



IMPROVING LIVES THROUGH
AGRICULTURAL RESEARCH

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Agriculture *in the* News



Issues Affecting Caribbean Agriculture

IN THIS ISSUE FEB 23 - MAR 1, 2014

1. Cassava
2. Agro-energy
3. Protected Agriculture
4. Climate Change
7. Agriculture Development
9. Youth in Agriculture
10. Education
11. Upcoming Events

Cayman Islands joins regional agriculture institute. I-witness News, 29 January, 2014
<http://www.iwnsvg.com/2014/01/29/cayman-islands-joins-regional-agriculture-institute/>

The Caribbean Agricultural Research and Development Institute (CARDI) says it is pleased that the Cayman Islands is now a member of the CARDI family. "This is an exciting time for the agriculture sector here in the Cayman Islands. Becoming a member of the CARDI family will certainly enhance our ability to grow our agri-tourism business and will go a long way to assist our farming community, enabling them to produce better quality products for our ever growing market," Minister of Agriculture in the Cayman Island, D. Kurt Tibbetts said.

For more information see page 7

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.



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*Caribbean Agricultural Research and
Development Institute (CARDI)*
P.O. Bag 212, Frederick Hardy Building,
University of the West Indies,
St. Augustine Campus,
St Augustine
Trinidad and Tobago W.I

Tel: 1-868- 645-1205-7
Fax: 1-868-645-1208
Email: infocentre@cardi.org
Website: www.cardi.org

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

Cassava

Waxy starch cassava variety for Brazil. CIAT, 26 February, 2014

<http://ciatblogs.cgiar.org/agbio/waxy-starch-cassava-variety-for-brazil/>

Full Article

CIAT has entered into a public-private sector partnership, whose purpose is to develop novel cassava varieties for Brazil that possess amylose-free starch. The development of this specialty product for the country's industrial starch market, by generating new demand for cassava, will offer farmers adopting the new varieties an opportunity to boost their incomes.

The other two participants in this collaboration are the National Research Center for Cassava and Tropical Fruit Crops (CNPMPF) of the Brazilian Agricultural Research Corporation (Embrapa) and Ingredion, a US-based private starch company operating in Brazil. Begun in 2011, the partnership entered a second phase last September.

The collaboration builds on pioneering CIAT research, which led in 2006 to the identification of so-called "waxy" cassava. The result of a natural mutation, the special properties of this cassava caught the attention of the starch industry. Amylose-free starch in cassava is characterized by a tendency to gelatinize easily, which yields clear pastes with higher viscosity. The value added of waxy starch in cassava derives from its ability to improve the freeze-thaw stability of food products.

A commercial waxy starch variety developed from CIAT germplasm, in collaboration with Kasetsart University and with financial support from the Thai Tapioca Development Institute, is undergoing agronomic evaluation for release in Thailand. Now, the idea is to develop such materials suited to cassava growing conditions in Brazil, where cassava is used not only as a staple food but also as a raw material for the starch industry.

The first generation of plants derived from crosses between waxy genotypes and cassava varieties from Brazil was randomly crossed among themselves at CIAT headquarters, and the resulting cassava seeds were sent to Brazil for further advanced field trials to obtain a commercial variety.

"We've already shipped 17,000 cassava seeds to CNPMPF," said Clair Hershey, leader of CIAT's Cassava Program, "and the seed is currently undergoing the quarantine process with the Brazilian phytosanitary authorities. Once these seeds are released from quarantine, they will be germinated, and CNPMPF will then carry out several cycles of selection. One to three high-yielding waxy varieties with the desired agronomic characters will be chosen and multiplied."

One method of selecting for the waxy trait in cassava involves the application of an iodide solution to the roots; in waxy cassava, the roots turn reddish brown, while in normal cassava, they turn blue. "In Brazil as in Thailand, we expect the waxy varieties to give outstanding results in terms of expanding food and industrial markets for cassava," Hershey said.

