Curriculum Vitae



Name: Fadi	
Surname: KARAM	
Date and place of b	irth: 14 th of September 1965, Lebanon
Citizenship: Lebane	se
Home address (1):	Ksara Hills, Main Road to Zahle, Col. Choueiri Bldg., 1 st Floor, Zahle, Lebanon. Land Phone: + 961 8 82 22 99 Mobile Phone: + 961 3 54 65 39
Home address (2):	Lubnan Street, Anis Samaha Bldg., 3 rd Floor, Elissar, Mazraat Yashouh, Meten, Lebanon Land Phone: Mobile Phone: + 961 3 54 65 39

Work address: DAR Al Handassah NT & Partners, Bachir Kassar Street, Verdun, Lebanon (Phone + 961 1 86 66 65).

Educational Levels

- Post-Doctoral studies in 'Eco-Physiology and Adaptations to Drought' within the framework of the EU INCO-DC Project "DEMOS" of the European Commission, University of Trieste, Italy, 1998;
- Post-Doctoral studies in 'Agro-Meteorological Applications in Plant Production', Institut National de la Recherche Agronomique (INRA), Station de Bio-Climatologie, Avignon, France; 1998
- PhD in Agricultural Water Management & Crop Production, University of Basilicata, Italy, 1997;

MSc in Irrigation, Mediterranean Agronomic Institute of Bari, Italy, 1992;

B. Sc. in Agricultural Sciences, specialization in Plant Production, Faculty of Agriculture, Lebanese University, Beirut, 1990.

Professional Experiences

 Since 1999: Theoretical and practical teaching courses of Climatology, Agro-Meteorology, Climate Change and On-farm water management at the Faculty of Agricultural Sciences of the Lebanese University, Beirut;

- Since 2015: Theoretical and practical teaching course of Geography at École Supérieure d'Ingénieurs d'Agronomie Méditerranéenne of Saint Joseph University, Taanayel Campus, Lebanon;
- January 2019 December 2019 : Consultant in Irrigation Systems & Agricultural Water Management (Supply vs. Demand) with DAR Handassh (NT & Partners) within the frame of South Lebanon Irrigation Project - Conveyor 800;
- June 2015 November 2017: International Consultant at Part-Time basis in Agro-Meteorological & Hydro-Meteorological Systems with FAO Regional Office for Europe & Central Asia in Budapest for Georgia;
- June 2018 December 2018: International Consultant at Part-Time basis in Agro-Meteorological & Hydro-Meteorological Systems with FAO Regional Office for Europe & Central Asia in Budapest for Tajikistan;
- February 2014 July 2017: Agriculture Production Technical Director, Lebanon Industry Value Chain Development (LIVCD) Program – A 5-year program (2013-2017) funded by US Agency for International Development (USAID) & implemented by Development Alternatives Incorporated (DAI), Zahle, Lebanon;
- January 2012 January 2014: Leader of the Irrigation & Agricultural Water Management Component at Litani River Basin Management Support (LRBMS) Program - A program (2009-2013) funded by US Agency for International Development (USAID) & implemented by International Resources Group (IRG, Engility Group), Beirut, Lebanon;
- 2009-2011: Senior Scientist Agricultural Water Management Specialist at the International Center for Agricultural Research in Dry Areas (ICARDA), Aleppo, Syria;
- 1998 –2009: Head of the Department of Irrigation and Agro-Meteorology at the Lebanese Agricultural Research Institute (LARI) and Head of the Central Laboratory at the said institute during the period of 2006–2009;
- 2006-2009: Head of the Agro-Meteorological component of the EU 'Agriculture Development Project - Early Warning Systems for Pests& Diseases' -EUMED 2003/5715/ADP;
- 2003-2009: National Coordinator of the "Rural Development Project of Upper Bekaa Valley" of the Cooperazione Italiana, Italian Ministry of Foreign Affairs (AID No 5799);

Hot spot activities

- Member in the Euro-Mediterranean TREASURE Research Network (**Trea**tment and **Su**stainable **R**euse of **E**ffluents in semiarid climates) on biological wastewater treatment plants and microbial ecosystems, with INRA-Narbonne, France
- Member of the International Water Resources Association (IWRA)
- Member founder of the Arab Water Academy (Dubai, UAE) in 2007
- Member founder of the CIHEAM Collective Irrigation Scheme Network (CIS-Net) in Bari (1998-2002).

Language Skills

- Tongue language: Arabic
- Other languages (spoken, read and written): English, French, Italian and Spanish.

Computer skills

- Very good knowledge of computer science applications (Microsoft Office Word, Excel, and PowerPoint), as well as creating databases and programs to track and manage information by using Microsoft Access.
- Good knowledge of statistical packages operating on Windows, including the Statistical Applied Systems (SAS) and the Statistical Package for the Social Sciences (SPSS Statistics).

