



2 February 2007

## GM Farming on the Rise in Developing Nations



Farmers in the developing world are increasingly turning to genetically modified (GM) crops, with planting up 21 per cent in 2006 according to a new report.

Researchers at the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) say over 90 per cent of those growing GM crops worldwide — around 9.3 million farmers — are small, resource-poor farmers in developing countries.

The authors say the rise in GM crop planting indicates a growing acceptance of them, but anti-GM organizations disagree. The report launched last week (18 January) says the total area of approved GM crops in 2006 was 102 million hectares in 22 countries — a 13 per cent rise on the previous year.

About 40 per cent of GM crops were grown in developing countries, which showed the biggest rise in growing area — 21 per cent compared to nine per cent in industrialized countries. India had the largest proportional increase: 192 per cent, an increase from 1.3 million hectares in 2005 to 3.8 million hectares in 2006. South Africa was second with an increase of 180 per cent from 0.5 million hectares in 2005 to 1.4 million hectares in 2006. The United States, followed by Argentina, Brazil, Canada, India and China were the six main adopters of GM crops.

According to its website, the ISAAA sees the high adoption rate of GM as "testimony to the trust and confidence of millions of small and large farmers in crop biotechnology in both industrial and developing countries".

However, both Greenpeace and Friends of the Earth published reports disagreeing with ISAAA's positive verdict. Greenpeace says ISAAA's claims about GM's acceptance are "not consistent with the massive and continuing opposition from consumers, farmers, local and regional authorities, national governments and even major food companies". Nnimmo Bassey of Friends of the Earth Africa stated, "No GM crop on the market today offers benefits to the consumer in terms of quality or price, and to date these crops have done nothing to alleviate hunger or poverty in Africa or elsewhere".

During the seminar on IP issues in Headquarters this week it was revealed that although a GM crop could be produced in as little as 18 months, finalizing agreements and dealing with legislative issues could mean that it could take up to 8 years to release. Such processes now consume the majority of the development cost. Any GM crops that are released need to offer very significant advantages to be worth considering.

Derived from a recent SciDev.Net article:

Related SciDev.Net articles:

[GM cropland in developing nations grows by a quarter](#)

[Uganda gets GM testing tools](#)

[The role of non-GM biotechnology in developing world agriculture](#)

Related links:

[ISAAA report executive summary](#)

[Greenpeace: Global Status of Genetically Engineered \(GE\)](#)

[Crops: Consumers and farmers still say no](#)

[Friends of the Earth: Who Benefits from GM crops? An analysis of the global performance of genetically modified \(GM\) crops 1996-2006](#)

Photo Credit: Jack Dykinga /USDA Agricultural Research Service, Greenpeace

Dossiers:

[Agri-biotech](#)

Luisa Massarani

23 January 2007

Source: SciDev.Net

## Blessings and Prospect for AVRDC in 2007, the Year of the Pig

A quick interview with Dr. Yin-Fu Chang

AVRDC's Deputy Director General for Administration

**Q.:** According to the Chinese tradition of naming lunar years, 2007 will be the year of the pig, and this is often associated with good luck. From a management point of view: what can we expect in 2007?

**Y.F. Chang:** In Chinese culture the pig represents wealth and prosperity. It is a matching coincidence that this year falls together with the biggest success in the history of the Center. With an enormous rise in our budget - from USD12 million in 2005 to USD18 million



in 2006 - one may think the battle is won. However, a rising budget naturally implies higher expectations from the donor community. They leave no doubt that their funding must promote new research and development activities. We are happy about the trust they

show in our work and expertise, but it also means that we have to organize our work in a way that assures efficiency and effectiveness.

**Q.:** More efficiency! Which areas of AVRDC do you have in mind?

**Y.F. Chang:** Our staff has done and is doing an excellent job—and it will continue to do so in the future. It is an ongoing challenge for our administration staff to provide the services that support our researchers and help them with the best possible solutions. We are definitely in need of more personnel to support our project work. We are going to appoint a Human Resources manager to improve our personnel management and development. The responses to the 13 new position announcements, that were recently published in *The Economist*, was tremendous. We received applications from all parts of the world, which proves that we offer an attractive working environment and enjoy a good reputation internationally. We are a global player in research and development. That is stimulating.

**Q.:** Let's move from human resources to bricks and mortar. What is the current timeline for the renovation of the administration building?

**Y.F. Chang:**

The renovation will begin mid March and is expected to finish by mid September this year. We hope to be able to hold the EPMR in the new building. The current building hasn't had a major change since its construction in 1973. It has become inconvenient as the working styles and environments today are different from the ones we had 30 years ago.



