Learning to grow, growing to learn

Participants plant tomatoes, trap beetles, and prepare plans to link agriculture, nutrition and health in the classroom during a training workshop for the Vegetables Go to School project.

“Are you sure this is going to work?” asked Amadou Thiombiano, a representative from Burkina Faso’s Ministry of Agriculture and Food Security to his fellow gardeners in the AVRDC Demonstration Garden, as he measured out a small cup of starter solution, then poured the concentrated fertilizer liquid on to newly planted onion seedlings. “Got to try,” said Max Msuya, from the Tanzania Ministry of Health and Social Welfare, “or we’ll never know!”

Amadou’s question was one of many posed on topics ranging from healthy seedling preparation to strategies for data collection and analysis during the month-long training of trainers workshop for the Vegetables Go to School project, which began on 18 August at AVRDC headquarters. Eighteen participants from agriculture, health, and education ministries in Bhutan, Burkina Faso, Indonesia, Nepal, the Philippines and Tanzania are attending the course.

(...continued on page 2)
The project aims to address malnutrition among children by establishing pilot school gardens or strengthening existing school garden programs in the participating countries. Project Manager Usha Palaniswamy noted the need for participants to compile strong, science-based evidence that school vegetable gardens can improve the diets and health of schoolchildren in their countries.

Gardens must be designed and planted before any data can be collected, however. Despite some of the wettest weather of the year, the workshop participants gamely made their way to the Demo Garden, fields and greenhouses, where, with the guidance of the Global Technology Dissemination team (Greg Luther, Mandy Lin and Willie Chen) they learned essential gardening skills such as preparing garden beds, testing soil fertility, selecting crops and planning a planting schedule, transplanting seedlings, and making compost. Safe methods to control pests were demonstrated by Entomologist Srinivasan Ramasamy. Genebank Manager Andreas Ebert explained how to save vegetable seed—important knowledge to keep gardens growing in places where the seed supply may be erratic.

Workshop Participants

BHUTAN
Bal Bdr Rai, Ministry of Agriculture and Forests
Desang Dorji, Department of School Education
Passang Lhamo Sherpa, Royal Institute of Health Science
Namgay Thinley, Ministry of Agriculture and Forests

BURKINA FASO
Mamounata Sandaogo Ouedraogo, Ministère de l’Education National et de l’alphabétisation
Amamdou Thiombiano, Ministry of Agriculture and Food Security
Serge Rodrigue Kouamé, Ministry of Health

INDONESIA
Dhany Hermansyah, Ministry of Agriculture
Ratih Rosiyati, Ministry of Agriculture

NEPAL
Krishan Prasad Paudyal, Nepal Agriculture Research Council
Narayan Kaji Kashichwa, Department of Education
Dhruba Bhattari, Nepal Agriculture Research Council
Upendra Dhungana, Ministry of Health and Population

THE PHILIPPINES
Ferdinand M. Nunez, Department of Education
James Roldan, Department of Education

TANZANIA
Joyce Sekimang’a, Ministry of Education and Vocational Training
Maximillian Shedrack Msuya, Ministry of Health and Social Welfare
Adah Mdesa Mwasha, Ministry of Agriculture, Food Security and Cooperatives

(left) Adah Mwasha sprays a solution of Bacillus subtilis made from rice stalks and water to protect crops from fungal diseases. (right) In a pest identification exercise, Joyce Sekimang’a pins a insect captured during a garden hunt with collecting nets.

(continued on page 3)
Head of Communications Maureen Mecozzi walked the group through the steps in analyzing the information needs of students, parents, administrators and the community. The participants then had some fun and created their own school garden mascots by trading cartoon body parts.

Agricultural Economist Pepijn Schreinemachers covered methods to collect data and evaluate school gardens.

Nutritionists Ray-yu Yang from AVRDC and Jintana Yhoung-Aree from Mahidol University, Thailand discussed evidence-based interventions, vegetable preparation, cultural perspectives and eating habits. Guéladio Cissé from the Swiss Tropical and Public Health Institute, a project partner, explained how WASH (water, sanitation, hygiene and health) concepts can be integrated in school garden programs. From project partner the University of Freiburg, Axel Drescher, Steffen Vogt, and Mark Hoschek reviewed collaborative data management methods.
During field trips the group visited several area schools with garden programs and learned how Taiwan teachers and principals have integrated gardens into the curriculum, organized school lunch programs, and involved the community in gardening activities.

