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This week we introduce a new title bar for the newsletter featuring pictures of smallholder farmers and the world's three most important vegetables, as represented by tomatoes, cabbage and onions.



## Increased Demand Raises Contamination Risks

It's almost a contradiction in terms, but the more "healthy" fresh, leafy vegetables people eat, the more likely they could be to encounter some sort of food poisoning bacteria. The desire for fresh leafy greens particularly in the European and North American markets has led to their year round production, but such crops can be readily contaminated by the *Escherichia coli* and salmonella bacteria.

According to the U.S. Center for Disease Control and Prevention, an estimated 73,000 cases and 61 deaths occur in the U.S. each year from E. coli in addition to 40,000 cases of salmonella poisoning. Since 1995 there have been 22 separate outbreaks of E. coli associated directly with the consumption of leafy greens.

The problem of keeping massive amounts of produce free from these contaminants is not easily solved, say U.S. experts. A complex ecosystem of multiple potential sources such as water, wildlife and livestock can all be sources of bacteria causing food poisoning. Although new methods of harvesting, processing, and packaging are being developed to reduce phytosanitary risks, at least some recent food poisoning bacteria outbreaks have occurred due to field contamination before the harvest.

Constant monitoring of vegetables while they are growing is crucial in the prevention of contamination with such bacteria, suggest plant pathologists with the American Phytopathological Society (APS).

While the behavior of plant pathogens on plants has been studied for a long time, much less is known about the behavior of human pathogens on plants. Research has shown that strains of pathogens like Salmonella can actively colonize plant surfaces. When this happens, the bacteria become almost inseparable from the vegetable. Although there has been much research on microbial contamination of processed foods, contamination of fresh foods is less well understood.

More information:

American Phytopathological Society  
<http://www.apsnet.org/>

Society for General Microbiology (UK)  
161st Meeting (Edinburgh 3-6 September 2007)

"Food, fluids, fingers, faeces and flies: food- and water-borne pathogens"  
<http://www.sgm.ac.uk/meetings/pdfabstracts/edinburgh2007abs.pdf>

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## Latest Publications from the Center's Staff

Congratulations to Ms. Huei-mei Chen and Dr. S. Kumar for their latest publications, recently received by the library.



Chen, H.M., Liu, C.A., Kuo, C.G., Chien, C.M., Sun, H.C., Huang, C.C., Lin, Y.C., Ku, H.M. (2007). Development of a molecular marker for a bruchid (*Callosobruchus chinensis* L.) resistance gene in mungbean. *EUPHYTICA*. v.157(1-2):113-122.



Singh, N., Singh, M., Kumar, S., Kumar, R., Singh, V., Prasanna, H.C., Rai, M. (2007). RAPD markers for hybrid seed purity testing in tomato (*Solanum lycopersicum* L.). *CURRENT SCIENCE*. v.93(4):462-463.

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

Dekebo, A., Kashiwagi, T., Tebayashi, S., Kim, C.S. (2007). Nitrogenous ovipositional deterrents in the leaves of sweet pepper (*Capsicum annuum*) at the mature stage against the leafminer, *Liriomyza trifolii* (Burgess). *BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY*. v.71(2):421-426.

Hou, L.X., He, Q.W., Bu, L.X., Jiao, Z.G., Dong, Y.M., Want, C.Q. (2007). Advances in melon tissue culture and genetic transformation. *CHINA CUCURBITS AND VEGETABLES*. no.4:25-28.

Requier-Deajardins, M. (2006). The economic costs of desertification: a first survey of some cases in Africa. *INTERNATIONAL JOURNAL OF SUSTAINABLE*

*DEVELOPMENT*. v.9(2):199-209.

Wale, M. (2004). Relative efficacy of some botanicals, detergent and kerosene in controlling the pea aphid *Acyrtosiphon pisum* (Harris) (Hemiptera: Aphididae) on grass pea *Lathyrus sativus*. *INTERNATIONAL JOURNAL OF TROPICAL INSECT SCIENCE*. v.24 (2):143-149.

Winket-Shirley, B. (2002). Biosynthesis of flavonoids and effects of stress. *CURRENT OPINION IN PLANT BIOLOGY*. v.3:218-223.

Pierpoint, W.S. (2000). Why should plants make medicines? *BIOCHEMIST*. v.22:37-40.

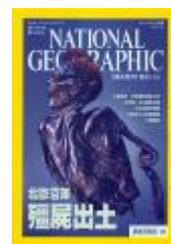
## New Popular Magazines Now Available in the Library

*The Economist*: Nuclear power's new age –

8th–14th September 2007

*National Geographic* (Chinese): September 2007

*Time*: How much longer? – 17 September 2007



## Web Link of the Week:

### The Plant Pathology Internet Guide

“The Plant Pathology Internet Guide Book” is a subject oriented internet resource guide for all aspects of plant pathology, applied entomology, and all related fields. PPIGB is intended as starting point for all who are interested in phytopathology to explore the internet. The compilation of websites is divided into thematic categories in which every link is followed by a brief

description of the content of the website. On these pages you will find plant pathology related internet resources and more.