After the renovation we will have modern work places, more open space, a modernized AC system and, last but not least, brighter offices, thanks to the use of more glass. Less visible, but most importantly in the future the building will be equipped with improved fire resistance and be prepared to withstand even earthquakes of magnitude 6 on the Richter scale. We will also rework the cladding with new tiles.

For the 50 colleagues who have their offices in the building, the six months of renovation will admittedly bring a lot of inconvenience, with temporary offices being installed in the upper floor of the cafeteria, and in the library. However, I'm convinced that the troubles will soon be forgotten once the new building is in use. By the way, there will be a new coffee bar installed on the 3rd floor of the western wing. You see, we are trying to improve the quality of the work environment in a variety of ways.

**Q.:** Any other good news in 2007?

**Y.F. Chang:** Yes, there is, and unsurprisingly it is related to pigs. This week I received a confirmation from the Tainan County government, that the pig farm upwind of us will finally be removed by the end of June. It seems that a very long story is coming to an end. Chances are that 2007 will be a lucky year for the Center indeed.

- Source: CTO

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

Bhonde, S.R., Prakash, H., Srivastava, K.J. (2006). Post harvest management of onion and garlic. Nashik: National Horticultural Research and Development Foundation. 19 pp.

Food and Agriculture Organization of the United Nations (2006). FAO statistical yearbook - vols.1(1/2)-2 (1), 2004, 2005-2006. Rome: FAO. 3 vs.

Gupta, R.P., Bhonde, S.R. (2006). Onion and garlic varieties developed by NHRDF. Nashik: National Horticultural Research and Development Foundation. 9 pp.

Crossman, S., Palada, M.C. (2005). Production constraints to agricultural development. In: Proceedings of the first U.S. Virgin Islands agricultural forum: Prospects for sustainable agriculture in the V.I., April 22-23, 2003. Kingshill, VI: University of the Virgin Islands Cooperative Extension Service. p.24-27.

Grzebelus, E., Adamus, A. (2004). Effect of anti-mitotic agents on development and genome doubling of gynogenic onion (*Allium cepa* L.) embryos. PLANT SCIENCE (INDIA). v.167:569-574.

Nicola, S., Hoeberecht, J., Fontana, E., Saglietti, D. (2004). Medicinal and aromatic plants in Italy: situation and perspective for the Piedmont Region. ACTA HORTICULTURAE. no.629:375-382.

Walker, D.J., Bernal, M.P. (2004). Plant mineral nutrition and growth in a saline mediterranean soil amended with organic wastes. COMMUNICATIONS IN SOIL SCIENCE AND PLANT ANALYSIS. v.35(17):2495-2514.

Augustus Leon, M., Kumar, S., Bhattacharya, S.C. (2002). A comprehensive procedure for performance evaluation of solar food dryers. RENEWABLE & SUSTAINABLE ENERGY REVIEWS. v.6(4):367-393.

Lynn, D.E. (2002). Effects of temperature on the susceptibility of insect cells to infection by baculoviruses. METHODS IN CELL SCIENCE. v.23:221-225.

Guerber, J.C., Correll, J.C. (2001). Characterization of *Glomerella acutata*, the telemorph of *Colletotrichum acutatum*. MYCOLOGIA. v.93(1):216-229.

- Source: Fang-chin Chen/Library Services Unit

## New Popular Magazines Are Now Available in the Library

*Scientific American* (Chinese) – No. 59, January 2007

*The Economist*: The greening of American – 27th January-2nd February 2007

*Time*: The Surge – 15 January 2007

*Time*: China, Dawn of A New Dynasty – 22 January 2007

*Time*: Lend Him a Hand! – 29 January 2007

- Source: Fang-chin Chen/  
Library Services Unit



## Recommended Web Link of the Week: the Open Archives Search

OAIster – is a catalog of digital resources that provides a free access to previously difficult-to-access, academic resources that are easily searchable by anyone. OAIster currently provides access to 10,056,134 records from 730 contributors and can be searched by Title, Author/

Creator, Subject, Language or Entire Record.

Please visit <http://oaister.umdl.umich.edu/o/oaister>

- Source: Fang-chin Chen/Library Services Unit

## News from Africa

### TRAINING

RCA is conducting a Training Course on Vegetable Seed Production and Marketing for private sector personnel and NARES from Kenya, Tanzania, Malawi, Uganda, Zimbabwe and Mozambique from 28 January to 17 February. The aim of the course is to enhance the seed marketing and production skills of personnel in East and Southern Africa who are working in the seed industry. The course is offered under the Rockefeller Foundation and Sub-Saharan Africa Challenge Program (SSACP) Projects.

