven Pod and Trinidad Scorpion. In 2010, CARDI signed a memorandum of understanding with Caribbean Chemicals and Agencies Limited (CCAL), the largest agricultural input supplier in the region. As a result, the company is using its distribution networks to market CARDI-produced hot pepper seeds to Brazil, Costa Rica, Guatemala, India and Taiwan. For high yields and quality, adequate irrigation of pepper crops is essential. Planting densities in the Caribbean tend to be low, contributing to disappointing yields of between 15,000-40,000 kg per ha. Pests and diseases also pose a challenge, with whitefly and cucumber beetle affecting production in Belize and viruses impacting on crops in several countries, including Barbados. To address challenges and boost production, a hot pepper production manual for farmers has been developed by CARDI including choice of variety, field and soil preparation, disease management, harvesting and post-harvest operations.

Communication is key

According to the CARDI marketing unit, enhancing the flow of information throughout the pepper value chain would have a radical impact on the fortunes of the industry. This conclusion is supported by a 2011 University of the West Indies study, conducted in Dominica, which urges the island to improve information sharing and communication among all stakeholders within the supply chain in order to boost production and competitiveness.
Meanwhile in Trinidad and Tobago, the authorities are actively pursuing an intellectual property claim on the Scorpion variety. CARDI experts believe such protection is vital in the context of work being done to promote the use of capsaicin in nutraceuticals and other value added products. This, they believe, is an area where much future market expansion lies, and where the Caribbean hot pepper industry can compete most successfully in world markets.

**Cassava**

**Founder of MarVista Farms, Mr. Marcus Mycoo shows Permanent Secretary, Ms. Myrna Thompson the exceptional cassava yield after 10 months.** Ministry of Food Production, 22 January 2012.


**Full Article**

**Breakthrough in Agriculture: Cassava Harvest**

**17th January, 2013:** On Wednesday 16th January, 2013 officials from the Ministry of Food Production made a field visit to Mafast Limited located in La Savanne, Moruga where the revolutionary yields in cassava are being produced. While several Extension officers of the Ministry visited the farm and made reports in 2012, it was essential for senior officials within the sector to witness all that has been reported in our continued efforts to partner with stakeholders to develop the sector. The Ministry held a workshop in October 2012 entitled Breakthrough in Agriculture: Increase in Productivity where the new agricultural practice of Crop Health Therapy was introduced.

The Crop Health Therapy system consists of treatments of natural active biological inductors to maintain the appropriate biological balance throughout the growing season (from seed / seedling stage to harvest) to make plants more resistant to stress, thereby facilitating the expression of their full genetic potential in terms of enhanced yield and quality. While this system can be applied to a wide range of crops the cassava industry has an extremely high potential for developing the agricultural sector, its bi-products are extensive as both the root and stems can be utilised for food, animal feed and the production of paper etc.

Crop Health Therapy is based on supporting optimum growth in plants when weather or other stress conditions limit their ability. The external factors that affect plant performance are unpredictable and variable for example: Weather, Crop cultivars / varieties, Soil type, conditions and fertility, Tillage / ploughing and agronomic practices and Pest and disease. The Crop Health Therapy System has been shown both locally and internationally to overcome the conventional limitations of current agricultural practises; farmers may no longer have to suffer huge losses due to flooding, drought or be further discouraged by poor soils and the need for heavy usage of fertilisers and pesticides.

Crop Health Therapy; based on “The language of the Plant”, simply operates by understanding the functions of a plant at critical stages of growth. For instance, in the same way a livestock farmer would need to understand and monitor his animal’s needs from birth to maturity; to provide the essential nutrients and biological inductors of the natural resistance at particular stages, the crop health therapy system operates in a similar context. The system can be easily taught to farmers through training sessions and field demonstrations.

The official programme was brief with the Permanent Secretary, Ms. Myrna Thompson apologizing on behalf of the Minister who would have liked to be present but was urgently called to Parliament. Also giving brief remarks were the Ministry’s root crop commodity chairman, Mr. Nigel Grimes, the CEO of NAMDEVCO Mr. Krishna Ramrattan and Crop Consultant / founder of MAFAS Ltd. Mr. Marcus Mycoo.
Cereals and Grain Legumes

Global research team decodes genome sequence of 90 chickpea lines. CGIAR Consortium, 28 January 2013

Full Article

Hyderabad, India (28 January 2013) – In a scientific breakthrough that promises improved grain yields and quality, greater drought tolerance and disease resistance, and enhanced genetic diversity, a global research team has completed high-quality sequencing of not one but ninety genomes of chickpea.

Nature Biotechnology, the highest ranked journal in the area of biotechnology, featured the reference genome of the CDC Frontier chickpea variety and genome sequence of 90 cultivated and wild genotypes from 10 different countries, as an online publication on 27 January 2013. The paper provides a map of the structure and functions of the genes that define the chickpea plant. It also reveals clues on how the sequence can be useful to crop improvement for sustainable and resilient food production toward improved livelihoods of smallholder farmers particularly in marginal environments of Asia and sub-Saharan Africa.

The research milestone was the result of years of genome analysis by the International Chickpea Genome Sequencing Consortium (ICGSC) led by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) headquartered in Hyderabad, Andhra Pradesh India, involving 49 scientists from 23 organizations in 10 countries. ICRISAT is a member of the CGIAR Consortium.