Agro-energy

Team converts sugarcane to a cold-tolerant, oil-producing crop by Diana Yates, Life Sciences Editor.
News bureau | Public Affairs, University of Illinois, 24 February 2014
http://news.illinois.edu/news/14/0224sugarcane_StephenLong.html

Full Article

CHAMPAIGN, Ill. — A multi-institutional team reports that it can increase sugarcane's geographic range, boost its photosynthetic rate by 30 percent and turn it into an oil-producing crop for biodiesel production.

If the researchers achieve their goal, growers will be able to meet 147 percent of the U.S. mandate for renewable fuels by growing the modified sugarcane on abandoned land in the southeastern United States (about 20 percent of the green zone on the map).

These are only the first steps in a bigger initiative that will turn sugarcane and sorghum – two of the most productive crop plants known – into even more productive, oil-generating plants.

The team will present its latest findings Tuesday (Feb. 25) at the U.S. Department of Energy's [ARPA-E Energy Innovation Summit](#) in Washington, D.C.

“Biodiesel is attractive because, for example, with soybean, once you've pressed the oil out it's fairly easy to convert it to diesel,” said [Stephen P. Long](#), a University of Illinois professor of [plant biology](#) and leader of the initiative. “You could do it in your kitchen.”

But soybean isn't productive enough to meet the nation's need for renewable diesel fuels, Long said.

“Sugarcane and sorghum are exceptionally productive plants, and if you could make them accumulate oil in their stems instead of sugar, this would give you much more oil per acre,” he said.

Working first with the laboratory-friendly plant *Arabidopsis* and later with sugarcane, the team introduced genes that boost natural oil production in the plant. They increased oil production in sugarcane stems to about 1.5 percent.

“That doesn't sound like a lot, but at 1.5 percent, a sugarcane field in Florida would produce about 50 percent more oil per acre than a soybean field,” Long said. “There's enough oil to make it worth harvesting.”

The team hopes to increase the oil content of sugarcane stems to about 20 percent, he said.

Using genetic engineering, the researchers increased photosynthetic efficiency in sugarcane and sorghum by 30 percent, Long said. And to boost cold tolerance, researchers are crossing sugarcane with *Miscanthus*, a related perennial grass that can grow as far north as Canada. The new hybrid is more cold-tolerant than sugarcane, but further crosses are needed to restore the other attributes of sugarcane while preserving its cold-tolerance, Long said.

Ultimately, the team hopes to integrate all of these new attributes into sugarcane, he said.

“Our goal is to make sugarcane produce more oil, be more productive with more photosynthesis and be more cold-tolerant,” he said.

The research team, led by the U. of I., includes scientists from Brookhaven National Laboratory, the University of Florida and the University of Nebraska. Long is an affiliate of the [Institute for Genomic Biology](#) at the U. of I.

Protected Agriculture

JSIF/JBI Launch \$192 Million Greenhouse and Water Catchment Project. Jamaica Information Service, 23, February, 2014

<http://jis.gov.jm/jsif-jbi-launch-192-million-greenhouse-and-water-catchment-project/>

Full Article

One hundred and sixty farmers from eight communities in St. Ann and Manchester are set to benefit from a \$192 million Water Catchment and Greenhouse Cluster Project, being undertaken by the Jamaica Social Investment Fund (JSIF) and the Jamaica Bauxite Institute (JBI).

A total of 20 greenhouses are being constructed in each of the eight targeted communities, with a mined-out pit at each site to be converted into a surface water reservoir to be used for irrigation purposes.

The project, which involves collaboration with Noranda Jamaica Bauxite Partners, is geared at placing formerly small scale subsistence farmers on mined-out bauxite lands, and providing the necessary infrastructure and equipment for them to do greenhouse farming on a larger scale.

JSIF is providing \$160 million through the World Bank-sponsored Rural Economic Development Initiative (REDI), with the JBI contributing \$32 million.

