



**AVRDC**

The World Vegetable Center

# Newsletter

Published by the Communication and Training Office

29 June 2007

## Punjab: Mungbean Quickens the Pulse of Agriculture

The Punjab state of India is one of the most fertile regions on Earth. As India's "bread basket", it accounts



for a huge portion of the country's agricultural production. But wheat and rice dominate the agricultural landscape and are the

major components of local diets. However there is a change taking place that has the potential to broaden the farmers' agricultural options and improve their nutrition by adding micronutrients to carbohydrate rich diets. The keyword for this process is diversification through vegetables and legumes. With the support of AVRDC's Regional Center for Southern Asia, Punjabi farmers increasingly pin their hopes on pulses. Having demonstrated their potential during field trials, "Summer Moong", a mungbean line, has started to break the monopoly of wheat and rice.

Pulses are among India's top 5 crops, accounting for about 13.7 million tons. In India's part of the Punjab, about 70-75 thousand tons of pulses are produced yearly - little in comparison with the actual demand that is about seven times higher. The "Food Security Mission", initiated by the Central government, emphasizes the need to increase agricultural productivity to meet the challenges of environmental stress and a growing population. The statement refers to wheat and rice, but explicitly includes pulses. Punjabi farmers now claim that the government should have put its money where its mouth is.

What they are missing are better market prices for pulses, adequate marketing opportunities, an efficient

and productive seed sector making available improved varieties of pulses, and last but not least improvements in infrastructure such as pulse purchase centers.

Clearly, one crucial component of a stronger performing agricultural sector are better crops such as "Summer Moong" or SML 668, as the line is called by its technical name.

"Summer Moong" has a short cropping period of only 60-65 days and is ideally sown as a cover crop in between the rice-wheat rotation. It has all it needs to achieve good returns to farmers, improves the soil fertility by adding nitrogen and also helps avoid early planting of rice and excessive water use.

During a public field day last week AVRDC-RCSA and its collaboration partner, the Punjab Agricultural University, gave farmers the opportunity to learn about the benefits that 'Summer Moong' has to offer.

A natural bonus of the variety is its relatively high iron content. "Mungbean is not only beneficial to farmers in economic respect, it is also a ideal to diversify the diets. Sprouting 'Summer Moong' or adding it to other vegetables such as tomatoes in traditional diets, increases the availability of essential micronutrients", says ML Chadha, AVRDC-RCSA's director.

- Communications

*Related links:*

*Ludhiana Newsline:*

<http://cities.expressindia.com/fullstory.php?newssid=241846>

*India Agronet:* <http://www.indiaagronet.com>

## New Publications (Articles & Books) Received by the Library

Aujla, M.S., Thind, H.S., Buttar, G.S. (2007). Fruit yield and water use efficiency of eggplant (*Solanum melongena* L.) as influenced by different quantities of nitrogen and water applied through drip and furrow irrigation. *SCIENTIA HORTICULTURAE*. v.112(2):142-148.

Shih, S.L., Tsai, W.S., Green, S.K., Singh, D. (2007). First report of tomato leaf curl Joydebpur virus infection chilli in India. *PLANT PATHOLOGY*. v.56(2):341.

Staub, J.E., Sun, Z.Y., Chung, S.M., Lower, R.L. (2007). Evidence for colinearity among genetic linkage maps in cucumber. *HORTSCIENCE*. v.42(1):20-27.

Wu, H.S., Yu, Y.C., Zhao, H.X., Sun, G.L., Zhao, S.L. (2007). Genetic diversity of *Brassica napus* L. germplasm from China and Europe assessed by some agronomically important characters. *EUPHYTICA*. v.154(1/2):9-16.

Angessa, T.T. (2006). Towards improved vegetable use and conservation of cowpea and lablab: agronomic and participatory evaluation in northeastern Tanzania and genetic diversity study. Gottingen: Cuvillier Verlag. xiv, 214 pp.

Chuang, C.Y., Hsu, C., Chao, C.Y., Wein, Y.S., Kuo, Y.H., Huang, C.J. (2006). Fractionation and identification of 9c, 11t, 13t-conjugated linolenic acid as an activator of PPAR alpha in bitter gourd (*Momordica charantia* L.). *JOURNAL OF BIOMEDICAL SCIENCE*. v.13(6):763-772.