The global research partnership succeeded in identifying an estimated 28,269 genes of chickpea after sequencing CDC Frontier, a kabuli (large-seeded) chickpea variety. Re-sequencing of additional 90 genotypes provided millions of genetic markers and low diversity genome regions that may be used in the development of superior varieties with enhanced drought tolerance and disease resistance. This will help chickpea farmers become more resilient to emerging challenges brought about by the threat of climate change. The genome map can also be used to harness genetic diversity by broadening the genetic base of cultivated chickpea gene pool.

Chickpea is the second largest cultivated grain food legume in the world, grown in about 11.5 million hectares mostly by resource poor farmers in the semi-arid tropics. The highly nutritious, drought-tolerant chickpea contributes to income generation and improved livelihoods of smallholder farmers in African countries like Ethiopia, Tanzania and Kenya, and is crucial to the food security in India (being the largest producer, consumer and importer of the crop). Chickpea is also an important component of the pulse industry in Australia, Canada and USA.

“ICRISAT and its partners have once again demonstrated the power of productive partnerships by achieving this breakthrough in legume genomics,” says Dr William Dar, Director General, ICRISAT. “Under the CGIAR Research Program (CRP) on Grain Legumes led by ICRISAT along with other CGIAR Consortium members and program as well as national partners, genome sequencing will play a crucial role in speeding up the development of improved varieties for smallholder farmer crops such as chickpea.”

“In the face of the growing global hunger and poverty amid the threat of climate change, the chickpea genome sequence will facilitate the development of superior varieties that will generate more income and help extricate vulnerable dryland communities out of poverty and hunger for good, particularly those in the drylands of Asia and sub-Africa for whom ICRISAT and our partners are working,” Dr Dar adds.

“Genetic diversity, an important prerequisite for crop improvement, is very limited and has been a serious constraint for chickpea improvement. This study will provide not only access to ‘good genes’ to speed up breeding, but also to genomic regions that will bring genetic diversity back from landraces or wild species to breeding lines,” explains Dr Rajeev Varshney, coordinator of ICGSC and Director – Center of Excellence in Genomics, ICRISAT.
“At the moment, it takes 4-8 years to breed a new chickpea variety. This genome sequence could reduce to half the time to breed for a new variety with market-preferred traits,” he adds.

Highlighting the importance of the research, renowned agricultural scientist Prof MS Swaminathan, Member of Indian Parliament, says, “Chickpea occupies a pride of place in the struggle against protein hunger. In spite of its importance to human nutrition and farmers’ livelihoods, scientific attention to this crop using frontier technologies has been rather limited. It is in this context that I would like to compliment the excellent scientific work done by Rajeev Varshney of ICRISAT and his colleagues in developing a high-quality genome sequence of chickpea. I am confident that the knowledge provided by this study will help accelerate the improvement of this crop through marker-assisted breeding.”

Recognizing the efforts of the global research team, Mr Ashish Bahuguna, Secretary, Ministry of Agriculture, Government of India says, “Decoding of the chickpea genome would facilitate the development of improved varieties with higher yields and greater tolerance to biotic and abiotic stresses. This would help chickpea farmers to increase productivity, reduce cost of inputs and realize higher incomes.” He adds: “This development is of great importance to India, the largest producer and consumer of chickpea. Our congratulations to ICRISAT and all the scientists involved in this important breakthrough.”

Dr Swapan Datta, Deputy Director General – Crop Science, Indian Council of Agricultural Research (ICAR), also highlights the importance of the breakthrough to India. “The chickpea genome sequence is expected to help in the development of superior varieties with enhanced tolerance to drought and resistance to several biotic stresses. India will benefit most from this genome sequence, our country being the largest producer of chickpea. This, in my opinion, is by far the most significant collaboration between ICAR, ICRISAT and the global genomics community.”

According to Professor Jun Wang, Director of BGI, “The collaboration between BGI and ICRISAT has yielded significant achievements in orphan crops research, like the pigeonpea genome before and now, the chickpea genome. I believe that our partnership will revolutionize research on orphan crops, which are key staple crops in many low-income countries and are extremely important to smallholder farmers worldwide.

“The importance of this new resource for chickpea improvement cannot be overstated. This genome sequence will provide the basis for a wide range of studies, from the important goal of accelerated breeding, to identifying the molecular basis of a range of key agronomic traits, to basic studies of chickpea biology,” says Professor Doug Cook from the University of California-Davis, USA.

“Making the chickpea genome available to the global research community is an important milestone in bringing chickpea improvement into the 21st century to address nutritional security of the poor – especially the rural poor in South Asia. We look forward to seeing how researchers around the globe will harness this resource to increase chickpea productivity against the backdrop of climate change in the developing world,” according to Dr David Bergvinson, Senior Programme Manager, Science & Technology, Global Development, Bill & Melinda Gates Foundation.

The chickpea genome sequencing project was undertaken by the ICGSC led by ICRISAT, the University of California-Davis (USA) and BGI-Shenzhen (China) with key involvement of national partners in India, USA, Canada, Spain, Australia, Germany and Czech Republic.

The initiative was funded by the CGIAR Generation Challenge Programme (GCP), US National Science Foundation (NSF), Saskatchewan Pulse Growers (Canada), Grains Resource Development Corporation (Australia), Indo-German Science Technology Corporation (Germany and India), National Institute for Agricultural and Food Research and Technology (Spain), National Research Initiative of US Department of Agriculture’s National...
Protected Agriculture

OECS & USAID Team arrives to discuss Greenhouse Project, by Ministry of Agriculture, Lands, Housing & The Environment, Antigua and Barbuda, 18 January 2013

Full Article

Minister of Agriculture Honorable Hilson Baptiste, senior officials from the Extension Division and a team comprising of members from the Organization of Eastern Caribbean States (OECS) and the US Agency for International Development (USAID) met on Monday, at the Ministry of Agriculture’s headquarters, to discuss the logistics of the Green House Pilot Project.

