



## Information sheet on associated researchers

### SINER-GI Associated researcher

Name	RAMI ZURAYK
Institution	AMERICAN UNIVERSITY OF BEIRUT (AUB)
Address	AUB, FACULTY OF AGRICULTURAL AND FOOD SCIENCES, LAND & WATER RESOURCES DEPARTMENT, BEIRUT, LEBANON, HAMRA, BLISS STREET, P.O.BOX: 11-0236
Country	LEBANON
Phone	961 1 374374 EXT. 4571/7 OR 961 3 733227
E-mail	rzurayk@aub.edu.lb

### Area(s) of activity

Research	YES
Education	YES
Student	
Extension	YES
Other (precise)	POLICY (advisor to the minister of agriculture), Consultant to the Ministry of Economy on the geographical indications project

### Background and current projects

#### PROFICIENCY AREAS

**Academic Programs.** Development, management and evaluation of academic programs, especially in and agriculture and environmental sciences. Expertise in teaching excellence and academic integrity.

**Rural Community Development.** Resource mobilization, program planning, implementation and evaluation. Decentralized governance of natural resources. Socially-responsible businesses. Sustainable livelihoods approaches in natural resources management. Knowledge management and ICT

**Sustainable Agriculture** Research management, farm planning, certification and accreditation, innovative marketing.

**Ecosystem Management.** Extensive expertise in soil processes and plant community analysis in arid and semi-arid ecosystems. Phytoremediation of contaminated soils and water.

#### CURRENT PROJECTS

*Regional Training and Knowledge Sharing in Urban Agriculture for the Middle East and North Africa – 2005-2006.* Granting agency: Cities Feeding People Initiative of the International Development Research Center. Value: CAD 471,980. Duration: 2005-2006. **Status:** Project Manager.

*Global Environment Outlook (GEO 4).* Granting agency: United Nations Environment Program. Value: USD 10,000. Duration: 2005-2007. **Status:** Project Manager.

*Understanding Water, Understanding Health: The Case of Bebnine.* Granting agency: IDRC. Value: USD 340,981.02. Duration: Dec. 27, 04- Dec. 26, 07. Main investigator: Iman Nuwayhid. **Status:** co-investigator, IGESP Director.

## WEBSITES

Created, designed and developed "e-cosystem", a digital interface linking project, people and programs who have adopted the "ecosystem approach" within and outside AUB (i.e. IPGRI).

e-cosystem can be found at <http://www.aub.edu.lb/~webeco> (since March 2000). Created also [ecosystems.org](http://ecosystems.org) and [drylandpeople.org](http://drylandpeople.org).

## BOOKS, CHAPTERS IN BOOKS AND COMPENDIA

1. Hamadeh, S., Haidar, M. and Zurayk, R. 2006. Research for Development in the Dry Arab Region. International Development Research Centre and Southbound Publishers, Penang. 124pp.
2. Zurayk, R., Haidar, M and Hamadeh, S. 2005. The Local Users Network: A Participatory Communication Forum. In: Mear, A. (eds.). Food and Water for Millions: Participatory Communication for Land and Water Management. Montreal, Canada. pp: 17-25.
3. Zurayk, R., Abdul Samad, L and Talhouk, S. 2004. Environmental Analysis of Urban and Peri-Urban Coastal Agriculture in Lebanon. In: Nasr, J. and Padilla, M. (eds.). L'interface Entre Agriculture et Urbanisation en Mediterranee Sud et Est. Institut Francais du Moyen Orient, Editions Delta-IFPO. pp : 279-290.
4. Zurayk, R. and Haidar, M. 2004. Biodiversity Conservation Priorities: Lebanon. In: Sharing Innovative Experiences. UNDP. New York Vo. 9, pp. 13-20.
5. Hamadeh S. K., Zurayk, R., Darwish, M. R , Seeden, H., Talhouk, S., El-Awar, F., Baalbaki, R., Abi-Said, M., Sharara, M. 2001. Changing rural livelihoods and land degradation in the Bekaa valley. In: A. Aw-Hassan and A. Cooper (eds.). Agriculture and Rural Livelihoods: Case Studies for Sustainability in the WANA Region. ICARDA, Syria.
6. Zurayk, R. and Hamdallah, G. 1997. (eds.) Proceedings of the Regional Workshop on the Management of Salt Affected Soils in the Arab Gulf States. FAO, 29 October-2 November 1995, Abu Dhabi, United Arab Emirates. Food and Agriculture Organization of the United Nations, Regional Office for the Middle East, Cairo, Egypt, iv+140 pp.
7. Zreik, R. 1991. The Post War Arab World: Development in Reverse. In: Gittings, J. (ed.). Beyond the Gulf War: The Middle East and the New World Order. CIIR, London, pp.102-109.
8. Zreik, R. 1990. The Domestication and Economic Cultivation of Halophytes. In: Speedy, A. (ed.). Developing World Agriculture, Grosvenor Press, London, 1990 pp. 74-79.

