



6 April 2007



The Spice That May Help Turn a Loss Into a Gain

Chili peppers have proven their potential to spice up human lives for a long time, but now they may have benefits for keeping us slim. They are economically important to smallholder farmers in many tropical countries around the world and their health benefits are widely acknowledged. Chili peppers have been part of the human diet for more than 10,000 years. Past studies have shown the positive effect of chili pepper in enhancing the body's immune system and inhibiting the growth of pancreatic cancer cells, but the latest in a series of studies suggests that it may also cut fat and energy intake when added to the diet.

The agent claimed to be responsible for this effect is capsaicin, the compound that gives red pepper its heat. In fact, the idea that obesity may be reduced by preventing immature fat cells (adipocytes) from developing into mature cells has been subject of various studies. It has also been assumed that capsaicin can decrease the amount of fat tissue and decrease fat levels in the blood. Researchers at the National Chung Hsing University in Taiwan recently evaluated this assumption. They used pre-adipocyte cells from mice and exposed them to doses of between 0 and 250 micromoles solutions of capsaicin and incubated them for 24, 48 and 72 hours. Their experiments showed that capsaicin inhibited cell population growth in a dose and time dependent manner.

The effects of this inhibition would be at levels just slightly higher than those found in the stomach fluid of an individual eating a typical Indian or Thai diet, the researchers say. According to the report published in the *Journal of Agricultural and Food Chemistry* (Vol. 55, pp. 1730-1736), capsaicin has a tendency to adversely affect protein expression by the adipocytes, which are reported to regulate several genes involved in the formation of fat cells.

Over 300 million adults are obese worldwide, according to latest statistics from the WHO and the International Obesity Task Force. About one-quarter of the US adult population is said to be obese, with rates in Western Europe on the rise although not yet at similar levels. If the results of the study can be replicated in further studies, capsaicin could become a well sought after ingredient for the booming weight management supplement market, that is currently estimated to be worth USD 0.93 billion in Europe and USD 3.93 billion in the US. Chances are that smallholder farmers in developing countries may have a stake in the future.

The full story with more in-depth discussion can be found here: <http://www.foodnavigator.com/news/printNewsBis.asp?id=74603>

New Publications (Book & Articles) Received by the Library

Cho, Y.Y., Oh, S.B., Oh, M.M., Son, J.E. (2007). Estimation of individual leaf area, fresh weight, and dry weight of hydroponically grown cucumbers (*Cucumis sativus* L.) using leaf length, width, and SPAD value. *SCIENTIA HORTICULTURAE*. v.111(4):330-334.

Jang, J.Y., Kwak, K.J., Kang, H.S. (2007). Molecular cloning of a cDNA encoding a high mobility group protein in *Cucumis sativus* and its expression by abiotic stress treatments. *JOURNAL OF PLANT PHYSIOLOGY*. v.164(2):205-208.

Ortiz, R., Crossa, J., Vargas, M., Izquierdo, J. (2007). Studying the effect of environmental variables on the genotype x environment interaction of tomato. *EUPHYTICA*. v.153(1-2):119-134.

Schonhof, I., Klaring, H.P., Krumbein, A., Schreiner, M. (2007). Interaction between atmospheric CO₂ and gluconisolates in broccoli. *JOURNAL OF CHEMICAL ECOLOGY*. v.33(1):105-114.

Tanaka, K., Nishitani, A., Akashi, Y., Sakata, Y., Nishida, H., Yoshino, H., Kato, K. (2007). Molecular characterization of South and East Asian melon, *Cucumis melo* L., and the origin of Group Conomon var. *makuwa* and var. *conomon* revealed by RAPD analysis. *EUPHYTICA*. v.153(1-2):233-247.

Bai, Y.N., Gai, J.Y. (2006). Development of a new cytoplasmic-nuclear male-sterility line of soybean and

inheritance of its male-fertility restorability. *PLANT BREEDING*. v.125(1):85-88.

Bar-Tal, A., Aloni, B., Arbel, A., Barak, M., Karni, L., Oserovitz, J., Hazan, A., Gantz, S., Avidan, A., Posalski, I., Keinan, M. (2006). Effects of an evaporative cooling system on greenhouse climate, fruit disorders and yield in bell pepper (*Capsicum annuum* L.). *JOURNAL OF HORTICULTURAL SCIENCE & BIOTECHNOLOGY*. v.81(4):599-606.