The team, which arrived today, was welcomed by Minister Baptiste. He expressed gratitude to the delegation for accepting the challenge to set up the pilot project in Antigua. “It is my hope that, once implemented, the project will assist in bringing our percentage of food spoilage down and increase production of seasonal crops, like tomatoes, cucumbers, lettuce and so many more,” Minister Baptiste said.

The greenhouse project will be conducted to mitigate the effects of climate change and natural disasters. This project will also asses the resilience of a special design and use state of the art computerize technologies. “The pilot project, when completed, will be used as a model to demonstrate, to farmers, ways to increase production. It is my hope that this project will attract more youth to venture into agriculture as a career,” the minister said.

Also today, the team was taken on a tour to Sanderson’s Development which is the site for the project. Funding for the initiative is being provided by USAID, to the tune of US$500,000.

Livestock

FAO urges stronger measures on global health threats by FAO News, 29 January 2013

Full Article

The world risks a repeat of the disastrous 2006 bird flu outbreaks unless surveillance and control of this and other dangerous animal diseases is strengthened globally, FAO warns. "The continuing international economic downturn means less money is available for prevention of H5N1 bird flu and other threats of animal origin. This is not only true for international organizations but also countries themselves," says FAO Chief Veterinary Officer Juan Lubroth. "Even though everyone knows that prevention is better than cure, I am worried because in the current climate governments are unable to keep up their guard."

Continued strict vigilance is required, however, given that large reservoirs of the H5N1 virus still exist in some countries in Asia and the Middle East, in which the disease has become endemic. Without adequate controls, it could easily spread globally as it did at its peak in 2006, when 63 countries were affected.

Investing makes sense
Investing more in prevention makes economic sense given the huge toll inflicted by a full-scale pandemic. Between 2003 and 2011 the disease killed or forced the culling of more than 400 million domestic chickens and ducks and caused an estimated $20 billion of economic damage. Like several animal diseases, H5N1 can also be transmitted to humans. Between 2003 and 2011, it infected over 500 people and killed more than 300, according to the World Health Organization. "I see inaction in the face of very real threats to the health of animals and people," Lubroth says.

This is all the more regrettable as it has been shown that appropriate measures can completely eliminate H5N1 from the poultry sector and thus protect human health and welfare. Domestic poultry are now virus-free in most of the 63 countries infected in 2006, including Turkey, Hong Kong, Thailand and Nigeria. And, after many years of hard work and international financial commitment, substantial headway is finally being made against bird flu in Indonesia.

Growing threat

Another growing threat is Peste des Petits Ruminants, or PPR, a highly contagious disease that can decimate flocks of sheep and goats. "It is currently expanding in sub-Saharan Africa - causing havoc in the Democratic Republic of Congo among other countries - and is just starting to spill over into southern Africa," Lubroth says. "The damage could well be huge". "The irony is that a perfectly good vaccine exists for PPR, but few people are using it," he adds. Along with tight finances, lack of political will, and poor planning and coordination are other reasons why PPR and other animal diseases are often allowed to spread. Investing in prevention means improving hygiene practices, market and border controls, and health security in farms and markets. It includes equipping laboratories and training staff to diagnose and respond to disease outbreaks, and in organizing efficient extension services to serve farmers' needs. Despite tight budgets, international organizations should also try to do more through concerted action. "We need to come together to find ways to ensure the safety of the global food chain," Lubroth urges. "The costs - and the dangers - of not acting are just too high."

Climate Change


Full Article

The first draft of the greenhouse gases report for Barbados has been submitted.

However, there are still concerns over what is being described as "significant data gaps" and a need for greater cooperation between stakeholders.

These were among the points raised recently during the Preparation of Barbados' Second National Communication Report to the United Nations Framework Convention on Climate Change (UNFCCC) which focused on the topic: Barbados' Greenhouse Gas Inventory: Capacity Building to a Wider Audience at the Savannah Hotel.

Project Manager for Barbados' Hydrofluorocarbon Phase-Out Management Plan project, Rickardo Ward, urged stakeholders who attended the two-day workshop to provide the data requested by to the consultants so they could complete their work. "At some point we will have to cease the data gathering. This is the last opportunity to make a contribution and corrections to the quality of the work," he stated.
He added that it was important for Barbados to "get it right" and put the appropriate framework and mechanisms in place. He explained that Barbados had a strong voice in issues related to the green economy, and stressed that it was therefore critical to understand what the emissions were, and the levels that existed within the country.

Among the data still required was information on burning and incineration in Barbados, along with information on the primary source of vehicles, estimates of the age of the vehicle fleet, and the percentage that might include catalytic converters.

Consultant with the project, Natalie Hutchinson, explained that some of the challenges being encountered included a reluctance to collaborate with consultants, delayed responses, information being withheld and the non-existence of data in the relevant organisations.

In delivering his summary, Consultant with Aether, Dr. Chris Dore, recommended that up-to-date activity data for key areas needed to be provided, so surveys and further investigations could be done to develop country specific knowledge in terms of accurate data.

He outlined that detailed fuel consumption data by energy sector; data on feed stocks and products from the chemical processing industry; and a detailed livestock census were among the areas that should be given high priority.