With each training session and field trip the participants were able to add more detail to their national action plans, which they presented to a gathering of high-level administrators from their own countries, donors and project partners during a policy workshop from 9-11 September 2013 at AVRDC.

1) Robert Ouedraogo, Senior Advisor, Burkina Faso Ministry of Agriculture and Food Security in the Demonstration Garden gourd arbor. 2) Gueladio Cissé, Professor, Swiss Tropical and Public Health Institute, explains the principles of WASH to workshop participants. 3) (left to right) Policymakers Robert Ouedraogo; Sri Sulihanti, Ministry of Agriculture, Indonesia; and Suttilak Smitasiri, Mahidol University, Thailand in the Demo Garden with Garden Manager Willie Chen. 4) The delegation from Indonesia: Dhany Hermansyah, Ratih Rosyiati, and Sri Sulihanti (Director) from the Center for Diversification and Food Safety, Food Security Agency, Ministry of Agriculture, Indonesia.
The Center in the news

AvrDC was mentioned in an article on eggplant grafting in Bangladesh by the United States Agency for International Development Integrated Pest Management Collaborative Research Support Program:

http://www.oired.vt.edu/ipmcrsp/SuccessStories/EggplantGrafting.html

City Farmer News took note of our recent Fresh article on peri-urban vegetable production in Africa:


Food Tank, the think tank about food, noted the Center’s work in conserving and cataloging traditional vegetables:

http://foodtank.org/news/2013/08/twenty-five-indigenous-fruits-and-vegetables-promoting-health-all-over-the

Kenya’s The Star and Coastweek highlighted AVRDC’s partnership with Jomo Kenyatta University of Agriculture and Technology to promote best postharvest practices:

http://www.the-star.co.ke/news/article-133194/vegetable-farming-boosted

http://www.coastweek.com/3634_agriculture_01.htm

The Solomon Star News wrote about AVRDC’s tomato field trials in the Pacific Islands—and AgrikalsaNius, the newsletter of the Solomon Island Ministry of Agriculture and Livestock, featured tomato farmer George Ri’ifalu, who has been cooperating with AVRDC on tomato trials near Honiara since 2007.
A day for youth worldwide

AVRDC’s Srinivasulu Rajendran, postdoc in Agricultural Economics, marked UN International Youth Day in Arusha, Tanzania on 12 August 2013 in an event sponsored by the East African Community (EAC) and organized by Youth for Vision. This year’s theme—Youth Migration: Moving Development Forward—is particularly relevant for AVRDC as it embarks on a new project to promote vegetable production among urban youth in Africa to create employment, increase incomes, and supply nutritious food to consumers.

More than 500 young scholars participated in the celebration and discussions, expressing their thoughts on ways to improve the livelihoods of African people. They also planted trees, donated blood and helped in city clean-up activities. Srini was invited by Youth for Vision to speak at a Youth and Agriculture Camp on 17 August sponsored by EAC, in which participants examined the continent’s economy through the agriculture, industry and services sectors.

Conference corner

SEAVEG 2014

SEAVEG2014 deadline extended! The tremendous interest demonstrated in SEAVEG2014: Families, Farms, Food: Regional Symposium on Sustaining Small-Scale Vegetable Production and Marketing Systems for Food and Nutrition Security has prompted the organizers to extend the abstract submission deadline to 31 October 2013 to accommodate demand. Don’t delay—submit your abstract today, and take advantage of this opportunity to share your knowledge and ideas with researchers, farmers, government and private sector representatives, educators and others with an interest in farms, families and food across Southeast Asia.

SEAVEG2014
25-28 February 2014
Bangkok, Thailand

http://avrdc.org/SEAVEG2014/submit-abstracts/

International Symposium on Indigenous Vegetables: Join this intensive exploration of traditional vegetable crops from a variety of perspectives: germplasm and seed systems, sustainable production methods, postharvest and commercialization, nutrition and consumption. Indigenous vegetables are powerful tools in the battle against malnutrition and non-communicable diseases worldwide, particularly in the Pacific Islands, Asia and Africa. Germplasm specialists, plant breeders, agronomists, agricultural and home economists, postharvest and nutrition experts will attend the three-day event.