Grimalt, S., Sancho, J.V., Pozo, O.J., Garcia-Baudin, J.M., Fernandez-Cruz, M.L., Hernandez, F. (2006). Analytical study of trichlorfon residues in kaki fruit and cauliflower samples by liquid chromatography-electrospray tandem mass spectrometry. *JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY*. v.54(4):1188-1195.

Hughes, J., Collin, H.A., Tregova, A., Tomsett, A.B., Cosstick, R., Jones, M.G. (2006). Effect of low storage temperature on some of the flavour precursors in garlic (*Allium sativum*). *PLANT FOODS FOR HUMAN NUTRITION*. v.61(2):81-85.

Royal Tropical Institute (2004). Building social capital for agricultural innovation: experiences with farmer groups in Sub-Saharan Africa. Amsterdam: Royal Tropical Institute. 119 pp.

New Popular Magazines Now Available in the Library

The Economist: The great game—31st March - 6th April 2007

National Geographic (Chinese) – April 2007

Scientific American (Chinese) – February - April 2007

Time: The global warming survival guide – 9 April 2007



Recommended Web Link of the Week: Google Book Search

Google Book Search – Search the full text of books and discover new ones. Each book includes a page entitled “About this book” with basic bibliographic data including title, author, publication date, length and subject. For some books you may also see additional information like key terms and phrases, references to

the book from scholarly publications or other books, chapter titles and a list of related books.

Please visit <http://www.books.google.co.uk/>

- Source: Fang-chin Chen/Library Services Unit

AVRDC New Staff – Lilia Tan-Habacon, Human Resources Manager

On behalf of the Director General, I would like to inform you that we have appointed Ms. Lilia Tan-Habacon as our Human Resources Manager effective 7 April 2007. Lilia should arrive at Headquarters at the end of next week when she has obtained her Taiwan visa.

Lilia is from the Philippines. She is 49 years old, married, with three grown up children. She has a MSc in Statistics from University of the Philippines.

Her major responsibilities as the HR Manager will be 1) managing the Personnel Unit and overseeing all human resources functions; 2) advising the management on personnel issues and recommending modifications to the existing personnel policies; 3) developing comprehensive personnel policies specifically addressing the Center's global needs, and ensuring appropriate personnel policies, practices and procedures are in place and contributing to the development of the Center; 4) effectively communicating the Center's personnel policies to the staff and monitoring compliance; 5) coordinating the Center's recruitment processes, including developing position descriptions/terms of reference, advertising, interviews, etc.; 6) preparing

staff development plans in consultation with various units and regional offices at the Center and advising management on implementation; 7) ensuring that accurate and up-to-date personnel records are maintained; 8) assisting unit heads, regional directors and management in reviewing staffing and organization plans; and 9) coordinating periodic personnel performance appraisals and advising on recruitments, promotions, re-assignments, transfers, resignations, etc.

I hope that you will give her your full support in this new position at our Center.

- Source: Dr. Jackie Hughes/Officer-in-Charge of AVRDC

Her initial appointment is for one year until 7 April 2008. Ms. Tan-Habacon will temporarily stay in the Dormitory 116 (ext. 874) on the 1st floor of the FDS building before the Mini Suite 219 (ext. 888) is available for her to move in. Her temporary office will be located at the Guest Room 210 (at the end of the north-east wing of the 2nd floor of the FDS building) with extension number 201.

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

News from the AVRDC Goodwill Club



The students of Panchayat Union Middle School, K. Puduppalayam, Salem District, Tamil Nadu, India are no longer studying on the floor, thanks to the donation of 35 sets of benches and desks from the AVRDC Goodwill Club. The purchase was made possible by generous donations made to the Goodwill Club by AVRDC staff members and families. A special order was placed for the desks which were constructed and delivered within a week at the beginning of March. Each bench/desk can accommodate 3 students and painted on each desk are the words "Donated by AVRDC Goodwill Club." The AVRDC Goodwill Club is dedicated



to making a difference in peoples lives by supporting those less fortunate. Please continue to support AVRDC Goodwill Club!

