Regional networks: The building blocks of development

Active communities of practice engage collaborators in crafting joint policy and advocacy efforts to link agriculture, health and nutrition across several countries. AVRDC promotes regional networks as a means to examine cross-sector issues and explore solutions that can be adopted and adapted for individual benefit and region-wide impact.

AARNET meets in Bangkok

The Steering Committee of the ASEAN-AVRDC Regional Network for Vegetable Research and Development (AARNET) held its 8th annual meeting from 19-20 March 2013 at Kasetsart University in Bangkok, Thailand. AARNET Chairman Philip Chew Hong welcomed delegates from all ten ASEAN member countries, including Normah Binti Tuah (Brunei Darussalam), Sitha Mam (Cambodia), Liferdi Lukman (Indonesia), (...continued on page 2)
Bounnueng Douangboupha (Lao PDR), Pauziah Muda (Malaysia), Nyi Nyi Aung (Myanmar), Flora Jarilla (Philippines), Poh Bee Ling (Singapore), Grisana Linwattana (Thailand), and To Thi Thu Ha (Vietnam), as well as AVRDC Deputy Director General – Research Jackie Hughes and Regional Director for East and Southeast Asia Robert Holmer.

Fuziah Hamdan (Brunei Darussalam), Ahsol Hasyim (Indonesia) and Thiraporn Pinthongpan (Thailand) attended as official observers and members of the secretariat Fong Siew Lee (Singapore) and Sheila de Lima (AVRDC Administration and Training Officer) were present.

The delegates discussed the status of project activities in the region, such as the home and school garden initiatives implemented in different member countries following last year’s Expert Consultation on Home, School and Other Public Facility Vegetable Gardens. Procedures for conducting ASEAN-wide comparative trials of promising advanced vegetable breeding lines from AVRDC were reviewed. Scientists from the region were encouraged to attend “Families, Farms, Food,” a regional symposium to be held on 25-28 February 2014 in Bangkok. Meeting resolutions will be forwarded to the ASEAN Sectoral Working Group on Crops.

The increasing importance of vegetable production to ensure food and nutrition security in rapidly urbanizing areas of ASEAN was highlighted during a field trip to the famous rooftop vegetable garden of the Lak Si District Office. Established in 2003, the garden features more than 100 different species of vegetables and fruits grown in an area of just 440 m² on the 10th floor of this government building. The group also toured the Ban Khun Ta Garden and Learning Center along busy Sukhumvit Road in Bangjak, Bangkok, where workshops and training courses on self-reliance in renewable energy and growing and preparing healthy food, especially vegetables, are open to area residents.

More info:

Lak Si Roof Top Garden

http://organicagrisolutions-thimmaiah.blogspot.tw/2013/02/roof-top-gardens-for-climate-smart.html
https://www.facebook.com/grandpa.cityfarm

(...continued on page 3)
Experts discuss research priorities

More than 50 participants attended the Expert Consultation on Vegetable Research and Development Priorities in Southeast Asia on 21 March 2013 at Kasetsart University, Bangkok, organized by the ASEAN-AVRDC Regional Network for Vegetable Research and Development (AARNET) with support from the Ministry of Foreign Affairs (MOFA), Taiwan.

AARNET steering committee members from the 10 ASEAN member states presented their needs for vegetable research and development to scientists from AVRDC – The World Vegetable Center, the UN Food and Agriculture Organization, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Kasetsart University, Mahidol University, the Taitung District Agricultural Research and Extension Station, and the University of Freiburg to identify and prioritize common concerns, research gaps and development efforts.

AVRDC was represented by Jackie Hughes, Deputy Director General – Research, Robert Holmer, Regional Director East and Southeast Asia, Jaw-Fen Wang, Global Theme Leader – Production, Andreas Ebert, Global Theme Leader – Germplasm, Peter Hanson, Global Theme Leader – Breeding, Gregory Luther, Technology Dissemination Specialist, R. Srinivasan, Head of Entomology, Jen Wen Luoh, Assistant Specialist – Nutrition, Pepijn Schreinemachers, Agricultural Economist, Narinder Dhillon, Vegetable Breeder – Curcubits, Ramakrishnan Nair, Vegetable Breeder – Legumes, and Ngoni Nenguwo, Postharvest Specialist, along with research assistants and administrative staff from the regional office in Bangkok.