### VISITORS

Mr. Abu Baker (Country Agriculture Manager) and Mr. Sadek Sarwar Bhuiyan (Area Manager) of BRAC Foundation (an NGO from Bangladesh) visited RCA on 17 January. The aim of their visit was to develop a collaboration program with AVRDC for the agriculture sector in Tanzania.

Julian Smith from the Central Science Laboratory in York, UK visited RCA on 25 January to meet with all scientists and to present opportunities for collaboration in two proposals submitted to BBSRC/DFID for funding

Lerotholi L. Qhobela, the Genebank Curator of the SADC Plant Genetic Resources Centre (SPGRC) in Lusaka, Zambia and Hermann Akonay, Acting Curator of the National Plant Genetic Resources Centre (NPGRC) in Tanzania visited RCA on 26 January to discuss common grounds of interest for joint projects in the future.

Mr. Morrison Lin, Assistant Manager of the International Department of Known-You Seed Company visited RCA on 31 January and gave a special lecture on the topic "International Seed Marketing - A Seed Industry Perspective" during the training course and discussed future collaboration in Africa.

Dr. Rémi Kahane, the Interim Executive Secretary of the GlobalHort (former Global Horticulture Initiative) will visit RCA from 5 to 7 February. The main topic will of his visit be the hosting of GlobalHort here at RCA's compound in Arusha.

Dr. Philippe Ryckweart, an entomologist currently based at La Réunion Island will visit RCA from 5-7 February for discussions on potential cooperation with CIRAD.

- Source: Dr. Shilpi Saxena/AVRDC-RCA

## AVRDC-ARC Holds 25th RTC Graduation Ceremony

The Asian Regional Center held the Graduation Ceremony for the 25th Regional Training Course in Managing Vegetable Production and Marketing on Thursday, 25 January 2007 at Kamphaeng Saen Campus of Kasetsart University (KU) in Nakhon Pathom, Thailand.

The 25th RTC is a 3-month course divided into three separate but inter-related monthly modules. Module I dealt with initiating good cultivation practices – land preparation, nursery management and planting. Module II delved into growing healthy crops – agronomic practices for better plant health, while Module III created an awareness of efficient production and harvesting, postharvest handling and processing within the framework of Good Agricultural Practices (GAP). The RTC also imparted to the participants the economics of vegetable production as well as market analysis.

This course was organized in partnership with KU, a partner of AVRDC-ARC, in collaboration with the Royal Thai Government's Department of Agriculture (DOA) and the Department of Agricultural Extension (DOAE). The course was held from 6 November 2006 to 25 January 2007 at the KU campus in Kamphaeng Saen, Nak-

hon Pathom, Thailand. The Swiss Agency for Development and Cooperation (SDC) provided funds for 11 of the participants through the SDC/AVRDC-ARC Human Resource Development Project Phase IV (HRDP IV). One participant from Agri-Food & Veterinary Authority of Singapore attended Module II while another participant from Organic Cotton Programme India attended Module III.

In the closing ceremony, Dr. Peter A.C. Ooi, Regional Director of ARC, presented the summary of activities and successes during the course. Dr. Thongchai Mala, Vice President of KU Kamphaeng Saen Campus, was invited as Guest Speaker. After receiving their certificates, the 12 participants from Cambodia, DPR Korea, India, Lao PDR, Myanmar, and Vietnam expressed their satisfaction with the knowledge and information they received from the training and were very thankful to their donors for giving them the opportunity to attend the course. The participants also had a poster presentation showcasing their experiments and activities during the 3-month course.

- Source: AVRDC-ARC

## Travel

**Dr. Rémi Kahane**, 4-7 February, to Arusha, Tanzania, to visit and discuss GlobalHort's prospects with Dr. Detlef Virchow and to seek African projects; to discuss GlobalHort and the CP on Horticulture with people from East-West Seeds, Rijks-Swan joint-venture, and University of Morogoro; 8-9 February, to Nairobi Kenya, to visit the representative of ASARECA, IPGRI, ICRAF, ICIPE, PROTA, and KARI; 10-18 February, to Amsterdam and Brussels, to prepare for RCHD meeting to be held on 25 June 2007 in Brussels.

**Dr. Warwick Easdown**, 5-7 February, to Bangkok, Thailand, to discuss plans with East-West Seeds and LEI about how to use the outputs of their research work

on the impact of vegetables on smallholder farmers – publication, symposium and PA options. Also to meet with ARC staff to discuss their training programmes and responses to the strategic and operations plans for communications for this year.

**Dr. Katinka Weinberger**, 5-6 February, to Bangkok, Thailand, to participate in a planning meeting with East-West Seeds and LEI to discuss the progress of the EWS/Veg impact study.

