



Agriculture in the News

Issues Affecting Caribbean Agriculture

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Rice diseases: RICE BLAST

IRRI and CSIRO collaborate on new ways to protect rice crops from devastating diseases.

International Rice Research Institute (IRRI), August 14, 2018

<http://irri.org/news/media-releases/irri-and-csiro-collaborate-on-new-ways-to-protect-rice-crops-from-devastating-diseases>

Magnaporthe oryzae, the fungus that causes rice blast, is one of the most destructive pathogens affecting rice production. According to a [2016 US study](#), approximately 30% of rice crop production losses globally are due to rice blast, a substantial deficit which is the equivalent of feeding about 60 million people. Aside from lost yield, these losses also have the effect of devastating smallholder farmer incomes, increasing rice prices, and reducing food security.

While there is currently no outright cure for the disease, remarkable headway is being made by scientists all over the world in developing blast-resistant rice varieties that can mitigate and even suppress the pathogen's infection of rice crops.

Improving Lives Through Agricultural Research

Frederic Hardy Building, The University of the West Indies,
St. Augustine Campus, St. Augustine, Trinidad and Tobago

Email: infocentre@cardi.org; Website: www.cardi.org; Facebook: www.facebook.com/CARDIcaribbean; Youtube: www.youtube.com/user/CARDIcaribbean; Fax: 1.868.645.1208; Tel: 1.868.645.1205/8120

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To this end, the International Rice Research Institute (IRRI) has entered into an agreement with Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO) to collaborate on transgenic research for functional diversity in rice, with the purpose of investigating novel strategies for resistance to diseases such as rice blast.

Wheat's complex genome finally deciphered

Wheat's complex genome finally deciphered, offering hope for better harvests and nonallergenic varieties by Elizabeth Pennisi. American Association for the Advancement of Science [AAAS] News, August 16, 2018

<http://www.sciencemag.org/news/2018/08/wheat-s-complex-genome-finally-deciphered-offering-hope-better-harvests-and>

The world's most widely planted cereal has also proved to be among the hardest to improve. Plant breeders vastly increased wheat yields during the Green Revolution of the 1960s, but since then efforts to improve the crop through traditional breeding or genetic technology have been painstakingly slow because of the fiendish complexity of its genome. Thanks to a decadelong effort, the wheat genome has finally come into sharp focus, speeding the search for genes that could boost harvests and even make wheat less likely to trigger allergies.

[The data](#), described this week in *Science*, represent the [long-awaited culmination](#) of the International Wheat Genome Sequencing Consortium, a massive collaboration of academic and industry researchers from 20 countries. Wheat geneticists say the newly finished genome, which pinpoints 107,000 genes on the 21 chromosomes of bread wheat, has transformed their research as they and others gained early access to it. "What took us years in the past now takes us one night," says Jorge Dubcovsky of the University of California, Davis, who recently found a new gene for wheat height. "It's like walking with a Google map."

Already the new genome has helped plant geneticists from the John Innes Centre (JIC) in Norwich, U.K., to boost grain size by 20% in lab-grown wheat. In a preprint posted on the bioRxiv server in May, they report identifying multiple copies of a gene for grain size originally found in rice, then bulking up wheat grains by mutating the genes using CRISPR gene-editing technology. Many more traits beckon. The new sequence "ushers in a new era in wheat genetics," says James Anderson, a plant breeder at the University of Minnesota in St. Paul who was not part of the effort.....

Coconut

PRESS RELEASE | Notice of the ITC/CARDI Workshop "Entomological Risk Mitigation Workshop for Small Coconut Producers" August 2018

<http://www.cardi.org/wp-content/uploads/2018/08/PRESS-RELEASE-ITC-CARDI-Entomological-Risk-Mitigation-Workshop-Small-Coconut-Producers-TT-August-2018.pdf>

In Trinidad and Tobago, there is now renewed interest in growing coconuts principally driven by the high demand for coconut water. Many farmers are establishing plots hoping for productive commercial harvests after two to three years and continuing for 20 to 50 years, depending on the variety. At present, it is common to see farmers establishing coconut plots with little attention being given to risk mitigation planning to safeguard their investment. It should however be appreciated that proactive planning is the best approach to dealing with the many risks which threaten plant and crop productivity.