Deadline for submission of abstracts:
1 November 2013

International Symposium on Indigenous Vegetables
18-20 August 2014
Brisbane, Australia
http://www.ihc2014.org/call_for_abstracts.html
Eight representatives from World Vision Cambodia lead by Ronilda Co, Disaster Risk Reduction Specialist, visited AVRDC’s Research and Training Station in Kamphaeng Saen, Thailand on 14 August 2013. Guided by Ariya Watthanakarnkitikun, Assistant to the Regional Director, the group toured the East and Southeast Asia Demonstration Garden where climate-smart vegetable production technologies are on display. The group visited other sites at Kasetsart University’s Kamphaeng Saen Campus, such as the Rice Science Center, and toured a local Farmer School at Tawee Watana District, Bangkok, where they exchanged experiences on disaster risk reduction and disaster relief approaches.

On 14 August 2013, a delegation of the Pest & Disease Management Division of the Malaysian Agricultural Research and Development Institute (MARDI) visited AVRDC’s Research and Training Station in Kamphaeng Saen, Thailand. Headed by Mohamad Roff bin Mohd Noor, the eight staff members learned more about AVRDC’s biological control approaches and explored options for future collaboration. Chuanpit Khumsuwan, Technical Assistant and Pishayapa Thongmalai, Office Assistant discussed the latest results of the Gesellschaft für Internationale Zusammenarbeit (GIZ) supported project “Less loss, more profit, better health: Reducing the losses caused by the pod borer (Maruca vitrata) on vegetable legumes in Southeast Asia and sub-Saharan Africa,” which includes mass rearing of the pest’s natural parasite, Phanerotoma philippinensis.

During a study tour of Taiwan, a team of eight delegates from Thailand’s Highland Research and Development Institute led by Phuthadol Theera-athiyut (left), Director of Strategy and Planning, stopped at AVRDC headquarters on 21 August 2013 to be briefed on the Center’s activities by Head of Communications Maureen Mecozzi, and to meet with Genebank Director Andreas Ebert, Agricultural Economist Pepijn Schreinemachers, and Head of Human Resources I.R. Nagaraj.

(...continued on page 8)
Michael Reid, professor emeritus of Environmental Horticulture at the University of California Davis and Leader for Innovative Technology and Special Projects of the United States Agency for International Development (USAID) Horticulture Collaborative Research Support Program (HortCRSP) visited AVRDC East and Southeast Asia in Bangkok on 28 August 2013 together with Kasetsart University representatives Poonpipope Kasemsap, Vice President for International Relations, Anchaya Mongkolchaiyaphuek, Department of Horticulture and Saichol Ketsa, professor emeritus and postharvest physiology expert. With Robert Holmer, Regional Director, they discussed AVRDC’s global vegetable postharvest strategies and possible opportunities for joint postharvest research and development activities in Asia and Africa in collaboration with HortCRSP’s Regional Center for Innovation at Kasetsart University.

On 2 September 2013, a group of ten scientists from Jiangsu Academy of Agricultural Sciences (JAAS), People’s Republic of China, together with Peerasak Srinives, Mungbean Breeder, Kasetsart University, visited AVRDC’s Research and Training Station in Kamphaeng Saen, Thailand. The group was guided by Somchit Pruangwitayakun, Research and Training Assistant.

Christopher Wood, Director of the British Trade and Cultural Office in Taiwan, and Sam Leng, Head of the Political & Economic Section of the British Trade and Cultural Office, UK spent the day at AVRDC headquarters on 3 September 2013. The visitors discussed a range of topics with the AVRDC management team—Director General Dyno Keatinge, Deputy Director General-Research Jackie Hughes, Deputy Director General-Administration & Services Yin-fu Chang, Finance Director Dirk Overweg and Human Resources Director Nagaraj Inukonda—and planted a tree in the Center’s Green Drive. They also toured the Chi Mei Museum, which houses collections of art and antiquities, and made a courtesy call to Ching-Te Lai, Mayor of Tainan City.

