December 2010 newsletter

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Making science more inclusive: The history of knowledge production

A keynote address by Dr Gérard Toulouse, École normale supérieure (Paris), given at the CTA 9th Advisory Committee Meeting "Science, Indigenous Knowledge and Innovation", Johannesburg (SA), 22-26 November 2010

Why and how has modern science - as it developed in the West during the last four centuries - been so blind about the high value of these domains of investigation? In brief, why such a long phase of neglect/contempt for traditional and indigenous knowledge? Newtonian mechanics was an outstanding success, unifying celestial and terrestrial mechanics: it was mathematical, deterministic, quantitative and predictive. And it became a symbol of triumph for hard science over the soft Ptolemaic theory, backed-up by religious superstition. However, crises occurred later on, because several sciences did not really fit the Newtonian paradigm. The most conspicuous crisis occurred with the Darwinian theory of evolution, which is non-mathematical, non-deterministic, non-quantitative, non-predictive. And yet valid and relevant! Newtonian mechanics itself later proved to be only an approximation-to-the-truth at high velocities (relativity theory), and at small sizes (quantum mechanics).

Actually, there is not one science, but a plurality of sciences. The historian T.S. Kuhn introduced the notion of scientific revolutions, which puts focus on this diversity. A short-list of about twenty major scientific revolutions may be selected, either due to conceptual breakthroughs or to experimental findings. In ethics, as in science, the message is in the method: a circular collective process, moving from hypotheses to facts, and back, and again, eventually converging to a reflexive equilibrium, which may always be modified via new facts, or new hypotheses, or new arguments. Worldwide, a helical unfolding may also be observed for traditional knowledge, after a period of marginalisation during the western/modern era. The move from exclusivity to inclusivity implies an aggiornamento, a deep and wide change in mindset.

http://knowledge.cta.int/en/content/view/full/12693

New dossier: ´Postharvest´

Reducing postharvest losses – A challenge for the scientific community

Judith Ann Francis, CTA, Wageningen, The Netherlands

ACP countries continue to register high postharvest losses (15-85%) in the trade of fresh and processed fruits and vegetables, cereals, grains, livestock and fisheries in both domestic and export markets. While new and improved techniques for extending the shelf life of fresh produce exist, reducing postharvest losses remains a challenge. Research and policy issues that require urgent attention include (i) quantifying and characterizing the extent of postharvest losses across the value chain for the wide range of commodities produced and traded by millions of small-scale producers to determine priority interventions; (ii) providing the necessary investments for improving research, technology options and infrastructure for extending the shelf life to satisfy quality and food safety standards; and (iii) building the necessary capacity for improving postharvest handling knowledge across the value chain to respond to changing

consumer demands.

Postharvest treatments including the use of chemical and biological compounds (e.g. fungicides, bactericides and insecticides) and the control of temperature, relative humidity and air as well as packaging, storage and transport infrastructure have improved. However quality problems, for example retaining texture and flavour profiles and quantitative postharvest losses remain high as a result of pathological, physiological, mechanical and other damage during harvest, storage, processing, transport, and at the point of sale. Residual traces of chemical residue, micro-organisms and other extraneous material found in treated fresh produce and processed products are problematic and contribute to high levels of rejections.

This dossier features two lead articles: the first, by Drs Ducamp and Sagoua, CIRAD, discusses two natural antifungal agents, the lactoperoxidase system based on a natural enzyme and neem oil, as alternative postharvest treatments to respond to changing consumer demands for less/no chemicals in their foods especially fresh fruits and vegetables. The second lead article by Dr Audia Barnett is based on the work by the Scientific Research Council, Jamaica, in adding value to herbs and spices, to enhance the shelf life, preserve the flavours and expand market opportunities for Jamaican herbs and spices. Links to online resources on postharvest research, technologies and policy related issues are also provided in the dossier.

http://knowledge.cta.int/en/content/view/full/12682

New postharvest treatments: Expanding markets for tropical fruits

M.N. Ducamp and W. Sagoua, CIRAD-UMR-QUALISUD, Montpellier, France

In this article, some innovative techniques that have been piloted namely an enzymatic system of natural origin (lactopeoxidase), which can be used as an antifungal agent on tropical produce and the use of an essential oil with antifungal properties: neem oil, are proposed. Many plants contain natural active materials with widely diverse effects. Some have the property of inhibiting microscopic fungi and thus offer an alternative to chemical treatments with synthetic molecules. Antifungal activity of essential oils is well documented and several studies have been conducted on their postharvest use. The advantage of essential oils is their bio-activity in the vapour phase, which makes them attractive candidates for fumigation use. In general, even though their antifungal activities can be easily demonstrated in vitro, their activities in real conditions have received relatively little attention. In the past few years, there has been renewed interest in extracts from aromatic and other plants with antifungal activity. Focus is placed on neem seeds and, in particular, on the oil that is extracted from them.