A major risk faced by coconut farmers in Trinidad and Tobago is that of insect pests which can affect the plant directly or indirectly as vectors for disease causing organisms such as nematodes, mycoplasmas and viruses. In many cases, the effects of pest infestations can cause plant death (it is truly heart-breaking to lose a bearing coconut tree) usually after a period of severely reduced yields. Several of these pests are indigenous to areas outside the region but have established here principally through inadvertent introductions facilitated by

increased global passenger travel and trade in agricultural products. To protect their investment, farmers therefore need to look beyond their farms when developing strategies to mitigate against these potential risks. They must now be aware of the coconut pests that exist in other parts of the world and take part in validated pest exclusion strategies to prevent these pests from reaching and establishing within their respective countries. All farmers, even farmers of small plots, have a critical role in safeguarding the productivity of our national agricultural sector by reducing the risks of transboundary movement of agricultural pests.

Coconut farmers in Trinidad and Tobago can learn how to reduce the risk of pest infestation in their fields and also how to integrate activities that support national pest exclusion and mitigation programmes by attending a one-day workshop on 20 August 2018 at Cara Suites, Claxton Bay. This information transfer session titled, **‘Entomological Risk Mitigation Workshop for Small Coconut Producers’** is one of a series of national risk management workshops being executed in 11 CARIFORUM countries by the Caribbean Agricultural Research and Development Institute (CARDI) partnering with the International Trade Centre (ITC), the European Union (EU) and the African Caribbean Pacific Group (ACP).

The information acquired from this workshop will position participants to better partner with governments and international agencies to develop risk mitigation strategies to protect their coconut farm operations.

Livestock Development and Climate Change

Using science to inform low emissions livestock policy development and implementation in East Africa by Ravina Pattni. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), August 13, 2018

<https://ccafs.cgiar.org/news/using-science-inform-low-emissions-livestock-policy-development-and-implementation-east-africa#.W4BPq7gpCM->

EXCERPTS

... Low Emissions Livestock: Supporting Policy Making and Implementation through Science in East Africa regional awareness raising workshop held at the UN Economic Commission for Africa (UNECA) in Addis Ababa, Ethiopia in 2–4 July 2018.

The workshop was organized by the Global Research Alliance on Agricultural Greenhouse Gases ([GRA](#)), the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Food and Agriculture Organization of the United Nations ([FAO](#)) and the [World Bank](#). These four organizations worked closely to bring together about 85 participants from across East Africa and the world. The workshop created a platform for senior government, policy and science representatives working in the livestock sector to:

- discuss countries’ ambitions for livestock development and climate change, and understand the challenges;
- showcase relevant ongoing work of the four organizations that is focused on: (i) Improving the efficiency of livestock production; (ii) reducing greenhouse gas emissions and enhancing resilience; and (iii) strengthening national measurement, reporting and verification (MRV) for low emissions livestock systems;
- understand how science underpins this work, including helping to support countries’ Nationally Determined Contributions (NDCs);
- identify ways that the GRA, CCAFS, FAO and the World Bank can help build regional and national capacity and contribute to project implementation through tailored initiatives in the future....

... **Download the workshop presentations:**

- [The role of livestock in sustainable development in East Africa](#)
- [Pathways to low emissions livestock farming in East Africa](#)
- [Presentation: The Low Emissions Livestock Workshop | Ethiopia Ministry of Agriculture and Livestock](#)
- [Ambitions and challenges regarding low emissions livestock sector in Kenya](#)
- [Livestock MRV at national level](#)
- [What Science tells us: What are the emissions & how can they be reduced?](#)
- [Opportunities for LED in agriculture in East Africa: a regional perspective](#)

Invasive Species: Fall Armyworm

Fall Armyworm likely to spread from India to other parts of Asia with South East Asia and South China most at risk. Food and Agriculture Organization of the United Nations, August 14, 2018
<http://www.fao.org/news/story/en/item/1148819/icode/>

Climate Change

Media must play a bigger role in the climate change dialogue. Caribbean Community Climate Change Centre (CCCCC), August 16, 2018
<https://caribbeanclimateblog.com/2018/08/16/media-must-play-bigger-role-in-the-climate-change-dialogue-expert/>

Governments across the region must use the media to disseminate information on climate change initiatives, according to Dr Ulric Trotz, Deputy Director and Science Adviser at the Caribbean Community Climate Change Centre (CCCCC).