**Dr. Sengoda G. Venkatesan**, 9 February-2 March, on annual leave.

- Source: Yvonne Ting/ASU

## Service Arrangements During the Chinese Spring Festival

The Center will be closed during the Chinese Spring Festival from Saturday, 17 February through Thursday, 22 February 2007. In appreciation of the diligence of our Cafeteria staff and drivers in the past year, as well as to enable them to enjoy a relaxing Spring Festival, the following arrangements for the services of Cafeteria and Motor Pool have been made for the Chinese New Year holidays:

### 1. Cafeteria schedule:

- 17–21 February (Saturday–Wednesday): Closed.
- 22 February (Thursday): Open and serving from 10:00 to 13:00 hours and 16:30 to 18:30 hours
- 23 February (Friday): Return to the normal service time.

Ms. Lydia Wu will inform the training scholars of the food arrangements for the period the cafeteria is closed.

## Sweet Potato for Sale

The Center's organic sweet potato will be harvested next week. The price is NT\$300 for one package (30kg). Interested people may register with Ms. Mary Chen, Farm Office (ext.505).

## Internet Service Suspension

The internet service will be suspended from 0000 hours to 0800 hours, Sunday, 4 February 2007

### 2. No Motor Pool services:

No driver will be dispatched for any assignments from 17 through 22 February (Saturday – Wednesday).

本中心春節假期自2月17日(星期六)起至2月22日(星期四)止,共計6天。體念中心餐飲部及車務股同仁平日工作辛勞,使其能同享春節假期,循例於春節期間就其營業及勤務時間做下列安排:

#### 餐飲部

- 2月17日(星期六)至2月21日(星期三)暫停營業。
- 2月22日(星期四)恢復營業,營業時間:早上10點至下午1點,下午4點30分至6點30分。
- 2月23日(星期五)恢復正常營業。

#### 車務股

2月17日至2月22日(共計6天)春節假期間,暫停調派一切車輛勤務。

- Source: Dr. Yin-Fu Chang/DDG-A&S

亞蔬的有機蕃薯下星期採收,一袋30公斤300元,有意購買的同仁可向農場陳美蓉小姐登記〈分機505〉。

- Source: Janice Chou/TSO

to reform the optic fiber of the Computer & Network Center of the National Cheng Kung University .

- Source: Shirley Chen/Computer Services

## Transition of the Biotechnology/Plant Physiology Unit

Dr. Chien-An Liu will be leaving AVRDC on 30 June 2007 after over 11 years contribution to our activities and mission. Dr. Robert de la Pena will be taking over supervision of the Biotechnology / Plant Physiology Unit on 1 June 2007 in addition to his current responsibilities running the Molecular Marker labo-

ratory. To ensure an effective hand-over, Dr. de la Pena will start to work closely with Dr. Liu, effective immediately. Please give Dr. de la Pena and Dr. Liu your full support to ensure a smooth transition.

- Source: Dr. Thomas Lumpkin/Director General

## New Staff

Dr. P. Kadirvel has been appointed as a Post-Doctoral Fellow in Molecular Breeding and Entomology. He has been recruited under APSA project funds for one year and will join us on 1 April 2007. Possible extension will depend on his performance and the availability of funding. Dr. Kadirvel will work in the Molecular Marker Laboratory and Entomology Unit under Drs. Robert de la Peña and Srinivasan Ramasamy. Robert will be his supervisor for administrative matters.

Dr. Kadirvel's major tasks will include 1) research studies on genetic mapping and marker development

for geminivirus resistance in tomato; 2) baseline molecular genetic characterization of the Asian thrips vector of tospoviruses in tomato; and 3) preparation of progress reports and peer-reviewed publications.

Dr. Kadirvel, an Indian national, received his Ph.D. in Plant Breeding and Genetics from Tamil Nadu Agricultural University, India. He will be coming to AVRDC with his wife and 2-year old child.

- Source: Dr. Thomas Lumpkin/Director General

## Vegetable of the Week

Archaeologists have traced my origins to Mexico, dating back from 7,000 to 5,500 BC. I was first cultivated for my seeds since I did not contain much flesh originally, and what flesh I had was very bitter and unpalatable. It was only about 10,000 years ago that I began to be consumed. As time progressed, Indians spread my cultivation throughout the Americas, and varieties with a greater quantity of sweeter-tasting flesh were developed. Christopher Columbus brought me back to Europe from the New World, thinking I was a melon. At that time, I was unknown in Europe and Asia. Like other native American foods, my cultivation was eventually introduced throughout the world by Portuguese and Spanish explorers. In the nineteenth century, merchant seamen returned from other parts of the Americas with many new varieties. This resulted in the various colors, shapes, and sizes that are available today - like acorn-shaped, cylindrical, club-shaped, stocky, bell-shaped, tear-shaped, oval-shaped, round, scallop or pan. My largest commercial producers to date include China, Japan, Romania, Turkey, Italy, Egypt, and Argentina.