In addition, Dr. Dore pointed out that information on the use of animal waste management systems; data on the consumption of synthetic fertilisers; the collection of regular land cover data; information on the scale of open burning of waste; and data on wastewater treatment, both residential and industrial, also needed to be provided.

The preparation of the report is intended to document and communicate to the world the domestic actions undertaken and planned, pursuant to the goals and objectives of the UNFCCC and its Kyoto Protocol.

It will look at activities related to climate change in the country, and is designed to look at the areas of energy, industrial processes, agricultural waste and land use, land change and forestry.

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Agricultural Development

SG seeks help for CARICOM Agriculture initiatives from FAO Head. The CARICOM Secretariat, 29 January 2013

Full Article

The Secretary General of the Caribbean Community (CARICOM) Ambassador Irwin LaRocque and Director General of the Food and Agricultural Organisation (FAO) Mr. José Graziano da Silva reviewed progress in the latter’s assistance to the Community in agriculture, specifically in the areas of food security and assistance with sanitary and phyto-sanitary measures, and food and plant health.

The two heads of organisations were attending the Summits in Santiago, Chile of the Community of Latin American and Caribbean States (CELAC) and the European Union (EU) and of CELAC. Secretary General LaRocque was accompanied by Assistant.
Secretary General for Foreign and Community Relations Ambassador Colin Granderson while Director General da Silva was accompanied by Mr. Raúl Benítez, Assistant Director-General and FAO Regional Representative for Latin America and the Caribbean, Mr. Augustin Zimmermann, Special Adviser at the FAO Headquarters and Mr. Alan Jorge Bojanic of the FAO Office in Chile.

The CARICOM Secretary General and the FAO Director General also discussed the effect of climate change on agriculture and its impact on food security, and explored ways in which FAO can help to address this issue. The CARICOM Secretariat and the FAO Sub-Regional Office in Barbados will continue to collaborate in these efforts.


Full Article

The Ministry of Agriculture and Fisheries, through the Rural Agricultural Development Authority (RADA), has provided assistance to 6,000 farmers in the aftermath of Hurricane Sandy, which lashed the island on October 24 last year.

Portfolio Minister, Hon. Roger Clarke, made the disclosure in the House of Representatives on January 22.

He was responding to questions posed by Opposition Spokesperson on Agriculture, J.C. Hutchinson, about the Hurricane Sandy relief programme for farmers.

In a breakdown of the assistance given to the farmers, $27 million was spent on fertilizer, $7.5 million on land preparation, $12.8 million on seeds and $3.9 million on broiler chicks and feed. An additional $3 million is to be spent on fertiliser purchase.

Mr. Clarke also said that the European Union (EU) has agreed to contribute €100,000 ($13.5 million) in fertiliser and insecticide to the farmers. Distribution of the materials will take place from the RADA parish offices.

“Approximately 1,000 farmers will benefit from this facility. This grant will be given only to legitimate registered banana and plantain farmers, who must present documentation to verify registration. The RADA/European Union Banana Support Programme will procure and distribute materials to farmers. Utilisation of material grant will be supervised by the Banana Board,” the Minister explained.

In terms of coffee, the Coffee Industry Board has received $39.9 million from the Ministry and has engaged the Jamaica Coffee Exporters Association and the Jamaica Coffee Growers Association in the logistics for the distribution of inputs. It is expected that approximately 4,000 farmers will benefit from this initiative.

For the fisheries sub sector, $15 million has been received to assist with the recovery efforts. Approximately 1,500 fish farmers and fisher folks are expected to share this benefit.

Mr. Clarke also added that $15 million has been allocated for cocoa farmers and the distribution of funds began in December 2012.
School of Agriculture for North Andros by Gladstone Thurston, Bahamas Information Services, 17 January 2013

Full Article
Nassau, The Bahamas -- In collaboration with the College of the Bahamas, the Government is taking steps to establish a school of agriculture in North Andros. Situated on the site of the former agriculture research centre in San Andros, the project seeks to train Bahamians to take advantage of a nearly $1 billion industry. Seven Cuban technicians with various specialties including rice and coffee production have been engaged to assist in the operation.

Bahamas Agriculture and Industrial Corporation (BAIC) chairman Arnold Forbes and a high level team toured the proposed site on Wednesday, January 16. Included were general manager Benjamin Rahming, assistant general manager (agriculture) Arnold Dorsett, assistant general manager (land) Judith Thompson, agriculture consultant Godfrey Eneas, and College of the Bahamas University Transition Secretariat team leader Dr. Olivia Saunders. They were received by North Andros and the Berry Islands administrator, Ivan Ferguson, BAIC investments manager, Alphonso Smith, and other local officials.

“Andros has the potential to be the breadbasket of The Bahamas,” said Mr. Forbes. “Until we take Andros and agriculture seriously we will continue to spend hundreds of millions of dollars on food imports. “Food security is key to the survival of any country. Without food security we are not reaching proper nationhood status because a nation should be able to feed itself. Until we are on that road we have a lot of work to do.”

Late last year, The Bahamas sent a trade mission to Cuba. Meetings were held with Cuba’s Ministry of Agriculture. “They graciously allowed their professionals to come to The Bahamas to give us advice on what it will take to get The Bahamas on the road to food security,” said Mr. Forbes. “We are looking at an exchange of ideas and techniques and formulas so that The Bahamas agricultural product can catch up with the rest of the world. “We are spending about $700,000 on food imports every year. If we can dent that by 25 per cent, we are saving almost $200 million that can stay in our country and make our economy stronger.”