At the official launch and tour of the in Tobolski project in St. Ann on Friday (Feb. 21), Managing Director of JSIF, Scarlett Gillings, said that the initiative will bring increased yields and improved market access for the farmers.

She said that community members will also benefit by providing goods and services to the businesses.

Minister of Agriculture and Fisheries, Hon. Roger Clarke, in his address, said that the project will help to boost domestic crop production.

He noted that over the last two quarters, production of domestic agriculture grew by 8.5 per cent and 14 per cent, respectively “and with these new additions, the next quarter is going to be way out front, and any time agriculture grows, the economy grows.”

Minister Clarke said that growth in the sector means that progress is being made in reducing the country’s food import bill, adding that as a nation “we must work towards feeding ourselves”.

Minister of Science, Technology, Energy and Mining, Hon. Phillip Paulwell, in his remarks, stated that the project is consistent with the Government's position on the restoration of mined-out lands.

He said that as at the end of 2013 some 8, 983 hectares of land had been mined with 6, 889 hectares certified rehabilitated by the Commissioner of Mines.

Climate Change

New paper explores the wild card of decadal variability when simulating future climate scenarios.

CCAFS: CGIAR research program on Climate Change, Agriculture and Food Security, 25 February 2014

<http://ccafs.cgiar.org/blog/new-paper-explores-wild-card-decadal-variability-when-simulating-future-climate-scenarios>

Full Article

With the increasing attention towards the expected climatic impacts on agriculture, the contribution of another important player is often overlooked: climate variability.

Climate variability means the fluctuations in rainfall, temperature or other attributes that make one year – or one decade – different from the next.

So then, how large are the fluctuations (variability) in rainfall and temperature that make up one year? More to the point, how do these fluctuations *compare* with the changes we might expect from global warming?

The answer to this question depends on where, on planet Earth, one stands: In the West African Sahel in the mid-20th century, rainfall experienced a decade-on-decade decrease that was quite large. This can be compared with any slowly-evolving trend we might associate with global warming. Across the continent in equatorial East Africa, however, decade-to-decade variations were muted.

In a recently [released Working Paper](#) from the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) series, we looked at the simulation of near-term climate change at target sites in Kaffrine, Senegal, and Machakos in Kenya. Our paper focuses primarily on the methodology of simulation and the generation of simulation data.

As we look to the future, global climate models can help us to understand the warmer world in which tomorrow's crops will be grown. Observations based on weather station records on the other hand, **can provide insights** into the nature of regional climate variability.

In our Working Paper, "[Simulation of near-term climate change at target sites in West and East Africa](#)" these complementary sources of information have been *combined* while producing future scenarios for 2050 .The simulations incorporate *both* climatic changes and the decade-to-decade variations that may act to either enhance or mitigate the effects of climate change.

Kaffrine and Machakos have experienced markedly different decade-to-decade variability in rainfall. Seasonal patterns of rainfall also differ, with Kaffrine experiencing a single rainy season and

Machakos the classical “long” and “short” rains that we associate with equatorial East Africa This is among the other characteristics that must also be accounted for in any simulation design.

Tackling uncertainties in climate modeling

In the paper we refer to “the extent that we believe” something, in this case about a particular aspect of climate behavior. Implicit in this innocuous-sounding, but in fact deeply significant phrase is the concept of *uncertainty*. Uncertainty *per se* need not be feared, of course, but neither can it be ignored, and this is a key feature of the scenarios produced by this project.

By taking account of uncertainties, in both the future effects of global warming *and* the natural variability that may act to augment or diminish those effects, the scenarios include quantifiable uncertainty ranges for variations in rainfall and temperature for the next few decades. In this way the uncertain behavior of decadal variability are introduced into representations of climate change in the “near term.”

What we did in this paper was to generate sequences of precipitation and maximum and minimum daily temperatures at two locations in western and eastern Africa respectively. The generated sequences and models we used are all included in the [Working Paper](#).

