



Challenges of a changing environment require a paradigm shift in agricultural research, a symposium with leading international experts claims

Climate Change: High Pressure on Crop Research

The call for a new green revolution is not decreasing, but voices demanding a paradigm shift in agricultural research are getting louder. The challenge will no longer be producing the maximum amounts of food but to cope with increasing climate variability. This view was raised by the participants in a symposium “Climate-Proofing Innovation for Poverty Reduction and Food Security” held in Hyderabad, India, this week on the occasion of ICRISAT’s 35th anniversary.

Directors General and senior experts from the 15 CGIAR centers and other partners attended the three-day conference. Also actively involved and representing AVRDC - The World Vegetable Center, were DDG-Research Jackie Hughes and the Center’s Regional Director for South Asia M.L. Chadha.

“Climate change will generally reduce production potential and increase the risk of hunger”, said chief guest Martin Parry, co-chair of the Inter-Governmental Panel on Climate Change that shared the 2007 Nobel Peace Prize with former US vice president Al Gore. “Where crops are grown near their maximum temperature tolerance and where dryland, non-irrigated agriculture predominates, the challenge of climate change

could be overwhelming, especially for subsistence farmers”, he said. Researchers would have to concentrate on “drought-proofing” crops and developing heat-resistant varieties to cope with the problems, Parry claimed, warning that the world was rapidly nearing its tolerance threshold for rising temperatures.

“It is about time to rethink medium-to-long-term strategies”, said Jackie Hughes in her talk on “Increasing Vegetable Production in a Variable and Changing Climate”. “AVRDC already tackles issues around the short term effects of climate variability, and is addressing the needs which climate change will impose. The challenges require individual and flexible approaches and at the same time make necessary concerted action among top research and supporting institutions. With our expertise on high value crops we are well placed in this issue.”

More information:

www.icrisat.org/Flashline/1285.pdf

www.scidev.net (“Crop research must switch to climate adaptation”)

- Communications

Selections from the Pepper SDI Bulletin Produced by the Library

Copies of other SDI bulletins for different crops can be found on the library website

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Reddy, K.R., Kakani, V.G. (2007). Screening *Capsicum* species of different origins for high temperature tolerance by in vitro pollen germination and pollen tube length. *SCIENTIA HORTICULTURAE*. v.112(2):130-135.

Sanatombi, K., Sharma, G.J. (2007). Micropropagation of *Capsicum frutescens* L. using axillary shoot explants. *SCIENTIA HORTICULTURAE*. v.113(1):96-99.

Valverde, R.A., Gutierrez, D.L. (2007). Transmission of a dsRNA in bell pepper and evidence that it consists of the genome of an endornavirus. *VIRUS GENES*. v.35(2):399-403.

Zapata-Castillo, P.Y., Flick, A.C., Lopez-Puc, G., Solis-Ruiz, A., Barahona-Perez, F., Santana-Buzzy, N., Iglesias-Anderu, L. (2007). Somatic embryogenesis in habanero pepper (*C. chinense* Jacq.) from cell suspensions. *HORTSCIENCE*. v.42(2):329-333.

Zhang, Z.Q. (2007). Studies on the fertilization technique for good - quality and high - yield hot pepper production. *JOURNAL OF CHINA CAPSICUM*. no.26:36-39.

New Popular Magazines Now Available in the Library

The Economist: Mr Palestine –24th–30th November 2007

Time: What Makes Us Good/Evil – 3 December 2007



AVRDC Will Not Attend the CGIAR AGM

We are disappointed that our Center is no longer invited to participate in this year's CGIAR AGM in Beijing. The CGIAR Secretariat informed us recently that the CGIAR's invitation to AVRDC—The World Vegetable Center—as an international agricultural research center—was not supported by the hosting country. None of our Center's staff will attend the AGM07. We will postpone the planned meetings (such as the Board

of Directors Execom meeting and the GlobalHort Board meeting) and will interact with our donors, partners and colleagues at other events and venues throughout the rest of this year and 2008. Our partners are very supportive and we expect to welcome some of them to our headquarters on their way back from AGM07.

- Source: Dr. Jackie Hughes DDG-Research

Successful Field Demonstration of Organic Vegetable Soybean and Tomato Trials at Headquarters, 29 November 2007



In spite of cold weather on Thursday, 29 November, 40 representatives from experiment stations, farmers' associations and organic certification organizations as well as 56 local organic farmers attended a successful field on organic vegetable soybean and cherry tomato production at headquarters.

The participants were given presentations on "Integrated Production Technologies for Organic Vegetable Soybean" which included varietal evaluation; organic fertilization; diseases, pest and weed management and quality evaluation. Another follow-up presentation introduced the "Effects of Six Fertilization Strategies on Quality and Safety of Soil and Vegetables

in Organic Farming Systems". Handouts, and posters were prepared in both English and local languages.



There were enthusiastic discussions among participants about the production technologies demonstrated. Organic vegetable production is expanding rapidly around the globe, and more enquiries on production technologies suited to the tropics are being received.