Poonpipope Kasemsap, Vice President for International Affairs of Kasetsart University, AVRDC’s host institution in Thailand, welcomed the scientists and thanked AVRDC for the opportunity for KU scientists to meet and actively interact with ASEAN experts. Nomindelger Bayasgalanbat, FAO Technical Officer Nutrition Policy, Jintana Yhough-Aree, Assistant Professor Community Nutrition Division and Suttilak Smitasiri, Head of Communication and Behavioral Science Division, both of Mahidol University, shared their expertise on human nutrition during the working group discussion. Ekarat Kruangpanad, Advisor Sustainable Agriculture and Extension of the GIZ-ASEAN Biocontrol for Sustainable Agrifood Systems project, provided valuable insights for safer vegetable production, while Hsueh-shih Lin, Director, Taitung District Agricultural Research and Extension, shared Taiwan’s perspective on possible contributions to address vegetable research and development challenges in the region.

Issues identified as priorities by each country will be integrated into a roadmap of potential research programs that will harness the full potential of AARNET and contribute to the ASEAN Integrated Food Security Framework and its Strategic Plan of Action for Food Security.

Ensuring adequate, safe and nutritious food for all is a high priority and long-standing focus of ASEAN community building. A recent FAO-ASEAN consultation recommended strengthening vegetable research and development activities through regional mechanisms such as AARNET.
Getting the vegetable harvest to market and ultimately to consumers remains a significant challenge in developing countries, where the lack of awareness about good harvesting and packing practices, weak transport links, and a lack of storage facilities can lead to losses of 40% or more.

In an article entitled “Promoting best post-harvest practices,” *Appropriate Technology* (March 2013, Vol 40, No 1) highlighted the Postharvest Training and Services Center (PTSC), located at AVRDC’s Regional Center for Africa in Arusha, Tanzania. The PTSC helps farmers by offering, at cost, the tools, facilities and training they need to protect the nutritional value and quality of their fresh produce. The article was reprinted from the 26 November 2012 issue of *Fresh*.

*Appropriate Technology*  
[http://www.researchinformation.co.uk/ apte.php](http://www.researchinformation.co.uk/ apte.php)

*Rural 21*, the *International Journal for Rural Development* (Vol 47, No 1) devoted an entire issue to the topic of food waste. In the article “Handling fresh vegetable produce from urban gardens,” AVRDC Postharvest Specialist Ngoni Nenguwo and Deputy Director General – Research Jackie Hughes discussed harvesting, handling, and transport methods that can be used by urban producers to ensure healthy, attractive and nutritious food reaches local markets.

*Rural 21*  

You, dear *Fresh* reader, are among a select group of 3,000+ subscribers who follow the progress of AVRDC – The World Vegetable Center in this newsletter. We’d like to take this opportunity to thank our readers for their support and continuing interest in the Center, and also acknowledge our many contributors, whose reports on AVRDC events, activities and milestones occurring around the world make the newsletter a must-read.
Seminars

Christian Borgemeister, Director General of African Insect Science for Food and Health (icipe), shared his perspective on science for development with AVRDC staff on 25 March 2013. An example: Tsetse flies and mosquitoes remain a serious menace in Africa. icipe developed simple traps that could reduce flies in an area by >90% in two years, but the traps were not well suited for pastoralists, who needed a more mobile technology for protection as they moved cattle from place to place. Waterbuck (a large antelope) are present in tsetse habitats, but the flies do not feed on them; the waterbuck give off a very strong scent that repels the flies. icipe developed a 5-component repellent blend based on waterbuck allomones; the blend is applied to a collar on the cattle to protect the animals. The blend reduces the feeding efficiency of tsetse flies by more than 95%. Dr. Borgemeister also spoke about “push-pull” methods for pest control in cereal crops, and discussed the need for joint agriculture and health research on postharvest contamination of crops, zoonotic diseases, pesticide misuse and other topics. His seminar was the sixth in a series entitled Networking to Enhance International Cooperation in Vegetable Research and Development sponsored at AVRDC headquarters by Taiwan’s Ministry of Foreign Affairs (MOFA).

Sandra Habicht, seconded to AVRDC – The World Vegetable Center from the Department of International Nutrition at Justus-Liebig University Giessen in Germany, recently completed 2 years of research for the Bitter Gourd Project in Taiwan. On 26 March 2013, she updated her colleagues on progress in studying the effectiveness of bitter gourd in lowering blood glucose in cell models and animals, in advance of human trials in India and Tanzania. Bitter gourd is reported to decrease intestinal glucose uptake and increase insulin sensitivity.