The simulations are intended to drive agricultural or other applications models to investigate responses to a range of plausible trends, on which are superimposed decade-scale climate fluctuations whose likelihood of occurrence can be estimated.

We believe studies like this one can serve as useful supplements to reports such as those produced by International Food Policy Research Institute ([IFPRI](#)) on [African agriculture and climate change](#).

Download the Working Paper to learn more about this unique study: [Simulation of near-term climate change at target sites in West and East Africa](#), Greene AM, Khomyakov I. 2013. *CAFS Working Paper No. 58. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)*.

UN Launches International Year of SIDS. CCCCC, 24 February, 2014

<http://caribbeanclimateblog.com/2014/03/04/un-launches-international-year-of-sids/>

Full Article

At the recently concluded global launch of the International Year of Small Island Developing States (SIDS), to be celebrated throughout 2014, Ronald Jumeau, Ambassador of Climate Change and SIDS, Seychelles, who served as Master of Ceremonies, noted that the occasion marks the first time the UN has dedicated an International Year to a particular category of countries. The launch ceremony took place at UN Headquarters in New York, US, on 24 February 2014.

John Ashe, President of the UN General Assembly (UNGA), said that while SIDS are seen as exotic, tropical paradises, they face limited human resources and institutional capacity, and extreme vulnerability to exogenous shocks and natural disasters. The Year provides opportunities to: celebrate SIDS’ contributions to the global family; address their environmental degradation, social

and economic marginalization; and harness fresh commitments and energy for the tasks ahead. Recalling the Barbados Programme of Action (BPOA) and the UN Conference on Sustainable Development (UNCSD, or Rio+20), Ashe said it is time for “political commitments and political will to converge.”

UN Secretary-General Ban Ki-moon highlighted the importance of climate change for SIDS and the Climate Summit he will convene in New York on 23 September 2014. He also recalled the theme of the Third UN Conference on SIDS – ‘island voices, global choices’ – and urged governments to heed SIDS’ calls in their global discussions. He also stressed the need to achieve the remaining MDGs by 2015, noting SIDS’ lack of progress on sustainable development and even regression on poverty eradication and debt issues. Ban added, “Planet Earth is our shared island.”

Under-Secretary-General Wu Hongbo said SIDS have made inspiring progress in addressing their vulnerabilities. He expressed hope that at the Third UN Conference on SIDS in September 2014, world leaders will renew their political commitment to SIDS, tackle challenges through partnership and agree on SIDS’ priorities for the post-2015 development agenda.

Baron Waqa, President of Nauru, said island people have “forever enriched the tapestry of the human experience,” but their progress did not come easily, and their work is far from complete, due to the “cruel indifferences of a globalized economy and political system,” among other factors. He said the International Year is celebrated with the somber knowledge that unless action is taken soon, some islands will not make it to the end of the century.

Tuilaepa Lupesoliai Sailele Malielegaoi, Prime Minister of Samoa, said some SIDS are even worse off than when their ‘special case’ status was assigned 20 years ago. During the Year, SIDS will command the attention of everyone with an interest in sustainability. He highlighted additional reasons for the importance of 2014: the creation of Sustainable Development Goals (SDGs), the Climate Summit, the process to agree on the post-2015 development agenda, and the SIDS Conference.

The launch event also included remarks by Barbados’ Minister of Foreign Affairs and Trade, Maxine McClean, who recalled her country’s hosting of the first SIDS Conference in 1994, and Warren Chanansingh of Trinidad and Tobago on behalf of all nine Major Groups, as well as a video presentation highlighting islanders’ leadership in safeguarding their environments. Among the cultural performances was a youth dancer from Kiribati, Josephine Baaro, who represented impacts of sea level rise.

Also coinciding with the International Year of SIDS, this year’s International Day for Biological Diversity (22 May) will take up the theme of ‘Island Biodiversity.’