There is no guarantee as to the quality of food imports, said Mr Forbes. “When we import food we are not importing the highest quality food,” he said. “In most cases we are getting a second class product. “We wonder why we are having so many illnesses as well. Do we know what we are importing? We are actually entrusting our health to someone else when we import food. “But, if we are growing our own food and we are doing it in a way that is sustainable, pesticide free and organic we know what we are putting into our bodies and I guarantee you we will see a healthier population as a result.”

For agriculture consultant, Mr. Eneas, the near $1 billion in imports each year to feed residents and tourists is already “unsustainable.” “We are exporting jobs,” he said. “Many of the crops we import, many of the processed food we eat, we can do it here. And it is by creating value added in food processing that you create jobs. “We cannot continue to depend on others to produce our food. By producing food locally we know it is nutritious, we know it is fresh and we know the conditions under which it is grown so it is in our interest to become more productive.”

With islands of Andros, Abaco and Grand Bahama having “untapped potential,” Mr. Eneas cited a variety of career opportunities from farming to processing to marketing. “Agriculture can be the basis for the economic sustainability of many of our Family Island communities,” he said. “As a result of that people will not have to migrate to New Providence because we can create jobs within these communities.” Mr. Eneas underscored the need for those engaged in agriculture to upgrade their skills incorporating science and technology. “If we are going to be competitive, if we are to function as a WTO member, we have to upgrade our skills,” he said. “We have to provide the infrastructure for globally competitive agricultural system. “We lack infrastructure which is needed for
our country to sign bilateral agreements to ensure that what is coming into our country is safe. “But, for too long we have depended on others not only to grow our food and feed us but also to ensure the safety of our environment and our ecosystem. We as a country have to grab hold of our future.”

In her capacity as team leader of the College of The Bahamas University Transition Secretariat, Dr Saunders said the project is going to be an integral part of the proposed University of The Bahamas. “A goal of the University is to drive national development and agriculture must play an extremely important role in development of the nation,” she said. “Food security is serious business and if the University is not able to incorporate this vision then I don’t think we would be doing our job properly.” A current lack of interest among Bahamians in agriculture, she said, can be attributed to a lack of knowledge of the importance of agriculture and how the economy is structured.

“But I feel that many Bahamians are interested in broader national development and once they become more aware of the possibilities and potentials in agriculture, more will become interested,” said Dr Saunders. “Agriculture is a business and so business students will see opportunities in agriculture also. “Our job as we progress in this project is to broaden the base of knowledge of young people generally to understand that we can produce to feed ourselves, that we have a responsibility for our own food security, and that there are economic possibilities for them and the country.”

Administrator Ferguson welcomed the project. “We are expecting some good things to happen for this district,” he said. “Food and agriculture sufficiency is high on the Government’s agenda and this project speaks volumes to the commitment of the government to ensure that we can feed ourselves. “We have to find a way to reduce the amount of money we spend on imports and so I am appealing to young people to find their niche in agriculture because it is very important and fundamental to our independence once we can feed ourselves. “Many opportunities are available to Bahamians in agricultural science. We must debunk the myth that agriculture is primarily soil and toil. There are other creative means that can be used to extract the most benefits from this industry.”

Food Security

FAO’s José Graziano da Silva at CELAC-EU Summit: "No sustainable development while there is hunger" by FAO News, 26 January 2013

Full Article

The 26-28 January summit brings together 60 countries of Latin America and the Caribbean and the EU

"There can be no sustainable development in the world while millions of people go hungry,” FAO Director-General José Graziano da Silva said today, referring to the central theme being discussed here by presidents and heads of state of Latin America and the Caribbean and the European Union, at the Community of Latin American and Caribbean States-EU Summit.

The countries gathered here have the opportunity to give a clear signal of support for this message and propose joint approaches towards a future that is environmentally sustainable, and socially and economically more just, which is what we all want,” the Director-General said. About 60 countries are taking part in the summit. This important meeting seeks to advance relations between the countries involved and build strategic partnerships for sustainable development.

Food security is a priority item on the official agenda of the CELAC Summit and in recent years has been a constant concern in the regional and global agendas. Graziano da Silva recalled the statement made by the
presidents of Mercosur in December 2012, which explicitly supported the Zero Hunger Challenge of the UN, launched by the Secretary General, Ban Ki-Moon at the Rio + 20 Conference, recognizing that food security is a human right that should be guaranteed to all. "Poverty and hunger suffered by one country affects its neighbours, as it interferes with the development of the region as a whole. It is a challenge that transcends borders and must be addressed at the highest level, as is occurring during the CELAC, "said Graziano. "Latin America and the Caribbean have understood this and this was the first region to take on the challenge of fully eradicating hunger and not only diminishing it, by launching the Hunger Free Latin America and the Caribbean Initiative in 2005", he added.

Graziano da Silva highlighted the many initiatives that have emerged in the region, such as Hunger Zero in Brazil and the Crusade Against Hunger in Mexico - launched this week - which will help more than 7.4 million Mexicans living in extreme poverty and food insecurity. "When a country decides to say 'no more hunger', the improvements that can be achieved are surprising," said the FAO Director General. Graziano also highlighted the fact that Antigua and Barbuda has joined the UN Zero Hunger Challenge: Zero Hunger in Antigua and Barbuda has the full support of the FAO, and other agencies such as the World Food Programme (WFP), the World Bank, the Inter-American Institute for Cooperation on Agriculture (IICA), the Economic Commission for Latin America and the Caribbean (ECLAC), the Pan American Health Organization/World Health Organization (PAHO/WHO), and the United Nations Children's Fund (UNICEF), as well as the Caribbean Community and Common Market (CARICOM).