CL Laxmipathi Gowda, Director of the Grain Legumes Research Program at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), discussed ICRISAT’s Hybrid Parents Research Consortium in a presentation to AVRDC staff on 15 April 2013. The consortium aims to leverage the respective strengths of the public and private sector to ensure crop producers receive improved varieties in a timely manner. ICRISAT develops the basic material (hybrid parents), and the private sector carries out applied research to develop and distribute improved hybrids. The consortium began in 2000 with 9 companies, and now counts 47 local and international companies as members.
Farewell

The AVRDC family said goodbye to its newest member, Jona Habicht, and his parents Sandra and Jan on 27 March 2013. Sandra was seconded for two years to AVRDC from the Department of International Nutrition at Justus-Liebig University Giessen in Germany to conduct research for the Bitter Gourd Project in Taiwan. Her work involved studying the effectiveness of bitter gourd in lowering blood glucose in cell models and animals, in advance of human trials in India and Tanzania. Sandra will continue working with the project in Germany, where she will analyze how trial participants respond to bitter gourd treatment. Best wishes to Sandra and family!

Welcome

Hemant Nitturkar recently joined AVRDC South Asia as a Project Development Officer. He holds a Master of Science in Genetics and Plant Breeding from the University of Agricultural Sciences, Dharwad, India. Hemant brings a wealth of talent and diverse experience to the job, with a background in horticultural development, communications, financial management and promoting social entrepreneurship. He has worked in India, Kenya and Australia. His primary role is in scaling out the impact of the Sir Ratan Tata Trust project for marginalized communities in northern India by expanding technical and commercial linkages, building connections to other projects and catalyzing grassroots innovations and entrepreneurship.

Visitors

Cesar M. Drilon (left), the new Director for the Manila Economic and Cultural Office, the Philippines, visited AVRDC headquarters on 1 April 2013 to meet staff, tour the campus, and learn more about the Center’s activities. He also received a tour of the nearby Southern Taiwan Science Park in the company of Biometrician Didit Ledesma and Christian Genova, Consultant for Monitoring and Impact Evaluation Studies.
Visitors

Charles Taylor, former Head of AVRDC’s Office of Information Services (OIS) from 1974-1977, Delphine Taylor, former Accountant for Financial Services, and Emma Liu, former Secretary for OIS, came back to AVRDC headquarters for a visit on 10 April 2013. The AVRDC alumni met with Director General Dyno Keatinge, were updated on Center activities by the current Head of Communications Maureen Mecozzi, received a campus tour from Lydia Wu, a former colleague and the Center’s current Training Coordinator, and walked through the Demonstration Garden with Manager Willie Chen. Dr. Taylor is the President of Kenaf Industries of South Texas, USA.

Christian Ou-Smolinski, a representative of Laboratorios Dr. Madaus & Co. S.A. in Buenos Aires, Argentina, made a brief stop at headquarters on 11 April 2013 to learn about the Center’s research activities and tour the Genebank and Demonstration Garden. The company prepares pharmaceutical-quality compounds from plants.

Six graduate students from Chang Jung Christian University, Taiwan visited headquarters on 12 April 2013. They were briefed by Visitor Coordinator Shiu-luan Lu, and were guided through the Demonstration Garden by Senior Research Aide Yuhsia Huang and the Genebank by Assistant Specialist Yung-kuang Huang.

Thirty-one members of the Kaohsiung Rotary Club traveled north to AVRDC headquarters on 17 April 2013, where they were greeted by Deputy Director General-Administration & Services Yin-Fu Chang. The group visited the Demonstration Garden and received a campus tour from Food and Dormitory Services Manager Sylvia Hsu.
CLL Gowda, Director of the Grain Legumes Research Program at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) visited the AVRDC campus on 14-15 April 2013 to promote scientific interaction between the two centers. Dr. Gowda spoke with the AVRDC management team—Director General Dyno Keatinge, Deputy Director General-Research Jackie Hughes, Deputy Director General-Administration & Services Yin-Fu Chang, Director of Human Resources I.R. Nagaraj, and Finance Director Dirk Overweg—and met with plant breeders Peter Hanson and Sanjeet Kumar, Plant Pathologist Jaw-fen Wang, Virologist Lawrence Kenyon, Entomologist Srinivasan Ramasamy, and Genebank Manager Andreas Ebert for discussions and field visits. He also presented a seminar on ICRISAT’s Hybrid Parents Research Consortium and updated AVRDC staff on developments in the CGIAR’s CRP 3.5 Grain Legumes project.