## ARTICLES IN REFEREED PUBLICATIONS

## Manuscripts in review

1. Zurayk, R., Kanj, B., Talhouk, S. and Baalbaki, R. Salinity and Phosphorus Nutrition Effects on Vegetative Growth of Differentially Drought Tolerant Wheat. Crop Science.

## Manuscripts published or in print

1. Baalbaki, R., N. Hajj-Hassan, and R. Zurayk. 2006. *Aegilops* species from Semiarid Areas of Lebanon: Variation in Quantitative Attributes under Water Stress. Crop Science Society of America. In press.
2. Omeira, N., Barbour, E.K., Nehme, P.A., Hamadeh, S.K., Zurayk, R., and Bashur, I. 2006. Microbiological and chemical properties of litter from different chicken types and production systems. Science of the Total Environment. In press
3. Talhouk, S.N., Van Breugel, P., Zurayk, R., Al-Khatib, A., Estephan, J., Ghalayini, A., Debian, N., and Lychaa, D. 2005. Status and Prospects for the Conservation of Remnant Semi-natural Carob *Ceratonia siliqua* L. Populations in Lebanon. Forest ecology and Management. 206 (2005) 49-59.
4. Talhouk, S. N., Dardas, M., Dagher, M., Clubbe, C., Jury, S., Zurayk, R. and Maunder, M. 2005. Patterns of Floristic Diversity in Semi Natural Coastal Vegetation of Lebanon and Implications for Conservation. Biodiversity and Conservation. Vol.14, 903-915.
5. Barbour, K. Elie, Codsi, R. J. and Zurayk, R. A. 2004. Reproducibility of Bacterial and Copepod Density Assessment in Bathing and Artisanal Fishing Water of the Eastern Mediterranean. International Journal of Environmental Health Research. 14 (4), 315-321.
6. Semerjian L., El-Fadel, M., Zurayk, R. and Nuwayhid, I. 2004. An Interdisciplinary Approach to Environmental Education, ASCE Professional Issues in Engineering Education and Practice, 130, 3, 173-181
7. Kabengi, N.J., Zurayk, R., Baalbaki, R. and Ryan, J. 2003. Phosphorus Dynamics and Characterization under a Long-term Rotation Trial. Communications in Soil Science and Plant Analysis. Vol. 34, No. 3 & 4, pp. 375-392.
8. Zurayk, R. and Haidar, M. 2003. The Dryland Predicament: Natural Capital, Global Forces. Development Outreach. (3) 35-39.
9. Zurayk, R. A. 2003. Participatory GIS-based Natural Resource Management: Experiences from a Country of the South. Arid Lands Newsletter. No. 53, May/June 2003. <http://ag.arizona.edu/OALS/ALN/aln53/zurayk.html>
10. Zurayk, R., Sukkariyah, B., Baalbaki, R. and Abi Ghanem, D. 2002. Ni Phytoaccumulation in *Mentha aquatica* L. and *Mentha sylvestris* L. Water, Air and Soil Pollution. 139, 355-364.
11. Zurayk, R., Sukkariyah, B., Baalbaki, R. and Abi Ghanem, D. 2001. Chromium Phytoaccumulation from Solution by Selected Hydrophytes. International Journal of Phytoremediation 3(3) 335-350.