Agriculture Development

Cayman Islands joins regional agriculture institute. I-witness News, 29 January, 2014
<http://www.iwnsvg.com/2014/01/29/cayman-islands-joins-regional-agriculture-institute/>

Full Article

The Caribbean Agricultural Research and Development Institute (CARDI) says it is pleased that the Cayman Islands is now a member of the CARDI family.

“This is an exciting time for the agriculture sector here in the Cayman Islands. Becoming a member of the CARDI family will certainly enhance our ability to grow our agri-tourism business and will go a long way to assist our farming community, enabling them to produce better quality products for our ever growing market,” Minister of Agriculture in the Cayman Island, D. Kurt Tibbetts said.

Tibbetts said viewed from a more holistic perspective, the agricultural sector is very important, contributing significantly to food and nutrition security, culinary tourism,; and cultural preservation. “Accordingly, agriculture needs to continue to be nurtured, supported and further developed to its full potential building on these key areas of contribution.”

He said that the fact that government has resuscitated efforts to join CARDI also speaks volumes. “This government recognizes that the Department of Agriculture needs additional support to further develop the agricultural sector in these islands. In these times when budgetary constraints are the norm, Government views this as an opportunity of obtaining such support, through partnership with a regional organization of excellence,” he said.

CARDI, which was established in 1975, aims to contribute to agricultural development by conducting research and by exposing farmers and other persons involved in agriculture to appropriate technologies.

CARDI’s Membership comprises all members of the Caribbean Community Common Market as well the Associate Members of CARICOM.

The Institute has its headquarters in Trinidad and Tobago with branches/units in all CARICOM Member States.

Economic Growth Stunted by Challenges in Agricultural Sector. Belize Guardian, 27 February, 2014
http://www.guardian.bz/index.php?option=com_content&view=article&id=7454:economic-growth-stunted-by-challenges-in-agricultural-sector&catid=40:politics&Itemid=90

Full Article

In 2013 the economy of Belize grew by 0.7 percent, according to the initial estimates from the Statistical Institute of Belize (SIB). 0.7 percent is significantly lower than the 4 percent growth in 2012 and even the 2.5 percent growth projected for 2013. The disappointing growth rate was a direct result of the significant decrease in production of citrus and sugarcane products. The citrus and sugar industries were injured by both natural and manmade disasters in 2013. However, the shortfall in the

agriculture sector was offset by the growth in aquaculture with the rebound of shrimp exports. A second consecutive year of double digit growth in construction also acted as a boost to the economy as well as a record number of overnight tourist arrivals.

In 2013, production in fishing increased by 28 percent. Glen Avilez, Director General of SIB, says this was due in large part to the resumption of operations at the Belize Aquaculture Limited's shrimp farm after nearly two years of closure. According to SIB, in 2013 farm shrimp grew by 81 percent to \$51.6 million. Avilez says the construction sector was the second largest contributor to the economy's performance with a growth of 16 percent. He attributes this growth to "a significant boost to public infrastructure projects such as those being carried out by the Belize City Council and Belize Municipal Development Project". Tourist arrivals increased by 6 percent in 2013. There were a record number of overnight arrivals with over 294,000 foreigners spending at least one night in Belize. This increase in overnight tourist arrivals resulted in a 4 percent increase in hotels and restaurants services. One of the positives from the prolonged period of rain in 2013 was a 7 percent increase in electricity production. Government services also increased by 6 percent.

Oil production continued to decrease in 2013. In 2012 Belize produced approximately 1,030,000 barrels of oil. In 2013 the country only produced approximately 792,300 barrels, a decrease of 23 percent. Avilez believes that this trend will continue on its downward path. Agriculture was also down significantly with a decline in production of 13 percent. The citrus industry did not only return to earth from its bumper harvest in 2012 but it also fell through the floor. There was a decline in production of citrus fruit of 35 percent and a 40 percent decline in citrus concentrate. Avilez says the Citrus Greening Disease has a lot to do with the strong decline in the industry. Disagreements between farmers and the company also played a small part in low output. The story was completely the opposite in the sugar industry. Production in the sugar industry for 2013 declined greatly because of disagreements between farmers and the company. The crop season which was scheduled to start in mid November was delayed until January. This caused a 22 percent decline in sugarcane and 18 percent decline in sugar. The impasse between farmers and the company stalled works that were needed on the sugar roads which were damaged by an unusually long period of rain. Banana declined moderately with a 4 percent decrease in production. Rum and beer production were down 4 and 1 percent respectively.

