



CARDI Update

INSIDE

Securing food security - Page 2

Chairman receives award - Page 3

ICT for agricultural development - Page 4

CARICOM Agriculture Ministers endorse NCCARD

The Board of Governors (BOG) has approved the Work Programme and Budget for CARDI the year 2005. The decision was made at their 22nd Board of Governors Meeting held in Kingston, Jamaica on 12 January, 2005. The Board of Governors is comprised of Ministers of Agriculture of twelve Member States of the Institute. Hon Ignatius Jean, Minister of Agriculture, Forestry and Fisheries of St Lucia is the Chairman.

At the meeting, the Agriculture Ministers discussed issues of critical importance with respect to the development of the agriculture sector in the Region. These included food security and food production, international competitiveness, achieving compliance to international food safety standards, marketing develop-

ment and research co-ordination and networking.

The Agriculture Ministers also agreed that National Co-ordinating Committees for Agricultural Research and Development (NCCARD) would need to be developed to address the needs of the national sectors. *NCCARD, a CARDI initiative will enable farmers, producers and traders of the industry to become even more competitive and take advantage of the market opportunities amidst the challenges of free trade in the new global economy.*

It is designed to co-ordinate all agricultural research and development activities in the region, and seeks to ensure that agricultural research and development programmes/projects are formulated,

executed and documented in accordance with established principles, methodologies and standards.



HON. IGNATIUS JEAN

In recognition of the absence of the Standing Committee of Ministers of Agriculture (SCMA) the Agriculture Ministers noted the significance of representation at all COTED Meetings as well as to ensure that decisions arising at COTED will be addressed in a timely manner.

They also agreed at their meeting that CARICOM Secretariat should revisit the institutional framework of the Alliance being developed in which CARDI should play an important role and that a meeting of FAO/CAMID/CARDI and CARICOM be convened by the CARICOM Secretariat to foster and enhance greater collaboration and report back to the BOG and COTED. The expected outcome is to further strengthen the region to achieve a robust and viable agricultural economy.

Notwithstanding the difficulties with Hurricane Ivan, the Governors acknowledged and commended Grenada in continuing to meet its current obligations to CARDI.

CARDI is responsible under the CARICOM Regional Transformation Programme (RTP) for Technology Generation, Validation and Transfer, Market Development and Integrated Production and Market Programmes. The Institute is the lead agency for research and development in the agriculture sector for the Caribbean Community (CARICOM).

Governors agreed that the next BOG meeting be held during the COTED Meeting in April/May, 2005 in Guyana. The Chairman of the BOD, Dr Keith Archibald and the Executive Director, Dr Wendel Parham attended the meeting.

Biological control of the coffee berry borer in Jamaica

CARDI along with the Coffee Industry Board (CIB) has implemented a biological control programme to reduce losses in the production of coffee in Jamaica. It is estimated that the coffee industry in Jamaica loses US\$2.0-3.0 million in earnings annually as a result of insect pests. The coffee berry borer (CBB), *Hypothenemus hampei* Ferrari (Coleoptera: Scolytidae) is considered to be one of the major insect pests affecting coffee production in the country.

Working in collaboration with the Ministry of Agriculture in Jamaica the research activities of CARDI were designed to test the biological control agents as a tactic for reducing CBB infes-

tion. The research activities included the following: development of protocols for mass rearing parasitoids in the laboratory, determination of their establishment in the field, determination of efficacy of the biological agents against the CBB, training courses for technical and field officers in mass rearing, as well as release and monitoring bio-control agents.

The control of the CBB in Jamaica during the past 20 years has been achieved mainly through the application of insecticide as well as the removal of berries from trees and ground at the end of the harvest period. However, the negative ecological and environmental



Life cycle of a coffee berry borer

BERRY BORER continues on Page 2

Quality seed leads to enhanced efficiency and greater production

The issue of food crop production, in particular its impact on food security and self-sufficiency, has been the topic of discussion over the years at regional and international fora. Quality seed is a basic input in expanding crop production and improving its productivity. It is also fundamental to improving the efficiency of crop management and crop production inputs such as fertilisers, drainage and irrigation.

CARDI is in the process of developing a Comprehensive Seed Programme to address the crop production needs of the Caribbean Community (CARICOM).

CARDI's Seed Technologist, Mr Neville C McAndrew, explains that good quality seeds must possess high germination potential (viability), vigour, and genetic (varietal) purity, and contain little or no foreign materials, other crop seeds, common weed seeds and seed borne diseases.

"Quality seed of improved varieties constitutes the vehicle that connects the farmers to the breeders," he cites. "It is through quality seed that the seed improvements made by plant breeders are transferred to the farmers."

Mr McAndrew also points out that

the use of quality seed of improved cultivars is considered an appropriate and environmentally acceptable technological input in expanding crop production and in improving its efficiency.

"The effective use of this technological input," adds the Seed Technologist "requires the successful identification of improved cultivars and sources of adequate quantities of quality seed to encourage widespread farmer use."

Examples of CARDI's technological successes, which have positively impacted crop agriculture at both in-country and regional levels, are the rice cultivar CARDI 70 and the hot pepper variety West Indies Red.