12. Zurayk, R. A., El-Awar, F., Hodeib, H., Sayegh, C. and Hamadeh, S. 2001. A GIS-based Methodology for Soil Degradation Evaluation. In: Sustaining the global farm: Selected papers from the 10th International Soil Conservation Organization (ISCO) Conference, May 23-28, 1999, Purdue University, West Lafayette, Indiana, USA, eds. D. Stott, R. Mohtar and G. Steinhardt, 1082-1089. International Soil Conservation Organization. Online: <http://tucson.ars.ag.gov/isco/isco10/SustainingTheGlobalFarm/P027-Zurayk.pdf>.
13. Talhouk, S.N., Zurayk, R. and Khuri, S. 2001. Conservation of the Coniferous Forests of Lebanon: Past, Present and Future Prospects. Oryx 35 (3) 206-215.
14. Zurayk, R., Khoury, N., Talhouk, S. and Baalbaki, R. 2001. Salinity-Heavy Metal Interactions in Four Salt-tolerant Plant Species. Journal of Plant Nutrition. 24 (11) 1773-1786.
15. Zurayk, R., El-Awar, F., Hamadeh, S., Talhouk, S., Sayegh, C., Chehab, A. and Al Shab, A. 2001. Using Indigenous Knowledge in Land Use Investigations: A Participatory Study in a Semi-Arid Mountainous Region of Lebanon. Agriculture, Ecosystems and Environment. 86 (3) 247-262.
16. Zurayk, R., Sukkariyah, B. and Baalbaki, R.. 2001. Common Hydrophytes as Bioindicators of Ni, Cr and Cd Pollution. Water, Air and Soil Pollution 127: 373-388.
17. Zurayk, R. 2000. Sustainable Agriculture in the Middle Eastern Context: Why Prevailing Models Won't Work. Culture and Agriculture-American Anthropological Association. 22 (1) 37-42.
18. El-Awar, F. A., Makke, M.K., Zurayk, R. A. and Mohtar, R. H. 2000. A Spatial-Hierarchical Methodology for Water Harvesting in Dry Lands. Applied Engineering in Agriculture, ASAE 16 (4) 395-404
19. Baalbaki, R.Z., Zurayk, R.A., Adlan, M.A. and Saxena, M.C. 2000. Effect of Nitrogen Source and Salinity Level on Salt Accumulation of Two Chickpea Genotypes. Journal of Plant Nutrition. 23(6), 805-814.
20. Talhouk, S. N., Lubani, R.T., Baalbaki, R., Zurayk, R., Al Khatib, A., Parmaksizian, L. and Jaradat, A.A.. 1999. Phenotypic Diversity and Morphological Characterization of *Amygdalus spp.* In Lebanon. Genetic Resources and Crop Evolution. 47: 93-104
21. Hamadeh, S., Zurayk, R., Awar, F., Talhouk, S., Abi Ghanem, D. and Abi Said, M. 1999. Farming Systems Analysis of Dryland Agriculture in Lebanon: An Analysis of Sustainability. Journal of Sustainable Agriculture. Vol 15 2/3.
22. Baalbaki, R., Zurayk, R. , Bleik, M. and Talhouk, S. 1999. Germination and Seedling Development of Drought Tolerant and Susceptible Wheat under Moisture Stress. Seed Science and Technology. 27, 291-302.
23. Zurayk, R., Adlan, M., Baalbaki, R. and Saxena, M. 1998. Interactive Effects of Salinity and Biological N Fixation on Chickpea (*Cicer arietinum* L.) growth. Journal of Agronomy and Crop Science. 180: 249-259.
24. Darwish, T. and Zurayk, R. 1997. Distribution and Nature of Red Mediterranean Soils in Lebanon Along an Altitudinal Sequence. Catena 28: 191-202.
25. Toufeili, I., Olabi, A., Shadarevian, S., Abi-Antoun, M., Zurayk, R. and Baalbaki, R. 1997. Relationships of Selected Wheat Parameters to Burghul Making Quality. Journal of Food Quality. 20(3):211-224.
26. Zurayk, R. Nimah, M., Geha, Y. and Rizk, C. 1996. Phosphorus Retention in the Soil Matrix of Constructed Wetlands. Communications in Soil Science and Plant Analysis. 28 (6-8): 521-535.
27. Zurayk, R. and Baalbaki, R.1996. *Inula crithmoides*. a Candidate Plant for Saline Agriculture. Arid Soil Research and Rehabilitation. Journal of Native and Agricultural Environments. 10(3):213-223.
28. Zurayk, R. 1995. Environmental Concerns in Agricultural Technology Transfer in Lebanon. In: Rudel, W. (ed.): Transfer of Environmentally Sound Technologies. National Environmental Information and Education Program- Friedrich-Nauman Stiftung. pp 93-104
29. Zurayk, R. and El Moubayid, L. 1994. Land Degradation and Mitigation in the Lebanese Mountains: The Breakdown of Traditional Systems. Research Paper no 9, Disaster Management Training Program. UNDP/DHA, New York.
30. Zurayk, R. 1994. Rehabilitating the Terraced Lands of Lebanon. Journal of Soil and Water Conservation. 49(2) 106-112. (Honorable Mention Award For Best Feature Article in 1994, Soil and Water Conservation Society).
31. Zurayk, R. 1994. The Role of the Local Community in the Prevention and Mitigation of Forest Fires: Case Studies From Lebanon. International Civil Defence Journal. VII, 31-34.
32. Zurayk, R., Nimah, M. and Hamze, M. 1993. The Salt Tolerance Potential of Local Cultivars of Eggplant (*Solanum melongena* L.). Biological Agriculture and Horticulture. 9:317-324.
33. Zurayk, R., Tabbarah, D. and Banbukian, L. 1993. Preliminary Studies on the Salt Tolerance of Common Ornamental Plants. Journal of Plant Nutrition. 16 (10) 1309-1326.