Eleven collaborators from the Taiwan Council of Agriculture (COA) came to AVRDC headquarters on 28 August 2013 to discuss a new fertigation system that will be installed in a greenhouse on the AVRDC campus as part of a joint project, “Development of water saving vegetable culture systems and sustainable vegetable production.” The fertigation engineers and researchers proposed designs for experiments to test the efficacy of the new system. COA staff will be posted at AVRDC headquarters over the next six months to participate in the installation and operation of the system.
As part of the European Union-funded SATNET Asia Project, AVRDC - The World Vegetable Center together with the Myanmar-based Food Security Working Group (FSWG) and multi-donor Livelihood and Food Security Trust Fund (LIFT), conducted a training course on "Sustainable Vegetable Crop Production Systems" from 12-16 August 2013 in Yangon, Myanmar for 30 participants from different nongovernmental organizations, universities, the private sector and the Myanmar Ministry of Agriculture and Irrigation. Facilitated by Sheila de Lima, Administrative and Training Officer, the lectures and practical exercises were delivered by experts from AVRDC’s East and Southeast Asia Office: Integrated Crop Management, Soil and Plant Nutrition Management (Robert Holmer, Regional Director); Vegetable Grafting and Saving Vegetable Seeds (Somchit Pruangwitayakun, Vegetable Research and Training Assistant); and Integrated Pest Management (Sopana Yule, Research Assistant Entomology). During a field trip to the Fruit and Vegetable Research Development Center in Yemon, the participants were welcomed by Ei Ei Htwe, Deputy Officer and former International Vegetable Training Course alumna (batch 19). She introduced the group to local researchers, who provided updates on their research activities. The course was the first in a series of in-country training sessions facilitated by AVRDC in Cambodia, Lao PDR, Indonesia and Myanmar under the SATNET Asia Project.

While on an official mission in Myanmar for the SATNET Asia Project, Robert Holmer, East and Southeast Asia Regional Director, Sheila de Lima, Admin and Training Officer, Ratchada Thongkrailad, Finance Officer, Somchit Pruangwitayakun, Research and Training Assistant, and Sopana Yule, Research Assistant Entomology, had two surprise meetings with six alumni of AVRDC’s International Vegetable Training Course.

Somchit Pruangwitayakun (center), AVRDC East and Southeast Asia Research and Training Assistant, reconnects with International Vegetable Training Course alumni Ei Ei Htwe and Daw Cho Mar Tin at the Fruit and Vegetable Research and Development Center in Yemon, Myanmar.
The link between gender, food security and nutrition

Sheila de Lima, AVRDC East and Southeast Asia Admin and Training Officer and Jiawen Zhou, intern from McGill University, represented AVRDC during the recent Asia and the Pacific Regional High-level Consultation on Gender, Food Security and Nutrition: Ensuring the other half equal opportunities, held in Bangkok, Thailand from 24-26 July 2013.

The meeting was co-organized by the Asian Development Bank (ADB) and the Food and Agriculture Organization (FAO) of the United Nations in collaboration with Women Organizing for Change in Agriculture and Natural Resources Management (WOCAN) to raise awareness of the gender dimensions of food and nutrition insecurity and the implications for rural poverty, agriculture productivity, and national development. It also provided a platform for government, development partners, civil society organizations and private sectors in Asia and the Pacific to exchange information on lessons learned and good practices, and to identify areas for collaboration. More than 70 representatives from 18 countries attended the event.

Olivier de Schutter, UN Special Rapporteur on the Right to Food, gave the keynote address and launched ADB/FAO report he authored, entitled: Gender Equality and Food Security – Women’s Empowerment as a Tool against Hunger. The report presents evidence that gender equality needs to be improved if hunger is to be reduced. Three concerns must be addressed to assure gender equality: 1) recognize the time and mobility constraints of women; 2) provide services that can relieve women from their reproductive and productive work; and 3) redistribute gender roles, and involve men in the change.

Plenary sessions focused on sharing good practices and the breakout sessions explored policies and concrete actions. The third day focused on country-specific interventions. AVRDC provided case studies from the Philippines and its work in Bangladesh, which will be included in a report on best practices to ensure gender equality for better food and nutrition security in Asia and the Pacific.

Gender Equality and Food Security – Women’s Empowerment as a Tool against Hunger

The Asian Development Bank (ADB) through its Greater Mekong Subregion (GMS) Working Group on Agriculture (WGA) convened a Development Partners' Consultative Meeting on 9 August 2013 at the ADB Thailand Resident Mission in Bangkok, which was attended by 30 participants from 16 national, regional and international organizations, including AVRDC – The World Vegetable Center, represented by Robert Holmer, East and Southeast Asia Regional Director.

A growing world population, concern over food security, and change in climatic patterns present new opportunities and potential problems for countries in the Greater Mekong Subregion. ADB recognizes the need for better coordination and partnership to support the agriculture sector to tackle local, regional, national and global concerns, and agreed to host regular informal development partners’ meetings to provide a platform for dialogue.