He made the call during yesterday's third day of the 49th Annual General Assembly of the Caribbean Broadcasting Union (CBU) at The Jamaica Pegasus Hotel in New Kingston.

"The media has been reporting basically the big events, the big hurricanes and the massive damage as a result of these," said Trotz. "But they have not been privy to the information about how countries right across the region have been putting in place the institutional arrangements to address climate change, by building capacity and the interventions that have been made to address the problem."...

Region working towards becoming the first Climate Smart Zone by Kendol Morgan. CARICOM

Today News, August 14, 2018

<https://today.caricom.org/2018/08/14/region-working-towards-becoming-first-climate-smart-zone/>

The recent launch of the "Caribbean Climate-Smart Accelerator" is expected to advance the Region's efforts to become the world's first climate smart zone.

The Accelerator is an entrepreneurial engine, which the key partners expect will catalyze and fast-track priority initiatives towards the world's first "climate-smart zone", delivering resilience, social development and broad-based economic growth for the Caribbean'. So far, 26 Caribbean countries and more than 40 private and public sector partners have joined the initiative....

Empowering women to combat climatic risks while enhancing livelihoods and household nutrition. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), August 15, 2018 <https://ccafs.cgiar.org/news/empowering-women-farmers-combat-climatic-risks-while-enhancing-livelihoods-and-household#.W38YKrgpCM9>

.. A workshop for capacity enhancement of women farmers on climate-smart agriculture for dealing with climatic risks was held in Bihar, India, on 26–27 June. It was jointly organized by the International Maize and Wheat Improvement Center (CIMMYT), Dr. Rajendra Prasad Central Agricultural University (DRPCA), Indian Council of Agricultural Research, Borlaug Institute for South Asia under the aegis of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Titled, "Crop diversification and value addition workshop for women of Bihar," the training workshop was designed to disseminate knowledge to women farmers from both Climate-Smart Villages (CSVs) and non-CSVs regarding crop diversification as a means for improving resilience to climatic risks, as well as to train them on value addition for products for income strengthening....

Soil Science: communicating research

How soil scientists can do a better job of making their research useful by Keith Shepherd. Thrive blog facilitated by the CGIAR Research Program on Water, Land and Ecosystems (WLE), August 14, 2018 <https://wle.cgiar.org/thrive/2018/08/14/how-soil-scientists-can-do-better-job-making-their-research-useful>

EXCERPT

This post originally appeared in [The Conversation](#). Join the author's talk at the [21st World Congress on Soil Science](#) in Brazil, August 17, starting 13:40 in Room "Ilha Bela II".

Soil is a vital part of the natural environment. It supports the growth of plants, is a habitat for many different organisms and is at the heart of nearly all agricultural production. It also plays an integral role in countless other ecosystem services like water and climate regulation.

Despite this, [soil degradation](#) is widespread. Soils rarely get the policy attention they deserve. There is little incentive for farmers to adopt practices that conserve soil. In the longer term soil degradation costs farmers and countries money, reducing farm productivity and capacity to adapt to climate change, and causing environmental damage such as poor water quality and silting of dams from soil erosion.

One of the major barriers when it comes to governments and policymakers taking soil science seriously is the approach of scientists themselves.

There are three main ways in which soil science has failed its stakeholders. The first relates to over generalising recommendations beyond the conditions for which they were developed. The second has to do with uncertainty: scientists don't properly communicate the risks inherent in their recommendations. And the third is about "translating" findings into economic terms so that farmers and policy makers can work with them.

Luckily, there are solutions, as is being shown through the work being done by the [Africa Soil Information Service](#), which has started using a different approach to research in Ethiopia, Ghana, Nigeria and Tanzania....

Food and Nutrition Security

Food Security is a Priority for Barbados by Sheena Forde. Barbados Government Information Service (BGIS), August 13, 2018

<http://gisbarbados.gov.bb/blog/food-security-is-a-priority-for-barbados/>

EXCERPT

... Minister of Agriculture and Food Security, Indar Weir, has reiterated that food safety is a priority for Barbados.