#### Proceedings and Abstracts published in Proceedings

1. Bu Ghanem, M., Kai, L, Joanna K., Modad, N. et Zurayk, R. 2004. La Cerise d'Aarsal – Liban. Promouvoir la Compétitivité de l'Agriculture par les Savoir-faire Locaux. Atelier sur les indications géographiques au Moyen-Orient et en Afrique du Nord 7-10 Juin 2004, Montpellier, France. pp. 25-27.
2. Zurayk, R., Makki, F., Naddeh, S., Haidar, M., Codsí, E., Fatfat, S., Houjeiri, A. et Daccache, J. 2004. Le Plan d'Action Libanais. Promouvoir la Compétitivité de l'Agriculture par les Savoir-faire Locaux. Atelier sur les indications géographiques au Moyen-Orient et en Afrique du Nord 7-10 Juin 2004, Montpellier, France. pp. 79-80.
3. Habib, R.R., Nuwayhid, I.A., El-Fadel, M., Zurayk, R. and Kabakian, V. 2004. Water Quality in the Coastal Zone of Bebnine: A Case Study on Successful Community Participation. CZAP (2004): Coastal Zone Asia Pacific Conference, 5-9 September 2004, Brisbane, Australia.
4. Zurayk, R., Haidar, M. and Hamadeh, S. 2004. The Local Users Network: A Participatory Communication Forum. In: Participatory Communication for the Management of Natural Resources in Africa and the Middle East. Mear, A. ed. Roundtable of the

Scientific Conference of the International Association for Media and Communication Research. Barcelona, 2002.