謝謝所有支持亞蔬愛心社的朋友們！三月初印有「亞蔬愛心社捐助」字樣的35套課桌椅，捐給了印度南部泰米爾納德省一所聯合中學的學生，他們終於可以擺脫坐在地上聽課的窘狀，謝謝大家！也期待各位繼續鼎力支持亞蔬愛心社，讓我們可以幫助更多需要援手的人們！

- Source: Dr. Kathryn Hamilton/The AVRDC Goodwill Club

Welcome



Mr. Yuji Hosobuchi, Research Intern from Sakata Seed Corporation, Japan, arrived at AVRDC on 1 April 2007 for two months of training. Mr. Hosobuchi will work on tomato late blight and other

major fungal diseases under the supervision of Dr. TC Wang. He can be contacted at 340 (office) and 875 (dormitory), <y.hosobuchi@sakata-seed.co.jp>.

- Source: Rose Chan/CSU

Travel

Dr. M.L. Chadha, 10-11 April, to Maldives, to meet Executive Director, Ministry of Fisheries, Agriculture and Marine Resources to brief about AVRDC, its activities and outcome of the South Asian NARS planning meeting; 12 April, to Sri Lanka, to meet Prof. Gunasena and Dr. Zoysa, Director, Horticulture Crops R&D Institute to discuss our collaboration and IVs

proposal; 17-21 April, to Barapani, Meghalaya to attend the 2nd Indian Horticulture Congress-2007, Executive Council and Annual General Meetings of The Horticulture Society of India and also to Co-chair the congress session.

- Source: Dr. M.L. Chadha/Director/RCSA



Photos: (1) A temporary office for 22 staff has taken over the first floor of the cafeteria. (2) Over 600 paper boxes, pieces of equipment and furniture had to be transported to the temporary offices. (3) A sweaty endeavor: Within a short time the open-plan office above the cafeteria was set up.

Logistics Made to Measure

Over 600 paper boxes, desks, cabinets and pieces of technical equipment from the administration offices changed places on the Center's campus last week. The biggest move in the Center's history turned the Center into a beehive of activity for three days plus the weekend.

While in permanent contact with the contractor, Peter Wang supervised the temporary exodus of almost 50 staff and directed 12 packers throughout the sweaty removal process on campus. "It was a challenge to make sure everything was be in place and functional by Monday morning", AVRDC's Head of Technical Services Office says.

A smooth operation was the outcome of extensive planning in the weeks and months beforehand. Any initial fears of chaos were unfounded. Outside of

campus no one may have even taken notice of the move, as internet access was reinstalled without delays and telephones kept on ringing as usual from the first moments in the new offices. What's next? Ask Peter Wang in six months, when he will prepare for the next tour de force: the move-in to the renovated administration building.

A detailed layout of the temporary offices will be uploaded to the intranet soon. Here is some orientation ahead:

- Senior Management: Dormitory/cafeteria, NE wing, 2nd floor
- Unit Heads and administrative services: Dormitory/cafeteria, NW wing, 2nd floor
- Support staff : Open-plan office cafeteria, 2nd floor
- Communications: Library

Position Announcement 番椒組徵「田間作業員」乙名

The Pepper Unit has an opening for a Field Laborer position. **Scope of Responsibilities:** Execute routine tasks involving field, greenhouse, and seed management generally related to physical labor requirements. **Specific Duties and Tasks:** 1) conduct routine activities such as land preparation, sowing, transplanting, mulching, weeding, irrigation, fertilizer and pesticide application, constructing tunnels/cages, harvesting, and post-experiment cleanup (stakes, mulches, etc.); 2) prepare soil or planting media, and sterilized trays/pots for sowing greenhouse or field experiments; 3) conduct seed extraction; and 4) maintain cleanliness and organization of work rooms, facilities, and supplies. **Requirements:** 1) Junior High school education or equivalent; 2) physically capable of significant heavy labor; and 3) experience in field tasks

and activities. Interested applicants should send curriculum vitae to Ms. Felisa Wang, Human Resources at extension No. 215, AVRDC, P.O. Box 42, Shanhua 741, Tainan, Taiwan.

番椒組徵「田間作業員」乙名。應徵資格：國中畢業或相當學歷。體能佳，耐粗重工作、認真負責、具工作熱忱及田間工作經驗者。主要負責：田間工作：整田、播種、苗移植、施肥、鋤草、架枝、噴葯、剝種子及田間廢田工作等。溫室及試驗田栽種介質準備與消毒。工作室、試驗器材之管理與維護。若您的親朋好友中有合適人選並有興趣者，請洽人事室王淑真(分機215)，或寄履歷表至：亞洲蔬菜研究發展中心台南縣善化鎮郵政信箱42號人事室收。

- Source: Felisa Wang/ASU

Farewell to Macy Lo



Macy (front row, the 3rd from left); photo by Vicky Cherng

Last Friday (30 March) we said farewell to Macy Lo, secretary with the plant breeding group. Macy joined the AVRDC on 2 October 1978 as a circulation clerk with the Office of Information Services, a former name of the current Communication and Training Office. She quickly advanced to Information Assistant and for 18 years she performed a variety of tasks such as type-setting publications, writing articles for the newsletter, interviewing, and general helping out where needed. OIS staff was a close-knit group inside and outside the office and some of her closest friendships developed during that time.