Latin America on the front line against hunger

Latin America and the Caribbean has become a benchmark in the global fight against hunger. In the last 20 years, 16 million people have ceased to suffer hunger in the region. In 1990-1992 hunger affected 14.6 percent of the population, or 65 million people, while in 2010-2012, it affected only 8.3 percent, or 49 million people. Add to this significant legislative advances: currently seven countries in the region already have food security laws, while another ten are developing legislation on the matter. Hunger in the region is fundamentally a problem of access to food and not of food availability, Graziano said: "Latin America and the Caribbean, with a population of 600 million people, produces enough food to feed 750 million people. However, 49 million of the current population still suffer hunger," he said. The Hunger Free Latin America and the Caribbean 2025 Initiative has provided strong support to this process by promoting the fight against hunger and the realization of the right to food, with action such as the creation of Parliamentary Fronts Against Hunger, which already exist in 14 countries.

Tackling food waste

"A sustainable world requires not only that production be sustainable, but also consumption," said the Director General of the FAO. Graziano da Silva said that globally, a third of all food produced is wasted, and he stressed that if one could avoid this waste "it would be possible to feed all the hungry people and have food to spare."

In Latin America and the Caribbean, losses and waste of food for retail during the production phase reach 200 kg per capita per year. At the consumer level, 25 kilos per capita per year are wasted. In cereal production, losses reach 30 percent of the grains produced, 40 percent of roots and tubers, 55 percent of fruits and vegetables, 20 percent of meat, almost 30 percent of fish and seafood, and more than 20 percent of dairy products.
Think, Eat, Save: FAO, UNEP and partners launch global campaign on food waste by, FAO News, 22 January 2013

Full Article

Simple actions by consumers and food retailers can dramatically cut the 1.3 billion tonnes of food lost or wasted each year and help shape a sustainable future, according to a new global campaign to cut food waste launched today by the Food and Agriculture Organization (FAO), the UN Environment Programme (UNEP), and partners.

The Think.Eat.Save, Reduce Your Foodprint campaign is in support of the SAVE FOOD Initiative to reduce food loss and waste along the entire chain of food production and consumption - run by the FAO and trade fair organizer Messe Düsseldorf - and the UN Secretary General's Zero Hunger Initiatives. The new campaign specifically targets food wasted by consumers, retailers and the hospitality industry.

The campaign harnesses the expertise of organizations such as WRAP (Waste and Resources Action Programme), Feeding the 5,000 and other partners, including national governments, who have considerable experience targeting and changing wasteful practices. Think.Eat.Save, aims to accelerate action and provide a global vision and information-sharing portal for the many and diverse initiatives currently underway around the world.

Worldwide, about one-third of all food produced, worth around $1 trillion, gets lost or wasted in food production and consumption systems, according to data released by FAO. Food loss occurs mostly at the production stages - harvesting, processing and distribution - while food waste typically takes place at the retailer and consumer end of the food-supply chain.

"In a world of seven billion people, set to grow to nine billion by 2050, wasting food makes no sense - economically, environmentally and ethically," said UN Under-Secretary-General and UNEP Executive Director Achim Steiner. "Aside from the cost implications, all the land, water, fertilizers and labour needed to grow that food is wasted - not to mention the generation of greenhouse gas emissions produced by food decomposing on landfill and the transport of food that is ultimately thrown away," he added. "To bring about the vision of a truly sustainable world, we need a transformation in the way we produce and consume our natural resources."

"Together, we can reverse this unacceptable trend and improve lives. In industrialized regions, almost half of the total food squandered, around 300 million tonnes annually, occurs because producers, retailers and consumers discard food that is still fit for consumption," said José Graziano da Silva, FAO Director-General. "This is more than the total net food production of Sub-Saharan Africa, and would be sufficient to feed the estimated 870 million people hungry in the world." "If we can help food producers to reduce losses through better harvesting, processing, storage, transport and marketing methods, and combine this with profound and lasting changes in the way people consume food, then we can have a healthier and hunger-free world," Graziano da Silva added.

Sustainability

The global food system has profound implications for the environment, and producing more food than is consumed only exacerbates the pressures, some of which follow:

- More than 20 per cent of all cultivated land, 30 per cent of forests and 10 per cent of grasslands are undergoing degradation;
- Globally 9 per cent of the freshwater resources are withdrawn, 70 per cent of this by irrigated agriculture;
- Agriculture and land use changes like deforestation contribute to more than 30 per cent of total global greenhouse gas emissions;
- Globally, the agri-food system accounts for nearly 30 per cent of end-user available energy;
Overfishing and poor management contribute to declining numbers of fish, some 30 per cent of marine fish stocks are now considered overexploited.

Part of the trigger for the campaign was the outcome of the Rio+20 Summit in June 2012, in which Heads of State and governments gave the go-ahead for a 10-Year Framework of Programmes for Sustainable Consumption and Production (SCP) Patterns. Developing an SCP programme for the food sector must be a vital element of this framework, given the need to sustain the world's food production base, reduce associated environmental impacts, and feed a growing human population.

"There can be no other area that is perhaps so emblematic of the opportunities for a far more resource-efficient and sustainable world - and there is no other issue that can unite North and South and consumers and producers everywhere in common cause," said Mr. Steiner.