During a visit to Taiwan from 25-26 March 2013, Christian Borgemeister, Director General of African Insect Science for Food and Health (icipe), met with AVRDC staff to explore ways icipe and AVRDC can collaborate on research to control thrips-transmitted tospoviruses, promote indigenous vegetables in Africa, and other topics. At National Pingtung University of Science & Technology, he discussed capacity building and research in disease ecology with NPUST President Yuan-Kuang Guu. Dr. Borgemeister met former AVRDC Entomologist N.S. Talekar, now with National Chung Hsing University, where he was briefed on the university’s entomology program. At the Taiwan Agricultural Chemicals and Toxic Substances Research Institute, Division Chief Wenying Su gave Dr. Borgemeister a tour of the laboratories and discussed possibilities for collaboration on fruit fly control. Dr. Borgemeister also made courtesy calls at the Center for Disease Control, Council of Agriculture, and Ministry of Foreign Affairs.

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Over the past four decades, hundreds of people have contributed their talents and expertise to carry out AVRDC – The World Vegetable Center’s mission of increasing the production and consumption of nutritious, health-promoting vegetables in developing countries. We share their reflections on working at the Center.

Jan Helsen

Project Manager

Vegetable Breeding and Seed Systems for Poverty Reduction in Africa (vBSS)

2007-2010

At AVRDC I learned new innovative concepts to develop vegetable seed systems and how to link them to food and nutrition security and increased income for millions of smallholders in Africa. vBSS and AVRDC gave me the richest experience, which I proudly use daily in my work in the Great Lakes Region and the Horn of Africa with the UN Food and Agriculture Organization (FAO).

It is not about developing one commodity (for instance, one tomato variety) but all about understanding and appreciating the complex systems and motivation behind those systems—and especially the role of vegetables in changing livelihoods.

Whatever I do and wherever I will be, rest assured that AVRDC will be there.

Plant Village

Scientists, researchers and all-around know-it-alls: Welcome to PlantVillage, where you can share your expertise, help the global gardening public, and collect a few kudos, points, street cred, face, bragging rights (or whatever you like to call recognition) for your effort!

Created by biologists at Penn State University USA, PlantVillage is a user-moderated Q & A forum dedicated to the goal of helping people grow their own food. It is open to anyone on the planet with an Internet connection. People register and post questions; other people answer those questions. Members of the PlantVillage community can vote on the quality of the answers. The best answers (as determined by number of votes) appear at the top of the list.

If your responses are consistently ranked high, you’ll know the community trusts you and values your contributions.

Interested in becoming part of the Plant Village community? Go to https://www.plantvillage.com/ and sign up.
The 13th African Seed Trade Association (AFSTA) Annual Congress, held from 3-6 March 2013 in Balaclava, Mauritius, attracted 225 delegates from 39 countries to explore seed business opportunities and strengthen networks among seed stakeholders. The congress was preceded by a half-day workshop hosted by the International Seed Trade Association and the Organisation for Economic Co-operation and Development, in which participants analyzed the current status of the African seed industry and charted a way forward for seed sector development.

Congress attendees heard presentations on intellectual property rights in Africa; protocols on plant variety protection; the West Africa Seed Program; harmonized seed regulations in the Common Market for Eastern and Southern Africa (COMESA); seed treatment, and more. Abdou Tenkouano, Regional Director, AVRDC Regional Center for Africa, gave a talk on “Strengthening vegetable breeding in Africa: Access to traits at the World Vegetable Center.”

Representatives of regional and international organizations attended the congress: International Seed Federation (ISF), Asia Pacific Seed Association (APSA), International Seed Testing Association (ISTA), Organization for Economic Co-operation and Development (OECD), Union for the Protection of New Plant Varieties (UPOV), Food and Agriculture Organization (FAO), African Regional Intellectual Property Right Organization (ARIPO), Common Market for East and Southern Africa (COMESA), and the African Organization for Intellectual Property Rights (AOIP).

Seed companies had many delegates visiting their exhibition booths and the trading room provided an opportunity for companies to forge new business relationships. Special interest groups on vegetables and field crops were launched during the meeting of national seed trade associations on March 4. Jacqueline Hughes, AVRDC Deputy Director General - Research will lead the vegetable group; the field crops group will be guided by Denias Zarianyika of Seed Co. Ltd. and John MacRobert of the International Maize and Wheat Improvement Center (CIMMYT). The next congress will be held in Tunis, Tunisia from 4-7 March 2014.

