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Food choices may not all be due to environmental and other social factors, a UK study suggests

It's All in the Genes

Humanity has come a long way from its hunter-and-gatherer roots. While agriculture has experienced several revolutions between the onset of sedentary lifestyles 10,000 years ago and the industrial-age, the choice of what we eat may have to do more with genetic determinism than with free choice. Our genes and our upbringing are likely to play a key role in our food likes and dislikes, suggests a study carried out by scientists from London's Kings College.

The scientists compared the dietary habits of more than 3,000 pairs of twins aged between 18 and 79. The range of foods that the test persons could choose from included five different dietary groups. It included diets heavy in fruits and vegetables, alcohol, fried meat and potatoes, as well as low-fat products or food low in meat, fish and poultry.

The results revealed that identical twins were far more likely to share the same dietary patterns – suggesting that tastes may be inherited. Since identical twins share the same genetic make-up, the researchers conclude that food preferences are to a moderate extent based on

'nature' rather than on upbringing and social environment. The cited study suspects that between 41% and 48% of a person's leaning towards one of the food groups was influenced by genetics. Interestingly, according to the study, the strongest link between individual preferences and genes involved the tastes for garlic and coffee.

Genetic determination may not be a good overall excuse for less favorable food habits and unbalanced diets. However, the research advises the planners of healthy eating campaigns such as the "5 a day" fruits and vegetable initiative to re-think their approach, as people genetically 'programmed' to eat less fruit and vegetables would be more resistant to health messages than previously thought.

Based on a report published by the BBC: [Diet Choices 'written in genes'](#) (22 October 2007)

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Latest Publications from the Center's Staff

Congratulations to Drs. Peter Juroszek, Chin-hua Ma, Manuel C. Palada, Detlef Virchow, Ms. Hsing-hua Tsai, and Mr. Deng-lin Wu and for their latest publications, recently received by the library.

Juroszek, P., Ma, C.H., Tsai, H.H., Wu, D.L., Palada, M.C. (2007). Organic farming research at AVRDC - The World Vegetable Center: developing systems for smallholder farmers in the tropics. In: Tropentag 2007: Utilisation of diversity in land use systems: sustainable and organic approaches to meet human needs./ ed. by Tielkes, E.; Gottingen: Cuvillier Verlag Gottingen. 10 pp.

Richerzhagen, C., Virchow, D. (2007). Sustainable utilisation of crop genetic diversity through property

rights mechanisms: the case of coffee genetic resources in Ethiopia. INTERNATIONAL JOURNAL OF BIOTECHNOLOGY. v.9(1):60-86.

Virchow, D. (2007). Increasing vegetable production and consumption in Africa: averting the downward trend of malnutrition and poverty. In: Tropentag 2007: Utilisation of diversity in land use systems: sustainable and organic approaches to meet human needs; Book of abstracts./ ed. by Tielkes, E.; Gottingen: Cuvillier Verlag Gottingen. p.172.

Selections from the Cucurbits SDI Bulletin Produced by the Library

Copies of other SDI bulletins for different crops can be found on the library website

Adebooye, O.C., Oloyede, F.M. (2007). Effect of phosphorus on the fruit yield and food value of two landraces of *Trichosanthes cucumerina* L.-Cucurbitaceae. FOOD CHEMISTRY. v.100(3):1259-1264.

Auge, R.M., Toler, H.D., Moore, J.L., Cho, K., Saxton, A.M. (2007). Comparing contributions of soil versus root colonization to variations in stomatal behavior and soil drying in mycorrhizal *Sorghum bicolor* and *Cucurbita pepo*. JOURNAL OF PLANT PHYSIOLOGY. v.164(10):1289-1299.

Bartoszewski, G., Havey, M.J., Ziokowska, A., Dugosz, M., Malepszy, S. (2007). The selection of mosaic (MSC) phenotype after passage of cucumber (*Cucumis sativus* L.) through cell culture - a method to obtain plant mitochondrial mutants. JOURNAL OF APPLIED GENETICS. v.48(1):1-9.

Fan, H.Y., Chen, J., Lu, C.M., Zhang, C.Y., Sun, Q. (2007). Proteomic analysis of F2 generation of cucumber against the cucumber powdery mildew disease. ACTA HORTICULTURAE SINICA. v.34(2):349-354.