5. Jamali, D. and **Zurayk, R.** 2004. A community of practice approach to knowledge management, ECKM 2004: The 5th European Conference on Knowledge Management, Conservatoire National des Arts et Metiers (CNAM), Paris, France, 30 September - 1 October, 2004.
6. Sleiman.F.T., Rebeiz, N.J., Uwayjan, M.G., Farran, M.T., **Zurayk, R.A.**, Barbour, E.K. and Hamadeh, S.K. 2004. Use of Liquid Whey, Urea and Molasses as Additives to Ensiled Wheatstraw. Journal of Dairy Science. Vol 81:supplement (1): 54
7. Sleiman.F.T., Rebeiz, N.J., Uwayjan, M.G., Farran, M.T., **Zurayk, R.A.**, Barbour, E.K. and Hamadeh, S.K. 2004. Use of Liquid Whey, Urea and Molasses as Additives to Ensiled Wheatstraw. Journal of Animal Science. Vol 82:supplement (1): 54
8. Sleiman.F.T., Rebeiz, N.J., Uwayjan, M.G., Farran, M.T., **Zurayk, R.A.**, Barbour, E.K. and Hamadeh, S.K. 2004. Use of Liquid Whey, Urea and Molasses as Additives to Ensiled Wheatstraw. Poultry Science. Vol 83:supplement (1): 54
9. **Zurayk, R.** and Abdel Samad, L. 2004. Environmental Problems of Urban and Peri-urban Agriculture in Lebanon. Unesco/Scope workshop on peri-urban environmental change. Beirut, 18-19 March 2004
10. Baalbaki, R. and **Zurayk, R.** 2003. Salinity Tolerant Plants-resources and Research in Lebanon. Proceedings, Biotechnology and its Role in the Jordanian Economy. October 6-8, 2003, Page 9. The Higher Council for Science and Technology General Secretariat. Jordan.
11. **Zurayk, R.** and Abdul Samad, L. 2001. Impacts de l'Agriculture du Littoral Libanais sur l'Environnement et sur les Ressources Naturelles. Presented at the international conference: "L'Interface Entre Agriculture et Urbanization sur le Littoral Libanais". June 14-15, 2001, CERMOC, Beirut, Lebanon.
12. El-Awar, F. A., Hodeib, H. W. and **Zurayk, R. A.** 2001. GIS-Based Hydrologic Modeling for Erosion Hazard Assessment in Lebanese Mountainous Areas. Presented at the International Symposium on Soil Erosion Research for the 21st Century, January 3-5, 2001, Honolulu, Hawaii, USA.
13. **Zurayk, R.**, Talhouk, S., Chatila, J. and Abdul-Samad, L. 2000. Environmental Costs of Peri-urban Agriculture in Coastal Lebanon. In: H. Hoffmann, K. Mathey (eds.). Urban Agriculture and Horticulture, the linkage with Urban Planning. 2000. International Symposium. Berlin, July 2000. (on cd-rom).
14. El-Awar, F. A., Mohtar, R. H., **Zurayk, R. A.** and Makke, M. K. 2000. A GIS-Based Methodology for Siting Water Harvesting Reservoirs in Dry Areas. Proceedings of the International Conference on Wadi Hydrology, November 21-23, 2000, Sharam El-Sheikh, Egypt.
15. El-Awar, F. A., Mohtar, M. H., **Zurayk, R. A.** and Makkeh, M. K. 2000. Siting Water Harvesting Reservoirs in Dry Lands. Proceedings of the 2000 ASAE International Meeting, July 9-12, 2000, Milwaukee, Wisconsin, USA.
16. **Zurayk, R.**, Baalbaki, R., Sukkariyah, B. Khoury, Talhouk, S., Srour, R. and Samad, F. 2000. Monitoring and Phytoremediation of Cd, Cr and Ni in Natural and Agricultural Ecosystems. Soil-Environment and Health meeting. British Society of Soil Science. Birmingham, April 7-8, 2000.
17. **Zurayk, R. A.**, Sayegh, C., El Awar, F., Hodeib, H., Chehab, A. and Hamadeh, S. 1999. A GIS-based Methodology for Land Evaluation. Presented at the 5th Annual Middle East GIS ESRI User Conference, May 17-20, 1999, Beirut, Lebanon.
18. El Masri, T., Tannous, R. and **Zurayk, R.** 1999. The Potential of Growing Lupine as a Fertilizing Agent and a Prevention Technique to Forest Fires. Sixth International Meeting on Soils with Mediterranean Type of Climate. Barcelona, Spain, 4-9 July 1999.
19. El-Awar, F. A., Mohtar, M. H., **Zurayk, R. A.** and Makkeh, M. K. 1999. Water Harvesting in Dry Marginal Lands. Presented at the 10th International Soil Conservation Organization (ISCO) Conference, May 23-28, 1999, Purdue University, West Lafayette, Indiana, USA.
20. Makkeh, M. K., El-Awar, F. A. and **Zurayk, R. A.** 1999. A GIS Based Methodology for Siting Small Water Harvesting Reservoirs. Presented at the 5th Annual Middle East GIS ESRI User Conference, May 17-20, 1999, Beirut, Lebanon.
21. Hamadeh, S.K., Abi Said, M., Shomo, F. Nordbloom, T., **Zurayk, R.** and Nassar, A. 1998. Diversity of Small Ruminant Systems in Lebanon: a Response to Constraints. International Symposium of Livestock Production and Climatic Uncertainty. Morocco, October 22-24, 1998.
22. **Zurayk, R.A.** 1998. Facing Change: The Challenge of Soil Conservation in Steeplands in Lebanon. Natural Resources Management Workshop, 4-8 May, Cairo, Egypt.(ICARDA).
23. **Zurayk, R.A.** 1997. Soil-Water-Plant Relationships in Salt-Affected Soils. In: **Zurayk, R.** and Hamdallah, G. 1997. (eds.) Proceedings of the Regional Workshop on the Management of Salt Affected Soils in the Arab Gulf States. FAO, 29 October-2 November 1995, Abu Dhabi, United Arab Emirates. FAO, Regional Office for the Middle East, Cairo, Egypt, iv+140 pp.
24. **Zurayk, R.** 1997. Drainage and Salinity Investigation Techniques for the Diagnosis of Land Degradation. In: **Zurayk, R.** and Hamdallah, G. (eds.) Proceedings of the Regional Workshop on the Management of Salt Affected Soils in the Arab Gulf States. FAO, 29 October-2 November 1995, Abu Dhabi, United Arab Emirates. FAO, Regional Office for the Middle East, Cairo, Egypt, iv+140 pp.
25. **Zurayk, R.A.** 1997. Challenges in Soil Sciences Education in the West Asia and North Africa Region. In: Ryan, J. (ed.). 1997. Accomplishments and Future Challenges in Dryland Soil Fertility Research in the Mediterranean Area. Proceedings of the Soil Fertility Workshop. Institut Mondial du Phosphate (IMPHOS) and ICARDA, 19-23 November 1995, ICARDA, Aleppo, Syria, ix + 368 pp.
26. Darwish, T. and **Zurayk, R.** 1997. Land Degradation in the Western Aspect of the Anti-Lebanon Range. 4th International Meeting on Red Mediterranean Soils. Agricultural University, Plovdiv, Bulgaria, 26 May 1997-June 1 1997.
27. **Zurayk, R.A.** 1996. Constructed Wetlands for Wastewater Treatment and Re-use. Inter-Country Workshop on Re-Use of Wastewater. UNDP and Abu Dhabi Municipality. Abu Dhabi, UAE. March 2-4, 1996.
28. **Zurayk, R.**, Baalbaki, R. and Talhouk, S. 1995. Production and Use of Chemical Fertilizers and the Environment in Lebanon. In: M. M. El-Fouly and F.E. Abdalla (eds) Proceedings of the seminar on Production and Use of Chemical Fertilizers and the Environment. pp. 19-34. National Research Center (Egypt) and GTZ (Germany).