All indicators point to greater economic growth in 2014. There is even more public infrastructure projects scheduled to get off the ground; early reports from the sugar industry is promising; the citrus industry is expected to rebound and the tourism and aquaculture industries are expected to continue thriving. The last time the economy grew by less than 1 percent was in 2009 which was followed by a 3.1 percent GDP growth in 2010.

Youth in Agriculture

4-H Club to train 600 for hub jobs. Jamaica Observer, 27 February 2014

http://www.jamaicaobserver.com/news/4-H-Club-to-train-600-for-hub-jobs_16144956

Full Article

THE Jamaica 4-H Club has begun a programme to train 600 young persons for self-employment and jobs in the logistics hub.

Making the announcement last Friday at the club's Kingston Parish Achievement Day activities at the Duhaney Park Primary School, Executive Director Ronald Blake disclosed that the participants, all of whom are over 17 years of age, are currently being trained in small equipment repair, apiculture and commercial meal preparation.

He also informed that 250 persons are being trained in heavy equipment operation, "in preparation for the mega-project in Jamaica — the logistics hub."

Blake said that if the 4-H club is to be effective, the organisation will have to cater to the needs of young people more effectively, and pointed to the urgent need to engage the youth in meaningful activities.

"I think this project is great, because the greatest threat in our country is unattached youth, who are uneducated, unemployed and unskilled," he argued.

Blake said that the training programme will empower the participants and after graduation, they will not have to search aimlessly for a job, but will be able to create their own employment.

He noted that the Jamaica 4-H Club's training capacity, which has been boosted by the work of volunteers, will be significantly enhanced through assistance from the Japanese Embassy, which is providing 19 consultants for 10 months to construct an online global 4-H training institute to train 4-H clubbites across the globe.

Blake congratulated the volunteers who have assisted to increase membership in the Movement.

"We currently have a membership that is 70 per cent higher than what it was the previous year. Because of your hard work, training is three times higher than in 2013," he said.

Education

Boosting food security knowledge in Latin America and the Caribbean: More than 220 universities join FAO to expand learning opportunities and improve policies. FAO, 28 February 2014

Full Article

The courses are being designed primarily for food security professionals like government statisticians, nutritionists and others.

Rome, 28 February 2014 – A new educational partnership will soon be putting knowledge into the hands of thousands of professionals working in food security and nutrition in Latin America and the Caribbean. Individuals and institutions will be able to gain access to a broad suite of online courses to develop their capacity to improve policies and programmes.

The initiative will offer a new Master's programme in Food Security, in addition to [e-learning courses](#) currently offered by FAO. The programme partnership will target current and potential policymakers through a vast network of over 220 universities in the region.

With the support of the European Union (EU), FAO has signed a Memorandum of Understanding with the Association of Universities of Latin America and the Caribbean (UDUAL) to develop the education programme.

FAO and UDUAL will work with the Inter-American Institute for Cooperation on Agriculture (IICA) to develop the curricula. Rollout of the new courses is slated for January 2015.

The aim is to further develop the capacities of a wide range of food security professionals, including nutritionists, statisticians, market analysts and others who work primarily in government ministries and institutions. E-learning tools will also be available to farmers, traders and agriculture workers interested in the subjects covered.

“With this partnership we will make a major contribution to developing the capacity of professionals and practitioners in Latin America and the Caribbean to address food security issues,” said Marcela Villarreal, Director of FAO's Office for Partnerships, Advocacy and Capacity Development. “This is a very cost effective and meaningful way to contribute to the fight against hunger in the region.”