From July 1996 she joined the Crop Improvement Program and served as secretary for tomato, legume, and crucifer breeding units. Her bosses were non-Taiwanese and she was

frequently asked to handle small emergencies or provide her sound advice on matters and questions related to Chinese culture, especially the “right thing to do” under certain situations. We remember Macy for her ability to know the right ways to treat people: the words to help visitors and trainees feel welcome and comfortable; how to soften tense situations with humor; listening and speaking to children so they feel important.

Macy has taken a position with a Tainan-based organization helping the poor of south Taiwan. We will miss her and wish her well as she explores new adventures in her life.

- Source: Dr. Peter Hanson

Happenings around AVRDC Headquarters

Cloud Gate 2-Oculus Spring 2007 雲門舞集2 春季公演「斷章」

Cloud Gate Dance Theatre of Taiwan will make Spring 2007 presentation of Oculus, the posthumous work of Wu Kuo-Chu. In his creation, he draws the image of the perpetual human strike for higher aims, happiness.

- Time: Friday, 13 April and Saturday, 14 April, at 1945 hours
- Venue: Tainan City Cultural Center
- Ticket: NT 1200/900/700/500/300

雲門舞集2 春季公演—斷章。「斷章」是旅德天才編舞家伍國柱遺作。

- 時間: 4月13日(星期五)、4月14日(星期六)
晚間7點45分
- 地點: 台南市立文化中心
- 票價: 1200/900/700/500/300元

2007 Fong Fei Fei World Tour 「2007 鳳飛飛演唱會」

A vocal performance by Fong Fei Fei, the popular Taiwanese singer.

- Time: Friday, 13 April and Saturday, 14 April, at 1930 hours
- Venue: Kaohsiung City Cultural Center, Chih-The Hall
- Ticket: 1000/1600/2200/3000/3600

- 時間: 4月13日(星期五)、4月14日(星期六)
晚間7點30分
- 地點: 高雄市立文化中心至德堂
- 票價: 1000/1600/2200/3000/3600元

“Sunwukong Fights Spider Trickster” of Fun Shadow Play

光影嬉遊記之「孫悟空大戰蜘蛛精」



Larry Reed, an American shadow puppeteer will perform the fun shadow play of the famous Chinese Classic literature “Sunwukong Fights Spider Trickster”.

- Time: Saturday, 7 April, at 1430 and 1930 hours
- Venue: National Tainan Social Education Center
- Time: Saturday, 14 April, at 1430 and 1930 hours
- Venue: Kaohsiung City Cultural Center, Chih-Shan Hall
- Ticket: 300/400/600/800/1000

光影嬉遊記之《孫悟空大戰蜘蛛精》融合了中國戲曲身段、皮影戲雋永美術風格與電影式運鏡及現場音樂，絕對嶄新的戲劇、經典文學及電影相遇的影像美學。流雲、山水、樓台亭宇，大銀幕流暢的瞬間變化，精彩地令人屏息，是一場成人、孩童皆能分享的奇趣想像體驗。

- 時間: 4月7日(星期六) 下午2點30分及晚間7點30分
- 地點: 國立台南市社會教育館
- 時間: 4月14日(星期六) 下午2點30分及晚間7點30分
- 地點: 高雄市立文化中心至善廳
- 票價: 300/400/600/800/1000元

Tainan National University of Arts Graduation Recital 國立台南藝術大學畢業音樂會

The noteworthy graduating students of the Tainan National University of Arts will have their recitals for public. All recitals start at 1930 hours and programs are as follow:

- Viola – April 10, 19
- Cello – April 11, 26
- Piano – April 12, 17, 24, 25, May 1, May 2.
- Double bass – April 18

The University’s auditorium is located in Guantien. From Highway 1 north, take right turn on 171 (toward Chianan Golf Course), then follow the signs.

國立台南藝術大學第四屆七年一貫制音樂系畢業音樂會將在4月10日至5月2日間於大學的演藝廳舉行。