According to FAO, roughly 95 per cent of food loss and waste in developing countries are unintentional losses at early stages of the food supply chain due to financial, managerial and technical limitations in harvesting techniques; storage and cooling facilities in difficult climatic conditions; infrastructure; packaging and marketing systems. However, in the developed world, the end of the chain is far more significant. At the food manufacturing and retail levels, large quantities of food are wasted due to inefficient practices, quality standards that over-emphasize appearance, confusion over date labels, and consumers being quick to throw away edible food due to over-buying, inappropriate storage and preparing meals that are too large.

Per-capita waste by consumers is between 95 and 115 kg a year in Europe and North America/Oceania, while consumers in sub-Saharan Africa, south and south-eastern Asia each throw away only 6 to 11 kg a year. According to WRAP, the average UK family could save £680 per year ($1,090) and the UK hospitality sector could save £724 million ($1.2 billion) per year by tackling food waste. "In the UK, we have shown how tackling food waste through engaging with consumers and establishing collective agreement with retailers and brands, reduces environmental pressures and aids economic growth," said Dr. Liz Goodwin, CEO of WRAP. "With a rising population, even more pressure is going to be put on resources, and we are excited to be a partner in UNEP and FAO's Think. Eat. Save. campaign, which is a great start to tackling food waste on a global scale."

In a similar vein for other parts of the world, the European Union is looking into the issue of food waste, and the European Commission has lent its weight to the new initiative. "In the EU we have set ourselves a target to halve edible food waste by 2020 and to virtually eliminate landfilling by 2020; the Commission is planning to present ideas next year on the sustainability of the food system which will have a strong focus on food waste," said Janez Potočnik, European Commissioner for the Environment. "Less food waste would lead to more-efficient land use, better water resource management, more sustainable use of phosphorus, and it would have positive repercussions on climate change. Our work fits perfectly with the launch of this initiative," he added.

For the campaign to reach its huge potential, everyone has to be involved - families, supermarkets, hotel chains, schools, sports and social clubs, company CEOs, city Mayors, national and world leaders. The campaign website provides simple tips to consumers and retailers, will allow users to make food waste pledges, and provides a platform for those running campaigns to exchange ideas and create a truly global culture of sustainable consumption of food.
Agricultural Research

The road ahead by New Agriculturalist, January 2013

Full Article

What direction should agricultural research be taking in order to best contribute to poverty and hunger reduction? And how can the impact of that research be maximised, whether through strengthening of skills, building of partnerships or prioritising investment in key areas? These were some of the issues that came under discussion at the Second Global Conference on Agricultural Research for Development (GCARD2) held between 29th October and 1st November 2012 in Punta del Este, Uruguay. A number of delegates were also invited by New Agriculturist to take stock of progress in agricultural research and share their thoughts on some of the key conference themes,

Positive developments in research

There is a growing appreciation of the need to understand the research to development pathways, particularly ensuring that research efforts are consistent with the requirements of the stakeholders. Peter G. McCornick, Deputy Director General, International Water Management Institute (IWMI)

The principal positive change is the participative research that involves producers in the research process. It is the key to efficiently applying the results of research in the field by the producers. The producer knows firsthand the problems, both in the field and marketing the product. Cristina Iglesias, Agricultural Engineer, Instituto Nacional Autónomo de Investigaciones Agropecuarias

Agricultural research appears to be increasingly addressing the interaction between the several enterprises found on typical mixed farms, slowly replacing the narrow scientific disciplinary approach, which tends to address either livestock or crop or soil or another problem in isolation. Also, the success of research is judged by the socio-economic benefits accrued by the farmer from the adoption of new practices/policies etc and not solely on indices of increased production. Wyn Richards, Principal Consultant, The Natural Resources Group, UK

We are starting to see a much stronger recognition and effort by researchers to work and think with beneficiaries and development practitioners in a much more sustained and integrated way. It is essential that this trend continues if we are to tackle the complexities and achieve the durable development outcomes we all want. Steve Hall, Director General, WorldFish Center

Future directions for research

Agro-ecological approaches which provide multiple solutions; the sort of win-win-win in terms of profitability, sustainability and equitability - those are the areas that really deserve much more attention than they are currently getting, particularly because they are very knowledge intensive and location specific. Julian Oram, Senior Political Advisor, Sustainable Agriculture, Greenpeace International

Smallholders are now the buzz word even in the CGIAR. We hear it in every other sentence and I can assure you that if eco-agriculture or agriculture biodiversity or low input agriculture is not taken up in research priorities, the system will lose its credibility not only amongst smallholders but with the public in general. Gine Zwart, Senior Policy Advisor, Oxfam Novib

Engaging youth in the research process, supported by the experience of researchers ensures that research is effective. Proper use of natural resources, restoration and maintenance of watersheds and respect for nature, are factors that must be taken into account by any research process. Also, respecting the worldview of agriculture
producers; ancient wisdom combined with innovation can give great results. Cristina Iglesias, Instituto Nacional Autónomo de Investigaciones Agropecuarias

Before looking for complex answers to increase productivity, like GMOs, if we want serious research we should see if farmers have the basic means to produce: capital, land and labour force. Research should look to these grassroot problems before engaging farmers towards being dependent on private sector seed supply. Myriam Perez Diaz, GCARD2 Social Reporter

[In Japan] two major parties are proposing different directions. More aggregation of small farms to make bigger ones so that we can be more competitive in the global market, versus providing more support to smallscale farmers for ecosystem management and so on. So I think we are struggling for a global direction and that is the difficulty of linking global foresight to our national research strategy. Keihiro Otsuka, National Graduate Institute for Policy Studies, Japan

What is the value of partnerships?