http://knowledge.cta.int/en/content/view/full/12687

Adding value to Jamaican herbs and spices: Reducing postharvest losses and expanding market opportunities

Dr Audia Barnett, Scientific Research Council, Jamaica

Given the extremely competitive marketplace, developing small states such as Jamaica, having identified specific niche areas, need to ensure sustainability in supply and quality. There are several hurdles that remain to be addressed in order to ensure sustainability. These include addressing strain selection, soil productivity, effective plant protection and postharvest measures. The susceptibility of herbs and spices to microbial contamination makes the postharvest treatment an important step in managing the supply chain. With the promotion of the food safety regimen: HACCP, enterprises have become more aware of the importance of traceability and controlling the "hazards". The delicate flavours that are important in herbs and spices are susceptible to loss and change if not properly handled. A fine balance is required to ensure safety and organoleptic quality of these products.

The programme of Certification Marks embarked on by the Jamaican Agricultural Society and the Bureau of Standards, Jamaica, addresses the issue of consistency in quality, while the SRC´s Certificates of Analysis for herbs and spices provide a valuable aid for accessing and maintaining international market share.

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Back To Top

Selected websites and publications from the postharvest dossier

Postharvest losses information system

http://knowledge.cta.int/en/content/view/full/12785

This website offers estimates of post harvest losses (PHLs) - % weight losses - for the cereal crops of the East and Southern African, for individual countries and for their provinces. The PHL calculator that

makes these estimates can also be downloaded by users as a spreadsheet and default values changed to user preferences. A Users´ Guide to the system and a Review Paper on post harvest weight loss estimates for the region can also be downloaded. The data on which this system is based was submitted by local experts who together form the PHL Network.

Post-Harvest and Value Addition Group – Research at the Natural Resources Institute, University of Greenwich (UK)

http://knowledge.cta.int/en/content/view/full/12799

The Post-Harvest and Value Addition Group works on durable and perishable crops after harvest to reduce losses, enhance financial or nutritional crop-value, and assure food safety. Research ranges from the fundamentals of storage and preservation of quality throughout the marketing chain, to food-science aspects of agro-processing and responses of consumers to new food products. The team´s research strategy includes: use of refined behavioural analysis techniques in studies of insect pests of grain, to identify new options for pest management without synthetic pesticides; studies of food safety in the informal food sector of developing countries, to improve quality and safety in a sector vital for employment of poor people; investigating food and energy security to improve sustainability of rural livelihoods in semi-arid developing countries reliant on renewable natural resources; and developing optimum approaches for uptake of post-harvest value-addition in cassava (supported by Gates Foundation) and bio-fortified food crops (with HarvestPlus Challenge Programme).

Technology for post-harvest processing of pearl millet and sorghum in Africa

http://knowledge.cta.int/en/content/view/full/12771

J.P. Wilson, Compatible Technology International and USDA, November 2008

Prototype devices developed by Compatible Technology International were evaluated for threshing, winnowing, and decorticating pearl millet and sorghum. Criteria considered were 1) ease of operation, 2) capacity, and 3) ability to produce clean, unbroken grains. Advantages of the Leary thresher were its comparative ease of operation and high capacity. Disadvantages included a higher frequency of cracked grain and a high level of chaff contamination in the final product. A winnowing step prior to the separation step improved the output quality by reducing residual chaff. Advantages of the Ewing thresher were its versatility and options, and the high quality of the resulting grain. Disadvantages included difficulty of feeding strippings into the device, difficulty with material discharge and cleaning after processing, and poorer performance when hand-cranked compared to the electric motor driven option. When coupled with the other technologies in these trials, the Leary thresher could produce 50 kg of pearl millet grain in 10.9 hours, whereas the Ewing thresher with metal blades and electric motor would require 16.5 hours. The processing steps should be examined to determine if output can be improved to compare to the 5 to 11 woman-hours required to process 50 kg of grain by using traditional threshing and winnowing processes. If the capacity or quality achieved by the existing prototypes cannot meet this goal, additional prototype designs should be considered.