CARDI 70 was released by the CARDI Belize Unit in 1998 and is planted on more than 50% of the annual paddy acreage in that country. At the regional level the most notable achievement is the production and marketing of seed of the hot pepper variety West Indies Red by the CARDI Antigua and Barbuda Unit, which started in 1992.

"The hot pepper cultivar West Indies Red is at present highly preferred throughout the Region for both fresh fruit export and for the manufacture of

processed products," says Mr McAndrew.

Seeds of the West Indies Red hot pepper can be obtained from the CARDI's Unit in Antigua and Barbuda. CARDI over the years has been instrumental in providing assistance to ministries of agriculture, farmers and stakeholders in the crop sector in the areas of cultivar development and evaluation, and seed production, harvesting, drying, and storage.

.....
COFFEE BERRY BORER from Page 1

repercussions of heavy reliance on pesticides poses the risk of contamination of river, coastal waters and sediment. The additional perils are encountered through the accumulation of pesticide residues in the tissues of fauna dwelling in riverine and coastal ecosystems. There is also the danger of the development of resistance of insecticides by CBB populations in different parts of the country.

Other strategic partners in the project included the Caribbean Development Bank (CDB), the University of Florida and stakeholders in the industry.

Capacity building in survey management

Biometricians from CARDI and the University of Nebraska, USA joined forces to deliver a training workshop in Survey Methodology for members of staff of the Tobago House of Assembly (THA).

They included CARDI's Acting Manager of Research and Development (R&D), Mr Bruce Lauckner and Dr David Marx of the University of Nebraska, USA.

The three-day training session was held from 18-20 January 2005 at the Kendall Farm School, Tobago.

CARDI's biometrician Mr Lauckner explained that approximately 25 staff personnel in the THA were trained in the methodologies to plan, execute and analyse surveys.

Special emphasis was given to the

use of modern statistical software to perform the analyses. He added that Biometrics, which is a branch of mathematics, or, more specifically statistics, which deals with applications to biology, has helped researchers in agriculture and medicine for a century and it has also found a use for the growing number of environmental scientists.

Mr Lauckner has been with CARDI for 25 years and has headed the biometrics services of CARDI during that period of time. In Caribbean agricultural research, CARDI has led the way in the use of biometrics since its formation in 1975.

Dr Marx is another very experienced biometrician with over 20 years experience as a faculty member at

Universities in the USA; the last 15 of which has been at the University of Nebraska.

Dr Marx and Mr. Lauckner were among the founder members of the Central America and Caribbean Region of Biometricians, which held its first meeting in Trinidad and Tobago in 1992. It was organised by CARDI.

Subsequently, the sixth meeting of the Central America and Caribbean Region of Biometricians was held in Tobago in 1999. Since then Dr Marx has made several visits to countries of the Caribbean.

Dr Marx also delivered a presentation entitled 'Synergism in Sports and Agriculture' at CARDI Headquarters on 21 January 2005.

Prime Minister honours Chairman for service to agriculture

Chairman of the Board of Directors of the Caribbean Agricultural Research and Development Institute (CARDI) Dr Keith Archibald has been conferred with The Order of the British Empire (OBE) for his services to Agriculture. The Hon Dr Denzil Douglas Prime Minister of St Kitts and Nevis made the announcement during his New Year's Day message to the nation.

In congratulating Dr Archibald and other recipients of Her Majesty's New Year honours, the Prime Minister said, "they are outstanding citizens of our proud Federation."

"On this occasion, we highlight the contribution and achievements of some who have worked over and above what could reasonably have been expected of them to make our country better," remarked the Prime Minister. He added, "we hope that this recognition would inspire other members of the population to pursue similar excellence



Dr Keith Archibald

in their fields of endeavour."

The Prime Minister also reiterated his call for unity among citizens and

residents to aid in the country's development. Commenting on the Chairman's assiduous dedicated service in the Caribbean Community (CARICOM) and in particular CARDI as the premier Institute for Research and Development (R&D) the Executive Director Dr Wendel Parham noted:

"Dr Archibald's steadfastness and sterling contribution is an example that Caribbean professionals should seek to emulate as we strive to develop the passion and creativity necessary to improve the quality of life through agriculture in the region and beyond."

"It is with pride," cited the Executive Director, "that on behalf of the staff of CARDI, I take this opportunity to offer sincere and deepest congratulations to the Chairman, Dr Keith Archibald."

CARDI wishes Dr Keith Archibald and his family every blessing in the year 2005 and beyond.

Improving food security and production in the Region

CARDI through the regional branch office for the Caribbean of the Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA), will assist in funding persons who are interested in presenting scientific papers at the upcoming 41st Annual meeting of the Caribbean Food Crops Society (CFCS).

This initiative is a continuation of CARDI and CTA's support for the CFCS, which has been ongoing for over ten years.

This year's meeting will take place in Guadeloupe, 10-16 July 2005.

It is being held under the theme: "Alternatives to high input Agriculture in the Caribbean: Towards the development of innovative systems."