Dzomeku, B.M., Osei-Owusu, M., Ankomah, A.A., Akyeampong, E., Darkey, S.K. (2006). Sensory evaluation of some cooking bananas in Ghana. *JOURNAL OF APPLIED SCIENCES*. v.6(4):835-837.

Raman, S. (2006). Agricultural sustainability: principles, processes, and prospects (with instructor's manual). Binghamton, NY: Food Products Press. xxii, 474 pp.

Prom, L.K., Waniska, R.D., Abdourhamane, I.K. (2005). Role of chitinase and sormatin accumulation in the resistance of sorghum cultivars to grain mold. *JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY*. v.53(14):5565-5570.

von Zabelitz, C., Baudoin, W.O. (2005). Greenhouses and shelter structure for tropical regions. Delhi: Daya Publishing House. xi, 122 pp.

## New Popular Magazines Now Available in the Library

*The Economist*: Martyrs or traitors –  
23rd–29th June 2007

*Photo Techniques* – July/August 2007



## Recommended Web Link of the Week: AgBioWorld

**AgBioWorld**—The AgBioWorld foundation is a non-profit headquartered in Auburn, Alabama, and aims to provide science-based information on agricultural biotechnology issues to various stakeholders across the world. Its website and e-mail service are a daily source of information for thousands of subscribers from dozens of countries. The AgBioWorld 'Declaration in

Support of Agricultural Biotechnology' has been endorsed by over 3,400 scientists, including 25 Nobel Laureates.

Please visit <http://www.agbioworld.org/index.html>

- Source: Fang-chin Chen/Communications

## GHI Conference Raises EU Interest in Horticulture for Development



Who speaks for global horticulture? The value of international horticultural trade may exceed that of grains, and national growth rates may be way above those of staples, but the value of horticulture to development has been under-recognized. AVRDC's instigation of the Global Horticultural Initiative (GHI) is changing all that and putting fruit and vegetables in the global spotlight.

Over the last week, two meetings in Europe consolidated support from diverse partners and donors to GHI as an umbrella for horticultural research for development.

The first meeting of NGOs, national and international research and development representatives met in Wageningen, Netherlands on Thursday and Friday last week. The 38 participants from Africa, the Caribbean and Pacific shared experiences and built a common resolution in support of GHI to be presented to EU donors.

The European Union is now the world's largest donor, and the "Awareness raising conference on Horticulture for Development" on Monday this week combined contributions from many players under the banner of GHI. Meeting at the offices of the European Economic and Social Committee it involved 150 participants including more than 10 ambassadors and many EU agricultural and development policy makers. The meeting was a major success in raising the profile of horticulture and donor interest in funding research for development.

Dr Tom Lumpkin presented a major overview of the importance of global horticulture and the benefits to Europeans in supporting horticultural research – particularly in Africa. As the instigator of GHI and the major speaker for global horticulture for development, AVRDC is well-known among both partners and donors.

As a result of the meeting there have been further donor invitations to AVRDC and a broad commitment to GHI has been developed amongst partners



- Source: Communications

## News from Africa

### Training

AVRDC-RCA conducted a two day training course from 28 to 29 June on Vegetable Production, Processing and Preservation for farmers from Ngara-Nairobi, Hai

District, Kilimanjaro Region.

### Workshop Participation

Dr. Sanjeet Kumar, Vegetable Breeder (AVRDC-ICRISAT) participated in the ICRISAT in-house Review Meeting on 21 and 22 June, which was organized by ICRISAT Sahelian Center, Niamey. D. Keatinge (DDG Research), CLL Gowda (GTL for Crop Improvement), S. Twomlow (GTL for Agro-eco system) and most of the ICRISAT Scientists from SSA attended this meeting. Dov Pasternak, Group Leader of Crop Diversification Team, briefly presented work on the selection of vegetable cultivars carried out in the past, and elaborated plans for Joint Vegetable Breeding Projects of AVRDC and ICRISAT. This has involved prioritizing the crops and traits for short, medium and long-term breeding objectives and promotional goals. Sanjeet also

attended a meeting with Dr. CLL Gowda, ICRISAT's Global Theme Leader (GTL) for Crop Improvement and ICRISAT breeders on 20th June. He was briefed about initiatives already undertaken on crops like tomato, peppers, onion, okra, jute mallow and African eggplant and on the collection and raising of germplasm/breeding lines, mostly from AVRDC-HQ and RCA.