- Source: Dr. Chin-hua Ma/CEM Unit



News from South-East Asia

Improving the Postharvest Management of Leafy Vegetables



Attendance:

Front (left to right): Ms. Nguyen Thi Hanh, Vietnam; Ms. Nguyen Thi Thuy Linh, Vietnam; Ms. Win Win Kyi, Myanmar (also AVRDC-WVC), Dr. Sasitorn Tongchitpakdee, Thailand (Processing Expert); Dr. Chu Doan Thanh, Vietnam; Dr. Antonio Acedo Jr., AVRDC-WVC; Dr. Chen ZongQi, China; and Dr. Lemuel Diamante, Philippines (Processing Expert)

Back (left to right): Mr. Borarin Buntong, Cambodia; Mr. Nguyen Dinh Hung, Vietnam; Dr. Varit Srilaong, Thailand; Dr. Kyaw Nyein Aye, Myanmar; Ms. Luong Thi Song Van, Vietnam; Dr. Sirichai Kanlayanarat, Thailand; Dr. Li Hong, China; Dr. Li YunShou, China; Mr. Thongsavath Chanthasombath, Lao PDR; Mr. Chansomone Phomachan, Lao PDR; Mr. Nguyen Khac Trung, Vietnam; and Mr. Nguyen Duc Hanh, Vietnam

A successful workshop to build the groundwork for future postharvest technology research and development was recently held in Hanoi, Vietnam. The workshop was a part of the ADB RETA 6376 project and focused on Best Practices in Postharvest Management of Leafy Vegetables in the Greater Mekong Subregion Countries.

The three day workshop held from 25-27 October involved 21 participants from Cambodia, China, Lao PDR, Myanmar, Thailand and Vietnam as well as two observers, four staff from the Research Institute of Fruits and Vegetables (RIFAV), two processing experts, and the RETA 6208 Small-scale Enterprise Advisor.

The specific objectives were to examine the needs and problems of leafy vegetable farmers in upland areas and other supply chain actors in Cambodia, Lao PDR and Vietnam, what is currently being done and to foster regional cooperation between the main players. Expertise from outside the region was provided from Yunnan-China based on their experience on upland agriculture development. Among some of the

technologies discussed during the workshop were low-cost refrigeration from China, modified atmosphere packaging and a lime paste technique for cabbage soft rot control. Methods for extending the shelf life of fermented products, as well as drying and bottling techniques suitable for farmers and processors were also discussed. The three day program ended with a tour of leafy vegetable farms, a processing firm and market.

Improved postharvest technology is crucial for vegetables to bring down product losses, improve marketing and utilization, and increase farm returns. It is of particular importance in the Greater Mekong Sub-region, one of the world's leading vegetable producing areas with high levels of consumption. Vegetable industry development is seriously constrained by high postharvest losses and the poor marketing system.

Source: Communications

Travel

Dr. Peter Hanson, 2-6 December, to Hanoi, Vietnam, to attend a monitoring meeting at FAVRI for the USAID project “Improvement of Vietnamese vegetable production using GAP principles for seed and seed production and superior hybrid varieties.”

Dr. Peter Juroszek, 2-9 December, to Hanoi, Vietnam, to attend a workshop on GAP in vegetables at FAVRI; to meet with scientists of CIRAD/Hanoi and University of Western Sydney/Australia on proposal development in regard to home-made botanical pesticide research; to visit the Danish funded “VNFU-ADDA” project on organic farming.

Dr. Antonio L. Acedo Jr., 2-9 December, to Bangkok, Thailand, to participate and present a paper with CLV partners in an International Symposium on “Quality Management in Postharvest Systems”; to coordinate the CLV teams’ study mission to postharvest enterprises and institutions in Bangkok and surroundings.

- Source: Yvonne Ting/ASU

Dr. Peter Ooi, 2-4 December, to Hanoi, Vietnam, to conduct a monitoring visit (IFAD Project) with AVRDC-HQ staff.

- Source: Dr. Peter Ooi/Regional Director/AVRDC-ARC

What’s New on the AVRDC Websites?

Internet: <http://www.avrdc.org/>

✦ Research Snapshots: Peri-urban production systems—a growth industry with a competitive edge

✦ **Intranet:** <http://www.avrdc.org/intranet/index.html>

✦ Program, abstracts, presentations, and photos of the Internal Review 2007 and 2006

✦ Events: International Conference List for 2008, 2009, and 2010 (by Dr. Shilpi Saxena)

✦ Campus Weather: August, September and October 2007

Grants Development:

<http://www.avrdc.org/intranet/index.html>
(by Dr. Markus Kaiser and Ms. Jessica Lin)

✦ Funding News No. 13: Guidelines for PostDoc Program and Project Funding of IARCs

✦ Funding News No. 12: NSC’s call for proposal and list of recently submitted and awarded AVRDC proposals

Peri urban Agriculture: <http://www.avrdc.org/susper/>

✦ Publications: Final summary report of the Sustainable Development of Peri urban Agriculture in South-East Asia (by Dr. Paule Moustier and Dr. Manuel C. Palada)

Postharvest: <http://www.avrdc.org/postharvest/>

✦ (by Dr. Antonio L. Acedo Jr.)

✦ Report of the RETA 6376 Training-Workshop on Postharvest Experimental Design and Data Management

✦ Report of the RETA 6376 Workshop on Best Practices in Postharvest Management of Leafy Vegetables in GMS Countries

✦ RETA 6208 regional training workshop on vegetable-based small-scale enterprise development in CLV countries

✦ Training of trainers on vegetable-based small-scale enterprise development

✦ CLV teams participation in EURASIA2007 international symposium on quality management in postharvest system, 3-6 Dec 2007, Bangkok, Thailand

✦ CLV teams study mission to postharvest enterprises and development institutions in Thailand, 7-8 dec 2007

GlobalHort: <http://www.globalhort.org>

✦ ISHS Tropical and Subtropical Fruits Newsletter 2nd Issue

✦ International policy dialogue workshop of the IndigenoVeg Network on the promotion of indigenous vegetables in African urban and peri urban spaces—production, consumption, poverty alleviation, and policy (by Dr. Rémi Kahane)

- Source: Communications