He made this comment during his address at the Fourth Annual Barbados Food Law and Industry Conference, under the theme: “Legally Fit for Consumption” held on Wednesday, August 8, at the Accra Beach Hotel.

Minister Weir indicated that with the changes in the global village, “it is therefore necessary for Barbados, a net food importer, and other importing and exporting countries to examine their national agricultural health and food control systems to ensure compliance with the many international agreements, standards and codes of practice, in order to mitigate these potential risks.”

Mr. Weir further stated that in order to implement such systems necessitates an adequate legislative framework, and to this end, Barbados is “making some changes” and tightening “weaknesses” to ensure that all food produced or imported here meets international food safety standards.

He disclosed that the Ministry of Agriculture and Food Security, in consultation with stakeholders, both in the public and private sector, and with the assistance of development partners, had prepared draft legislation, which will allow a modern risk-based approach to the protection of animal, plant and consumer health....

G20 Agriculture Ministers commit to collaborate on healthy, sustainable food future by Sara Gustafson. International Food Policy Research Institute, August 15, 2018

<http://www.ifpri.org/blog/g20-agriculture-ministers-commit-collaborate-healthy-sustainable-food-future>

Youth

Farming is hard work but try it: 15 year old encourages other young people by Matthew Thomas. CARICOM Today News, August 15, 2018

<https://today.caricom.org/2018/08/15/farming-is-hard-work-but-try-it-15-year-old-encourages-other-young-people/>

(Jamaica Observer) At just 15 years old, Matthew Thomas has already made a name for himself locally as the farmer whose 1,740-pound Jamaican Brahm bull won the Champion Bull “Other Beef Breeds” category for two consecutive years at the Denbigh Agricultural, Industrial and Food Show.

The young farmer, who has hopes of one day becoming a veterinarian, told the **Jamaica Observer** that though farming is hard work, he would encourage other young people to try it.....

Climate Change high on agenda for Youth Parliament by Alexis Rodney. DPI Guyana, August 14, 2018 <http://dpi.gov.gy/climate-change-high-on-agenda-for-youth-parliament/>

Adopting New Agricultural Technologies

New publications: Adopting new agricultural technologies in Bangladesh by Emma Orchardson. CIMMYT, August 14, 2018

<https://www.cimmyt.org/new-publications-adopting-new-agricultural-technologies-in-bangladesh/>

.... In a bid to enhance irrigation efficiency, Bangladesh has tried to introduce and popularize the use of axial-flow pumps (AFPs) for surface water irrigation. These pumps can lift up to 55 percent more water than a conventional centrifugal pump, but despite the obvious benefits, there has been limited uptake in targeted areas of the country. From 2012-13, a CIMMYT initiative made AFPs available for purchase for farmers in the southern regions of Bangladesh, but as of September 2017 only 888 had been purchased by lead farmers and irrigation service providers.

A recent study by CIMMYT in Bangladesh used primary data collected from 70 irrigation service providers – each of whom was given a free AFP for one season under a demonstration program – to examine user perception of AFPs and the major constraints to their adoption. It found that even though the use of AFPs can significantly reduce irrigation and overall crop production costs, more demonstrations and awareness-raising programs are needed if uptake is to be increased in target areas.

The study also highlighted the need for continuous modification of new technologies based on farmers' requirements, with Mottaleb emphasizing that these must be adapted to local demand specifications, and that prices must be competitive with those of alternative technologies in order to ensure rapid uptake.

This study was supported by USAID through the [Cereal Systems Initiative for South Asia](#) – Mechanization and Irrigation (CSISA-MI) project. It was also supported by USAID and the Bill and Melinda Gates Foundation through the Cereal Systems Initiative for South Asia (CSISA) Phase II project.

Read the full article in Science Direct: [“Perception and adoption of a new agricultural technology: Evidence from a developing country.”](#)

<https://www.sciencedirect.com/science/article/pii/S0160791X18300769>

Caribbean Week of Agriculture 2018

[Preparations move into high gear for Caribbean Week of Agriculture in Barbados](#) by [Michelle Nurse](#)

CARICOM Today, Aug 16, 2018

<https://today.caricom.org/2018/08/16/preparations-move-into-high-gear-for-caribbean-week-of-agriculture-in-barbados/>

A [Caribbean Week of Agriculture \(CWA\) website](#) was launched earlier this week as preparations moved into high gear for the event which will be held in Bridgetown, Barbados, 8-12 October, 2018.