Crop post-harvest: Science and technology

http://knowledge.cta.int/en/content/view/full/12801

Rick Hodges, Graham Farrell (Eds.), Wiley, November 2007

- Volume 1: Principles and Practice - Internationally respected authors discuss ways to improve harvest yield and quality, drawing on their many years´ practical experience and the latest research findings, applications and methodologies. Subjects covered include: an introduction to the systems used in post-harvest agricultural processes, physical and biological factors affecting post-harvest commodities, storage issues, pest management, food processing and preservation, food systems, the latest research and assimilation of this work, and current trade and international agreements. An invaluable glossary showing important pests, pathogens and plants is also included.

- Volume 2: Durables - The editors of this comprehensive and thorough book are well known and respected in the world of post-harvest science and technology. They have drawn together 36 expert contributors from Europe, North America, Asia, Australasia, South America and Africa to provide a huge wealth of information on major world crops including rice, maize, wheat, barley, sorghum, beans, cowpea, oilseeds, peanuts, copra, coffee, cocoa, dried fruit and nuts, and dried fish.

Increasing food availability by reducing postharvest losses of fresh produce

http://knowledge.cta.int/en/content/view/full/12777

A.A. Kader, Proc. 5th Int. Postharvest Symposium (Acta Horticultura), 2005

Qualitative losses (such as loss of caloric and nutritive value, loss of acceptability by consumers, and loss of edibility) are more difficult to measure than quantitative losses of fresh fruits and vegetables. While reduction of quantitative losses is a higher priority than qualitative losses in developing countries, the opposite is true in developed countries where consumer dissatisfaction with produce quality results in a greater percentage of the

total postharvest losses. Providing consumers with fruits and vegetables that taste good can greatly increase their consumption of the recommended minimum of five servings per day. Development of new cultivars with better flavor and nutritional quality plus adequate productivity should be given high priority in all countries. Strategies for reducing postharvest losses in developing countries include:
(1) Application of current knowledge to improve the handling systems (especially packaging and cold chain maintenance) of horticultural perishables and assure their quality and safety;
(2) Overcoming the socioeconomic constraints, such as inadequacies of infrastructure, poor marketing systems, and weak R&D capacity; and
(3) Encouraging consolidation and vertical integration among producers and marketers of horticultural crops.

Developments | Follow the latest RSS feeds for this section

Caribbean RIE Network ´Champion of the month´: A world class cocoa entrepreneur

http://knowledge.cta.int/en/content/view/full/12803

The Caribbean region produces special types of cocoa - in particular Trinitario and Criollo. Most of the beans are exported overseas and used in the production of specialist high quality chocolate products sold for high profits on European and American markets. Growers in the Caribbean see little of these profits as they receive just 3-4% of the end retail price. However, a new breed of entrepreneurs is working hard to make sure that more of the high-end market value comes back into the region. Isabel Brash is one of such young innovative entrepreneur. After a learning journey to discover the scientific and technical processes behind the manufacturing of high-quality chocolate, Brash decided to create premium chocolate products from the cocoa beans produced on her family estate, and other local produce like fruit puree and ginger. The high value exquisite products her company now brings to the market have received international praise and are selling well. Having adopted an ethical business plan, Brash´s company can now more fairly distribute to the cocoa growers the income generated (20% of retail price). With local resources and a talent for innovation, Brash has created the type of enterprise that is changing the way local small growers profit from their production. (Source: Caribbean RIE Network, December 2010)

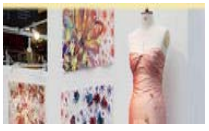
Caribbean RIE Network ´Success stories´: Phoenix Enterprises Guyana

http://knowledge.cta.int/en/content/view/full/12805

A story about a small business in Guyana that has been developing innovative ways to add value to one of the most widespread commodities in the Caribbean, coconut. Raymond and Bernice Trotz, both qualified agriculturalists, set up an agri-processing venture to develop a range of packaged products that added value to coconut water. They developed new and innovative ways to market the water, and, following a well thought business plan, the company is now expanding the range of products it offers. It is a rich example of how regional mass produced commodities can be transformed into high-value specialist products. (Source: Caribbean RIE Network, December 2010)

Caribbean RIE Network ´Value proposition´: Sustainable fashion

http://knowledge.cta.int/en/content/view/full/12806



An article about the potential value proposition of sustainable fashion for the Caribbean fashion industry. Multinational clothing retail chains are changing their business plan to include more products from sustainable and organic processes. The Caribbean and its diversity of commodities used in the fashion industry are benefiting from the changes. Accessory and fashion designers from the Caribbean region have been following closely these changes in consumer demand and are answering with good success the consumer´s expectations with the developments of innovative products made from natural dyes, wood, and plants produced in the Caribbean. (Source: Caribbean RIE Network, December 2010)