More hints:

- I am usually divided into summer and winter
- In my skin is the nutrient beta-carotene, but not in my flesh.
- Two phytochemicals present in me are coumarins and flavonoids
- My flesh can be very fibrous and stringy so that some people actually eat me like spaghetti

*Now, what am I?*

- Source: CTO

Answer of last week's Vegetable of the Week: TOMATO

## Job Announcement—Openings in Cucurbit Breeding 瓜類組徵才

### Research Assistant 「研究助理」

#### Key Responsibilities

- Plan, coordinate and assist in evaluation of field trials including evaluation, selection, hybridization, disease identification, disease screening and other technical aspects of the breeding program.
- Collect data, input into the computer, maintain accurate data, do some basic statistical analysis, and provide summarized research results to the unit head
- Help in communicating experimental plans to other members of the unit and assure execution of experimental plans
- Cooperate with other units in relation to interdisciplinary research activities and the allocation of field facilities
- Liaise with local research institutes, farmers' associations and farmers
- Assist the breeder with designing breeding strategies and maintaining breeding lines, including the collection and incorporation of new germplasm
- Assist the Unit head to develop project proposals for funding
- Work in the lab occasionally as needed

#### General Requirements:

- BSc or MSc or comparable degree in horticulture, agronomy, plant science or related disciplines
- At least 3 years of experience in horticulture sciences or related areas
- PC proficiency with the MS Office computer software
- Must show good attention to details and able to work with little or no supervision
- Excellent interpersonal skills, effective oral and written communication skills in English are required
- Must be willing to work outdoors in adverse weather conditions and be able to travel overseas when needed

**研究助理**應徵資格：園藝、農藝、植物科學或其他相關科系畢業之學士或碩士。具3年以上園藝或相關領域經驗者。具辦公室軟體運用能力。可獨立作業。善人際關係、具英文說、寫溝通能力。願意在不利的氣候於戶外工作且必要時可至國外出差者。

### Field Assistant 「田間助理」

#### Key Responsibilities

- Conduct routine analytical work or greenhouse and field operations
- Assist in record keeping, data collecting and analysis.
- Prepare and secure the supply of quality experimental materials for lab analyses and other experimental use
- Manage the seedling nursery for all experiments. Establish field trials
- Conduct regeneration, transformation, hand-pollination, seed extraction, treatment, drying, packaging, weighting, inventory, storage, shipment, etc.
- Supervise and manage field helpers and laborers ensuring compliance with experimental procedures, and assure safety of all operations
- Maintain the cleanliness and neatness of the work space, equipment, facilities, and supplies.

#### General Requirements

- Junior college degree in crop-related fields or high school graduates
- At least 3 years experience in horticulture sciences or related areas
- Must show good attention to details and be able to work with little or no supervision
- Excellent interpersonal skills, effective oral and written communication skills required
- Bilingual in English and Chinese with local language a plus
- Must be willing to work outdoors in adverse weather conditions

**田間助理**應徵資格：農專或高農畢業。具3年以上園藝或相關領域經驗者。可獨立作業。善人際關係；具說、寫溝通能力；會說英文、中文、台語尤佳。願意在不利的氣候於戶外工作者。

**Application:** Submit a letter of application, Curriculum Vitae, with names, and contact addresses (phone number and e-mail) of three referees. Send to: Personnel Office, AVRDC-The World Vegetable Center, P.O. Box 42, Shanhua, Tainan 74199, Taiwan; e-mail: [felisa@netra.avrdc.org.tw](mailto:felisa@netra.avrdc.org.tw); fax: 886-6-583-0009. For Research Assistant position no later than 31 March 2007 and Field Assistant Position not later than 28 February 2007.

## What's New in the AVRDC Websites?

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

- Postharvest Training Manuals
- Contacts
- AVRDC at a Glance
- Library (changes to selected pages)

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

- AVRDC Newsletters January 19 and 26 issues
- Presentation of IP-GPG-CAS by Dr. Victoria Henson-Apollonio and Guat Hong Teh
- Minutes of the NRS Advisory Committee Meeting 10 January 2007
- New Aviation Security Measures for Carry-on Baggage

- Source: CTO

## A Joyful 2006 Lunar Year-end Party