"The aim of the meeting is to contribute to understanding the negative effects of intensification on Caribbean agriculture, and to propose alternative systems, both innovative and sustainable in scope", said CARDI's Research Assistant Ms. Jaiwante Samsouandar.

She further added, "the objectives of

CFCS are to advance and foster Caribbean food production, processing and distribution, so as to help improve the quality of life for the people of the Caribbean".

In this regard, CFCS brings together scholars, extensionists, growers, researchers, and other professionals associated with food production, distribution and policy.

At the meetings, the scientists make presentations on topics that are of significance in particular to the sustainability of food production, processing and distribution in the region. The meeting also provides an opportunity for researchers, farmers, and stakeholders to discuss and exchange information on research results and technology.

Participants are drawn from ministries of agriculture, universities in the wider Caribbean Basin, and CARDI, and will also include farmers, and other stakeholders.

"Invitation for expressions of interest to attend the meeting has been sent to

respective Permanent Secretaries in the region requesting nominations," cited Ms Samsouandar. Participants who have not been previously supported within the last three years are eligible for selection.

CARDI Representative in Dominica Mr Gregory Robin is the Caribbean Councilor on the International Society for Tropical Root Crops (ISTRC). In that capacity, he will be hosting a one-day session on Root and Tuber Crops at this year's meeting.

Research in Root Crops by CARDI has contributed to the expansion of the dasheen fresh produce trade in the Region over the past two to three decades.

Other unique achievements by CARDI includes the evaluation of selected species such as sweet potato, yam and cassava among others for market opportunities, yield and resistance/tolerance to pests and diseases.

For more information please contact Ms Samsouandar by fax 1-868-645-1208 or email at procicaribe@cardi.org

Enhancing technical expertise in weed management

CARDI in its capacity as facilitator of the Integrated Pest Management Collaborative Research Support Program (IPMCRSP) for the Caribbean along with the Department of Life Sciences of the University of the West Indies, Mona Campus, conducted a workshop on Weed Ecology and Implications for Management, in Jamaica.

Weeds are considered to be among the major constraint to crop production. Globally, at least a quarter of the shortfall in potential crop production is due to losses from weeds.

CARDI's Scientist and IPMCRSP Site Coordinator (Caribbean) Mrs Dionne Clarke-Harris remarked "the lack of expertise in weed management in the Caribbean region has been a major impediment to development of technology in this discipline."

Surveys in the Caribbean indicate that weed management accounts for 20-40% of total crop labour time.

Presenters at the two-day USAID-funded event included Weed Scientists from the Weed Ecology Group of the Pennsylvania State University, USA and the Botany Department, University of the West Indies (UWI) Mona Campus.

The 24 participants included representatives from 14 organisations involved with seven commodity systems, as well as one representative of an agrochemical supply company.

They all expressed the view that the workshop was timely and the information relevant and readily applicable to their respective fields and that the theory would also help them to make better decisions re weed management options and timing. The event was held in December 2004, at the Botany Department, UWI Mona, Kingston, Jamaica.



Participants of the electronic publishing workshop

ICTs for agricultural development

A regional training program to strengthen the skills of extension agents to develop and produce relevant information and materials for farmers and other members of the agriculture sector in the Caribbean was held 17 – 28 January, 2005 in Roseau, in the Commonwealth of Dominica.

"The effective dissemination of agricultural information to farmers, and other producer groups in the agricultural sector continues to be a challenge," declared CARDI's Information Resource Manager Mrs Claudette deFreitas. "This initiative will further assist extension agents to use a combination of 'old' and 'new' information and communication technologies (ICTs)."

She added, "as a result of the critical role of (ICTs) and its potential to impact on the agricultural sector, it is imperative for extension agents to be equipped with the relevant skills to repackage and publish information more effectively in a timely manner to meet the needs of their respective audiences".

Extension agents traditionally have been charged with the responsibility of providing agricultural infor-

mation to farmers and performing the role of linking researchers and farmers.

Participants from research agencies in the public and private sector, producers and farmers associations will work closely with farmers in Dominica to prepare and package information into electronic formats. To this end, the training program will also encourage extension agents to involve end users in the design and development of relevant materials. Funding for the training program, which is being held under the theme: "Electronic Production and Publishing of Agricultural Extension Materials" is made available by the Technical Centre for Agricultural and Rural Co-operation (CTA) based in the Netherlands.

CARDI, the Regional Branch Office for CTA for the Caribbean is the facilitator. Since 1986 CTA has supported the collection, organisation and distribution of information in the Caribbean region through a number of mechanisms including the Question and Answer Service (QAS) and the Caribbean Agricultural Information Service (CAIS).

Contact Information

CARDI Headquarters, P.O. Bag 212, UWI Campus, St Augustine, Trinidad & Tobago
TEL: 868 645 1205-7 ; FAX: 868 645 1208
EMAIL: publicrelations@cardi.org or publications@cardi.org
CARDI Website: <http://www.cardi.org>

Editorial Team

Editor: Selwyn E King
Design & Layout: Candice Dubarry
Photos: Keith Roach
Circulation: Trevor Christo & Keith Roach