29. Baalbaki, R.Z., Kanj, B.R., **Zurayk, R.A.** and Talhouk, N.S. 1995. Salinity and Phosphorus Effects on Vegetative Growth of Drought Tolerant and Susceptible Wheat Cultivars. **Agronomy Abstracts**. pp 141.
30. **Zurayk, R.** and Darwish, T. 1995. Toposequential Analysis of Red Mediterranean Soils in the Lebanese Mountain Ecosystem. **Third International Meeting on Red Mediterranean Soils**. May 21-26, 1995, pp 39-41.
31. **Zurayk, R.**, Geha, Y. and Hawa, G. 1995. Phosphorus Removal Dynamics in Lime-Amended Red Soil. **Third International Meeting on Red Mediterranean Soils**. May 21-26, 1995, pp 61-63.
32. Darwish, T. **Zurayk, R.** and Masri, T. 1995. High Altitudes Rendzinas in Lebanon. **Third International Meeting on Red Mediterranean Soils**. May 21-26, 1995, pp 26-28.
33. Timani, S. and **Zurayk, R.** 1995. Using GIS in Analyzing Deforestation and its Impacts in Lebanon. **ESRI Middle East User Meeting**. January 19-20, 1995. Cairo, Egypt.
34. **Zurayk, R.**; Rizk, C.; Nimah, M. and Acra, A. 1994. Performance of Pilot Scale Hydrophyte Beds for Wastewater Treatment Under Various Operating Conditions. Proceedings of the **Water Environment Federation 67th Annual Conference**, vol VII, 7-18.
35. Al Khalidi, M. and **R. Zurayk**. 1994. The Sustainability of Internationally (NGO) funded community based sanitation projects in Lebanon. **Proceedings of the Water Environment Federation 67th Annual Conference**, vol VIII, 413-422.
36. **Zurayk, R.** and Al Mubayyid, L. 1994. Women and the Environment in the Rural Development Policies in Lebanon. **Proceedings of the Regional Conference on the Arab Woman and the Environment**. 25-27 November 1993. Beirut, Lebanon (in Arabic).
37. **Zurayk, R.** Adlan, M., Baalbaki, R. and Saxena, M. 1994. Response of Chickpea Nodulation, Nitrogen Fixation and Growth to Salinity. **Agronomy Abstracts**. pp. 305.
38. Baalbaki, R., Bleik, M. and **Zurayk, R.** 1994. Moisture Stress Effects on Germination and Seedling Development. **Agronomy Abstracts**. pp 176.
39. Fayyad, H., Nimah, M.N., Baalbaki, R. and **Zurayk, R.** 1994. An Empirical Model to Estimate Evaporation from Soil Moisture. **Agronomy Abstracts**. pp. 353.
40. Nimah, M.N., Mina, N. and **Zurayk, R.** 1994. Estimating Unsaturated Soil Hydraulic Properties from Depth of Wetting. **Agronomy Abstracts** pp 234.
41. **Zurayk, R. A.**, Darwish, T., and Geha, Y. 1993. Testing the Fertility of Red Mediterranean Soils of Lebanon. **Second International Meeting on Red Mediterranean Soils, 3-9 May 1993, Adana, Turkey**. pp. 187-188.
42. Darwish, T. and **Zurayk, R.** 1993. Distribution and Genesis of Red Mediterranean Soils of Lebanon. **Second International Meeting on Red Mediterranean Soils, 3-9 May 1993, Adana, Turkey**. pp. 22-24.
43. Sadek, S., **Zurayk, R.** and Basha, H. 1993. The Potential Use of Artificial Recharge in the Management of Groundwater Quality and Quantity in Lebanon. **Regional Seminar on the Potential of Artificial Recharge of Groundwater**. December 13-15, 1993. Amman, Jordan.
44. Hamadeh, S., Seeden, H., Talhouk, S., Baalbaki, R. and **Zurayk, R.** 1993. Changes in Traditional Agropastoral Systems; a Case Study. **Dryland Management Project Final Workshop**. May 1993, ICARDA, Aleppo, Syria.
45. Jaber, F., Rizk, C. and **Zurayk, R.** 1992. Design and Performance of Pilot Test Beds for Hydrophyte Sewage Treatment. Poster presented at the **First National Workshop on Water in Lebanon**. UNICEF, Beirut, 28-19 November 1992.
46. **Zreik, R.** 1991. Post-War Perspectives for Development Work in The Middle East. In: **The Middle East: Political Change and Development**, CIIR, 1991, London
47. **Zurayk, R.**, Nimah, M. and Hamze, M. 1984. Evaluation of Eggplant Cultivars for Salt Tolerance. Abstract, **Eighth Science Meeting, The Lebanese Association for the Advancement of Science**. March 21-24, 1984, Beirut, Lebanon.