Please visit

<http://www.pk.uni-bonn.de/ppigb/ppigb.htm>

- Source: Fang-chin Chen/Communications

## Taiwan Presidential Candidate Visits Headquarters



On Tuesday this week the Center was visited by Mr. Frank Hsieh, Taiwanese 2008 presidential candidate for the ruling Democratic Progressive Party (DPP). Accompanied by two senior legislators and journalists from national TV stations and newspapers he was first given a briefing on the Center's international work and research programs by Director General Dr. Tom Lumpkin. This was followed by a visit to the GRSU, accompanied by Dr. Yin fu-Chang and Dr. Paul Sun. The stop was part of his campaigning in southern Taiwan.

- Source: Communications

## Travel

**Dr. Peter Hanson**, 18-22 September, to Cambodia, to join a monitoring and planning meeting of the ACIAR Postharvest project.

**Dr. Jaw-Fen Wang**, 20-21 September, to Bangkok, Thailand, to meet with Ms. Nuttima Kositcharoenkul, Bacteriology group, Plant Pathology and Microbiology Division, Department of Agriculture for GTZ/Chili project matters; 22-28 September, to India, to meet with Dr. Gopal Krishnan, Division of Plant Pathology, IHR, Bangalore for GTZ/Chili project matters; to join exploratory mission of Tata Trust project in Uttarakhand.

**Dr. Thomas Lumpkin**, 22-30 September, to India, to learn about CIMBAA cabbage trials; to visit the state of Uttarakhand with the exploratory mission team to assess the possibility of developing projects that can be funded by the Sir Ratan Tata Trust.

**Dr. R. Srinivasan**, 22-28 September, to India, to join the exploratory mission for the Tata Trust project in

Uttarakhand; 29 September-3 October, to deliver lectures in the Safer Vegetable Production Training Course in RCSA; 4 October, to visit the University of Agricultural Sciences in Bangalore. 5 October, on leave.

**Dr. Antonio L. Acedo Jr.**, 23-27 September, to Hanoi, Vietnam, to attend and present the paper "Perishability of horticultural crops along the supply chain: some evidence from Southeast Asia" in the International conference on Supply Chain Management; to discuss with Vietnam team the RETA 6208/6376 project concerns.

- Source: Yvonne Ting/ASU

**Dr. M.L. Chadha**, 17-19 September, to Nepal, to participate in, and present a lecture during the Workshop/training on market-oriented production of vegetable seeds in Nepal jointly organized by Seed Entrepreneurs' Association of Nepal (SEAN) and Wageningen International.

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

## Two Shanhua Restaurants Providing Special Discount to AVRDC Staff

Two restaurants in Shanhua have offered a 10% discount to the Center's staff: **Mama Penguin**, No. 562, Kuang-fu Road, Shanhua (tel.: 581-0999); and **Cafe of Excellence**, No. 214-2, Chung-shan Road, Shanhua (tel.: 583-9000). AVRDC staff can enjoy a 10% discount by presenting the Center's Employee Card.

企鵝媽媽南科分館（善化鎮光復路562號，電話：581-0999）及優的咖啡美食坊（善化鎮中山路214-2號，電話：583-9000），與本中心簽約成為特約廠商。中心員工前往消費出示職員證即享九折優待。

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

## Basket Weaving Class to Benefit AVRDC Goodwill Club



Dr. Srinivasan's mother has volunteered to donate her time to teach a plastic-basket weaving class. It is estimated that the basket will take 15 x 1 hour classes to complete. Depending on the number of people interested and student availability, the classes can be during lunchtime, afternoon or after work in the evening. The proposed schedule is to have the classes 3 times a week for 5 weeks beginning the second week in October. Although Srini's mother will be present at each 1 hour class period to instruct or assist, participants do not need to be present the whole time as it is possible to do much of the weaving at your own home. It will take approximately 15 hours to complete the basket. So those people who do not have much time to spare need only come to class at times when they need help. Once they have been initially instructed with the methodology and basic design they should be able to complete much of the basket work in their own home.

The total cost of the classes and materials will be NT\$1000 and all proceeds will be donated to the AVRDC Goodwill Club. So why not learn a new skill, create a beautiful basket for yourself and help raise funds for the AVRDC Goodwill club, which will be utilized for a good cause in developing countries. If you are interested please contact Srini at ext. 426 or Angela

at ext. 402. The material for the basket will be purchased in India so we need to know how many people are interested before Thursday, 20 September.

印度專家施瑞霖博士的母親，將教授塑膠籃編織，編織一個塑膠籃大約需要15個小時，編織課預計十月份開始，一週三次連續上課五週。參加的學員不需要每一次都出席，學習了編織技巧及花色設計，就可以自行在家裡編織。費用每人新台幣1000元，除材料費之外，所有的收入將捐給亞蔬愛心社，能夠學習編織技巧及獲得一只自己編織的籃子之餘，還可以為愛心社募款，一舉數得，何樂而不為呢！編織材料要在印度購買，因此需要先行統計數量，請要參加的同仁在9月20日（星期四）以前報名，報名專線—施瑞霖（分機426）或陳美洪（分機402）。



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