After the welcome address by Winfried Wicklein, Officer-in-Charge, ADB Thailand Resident Mission, Suriyan Vichitlekarn, Manager, GMS WGA Secretariat, invited all participants to share information on ongoing initiatives and explore possible areas of collaboration. Sununtar Setboonsarng, ADB Principal Natural Resources and Agricultural Economist, introduced Phase II of the ADB GMS Core Agricultural Support Program (CASP). Phase II aims to have GMS be recognized as a leading producer of safe food using climate friendly agricultural practices, and be integrated into global markets through regional economic corridors. The program will focus on food safety and trade modernization, climate-friendly agriculture, and bioenergy and biomass management.

Participations emphasized the importance of formal and informal capacity building, which must go beyond farming practices to also address the livelihoods of farming communities, particularly in meeting challenges of extreme climate events and disasters.
On 22 August 2013, Bella Monse, Principal Advisor of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) programme “Fit for School - Technical Assistance for Effective School Health” met in Bangkok with Robert Holmer, AVRDC East and Southeast Asia Regional Director and Nomindelger Bayasgalanbat, Technical Officer, Nutrition Policies and Programmes of the United Nation’s Food and Agriculture Organization Regional Office for Asia and the Pacific (FAO-RAP), to discuss opportunities for collaboration in regional school health programs. The GIZ program, which is implemented in Cambodia, Lao PDR, Indonesia and the Philippines, focuses mainly on school hygiene issues (daily handwashing and tooth brushing, regular deworming, provision of water and sanitary toilets) and is hosted by the Southeast Asian Ministers of Education Organization (SEAMEO). AVRDC’s and FAO’s projects deal with improved nutrition through school and community approaches, such as AVRDC’s Vegetables Go to School project (see lead story in this issue of Fresh), and FAO’s support for the National School Meals Program in Lao PDR. “Child health, nutrition, sanitation and hygiene are intrinsically linked, and negative health impacts can be minimized by reducing environmental health risks, while at the same time improving nutrition,” said Robert.

GIZ Fit for School

Lao PDR School Feeding Program

On 22 August 2013, Bella Monse, Principal Advisor of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) programme “Fit for School - Technical Assistance for Effective School Health” met in Bangkok with Robert Holmer, AVRDC East

Successful summer internships

World Food Prize intern Sydney Elizabeth Graham, from Iowa, USA worked on the "Effect of rhizobia inoculation on mungbean growth" from 7 June to 4 August 2013 at AVRDC South Asia under the guidance of legume breeder Ram Nair. Sydney also reviewed strategies for improved nitrogen fixation in mungbean. Jiawen Zhou, undergraduate dietetics student from McGill University in Canada, and Megan McEnany, World Food Prize International intern from Colo-Nesco High School, Iowa, United States, ended their two-month internship with AVRDC East and Southeast Asia on 12 August 2013 with a presentation of their special projects to AVRDC staff at the Research and Training Station in Kamphaeng Saen, Thailand. Jiawen presented "Outcomes of Mercy Centre's Mercy Farm program in Saphan Sung, Bangkok, towards social, food and nutrition security of the students” while Megan shared her results on "Field evaluation of global bitter gourd germplasm for various horticultural traits.”
South Asia accounts for half the world’s malnourished people, and a new approach is needed to improve nutrition in the face of population growth, land degradation, high harvest losses and small landholdings.

This was a key theme of a conference organized by the Borlaug Institute for South Asia in New Delhi on 16-17 August 2013. Warwick Easdown, Regional Director for South Asia, represented AVRDC.

Celebrating the 50th anniversary of Norman Borlaug’s first visit to India, the conference unveiled a statue of him and paid tribute to his extraordinary contribution to the Green Revolution. His Nobel Peace prize affirmed that his innovations saved more lives than anyone else in history; in India, the high-yielding wheat varieties Borlaug promoted doubled production between 1964-68.

Plant breeding alone is unlikely to achieve such gains again. Cereal production needs to double in India by 2050, but supplies are growing at only 1% annually instead of the required 2.4%. Climate change will adversely affect South Asia, and must be addressed. An integrated approach focusing on cropping systems and legumes, reducing waste and targeting the most needy consumers is needed.

In 1973 Borlaug advocated that mungbean become a mandate crop for AVRDC.

During the conference there was a call for more emphasis in improving cropping in Eastern India, where mungbean is the predominant legume. Researchers from the International Maize and Wheat Improvement Center (CIMMYT) expressed a strong interest in greater collaboration with AVRDC on cereal cropping systems research.