## EXTENSION BOOKLETS, PAPERS AND LEAFLETS

Authored by **R. Zurayk**

1. Moussa, Z. and **Zurayk, R.** 2003. Organic Farming. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
2. Moussa, Z. and **Zurayk, R.** 2003. Fertilization Techniques in Organic Farming. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
3. Moussa, Z. and **Zurayk, R.** 2003. Sustainable Agriculture. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
4. Moussa, Z. and **Zurayk, R.** 2003. Forage Crops. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
5. Moussa, Z. and **Zurayk, R.** 2003. Innovations in Agricultural Marketing. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
6. Moussa, Z. and **Zurayk, R.** 2003. Rural Tourism. American University of Beirut, USDA and Mercy Corps. (Arabic). 14pp.
7. Dereix, C. A. Ohannessian-Charpin, Khouzami, M., Safi, S., **Zreik, R.**, El-Hanna, C. Hanna, K., El-Riachy, N., Habr, R.A., Munzer, M.H. and Fortunat, L. 1999. **Le Vade-Mecum du Gestionnaire de Forêts et d'Espaces Naturels au Liban**. Projet d'Assistance a la Protection de la Couverture Vegetale au Liban. Union Europeenne et Ministere de l'Agriculture, ii+102pp.
8. Dereix, C. A. Ohannessian-Charpin, Khouzami, M., Safi, S., **Zreik, R.**, El-Hanna, C. Hanna, K., El-Riachy, N., Habr, R.A., Munzer, M.H. and Fortunat, L. 1999. **Le Fascicule des Essences Forestieres Du Liban**. Projet d'Assistance a la Protection de la Couverture Vegetale au Liban. Union Europeenne et Ministere de l'Agriculture. 65pp.
9. Dereix, C. A. Ohannessian-Charpin, Khouzami, M., Safi, S., **Zreik, R.**, El-Hanna, C. Hanna, K., El-Riachy, N., Habr, R.A., Munzer, M.H. and Fortunat, L. 1999. **Trois Notices Techniques: Recolte et Conservation des Graines Forestieres, Pepiniere de Plants Forestiers, Reboisement**. Projet d'Assistance a la Protection de la Couverture Vegetale au Liban. Union Europeenne et Ministere de l'Agriculture.

*Reviewed and produced by R. Zurayk*

## Booklets

1. Talhouk S. and Khatib, A. 2004. Selection of New Varieties of Fruit Trees. Ministry of Agriculture and AUB
2. Sleiman F. 2004. Forage Corn. Ministry of Agriculture and AUB
3. Moussa Z. and Fares, R. 2004. Organic Agriculture. Ministry of Agriculture and AUB
4. Bashour, I. 2004. Fertilization. Ministry of Agriculture and AUB
5. Abou Fakhr Hammad, E. and Abou Jawdah, Y. 2004. Integrated Pest Management of Potato Pests. Ministry of Agriculture and AUB
6. Abou Jawdah, Y. and Abou Fakhr Hammad, E. 2004. Integrated Pest Management of Citrus Trees. Ministry of Agriculture and AUB
7. Khairallah, S. 2004. Grafting. Ministry of Agriculture and AUB
8. Abou Fakhr Hammad, E. 2004. Stem Borrowers of Stone and Pome Fruit Trees. Ministry of Agriculture and AUB
9. Khairallah, S. 2004. Pruning of Grapes. Ministry of Agriculture and AUB
10. Abou Jawdah, Y. 2004. Agricultural Techniques for the Implementation of IPM in Greenhouses. Ministry of Agriculture and AUB
11. Abou Jawdah, Y. 2004. Pesticides. Ministry of Agriculture and AUB
12. Sleiman, F. 2004. Nutrition of Dairy Cows. Ministry of Agriculture and AUB

**Short extension TV spots supervised by R. Zurayk, 2004, published by Ministry of Agriculture and AUB**

### Five minutes spots

1. Agro-Ecotourism
2. Forage Crops
3. Improving Olive Oil Quality
4. Composting
5. Improving Sheep and Goat Production

### Ten minutes spots

1. Control of Potato Tuber Moth
2. Pheromone Traps
3. Resistant Rootstocks for Agricultural Pest
4. Micro irrigation
5. Introduction of New Agricultural Varieties and their Markets
6. Control of White Fly in Greenhouses
7. Apple Fertilization
8. Control of Apple Scab
9. Control of Mediterranean Fruit Fly
10. Banana Fertilization

## Posters

1. Sleiman, F. 2004. Dairy Cows Diseases
2. Abou Jawde, Y. 2004. Symptoms of Plants Nutrient Deficiency
3. Bashour, I. 2004. Compost Production
4. Bashour, I. 2004. Control of Major Fruit Stones Diseases
5. Lichaa El Khoury, D., Olleik, R. and Sattout, E. 2005. Bee Calendar.