Each part of the agri industry flows into the other, from primary production to processing, to marketing, to the final consumer and all other parts in between. Research can be conducted within each segment. However due to their inter-related nature, one impacts upon the other. In this regard, research in partnership to strengthen the segments as a whole is key. It is through support and collaboration that the entire industry succeeds. Keron Bascombe, MSc Agribusiness and Marketing Student, University of the West Indies

Partnering with regional and national research organizations has become essential to ensure that the research is relevant to the context intended, and generates the knowledge where it is likely to be of value. Key partnerships to develop in the earliest stages in research programs include implementing organizations and decisions makers, especially the relevant Ministries, farmer groups, NGOs and investors. Peter G. McCormick, IWMI

Research should look at the entire value chain from production to consumption if it is to contribute to increasing not only food security but income growth and sustainability for smallholder farmers. Such a value chain approach will require building strong partnerships with farmers groups, extension workers, agribusiness, input providers, credit services and national policy makers. By addressing bottlenecks in the whole value chain and working in partnership with various groups, research can achieve greater success than by dealing with just one aspect of the value chain. Michael Hailu, Director, Technical Centre for Agricultural and Rural Cooperation (CTA)

No one organisation has all of the skills and expertise necessary to solve the multitude of complex and diverse problems encountered in developing country agriculture. In particular, we need to look at partnerships that will help put research into use and implement new technologies at the farm level. Organisations that carry out initial research do not always have the reach or competencies to achieve this at scale. Dr Trevor Nicholls, CEO, CAB International

GangaleOn one level, partnerships are fundamental to actually doing our research, and on another, our research relies on partnerships to have an effect. We rely on partnerships in varying forms for our audiences to hear and understand the results of our research and to help change people's lives for the better. Peter Kanowski, Deputy Director General, Center for International Forestry Research (CIFOR)

We need to deepen our focus and prioritization of partnerships from a regional point of view in order to achieve the best possible allocation of funds and greatest impact. The main difficulty that international research in agriculture currently faces is achieving the highest impact on the ground. This can be achieved by, among others, a demand driven approach to research and engagement with local partners for effective implementation of innovations. Carlos Perez del Castillo, CGIAR Consortium
**Partnership pitfalls**

Successful research partnerships don't generally come for free. They require an adequate and equitable investment of human and financial capital, either by the contributing partners or external sponsors, to support the inevitable transaction costs. Without adequate investment, most partnerships struggle to survive beyond the initial period of enthusiasm associated with their launch while inequitable investment can result in a loss of trust between the partners. Large-scale research programmes need to have a certain proportion of their total funding allocated to the support of partnerships. *Dr Trevor Nicholls, CAB International*

Partners may have high expectations from the project in terms of funds/finances as they play their role. Once such expectations are not met, partners may withdraw or be uncommitted to the joint development initiative. Partnerships also need clear definitions or roles and responsibilities before rolling out a joint project. It is difficult to work with partners if they don't know or understand their roles. *Msekwi Matsimbe, African Women in Agricultural Research and Development (AWARD) Fellow*

**Capacity building priorities**

Since the 1990s, the research community has relied on biotechnology disciplines to solve much of the biotic and abiotic stress problems experienced by the farm sector. Though these disciplines have brought a measure of success, overconcentration in this area has also led to a major undermining in the scientific capacity of traditional disciplines such as plant breeding, agronomy, pathology, entomology, virology and related disciplines. We need a new generation of agriculturalists of all types, not just of a few types, if we are to adequately address the agricultural dimensions of MDG1 over the next 25 years. *Dyno Keatinge, AVRDC-The World Vegetable Center*

BizzarriCapacity building is directed largely to improve the capacity of researchers, decision makers and extension workers; these tend to be start-stop affairs and address specific topics rather than dealing with integrated management issues faced by small mixed farmers. It ignores the multitude of budding young farmers who are thirsty to learn better husbandry/management practices. There is thus a need to think more out of the box and promote self-help type capacity building. For instance, the Farmers Unions in developing countries, and perhaps the donor community, should provide greater support for the Young Farmers Club movement. *Wyn Richards, The Natural Resources Group*

Cultivating a new generation of agricultural entrepreneurs, technicians, researchers, educators and leaders is strategically important. ARD will be all the more effective when youth and women are well-represented and well equipped for the challenge. Dedicated resources from the leadership of international, regional and national bodies of agricultural education and R&D are needed to multiply the availability of high-quality opportunities for practical experience and career development of women and youth, such as internships, mentoring, professional secondments and associations. *Vicki Wilde, Director, African Women in Agricultural Research and Development (AWARD)*

**Upcoming Events**

**February 2013**

**AGROFEST 2013**

**Date:** 22 to 24 February, 2013  
**Location:** Queen's Park, Bridgetown, Barbados
June 2013

49th Annual Meeting Caribbean Food Crops Society (CFCS)

Date: 30 June to 6 July 2013
Location: Port of Spain, Trinidad and Tobago

Description: The 49th Annual Meeting will be celebrated 30 June to 6 July in the Hyatt Regency Hotel in Trinidad. Joint meeting of the CFCS, Caribbean AgroEconomic Society (CAES) and the International Society for Horticultural Science (ISHS). Theme: Agribusiness Essential for Food Security: Empowering Youth and Enhancing Quality Products.

Contact: CFCS website  http://cfcs.eea.uprm.edu/