A comprehensive food bill was recently passed in India, creating the world’s largest social service program. Women will be the nominated heads of households eligible for subsidized supplies of basic foods targeted particularly for children. Over 30% of cereals are lost after harvest and the bill will place a major focus on improving warehousing to reduce loss.

Tackling malnutrition in India demands a multi-pronged approach, and mungbean to enhance cereal yields and diversify diets will increasingly be part of the solution.
Students support new vegetable project in Karnataka

AVRDC is a key player in a new four-year project involving national and international partners funded by the government of Karnataka in southwestern India. Led by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the Bhoochetana Plus Project is the first project of its kind in India. It aims to raise farm productivity by 20% and farmer incomes by 25% in four targeted districts of Karnataka through a coordinated effort between the state government, universities and nine international agricultural research centers. AVRDC is responsible for improving vegetable production and a key part of the project will be local capacity building. To foster collaboration, three new AVRDC staff will be appointed to work with local departments of agriculture in Karnataka and build connections to universities and the private sector to help boost vegetable production.

Two groups of horticultural graduate students recently visited AVRDC South Asia to learn more about the Center’s work and discuss opportunities for research and development in Karnataka. Eight vegetable breeding students from the University of Horticultural Sciences, Bagalkot, Karnataka visited on 24 July and were followed a week later by a group from KRC College of Horticulture, Arabhavi, Belgaum district, Karnataka. They were briefed by South Asia Regional Director Warwick Easdown.

International students will also be involved in the project. On 6 August, Professor Thomas Crain from the Carey School of Business at Johns Hopkins University in Baltimore, Maryland USA made arrangements for four graduate students to work at an AVRDC project site in January 2014 as a part of their Innovation for Humanity (I4H) Project, a 3-credit course in their Global MBA program. They will help assess constraints on vegetable marketing and explore opportunities for expanding profitable vegetable production.

Kids write their own book on why vegetables are important

Vaishali Nitturkar, wife of AVRDC South Asia staff member Hemant Nitturkar, saw an opportunity in her girls’ reluctance to eat vegetables by encouraging them to write a book about it. Our World Without Vegetables was the result. Thirteen-year-old Aditi and 10-year-old Advaita wrote most of the story and designed the illustrations. Tim and Jane, the main characters, were based on the girls’ childhood friends from Australia. Tim and Jane decide they want to get rid of vegetables, and with the help of magic they get to eat whatever they want—but in a very short time they find out life without vegetables is not nearly as good as they had expected.

Vaishali has written a number of children’s books on issues related to health, diet and ethics, and has set up a small company to produce and market the publications. One school in Hyderabad is now using Our World Without Vegetables to help young children understand the value of vegetables in their diets.
Welcome

Dr. Usha Palaniswamy joined the Center on 17 August 2013 as Project Manager for Vegetables Go to School, a new initiative to promote school gardens in Bhutan, Burkina Faso, Indonesia, Nepal, the Philippines, and Tanzania. Usha previously served as an Associate Dean at Strayer University, Florida USA; Dean of Academic Affairs at Everglades University, Florida; chair for academic programs in natural sciences and mathematics at Excelsior College, New York; and on the faculty of Allied Health and Asian American Studies at the University of Connecticut. Her strong background in teaching, training and research complements a desire to contribute to improved incomes and diets in the developing world. She is also editor-in-chief of the peer-reviewed Journal of Herbs, Spices and Medicinal Plants (Taylor and Francis, USA). Welcome, Usha!

Recent publications

Keatinge JDH. 2013. Horticulture — the key ingredient in the developing world for nourishing families, empowering women and commercialising smallholders. 8th Hugh Bunting Memorial Lecture, delivered at the University of Reading UK on 17 June 2013.


http://203.64.245.61/fulltext_pdf/Openaccess/oa0009.pdf


DOI 10.1007/978-1-4614-3776-5_16

40 years of service to tropical agriculture

AVRDC — The World Vegetable Center will officially mark its 40th anniversary with a three-day celebration on 16-18 October 2013. We’ll look back at the Center’s accomplishments, celebrate our current successes, and continue the ongoing dialogue to chart the institution’s future endeavors with input from Nobel laureates, experts in the fields of agriculture, development, nutrition and food security, and people around the world who support our mission. Follow Fresh and the AVRDC website (avrdc.org) for related stories, seminars and more!