African Food Traditions Revisited by Research (AFTER)

http://knowledge.cta.int/en/content/view/full/12779

Website of AFTER project, is financed by the European Commission within the FP7: Seventh Framework Programme for Research and Technological Development (Work programme KBBE-2009-2-3-02). With 4 years duration, AFTER intends to generate and share knowledge on food technology for a range of traditional products: within Africa and between Africa and the EU. AFTER is based on three groups of products: Fermented cereal-based products, fermented salted fish and meat, traditional plant based extracts for functional food. AFTER project will be implemented by interdisciplinary teams of seven African countries: Benin, Cameroon, Ghana, Egypt,

Madagascar, Senegal and South Africa and four European countries: France, Italy, Portugal and United Kingdom.

Cowpea: bagging the bugs

http://knowledge.cta.int/en/content/view/full/12810

According to the International Institute of Tropical Agriculture (IITA), pests - particularly the Maruca vitrata pod borer - currently cause losses of up to US$300 million for smallholder farmers in Africa. A technology developed by Purdue University (USA) in collaboration with African researchers, known as Purdue Improved Cowpea Storage (PICS), answered to the problem of cowpea bugs by using non-chemical, hermetic storage. PICS has been introduced in West, Central and East Africa where farmers are exposed to harmful chemicals while protecting their cowpea grains against insects. In Nigeria, Africa´s major producer with 1.5 million tons annually, net gains from not using pesticides have been estimated to be in the region of US$500 million. Jess Lowenberg-DeBoer, a Professor of agricultural economics and director of the international programmes in agriculture at Purdue University, explains that PICS works by sealing cowpeas in an airtight container, which kills all the adult insects and most of the larvae within days. At the same time the triple bags keep the remaining larvae dormant and unable to damage the seeds. (Source: New Agriculturalist, December 2010)

The Institute of Marine Resources (University of the South Pacific) receives research funding for ´Value-adding and supply chain development for fisheries and aquaculture products in Fiji, Samoa and Tonga´

http://knowledge.cta.int/en/content/view/full/12814

The Institute of Marine Resources (IMR, University of the South Pacific, Fiji) has been awarded €270 000 for its project ´Value-adding and supply chain development for fisheries and aquaculture products in Fiji, Samoa and Tonga´. The funding is spread over a 2.5-year period, and is managed between the University of the South Pacific (USP), Secretariat of the Pacific Community, and three Australian universities. The focus of the project is on the potential enhancement of the supply chain and value adding of two selected commodities in Fiji, Samoa and Tonga, namely tilapia and the seaweed Caulerpa. For tilapia, which is a common aquaculture species in Fiji (not in Samoa or Tonga) the focus will be on the development of a reliable supply chain, and on value-adding such as kippering, smoking, and products such as surimi and re-formed fish fillets. For Caulerpa, which is a hand-harvested delicacy in all three countries, the main focus will be on developing a reliable supply chain and researching and building on previous work on enhancing the very short shelf-life. The Division of Marine Studies post-harvest laboratory will be actively involved in the project, under the supervision of Dr Jimaima Lako, Lecturer in Post-Harvest Fisheries. (Source: IMR, University of the South Pacific, November 2010)

Back To Top

Climate science reaching out for traditional farmers´ wisdom

http://knowledge.cta.int/en/content/view/full/12816

Andrés González, coordinator of the Joint Programme on Integration of Ecosystems and Adaptation to Climate Change in the Colombian Massif (South America) says the wide-ranging knowledge about climate variation possessed by native people and other small farmers, such as the people in one region of Colombia, is almost a perfect match to scientific measurements recorded on high-tech instruments. In the southwestern part of Colombia, indigenous people and scientists are working together on ways to adapt to climate change. A network of seed savers ("guardianes") has been set up to preserve the seeds of tubers, maize, fruit trees, fodder species, quinoa, amaranth and other food crops of high nutritional value, and to promote seed exchanges among the autonomous indigenous reserves of the region. Plots of land to acclimatise the seeds have also been created, as well as six agricultural schools where scientists and small farmers study and discuss food security, sustainable production, risk management and healthy environments. The project, sponsored by the Millennium Development Goals Achievement Fund (MDG-F), is headed by a team that includes representatives of native communities which act as counterparts to the technicians and experts from the programme, that wants to encourage dialogue between academia and small (and/or indigenous) farmers on the nature and effects of climate change. (Source: IPS, 2 December 2010)