Ling, K.S., Levi, A. (2007). Sources of resistance to *Zucchini yellow mosaic virus* in *Lagenaria siceraria* germplasm. HORTSCIENCE. v.42(5):1124-1126.

Tarhan, L., Kayali, H.A., Urek, R.O. (2007). In vitro antioxidant properties of *Cucurbita pepo* L. male and female flowers extracts. PLANT FOODS FOR HUMAN NUTRITION. v.62(2):49-51.

Xu, C.G., Fan, G.C. (2007). Effects of sowing dates on yield and quality of melon in fall season. CHINA CUCURBITS AND VEGETALBES. no.4:23-24.

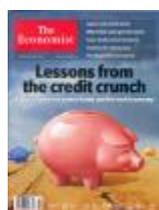
New Popular Magazines Now Available in the Library

The Economist: Lessons from the Credit Crunch – 20th–26th October 2007

PC World: Your PC in 2008 – November 2007

Time: Burmese Days – 22 October 2007

Time (special issue): Heroes of the Environment – 29 October 2007



- Source: Fang-chin Chen/Communications

Assessing Needs of Smallholder Vegetable Growers in Solomon Islands:



The PRA Team – Solomon Islands Smallholder Gardens Project

Left to right: M.C. Palada (AVRDC), Joni Tutua (KGA), Greg Luther (AVRDC), Ellen Iramu (MAL), Katinka Weinberger (AVRDC), Paul Gniffke (AVRDC), Olga Chapangi (VBMS), Doreen Alfred (KGA), Ambrose Siau (AVRDC) and Connie Siliota (AVRDC).

Not in photo: Gerard Kelly (NSW-DPI) and Steve Woodhouse (Farmset, Limited).

Better supplies of improved vegetable varieties, good cultural practices and improving marketing were the major needs to emerge from a recent study by AVRDC staff and partners in the Solomon Islands between 8 and 18 October.

The team from AVRDC – The World Vegetable Center conducted participatory rural appraisals in three provinces in collaboration with MAL Solomon Islands, Kastom Gaden Association (KGA), Don Bosco Rural Training Center, Vois Blong Mere Solomon (VBMS), NSW-DPI Australia, and Farmset Limited. This was part of the ACIAR funded project HORT/2005/077 – Integrated Crop Management Package for Sustainable Smallholder Gardens in Solomon Islands.

The objectives were to describe and understand current crop management practices, identify major production and socioeconomic constraints of smallholder vegetable farmers and help prioritize feasible researchable areas. The survey was conducted in selected sites in Honiara plains (Guadalcanal), and on Malaita and Makira. The slash and burn farming system is still the major activity in Makira where farmers do not have access to production inputs and improved technology. Farmers in Makira are by default considered as organic vegetable growers. In the Honiara plains and Malaita, farmers have access to production inputs and the use of fertilizers and pesticides is practiced by some.

In all sites, seed supply of good and improved vegetable varieties as well as good cultural practices are the major technical constraints while issues related to marketing are the main socioeconomic constraint. These issues will be addressed as the project progresses focusing on improved AVRDC technologies for organic vegetable production and integrated crop management.

More information:

KGA: Kastom Gaden Association

<http://www.terracircle.org.au/kga/>

VBMS: Vois Blong Mere Solomon

<http://wiki.amarc.org/?action=shownews&id=672&lang=EN>

NSW-DPI: New South Wales Department of Primary Industries

<http://www.dpi.nsw.gov.au/>

ACIAR: Australian Centre for International Agricultural Research

<http://www.aciar.gov.au/>

- Source: Contributed by Dr. Manuel C. Palada, Project Leader

Travel

Drs. Thomas Lumpkin and Jackie Hughes, 3-5 November, to Bangkok, Thailand, to meet with the EPMR panel members at AVRDC-ARC; to meet the Kasetsart University's President and Vice President to discuss the research collaboration opportunities between AVRDC and KU.