The premier agriculture event on the Region's calendar will be held under the theme '**Strengthening agriculture for a healthier future in the Region**'. During the week, farmers, policy-makers, youth, experts in the field of agriculture and other stakeholders, will participate in activities aimed at charting the Region's path in the important sector. The activities include a trade show and exhibition – MarketPlace 2018 – seminars and workshops, field trips and a special meeting of the Council for Trade and Economic Development (COTED) on Agriculture.

Among the topics to be covered in the workshops and seminars are:

- Development of the Regional Coconut Industry.
- Youth Employment and Entrepreneurship
- Climate Resilience in the Agriculture and Fisheries Sectors
- Small Ruminants
- The School Feeding Programme.

Preparations for the week-long event last year and in addition to virtual meetings of the organising committee, face-to-face meetings are currently underway at the Ministry of Agriculture and Food Security in Bridgetown.

The preparations are being led by a broad-based steering committee that comprises representatives from the Government of the Barbados, the [CARICOM](#) Secretariat, the [Food and Agriculture Organisation \(FAO\)](#), the [Inter-American Agency for Cooperation on Agriculture \(IICA\)](#), the [Caribbean Agricultural Research and Development Institute \(CARDI\)](#), and the [Technical Centre for Agricultural and Rural Cooperation \(CTA\)](#).

Caribbean Week of Agriculture (CWA) was conceptualised by the IICA as a facility to place agriculture and rural life on the front burner of regional integration activities. The CWA enables key decision-makers in the public and private sectors to better acknowledge the importance of agriculture and rural life to the economic, social and environmental stability of the region. The event also provides an opportunity for major stakeholders in agriculture and related sectors to dialogue and forge a common vision for the repositioning of agriculture and the enhancement of rural life.

The CWA is convened under the aegis of the Alliance for Sustainable Development of Agriculture and the Rural Milieu ('The Alliance'). From the first inaugural meeting in 1998, the two main collaborating agencies were IICA and the CARICOM Secretariat.

UPCOMING EVENTS

August

Coconut Industry Development for the Caribbean. Entomological Risk Mitigation Workshop for Small Coconut Producers

Date: 20 August 2018

Location: Point-a- Pierre, Trinidad, Republic of Trinidad and Tobago

<http://www.cardi.org/blog/entomological-risk-mitigation-workshop-for-small-coconut-producers/>

September

International conference on agricultural emissions and food security: Connecting research to policy and practice

Date: 10-13 September 2018

Location: Berlin, Germany

Website: <https://www.agrighg-2018.org/>

<https://ccafs.cgiar.org/international-conference-agricultural-emissions-and-food-security-connecting-research-policy-and#.W2xeCbgpCM8>

October

Caribbean Week of Agriculture

Date: 8-12 October 2018

Location: Barbados

Theme "Strengthening agriculture for a healthier future in the Region".

Website: <https://cwa2018.caricom.org/>

18th International Triennial Symposium of the ISTRC (International Society for Tropical Root Crops)

will be in Cali, Colombia from 22nd to 26th October 2018.

<http://www.istrc.org/194-18th-international-triennial-symposium-of-the-international-society-for-tropical-root-crops-istrc-cali-colombia-from-22nd-to-26th-october-2018>

November

2018 International Annual Meeting, "Enhancing Productivity in a Changing Climate," of The American Society of Agronomy, the Crop Science Society of America, and the Canadian Society of Agronomy

Date: 4-7 November, 2018

Location: Baltimore, Maryland, USA

Website: <https://www.acsmeetings.org/>

FAO International Symposium on Agricultural Innovation for Family Farmers: Unlocking the potential of agricultural innovation to achieve the Sustainable Development Goals

Date: 21 to 23 November 2018

Location: Rome, Italy

Website: <http://www.fao.org/about/meetings/agricultural-innovation-family-farmers-symposium/en/>