Joint Pacific-EU initiative on climate change

http://knowledge.cta.int/en/content/view/full/12819

The Pacific Islands Forum and European Union launched in mid-December 2010 the ´Joint Pacific-EU Initiative on Climate Change´. The Secretary General of the Pacific Islands Forum, Tuiloma Neroni Slade, met with European Commissioner for Development, Andris

Piebalgs, on 15 December 2010 and through signature of a Memorandum of Understanding, launched the joint initiative. Mr Slade welcomed this cooperation with the European Union and its member states as a practical and effective way forward to respond to the dangers of climate change and to the concerns of the Pacific communities. The joint initiative recognises ongoing work on climate change being carried out by Forum member countries and by relevant regional organisations. It seeks broader support by building on the Pacific´s key international partnerships. The Memorandum of Understanding is the first step towards a joint integrated strategy to address climate change in the Pacific. The objective is to mobilise EU Member States and international partners to join efforts to reinforce Pacific Countries´ capacity to address more efficiently climate change impacts. (Source: Pacific Islands Forum Secretariat, 20 December 2010)

Caribbean RIE Network ´Research update´: How can we avoid the next food crisis?

http://knowledge.cta.int/en/content/view/full/12821

In the Caribbean, as in other parts of the world, food crisis may become an enduring reality in the next few years. In that region however, as agricultural land is limited, large scale extensive agriculture will not be the response to food shortages. On the smaller islands in the Caribbean, only what is now known as "protected agriculture" could potentially be the answer to future produce shortages. Dr Janet Lawrence of CARDI recently presented comparative figures for yields of field tomatoes versus tomatoes grown in low-tech protected cropping units (a type of "protected agriculture") in Jamaica. The difference in yield was a staggering 1000% more in that protected environment. The gross margin for one grower using a protected environment was over 1700% more than field growing.

Dr Lawrence also reported that the yields for growers using protected cropping systems were 400% more and the gross margins were at least 48% of gross revenue. Protective agriculture is used extensively in Holland and Spain. Using these high yield methods in the Caribbean presents new problems like higher pest loading, natural disasters risks (hurricanes) and warm and humid climate. According to Dr Lawrence, taking into account these regional environmental conditions should translate into the fabrication of smart infrastructure designs for protected agriculture specific to the region. Lawrence described a number of structural innovations developed in the Caribbean which facilitate the quick ´deconstruction´ of protected cropping facilities in advance of severe storm situations heat stress in warm climates. As for the risk of heat stress, Marta Torrelas, a specialist in biosystems engineering at IRTA in Spain, noted a number of technologies available that help manage temperature. Options include evaporative cooling, cooling of irrigation water to reduce soil and root temperatures, partial shading.

Solar powered air-conditioning may also become a possible low-cost option before too long. Much work has been done here in the Caribbean by CARDI, other agencies, and commercial growers to adapt protected cropping systems normally used in temperate climate region to the warmer Caribbean conditions. The 300% - 1000% increases in productivity that can be achieved using such systems should encourage their adoption by growers in the region. Source/Date (Source: Caribbean RIE Network, December 2010)

Ethiopia: Validating intellectual property policy and guidelines

http://knowledge.cta.int/en/content/view/full/12824

The Ethiopian Institute of Agricultural Research (EIAR) has established the Intellectual Property Rights Office (IPRO) at its headquarters (Addis Ababa). There were no recognized and systematic rules and regulations to best govern institutional as well as system-wide intellectual property requests when the office was created. A two-day workshop was set-up in Addis Ababa early December 2010, to validate a model intellectual property rights guideline and policy for public research institutions and universities. Participants were drawn from different universities, agricultural research institutions in the country and the ministry of Science and Technology (MoST). A background paper on the need for effective institutional intellectual property in universities and research and development institutions was presented by MoST. Model policy and guidelines of Addis Ababa University and EIAR were also presented and discussed for more amendments. The Workshop was ended by massive suggestions for amendment and the way forward to implement the guidelines and policies of IPR in Ethiopia. (Source: Ethiopian Agricultural Research Institute, 10 December 2010)