### Visitors

Messrs. Alex Alfred, Karani Lincoln, Michael John and Nicholaus Shimba, students from Sokoine University of Agriculture joined RCA for their practical training from 4 to 29 June, which is a requirement for the completion of their BSc. They will work with the Socio-economics unit under the supervision of Dr. Germain Pichop, Mr. Stefan Pletziger and Dr. Shilpi Saxena.

Dr. Greg Luther, AVRDC IPM Specialist visited RCA on 25 and 26 June. The aim of his visit is to coordinate activities of the Regional IPM Program for East Africa.

### New Sprout of the AVRDC Family

Stefan and Lioba Pletziger's son—Luis was born Monday, 25 June, at 1233 hours, weighing 3400 g and 52 cm tall, at Nairobi, Kenya. Both Lioba and Luis are doing well. Congratulations to the Pletzigers!



- Source: Dr. Shilpi Saxena

## Travel

**Dr. Peter Juroszek**, 27 June-20 July, on annual leave.

**Dr. Katinka Weinberger**, 1-5 July, to Vientiane, Lao PDR, to participate in the inception workshop for RETA 6376.

**Ms. Dolores R. Ledesma**, 2-10 July, to Vientiane Lao PDR, to participate in the inception workshop for RETA 6376 and give a lecture on “Date Management for Postharvest trials.”

**Dr. Manual C. Palada and Mr. Lien-chung Chang**, 2-7 July, to Vientiane, Lao PDR, to attend and participate in the inception workshop for ADB RETA 6376 Phase—Improving Rural Livelihoods through Development of Vegetable-based Postharvest Technologies in Cambodia, Lao PDR and Vietnam; to visit postharvest project sites in and around Vientiane; to attend a meeting at Department of Agriculture

to discuss a proposed project on developing organic agriculture in Lao PDR.

**Dr. Peter Aun-Chuan Ooi**, 5-22 July, on annual leave.

**Dr. Gregory C. Luther**, 8-30 July, on annual leave.

- Source: Yvonne Ting/ASU

**Mr. Stefan Pletziger** will be on leave till 9 July.

- Source: Dr. Shilpi Saxena/AVRDC-RCA

## Bid for Rock Bottom Prices Stuff

One lot of condemned items which are displayed in the Service Building including tables, chairs, a sofa set, magazine shelves, bookshelves, telephones, driller, 17" CRT monitors, lab benches and a kitchen sink. All will be sold to the Center's staff by bidding at 1600 hours on 4 July. Interested people please contact Mr. Ku-yu Hu (ext. 229), Supply Unit, Technical Services Office.

一批中心報廢物品包括桌、椅、沙發組、雜誌架、書架、電話、鑽孔機、電腦螢幕、試驗台及廚房水槽陳列在工作棚，將於7月4日下午四點開標。有興趣同仁，請洽技術服務科胡谷油先生（分機229）。

- Source: Janice Chou/TSO

## What's New in the AVRDC Websites?

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

↳ Research Snippets

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

↳ Campus Weather Record May 2007

**Anthracnose Website:**

<http://www.avrdc.org/anthracnose/index.html>

↳ Second Announcement, Registration Form, Calendar Updates, New Sponsors

- Source: Communications

## Melody Ho's New Telephone Extension Number

**Ms. Melody Ho**, Principal Secretary, ODG can be contacted at ext. 102 effective immediately.

- Source: Communications

## Bon Voyage! Dr. George Kuo and Mrs. Helen Kuo



After more than 30 years at AVRDC, George and Helen Kuo were farewelled this week with a large gathering of staff and old friends. Director General Dr Thomas Lumpkin paid tribute to Dr Kuo's pioneering efforts in developing AVRDC as a truly international center by developing its programmes in the Sahel and Central Asia. While Dr Kuo joined AVRDC as a plant physiologist, his work over the years has spanned a wide variety of fields and his contributions have been immense. Tributes were also paid to him by staff from

the International Cooperation Office, and Chairman of the AVRDC Board Dr Paul Sun.

Dr Kuo said he joined AVRDC because he wanted to be "a revolutionary" and contribute to the development of the Green Revolution. He quoted the founding Director General of AVRDC, Dr Robert Chandler in reminding everyone that nothing else mattered except our impact on improving the lives of poor farmers. Dr and Mrs Kuo will leave AVRDC at the end of July to take up residence in Canada.