## Current focus topics

Theme	Sustainable agriculture, livelihood centered natural resource management
Discipline	Agriculture
Product(s)	
Geographical area	

Copy and cut as many tables as necessary



**Recommended by (name of the SINER-GI team researcher(s))**  
*Mention additionally the SINER-GI researcher who is responsible for the requested association*

Erik THÉVENOD-MOTTET, AGRIDEA

**Expected contribution to SINERGI (to be filled in by the SINER-GI team researcher(s))**

Dr. Rami Zurayk is engaged in the cooperation project led by AGRIDEA in Lebanon for the establishment of a legal and institutional framework for the protection of GIs. He will thus be able to make contributions on a case study in Lebanon, and to add the perspective of a project of protection of GIs with institutional, scientific and on-field experiences.

**Expectations from collaboration with SINER-GI**

Scientific information	I expect to be able to contribute to the production of knowledge and to acquire new skills.
Scientific publication	I expect to be able to publish academic papers as well as other forms of publication in order to enhance dissemination
Market information	I am involved in the Lebanese GI project and we will need to access a market information database
Government regulations	I am involved in drafting the new GI law for Lebanon, and my experience with the project will help formulate a law based on shared experience
Master or Ph.D Thesis	
Other	

**Type of collaboration desired**

Fields	Yes	Comments
<i>Access to on-line information</i>		
Draft reports, internal forum	yes <input checked="" type="checkbox"/>	
Reference on <a href="http://www.origin-food.org">www.origin-food.org</a>	yes <input checked="" type="checkbox"/>	
<i>Other sources of information</i>		
Use of non published methodologies and guidelines	yes <input checked="" type="checkbox"/>	
Participation to project meetings	yes <input type="checkbox"/>	
<i>Financial issues and related projects</i>		
Access to "cost-sharing"	yes <input type="checkbox"/>	
Use of reference to SINER-GI and SINER-GI Associated Researcher status for developing new projects, applying to financial means, etc.	yes <input checked="" type="checkbox"/>	
Publication(s) with SINER-GI researcher(s)	yes <input checked="" type="checkbox"/>	
Other (precise)	<input type="checkbox"/>	Establishing linkages and synergies

<b><i>Date of request for association</i></b>	June 6, 2006
<b><i>Date of acceptance of association</i></b>	

*To be fulfilled by the SINER-GI researcher responsible for the AR*



## Associated researchers

### Commitment to participation and confidentiality

As associated researcher to the European Project SINER-GI, which aims are to "build and share a coherent scientific basis world-wide, regarding economic, legal, institutional and socio-cultural conditions of success of Geographical Indications, in order to support their legitimacy in the framework of WTO negotiations", I am willing to participate in its scientific activities during its duration.

In this framework, I will be associated in a process of exchange. In this way, I will support the project, receive and provide information and analysis on accurate data about Geographical Indications and their economic and institutional field in the world, hereafter the Confidential Information.

In order to provide protection against inappropriate use or unauthorised disclosure to a third party of the Confidential Information, I commit myself to the following :

I commit myself to keep those data and analysis confidential until they have been published by the consortium. I will not myself publish part or totality of those data and analysis, without refereeing to the Steering Committee or unless the Steering Committee of the project requests my participation in such a publication.

I will not use this Confidential Information with the purpose of direct or indirect exploitation, without the prior, written authorisation of the owners of the Confidential Information.

I will take all reasonable measures to prevent the personnel of the Institution I belong to, from disclosing all or part of this Confidential Information to a third party without the prior, written authorisation of the owners of the Confidential Information and, only give this Confidential Information to personnel of my Institution who agree to accept the provisions of this agreement concerning confidentiality.

I agree that none of these provisions may be interpreted as granting a license and/or any right and/or title whatsoever for the use of this Confidential Information.

I agree that any use of this Confidential Information shall be subject to the prior signature of an agreement with the owner(s) of the Confidential Information (including myself). However, Information shall not be deemed as confidential if an associate researcher is able to prove:

- that it was already in the public domain at the time it was communicated or that it has subsequently come into the public domain other than as a result of a breach of the obligation of secrecy, or
- that he already had the information before it was communicated to him/her; or
- that he freely received it from a third party which was at liberty to disclose it, or
- that he is legally bound to communicate it.

This secrecy agreement will be valid from the date of signature and will last as long as the said information is not in the public domain. As this commitment is also signed by the other associate researchers of SINER-GI project, the confidential information I will provide in the framework of the project is also protected from disclosure.

Publications produced in the frame of such a cooperation :

- will mention the SINER-GI project,
- will concern topics defined in collaboration with the SINER-GI Steering Committee,
- will be co-authored by at least one member from the core SINER-GI team.

Signatures		
Associated Researcher (name)	Date	Signature
RAMI ZURAYK	APRIL 3, 2006	
SINER-GI researcher responsible for the AR	Date	Signature
SINER-GI Co-ordinator	Date	Signature

Please send this form with manuscript signatures to: Bertil SYLVANDER, SINER-GI co-ordinator  
INRA SICOMOR, BP 52627, 31326 Castanet – Tolosan Cedex, France, Fax +33 (0) 61 73 20 77