UNCCD ´Decade for deserts´: Focus on forests has neglected drylands

http://knowledge.cta.int/en/content/view/full/12826

The UN Convention to Combat Desertification launch of the ´decade for deserts´ initiative took place on 16-17 December 2010 in London (UK). The meeting was organised to mark the European launch of the UN´s ´decade for deserts´ and the fight against desertification, which will run from 2010-2020. The initiative aims to raise awareness of the issue among policymakers and financial donors. According to

participants of the meeting, the climate change agenda, in particular its ´overemphasis´ on forests, has overlooked drylands and their potential role as carbon sinks. Destruction of nutrient rich top soil as a result of factors such as over-intensive agriculture continues be a problem throughout the world and is advancing the desertification of drylands, such as those in Africa and the Mediterranean. Participants to the meeting called for a greater recognition of the value of drylands as ecosystems. (Source: Ethiopia Flora Network, 17 December 2010)

Pacific islands to increase agriculture data collection

http://knowledge.cta.int/en/content/view/full/12828

The FAO Subregional Office for the Pacific Islands funded the study called: ´Agriculture Data — Report on a Scoping Study in Six Pacific Island Countries´. Supported by conclusions from the scoping report, Pacific Island Countries plan to expand data collection on agriculture production, domestic food marketing and agriculture trade to provide decision-makers with actionable information that can be used to strengthen food security across the Pacific islands. From May to November 2010 the data scoping mission visited six Pacific Island Countries (Federated States of Micronesia, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu) to assess the capacity of the countries to produce, report and use data that is commonly needed to monitor national trends in agricultural production and to understand the role of the domestic agriculture sector, including local food and labour markets. An expert consultation reviewed the data scoping report on 22-23 October 2010 in Fiji and called for enhanced evidence-based decision making for sustainable agriculture development in the Pacific islands. The group urged leaders to think about policy priorities and issues to help identify key data needs. (Source: FAO Regional Office for Asia and the Pacific, 12 December 2010)

Caribbean RIE Network ´Foresight and innovation´: Biomimetrics

http://knowledge.cta.int/en/content/view/full/12830

The RIE network is reporting on a number of technological developments that embrace the ´biomimicry´ approach. It writes about a robotic arm that mimics an elephant´s trunk, allowing for a high degree of flexibility and rotation, and a high sensitivity to objects. Another company has developed a water desalination system mimicking the natural pores of the cellular membranes of living organisms, a system that can filter high volume of salt water using very low energy inputs. Other innovations in biomimetrics are also presented, a bio-battery using sugar and ´live´ concrete (that contains dormant bacteria). For the Caribbean, a region rich in biodiversity, the potential is high for developing technologies based on organic design. One avenue could be the conch and the natural ceramics it produces. (Source: Caribbean RIE Network, December 2010)

Biosafety : Towards a legislation for ECOWAS

http://knowledge.cta.int/en/content/view/full/12832

The manager of the West and Central African Council for Agricultural Research and Development´s (CORAF/WECARD), biosafety and biotechnology programme, Abdourahmane Sangare, has announced that the Economic Community of West African States (ECOWAS) will implement a regional legal framework for biosecurity. This legislation, part of ECOWAS´s action plan for the development of biotechnology and biosafety, will take into account national laws and regulations existing in the different member countries. ECOWAS states in its Action Plan that the creation and implementation of this regional framework will require the design of a document establishing common rules for bio-security within the Community. A regional consultation with all participatory stakeholders will be held to validate the document and harmonize regional regulation. It will establish a regional coordination and regulatory framework for biosafety and enable training of future leaders in this field. An international masters programme in tropical biotechnology, coordinated by seven African universities, is planned to start in October 2011. (Source : AfricaJet, 12 December 2010)

Back To Top

Selected publication | Follow the latest RSS feeds for this section

Second issue of ´The AgriForum´, the ASARECA newsletter

http://knowledge.cta.int/en/content/view/full/12834

In the second issue of the ASARECA newsletter, the AgriForum, ASARECA´s role in building capacity for Agricultural research through the SCARDA project is highlighted. Other highlights include, among others, ASARECA´s role in the East African Agriculture Productivity Programme (EAAPP), scientific breakthroughs in finding striga resistant sorghum, and the benefits of orange fleshed sweet potato. AgriForum is available in hard copy and can also be accessed on the ASARECA website.

Back To Top

Events | Follow the latest RSS feeds for this section

´Sustainable Value Chain Agriculture for Food Security and Economic Development´

http://knowledge.cta.int/en/content/view/full/12835

The 2011 World Conference on Sustainable Value Chain Agriculture for Food Security and Economic Development will be bringing together leaders in agriculture from across the world. Partners are the Association for International Agricultural and Extension Education (AIAEE), Agricultural Scientific Society of Namibia (AGRISSON), International Federation of Information Technology in Agriculture (INFITA), and the International Association of Agricultural Information Specialists (IAALD). Venue: Windhoek, Namibia. Dates: 3-7 July 2011.