“This new partnership will link regional expertise with FAO's global perspective and knowledge,” said Maria Helena Semedo, FAO Assistant Director-General. “It will allow us to reach more people, more quickly, helping them to design effective nutrition and food security policies and programmes, and ultimately, helping them to improve lives. Scaling up food and nutrition policies is crucial if the continent wants to eradicate hunger by 2025.”

“Directly training every policy maker is simply impossible,” said Lloyd Day, Deputy Director-General of IICA, “since traditional learning requires significant expense in travel, resources and time. But with e-learning we can reach those individuals and trainers of trainers who otherwise could not afford to take advantage of these courses.”

Day added that the more people reached, the more successful this initiative will be in “developing the capacities of individuals and governments to base decisions on sound science and accepted

policy to help provide safe and less expensive food to a hungry world.”

“To me, this agreement is about how knowledge and policy can join together to provide solutions to food insecurity,” said Roberto Escalante, Secretary-General of UDUAL. “Good policies are informed by knowledge. Universities joining forces with organizations, like FAO and IICA, to build knowledge on food security represent a great way to address hunger.”

The EU consistently supports FAO in development of its current roster of e-learning courses on food security. The EU and FAO are partnering under the [Improved Global Governance for Hunger Reduction](#) programme, working with countries to improve nutrition, strengthen resilience and enhance food security. The programme emphasizes the value of inclusive dialogue, accurate information and regional and national policy processes in the design of policies and programmes.

To learn more about FAO’s e-learning courses on food security see:
<http://www.foodsec.org/dl/elcpages/food-security-learning-center.asp?pgLanguage=en&leftItemSelected=food-security-learning-center>

Upcoming Events

2014 International Year of Family Farming (IYFF). FAO

<http://www.fao.org/family-farming-2014/home/en/>

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

February 2014

Seventh International Training Course *In Vitro* and Cryopreservation for Conservation of Plant Genetic Resources: Current Methods and Techniques

Date: 17 - 28 Feb. 2014,

Location: New Delhi, India

Description: The International Training Course is being organized by the National Bureau of Plant Genetic Resources (NBPGR) - Bioversity International Centre of Excellence. NBPGR is one of the leading institutes under the Indian Council of Agricultural Research (ICAR), New Delhi, India for plant genetic resources (PGR) management. The course will be conducted at NBPGR, IARI Campus, New Delhi, India. The participants will improve their skills in tissue culture, cryopreservation and *in vitro* conservation of crops relevant for their countries. They will also gain knowledge on the molecular techniques and protocols for conservation of plant seeds and tissues. The applicants must have a prior experience in the teaching areas of the course. Female scientists are particularly encouraged to apply.

Deadline for application: 25 January 2014.

Information: <http://www.bioversityinternational.org/capacity-strengthening/training-courses/in-vitro-and-cryopreservation-training-course-india/>

Course documents

- [Full course announcement and outline](http://www.bioversityinternational.org/fileadmin/user_upload/research/Capacity_Strengthening/Courses/Announcement_Cryo_Invitro_Training-2014.pdf)
- http://www.bioversityinternational.org/fileadmin/user_upload/research/Capacity_Strengthening/Courses/Announcement_Cryo_Invitro_Training-2014.pdf
- [Application form](#)

March 2014

The United Nations' (UN) World Water Day

Date: 22 March 2014

2014 World Water Day (WWD) theme is "Water and Energy" and aims to raise awareness of the inter-linkages between water and energy. 2014 World Water Day (WWD) theme is "Water and Energy" and aims to raise awareness of the inter-linkages between water and energy.

Global Water Partnership-Caribbean (GWP-C) activities

<http://www.gwp.org/GWP-Caribbean/GWP-C-IN-ACTION/World-Water-Day-2014-Water--Energy/>

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/>

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>

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/>

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

Website: <http://wcca2014.ucr.ac.cr/>

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/>

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/>