Learn more
African Seed Trade Association
www.afsta.org
Improving crop production in southern Cameroon

The South Region of Cameroon suffers from low vegetable productivity due to the lack of good quality seed of improved varieties with better resistance to pests and diseases. Farmers also lack appropriate information on how to produce vegetables in their localities. Most of the region’s vegetables, including tomato, nightshade, and cabbage, come from Cameroon’s Northwest and West regions.

To improve capacity for technology delivery, dissemination and training for the development of vegetable production in the country’s South and Central regions, AVRDC – The World Vegetable Center established a collaborative partnership with the Center for Assistance to Sustainable Development (CASD). This nonprofit organization has been promoting sustainable agriculture to increasing incomes and economic productivity of rural farmers in Cameroon since 2008. From 2008 to 2012, AVRDC provided improved germplasm of standard (tomato and pepper) and indigenous (okra, eggplant, nightshade, jute mallow and amaranth) vegetables for CASD to conduct 11 participatory field trials in Ebolowa, the capital of the South Region. Farmers were trained in vegetable production and were involved in trial observation, data collection and promising variety selection based on disease tolerance, high yield, taste, and market value.

After selecting promising varieties, CASD multiplied seed and worked with farmers to set up five demonstration plots in Ebolowa and Widikum. The NGO distributed 27 kg of seed in the region, including four tomato lines (AVTO9604, AVTO9601, AVTO9605, AVTO0201), four eggplant lines (AB2, Tengeru white, Heart shape, UGAE7), five nightshade lines (BG14, MV25, BFSAM, SS52, BG25), three pepper lines (Hot habanero, PBC297, Red BFS) and one okra line (PI496946).

In early 2013, CASD and AVRDC visited the farmers to evaluate the impact of the activities on vegetable production. With seed of high-yielding, disease-resistant tomato distributed by CASD, farmer Nkitisang Fred is producing good quality tomatoes for market. “My customers like my tomatoes very much and my income has increased,” said Mr. Fred. From the sale of tomatoes, he was able to acquire a piece of land on which he plans to build his own house in the next two years. After attending the vegetable production training, Agwbawan Chalote can now grow vegetables with ease. She appreciated receiving good seeds of nightshade, amaranth and eggplant. “My income increased after planting these three vegetables,” said Mrs. Chalote. “I can now pay the school fees for my children and the hospital bills, and help my husband to solve some minor problems in the family.” Mamadou Awa and her husband’s other wife raised six children together. They grew vegetables, but yields were poor. During the vegetable production training, the two women learned good crop management skills and enlarged their farm size. Vegetable crops are now their main income source. “We were able to build a good house, send our children to school and improve our livelihood,” said Mrs. Awa.

Farmers will always be challenged by pest and disease problems, poor soil fertility, and access to irrigation and good quality seed. Ongoing partnerships like that between AVRDC and CASD can help farmers find solutions through participatory approaches.

Learn more

Feedback from the Field #17
http://avrdc.org/?wpfb_dil=717
Subramanyam “Sundar” Shanmugasundaram, former AVRDC scientist, met his current-day counterparts at the AVRDC East and Southeast Asia Regional Office during a visit to Kasesart University, Thailand. Accompanied by Errol Hewett, Board Member, International Society for Horticultural Science and professor emeritus of Horticultural Science at the Institute of Food, Nutrition and Human Health, Massey University, New Zealand, and Poonpipope Kasemsap, Kasetsart University Vice President for International Affairs, Sundar met Robert Holmer, East and Southeast Asia Regional Director, who briefed the visitors on AVRDC’s activities in the region, particularly its collaboration with the United States Agency for International Development (USAID)-supported Horticulture Collaborative Research Support Program (HortCRSP).

Sundar and Errol also dropped by AVRDC’s Research & Training Station in Kamphaeng Saen, where Vegetable Breeder Narinder Dhillon explained the Center’s current cucurbit breeding program. Sundar, who started his breeding career with cucurbits, joined AVRDC in 1972 as a legume breeder. Today he is recognized as a driving force in the spread of vegetable soybean as a new vegetable crop. During his tenure at AVRDC, a team of international researchers successfully introduced AVRDC’s improved mungbean to diversify rice-wheat cropping systems in India, Bangladesh, Nepal and other countries in Asia.