ICAFAS 2011 : ´International Conference on Agricultural, Food and Animal Sciences´

http://knowledge.cta.int/en/content/view/full/12838

The International Conference on Agricultural, Food and Animal Sciences aims to bring together academic scientists, leading engineers, industry researchers and scholar students to exchange and share their experiences and research results about all aspects of Agricultural, Food and Animal Sciences, and discuss the practical challenges encountered and the solutions adopted. ICAFAS 2011 has teamed up with the International Journal of Biological and Life Sciences for publishing a Special Journal Issue on Advances in Agricultural, Food and Animal Sciences. All submitted papers will have opportunities for consideration for this Special Journal Issue. The deadline for paper submission is 30 April 2011. Venue: Tokyo, Japan. Dates: 24-26 August 2011.

Call for papers: Journal of South Pacific Agriculture (JOSPA)

http://knowledge.cta.int/en/content/view/full/12839

JOSPA invites interested authors to submit research work or other related papers to be published in Volume 15, 2011. Submissions for publication will be considered, on priority basis, in the following areas:
i. Original high-quality research papers of relevance to agriculture in the South Pacific region.
ii. Review papers on topics of relevance to agriculture in the South Pacific region.
iii. General papers based on agricultural research carried out in the South Pacific region and aimed at extension workers and agricultural teachers/trainers in the region.
iv. Short communications of relevance to agriculture in the South Pacific region.

Research papers on the processing of agricultural produce, floriculture, and other agro-allied topics that can contribute to sustainable livelihoods for people in the Pacific Islands will also be considered. Interested authors should send their papers electronically to ebenebe_ad@samoa.usp.ac.fj or uspireta@samoa.usp.ac.fj. Prospective authors should refer to the guide for authors in the most recent issue of JOSPA (Volume 14, 2010) at www.usp.ac.fj/ireta . The guide is also available by email upon request to the Managing Editor (ebenebe_ad@samoa.usp.ac.fj).

Call for papers: ´The Essential Principles of Small- and Mid-Scale Food Value Chain Development´ (JAFSC)

http://knowledge.cta.int/en/content/view/full/12858

For the Journal of Agriculture, Food Systems, and Community Development.
Food value chains (FVCs) are a hot topic among agriculture and food systems development professionals. In FVCs, farmers and ranchers are treated as strategic partners, not as interchangeable — and exploitable — input suppliers. Values-based food supply chains (value chains) are strategic alliances between farms, ranches, and other supply-chain partners who distribute rewards equitably across the supply chain. They can include farm-to-institutions (schools, hospitals, prisons), multiproducer processors and wholesalers, multifarm CSAs, food hubs, food webs and networks, and the like. All partners in these business alliances recognize that creating maximum value for the product depends on significant interdependence, collaboration, and mutual support. Papers can explore specific components within a chain (a farmer co-op or association), interactions of two or more links in a chain (farmers, wholesalers, processors, retailers, and eaters), or an entire chain. Manuscripts are due February 15, 2011. More information can be found on our website.

Grants: African Union research grant programme - Open call 2011

http://knowledge.cta.int/en/content/view/full/12841

The African Union Commission is seeking proposals for research focusing on the following thematic priorities articulated in Africa´s Science and Technology Consolidated Plan of Action (CPA) and its Lighthouse Projects:

(a) Post-harvest and Agriculture,
(b) Renewable and Sustainable Energy, and
(c) Water and Sanitation in Africa.

The programme is financed through the Financing Agreement between the European Commission and the ACP Group of States under the ACP Research for Sustainable Development Programme of the 10th EDF Intra-ACP Envelop. The full information, including Guidelines for Applicants, Application form and other supporting documents are available here. Deadline: 30 April 2011.

Scholarship at the University of Nottingham: ´The Duke of Portland Developing Solutions Scholarship´

http://knowledge.cta.int/en/content/view/full/12842

A Full Tuition Fee Scholarship is available for a student from Africa for the MSc in Crop Improvement at the School of Biosciences. You can apply for this scholarship if you
- are a national of (or permanently domiciled in) Africa and
- are classed as an overseas student for fee purposes and
- already hold an offer to start a full-time Masters degree programme for the MSc in Crop Improvement at Nottingham in 2011.
The closing date for applications is 6th April 2011.