- Source: Yvonne Ting/ASU

Dr. Lumpkin's New E-mail Address

You may contact Dr. Thomas Lumpkin, Director General at his new e-mail address

<directorgeneral@netra.avrdc.org.tw>

- Source: Communications

AVRDC Post Office Will Move Back on Monday, 29 October

AVRDC Post Office will move back to our campus on Monday, 29 October 2007. Its service hours will return to the normal schedule as follows:

0830 to 1230 hours and
1300 to 1630 hours
from Monday through Friday

亞蔬郵局將於 10 月 29 日 (星期一) 搬回園區繼續為大家服務。營業時間如下：

週一至週五
上午 8 點 30 分至 12 點 30 分
下午 1 點至 4 點 30 分

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

AVRDC Website Now Receiving up to 19,000 Visitors Each Month

Over the last couple of years our website has become one of the most important ways for our clients to reach us. Each month our website receives between 12,000 and 19,000 unique visitors, with about 20% of these staying for more than an hour. These visitors are from 126 countries, with most coming from the USA, Taiwan, and Australia. The most popular destinations are the AVRDC homepage, extension materials, jobs, postharvest, photos, About the center, publications, contact information, activities, training, library, regional pages, germplasm, Anthracnose website, and SUSPER website.

Since 2003 the number of downloaded pages has grown a thousand fold, from 1000 to almost 100,000 to date, generating around 6-10 GB of traffic every month. The internet has become one of the most important tools used by the Center to reach its expanding clientele around the world at the least cost.

New on the internet: <http://www.avrdc.org/>

- ∇ News: Center's Director General takes up new challenge
- ∇ Contact Us: You may contact Dr. Lumpkin at his new e-mail address
<directorgeneral@netra.avrdc.org.tw>

New on the Intranet:

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

- ∇ Policies: Cautions to be taken regarding import permits by Dr. Yin-Fu Chang/Ms. Kitty Hong
- ∇ Events: International conference list by Dr. Shilpi Saxena
- ∇ Holidays: 2008 National and Special Holidays by Dr. Yin-Fu Chang
- ∇ Presentations: Seminar presentation entitled "Transfer and action of acyl sugars for multiple pest resistance in Tomato" by Dr. Martha Mutschler, Professor of Plant Breeding from Cornell University
- ∇ Forms: Center's official outgoing Chinese letter by Dr. Yin-Fu Chang

If you have difficulty accessing the intranet, please contact Christie Clavero at
<clavero@netra.avrdc.org.tw>
for a user name and password.

- Source: Communications

Musical Performance Comes to AVRDC

The R&S Committee have invited students from Tainan National University of the Arts to come and give us a musical performance for our October activity. It will be on Wednesday, 31 October 2007 from 1500 to 1630 hours in the Cafeteria lounge. These students will share their talents on piano and bassoon for all of us to enjoy.

Switch your focus for an hour or so and come and join us for a relaxing and invigorating afternoon of music! Snacks and coffee/tea will be served during the event.

本中心十月份康委會活動時間—10月31日（星期三）下午3點至4點30分，將邀請國立台南藝術大學的學生，在餐廳二樓交誼廳舉辦一場音樂表演，歡迎同仁們踴躍前來聆賞，會中並有茶點招待。

- Source: R&S Committee

Renner Ensemble Regensburg

千年釀就的醇粹之音—聽聽雲雀—雷納男聲合唱團



The Renner Ensemble Regensburg of Germany is coming back to Taiwan! This is its 4th concert performance in the Island since 1992. It has had concert tours all over the world and has won various international competitions. Founded in 1987, it soon became the best cathedral choir in Germany. The current conductor, Jörg Genslein, began as a member of the Ensemble, and had led the choir to its outstanding achievements over the past two years.

The Renner Ensemble Regensburg will have a performance at the Tainan Cultural Center on Tuesday, 6 November, from 1930 to 2100 hours. If interested, please call 06-2932552 or visit www.artsticket.com.tw for tickets.

Ticket prices: \$300, \$500, \$800, \$1000, \$1500 (\$1500 tickets are sold out)

雷納男聲合唱團是由前身為德國雷根斯堡 (Regensburg) 主教座堂唱詩班的雲雀男童合唱的雲雀校友組成，自1992年起第四度來到台灣演唱，雷納男聲合唱團多次贏得國際合唱大賽首獎。現任指揮蓋斯蘭 (Jörg Genslein) 出身雷納男聲合唱團，過去兩年帶領雷納合唱團邁向另一高峰。雷納合唱團11月6日（星期二）晚上7:30至9:00將在台南市立文化中心演唱。

雷納音樂會票價：300, 500, 800, 1000, 1500。目前1500元票已被搶購一空，其他票券所剩亦不多，欲購從速。

購票請洽：兩廳院售票系統

www.artsticket.com.tw 或 06-293 2552 謝老師。

- Source: Didit Ledesma