Sundar served as the Director for AVRDC’s International Cooperation Program and was instrumental in establishing and managing vegetable research networks in South Asia (SAVERNET), Southeast Asia (AVNET), and initiating the Cambodia, Laos and Vietnam network (CLVNET). In 2003, he was appointed as the first Deputy Director General for Research (DDG-R) at AVRDC, a position he held until his retirement in 2005.

An avid reader of Fresh, Sundar keeps updated on the progress of AVRDC and enjoys watching the Center evolve as it addresses new research and development challenges.

During his tenure at AVRDC, Dr. Sundar promoted the cultivation and consumption of nutritious vegetable soybean, or edamame, across Asia.
Geographic data can tell a detailed story across space and time about almost any human undertaking—including the production and distribution of vegetables. In Bangkok, 18 geography students from the University of Freiburg, Germany are joining Thai students from Kasetsart University to conduct a number of surveys for the Gesellschaft für Internationale Zusammenarbeit (GIZ)-funded project “Understanding urban and peri-urban vegetable production and marketing systems through GIS-based Community Food Mapping in Greater Bangkok, Thailand (vegGIS).” On 26 March 2013, the group presented an outline of the planned survey activities to Pariyanuj Chulaka and Supot Kasem, both professors at the Department of Horticulture, Kasetsart University; Robert Holmer, East and Southeast Asia Regional Director, and Ariya Watthanakarnkitikun, Assistant to the Regional Director. The University of Freiburg students were accompanied by Rüdiger Glaser, Head of the Physical Geography Department, Axel Drescher, leader of the Development Geography working group, and Dirk Riemann, research fellow.

The students have formed four survey groups to gather data from stakeholders, including commercial vegetable farmers, home and community gardeners, vegetable consumers (which includes street food vendors and retail stores), and vegetable markets. The survey data, which will be geo-referenced, will contribute to the project’s objective of “making vegetables more visible”—ensuring that regional and urban planners, city administrators, policy makers, researchers and communities understand the contribution of urban and peri-urban vegetable production and marketing systems to food and nutrition security in Bangkok.

The project intends to identify barriers preventing families in selected vulnerable communities to achieve a healthy, nutritious diet; to identify geographical areas or communities having the greatest needs in terms of access to food (“food deserts”); and to create a database for planning authorities, researchers, and the general public. Comprehensive community food maps of project sites and an interactive platform for data exchange will help users obtain a clearer picture of local perspectives and views.

People in Thailand consume many indigenous vegetables the German students may not recognize. To be sure the students won’t mistake rice paddy herb (*Limnophila aromatica*) for sacred basil (*Ocimum sanctum*) during the survey, Yingyong Paisooksantivatana, professor emeritus of the Department of Horticulture, Kasetsart University, gave an overview of the different local vegetable species of Thailand, their habits, habitat, and impact on food and nutrition security. The students were particularly intrigued by *Spilanthes acmella*, also called “toothache plant,” and *Parkia speciosa*, the notorious “stink bean.” He encouraged them to taste different indigenous vegetables during their stay in Thailand, and noted that chili, found in most Thai dishes, is not indigenous to Thailand but was introduced from South America.

vegGIS
http://veggis.vm.uni-freiburg.de/
Preparations for bitter gourd trials in India

Staff at the Avinashilingam University for Women (AUW) in Coimbatore, India—a partner in AVRDC’s project “A better bitter gourd: Exploiting bitter gourd (Momordica charantia L.) to increase incomes, manage type 2 diabetes and promote health in developing countries”—have begun screening candidates for the condition known as “prediabetes” in advance of trials to evaluate the anti-hyperglycemic properties of bitter gourd.

Before people develop type 2 diabetes, they almost always have prediabetes—blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. At the Avinashilingam Jan Shikshan Sansthan, a government funded training center for the unemployed, the AUW team including Gomathi Kannusamy measured candidates’ Indian Diabetic Risk Score (IDRS), Body Mass Index (BMI) and Waist-to-Hip Ratio (WHR) to determine if they may be prediabetic. Blood analysis for the bitter gourd intervention trials is underway.

In 2012 Gomathi, a PhD candidate in nutrition, spent three months at AVRDC headquarters developing bitter gourd recipes and analyzing the nutritional content and antidiabetic effects of the dishes.

AUW received bitter gourd treatment and placebo powders from AVRDC headquarters in Taiwan; the powders are being kept in cold storage until human trials begin. Researchers are waiting for an approval certificate from the Tanzania Food and Drug Authority to send the treatment powders to Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Tanzania, the project’s other location for human trials.

Learn more

Bitter Gourd Project
http://www.bitter-gourd.org