Employment: Plant biotechnologist at UNIDO

http://knowledge.cta.int/en/content/view/full/12844

UNIDO is currently looking for candidates for a P3 position in plant biotechnology to join the ranks of the Agribusiness Development Branch. The Agri-Business Development Unit spearheads UNIDO´s multi-disciplinary contribution towards the attainment of food security in developing countries; it includes specialists in various food technologies´ meat and milk processing, edible oils, food grains, roots and tubers, fruit and vegetables as well as fish. It is also responsible for advice to Governments and farmer associations on the potential of biotechnology for agribusiness. The main functions include programme development and implementation for the promotion of biotechnology and agribusiness in developing countries, funds mobilization and networking. The deadline for the receipt of applications is **30 January 2011**.

ILRI vacancy: Post doctoral scientist – contagious bovine pleuropneumonia

http://knowledge.cta.int/en/content/view/full/12845

ILRI seeks to recruit a post-doctoral scientist to join the Contagious Bovine Pleuropneumonia (CBPP) research group within the Biotechnology department. CBPP is regarded as one of the most important livestock diseases within Africa. The position is required to ensure the development of sensitive diagnostic tests and to investigate host-pathogen interactions to help with the development of improved vaccines as part of a three year donor-funded project. Applicants should send their dossier before **31 January 2011**.

Back To Top

Organisations | Find more organisations on our website

Biological resources centre for tropical plants of French West Indies

http://knowledge.cta.int/en/content/view/full/12847

Cirad and Inra (French agricultural research institutes) have decided to join their efforts, in order to widely make known the information linked to their plant collections from the Caribbean. Because of their greatly diversified natural patrimony, and because of their history which has favoured the introduction of germplasm for agriculture, the West Indies are rich of numerous collections of vegetal biological resources, maintained through various processes by the agronomical research institutes Cirad and Inra. These collections have been constituted over the years, from various collecting missions in the Caribbean and Americas, but also further ones, up to the centres of origins of some crops. Targeted audience includes among others, agricultural professionals, scientists, and the teaching profession. These collections include cultivated species and related wild types, such as banana, sugarcane, fruits, yams and horticultural plants, as well as an herbarium, referenced at the international level. This natural or collected biodiversity constitutes a basis for diversification programmes, genetic improvement and genetic resources characterisation. Countries: Guadeloupe, Martinique, Saint Barthélemy, Saint Martin, and other Caribbean islands.

Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB)

http://knowledge.cta.int/en/content/view/full/12850

APCoAB, a programme of Asia Pacific Association of Agricultural Research Institutions (APAARI), is an apolitical forum with a goal to enhance the benefits of biotechnologies for sustainable agricultural

development in the Asia-Pacific region, through greater stakeholder partnerships, improved policy environment, enhanced capacity building and greater public awareness. The consortium´s strategic areas include research networking, capacity building, knowledge and information dissemination and policy support on biotechnology. It has held an Expert Consultation on "Post Harvest Technology and Value Addition of Horticultural Produce" at the Malaysian Agricultural Research and Development Institute (MARDI, Malaysia) during December 2010.

Launch of ´Africa Portal´, an online knowledge resource for policy-related issues on Africa

http://knowledge.cta.int/en/content/view/full/12852

An undertaking by the Centre for International Governance Innovation (CIGI, Canada), Makerere University (MAK, Uganda), and the South African Institute of International Affairs (SAIIA), the Africa Portal offers open access to an online library collection; a resource for opinion and analysis; an experts directory; an international events calendar; and a mobile technology component - all aimed to equip users with research and information on Africa´s current policy issues in five thematic areas—conflict resolution, energy, food security, health, and migration, with special attention to the cross-cutting issue of climate change. The Africa Portal features an open access online library collection holding over 2,500 digital documents, some digitized for the first time. The Africa Portal is part of the Africa Initiative (AI) project, a multi-year, donor-supported joint undertaking by Canada´s CIGI in cooperation with Uganda´s Makerere University (MAK).

European Caribbean EUCARINET project

http://knowledge.cta.int/en/content/view/full/12854

EUCARINET is a four-year INCONET Coordination Action, supported by the European Commission (DG RTD-INCO), whose main goal is to establish and strengthen bi-regional sustainable dialogue on Science and Technology (including in the ICT field)at policy, programme and institutional (research entities) level between Europe and the Caribbean. The project consortium includes 12 partners, 6 from the EU and 6 from the Caribbean, representing stakeholders from research, industry, government and civil society, that will ensure the fulfillment of EUCARINET´s objectives. EUCARINET targets the whole of the Caribbean region: the ACP group of states, Cuba, the Dominican Republic, Haiti, the overseas Departments and Collectivities, the Overseas Countries and Territories.

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