Consultancies achieved (2003-2017)

- International consultant in "Agro-meteorological & Hydro-Meteorological Systems" within GCP/GEO/004/AUT Capacity Development of the Ministry of Agriculture of Georgia: Improved Policy Making and Effective Implementation of the Strategy for Agricultural Development (Contribution to ENPARD Georgia Program) (19 September 2015 4 October 2015; 16-26 December 2015; 5-19 June 2016; 11-23 December 2016; 4-11 June 2017);
- International TCDC consultant, "Specialist in Small Scale Irrigation" within TCP/EGY/3402 - "Good Agriculture Practices (GAP) for Sustainable Intensification of the Small Holder Horticulture Sector in Egypt" (20 June 2014 – 3 July 2014; 6-15 December 2014);
- Member of the Task Force for the establishment of the Arab Water Academy under the supervision of the World Bank, and in close collaboration with the Environmental Agency of Abu Dhabi, UAE, June 28 July 28, 2008;
- International Consultant in "Irrigation and Water Management" at FAO Regional Office for the Near East, Food and Agriculture Organization of the United Nations, Cairo, Egypt, 1 October 2008 –31 January 2009.
- National Consultant for the AQUASTAT Study for Lebanon, Food and Agriculture Organization of the United Nations, Land and Water Division, 2006;
- International TCDC consultant in "Wastewater Reuse and Irrigation" within TCP/SYR/0167 "Strengthening the Capacity for the reuse of treated wastewater in irrigation", FAO, Ministry of Irrigation in Syria, Damascus, July-August 2003;

During the period of 1998-2009 I took part in the following collaborative projects:

• 2005-2010: EU-INCO-MED project on "Management Improvements of WUE and NUE of Mediterranean Strategic Crops - Wheat and Barley – (WatNitMED), of the European

Commission (FP6 - Specific targeted research or innovation, contract No 509107); in collaboration with the Agronomic Mediterranean Institute of Zaragoza (Spain);

- 2006-2009: EU-INCO-MED project on "Mediterranean DiaLogue on Integrated Water ManAgement (MELIA), of the European Commission (FP6, Coordination Action, contract No 517612); in collaboration with CSIC-Seville (Spain);
- 2006-2009: EU-INCO-MED project on "Sustainable Orchard Irrigation Development for Fruit Safety (IRRIQUAL), of the European Commission (FP6, STREP); in collaboration with CSIC-Murcia (Spain);
- 2006-2009: "Farm Level Optimal Water management: Assistant for Irrigation under Deficit – FLOW-AID", INCO Project, European Commission (FP6-2005-Global-4, Priority II.3.5 - Water in Agriculture, STREP Contract no.:036958), in collaboration with Wageningen University & Research Center, Plant Research International (NL);
- 2003-2006: EU-INCO-MED project on "Water Saving in Mediterranean Agriculture" (WASAMED) European Commission (FP5 - Thematic Network), in collaboration with the Agronomic Mediterranean Institute of Bari (Italy);
- 2002: Euro-Mediterranean project on "Influence of climate and agronomical techniques on the essential oils produced by Mediterranean officinal plants" within the 5th framework of the European Commission, in collaboration with the National Council for Research (CNR) in Monterotondo, Rome Italy;
- 1998-2001: EU-INCO project on "Desertification of Mediterranean Drylands: Development of a monitoring system based on Plant Eco-Physiology" (DEMOS) of the European Commission, in collaboration with Department of Biology, University of Trieste (Italy), the Mediterranean Agronomic Institute of Chania, (Greece), and the National Council for Scientific Research (Lebanon);
- 1998-2000: Euro-Mediterranean Network on "Collective Irrigation System" organized by the Mediterranean Agronomic Institute of Bari, Italy, within the framework of the Regional Action Program (RAP) of the EU-INCO project on "Water Resources Management and Water Saving in Irrigated Agriculture (WASIA);

Key qualifications

- I served as Regional and National focal point for matters related to climate and agricultural water resources development and management and adaptation to climate change, both regional and national dimensions, and provided technical support in these areas to National teams in the MENA region;
- I provided perspectives and priorities in support to International Organizations (EU, World Bank, FAO, IFAD, WMO, UNIDO) and Governmental Aid Bodies (AUSAID, Cooperazione Italiana GIZ, JICA, SIDA, USAID) in the field of rural development, value chain development, land and water management, societal resilience and adaptation to climate change;
- I assumed the role of training and capacity development expert in matters related to agrometeorology, land and water management, drought, and adaptation to climate change, socio-economic development and livelihoods;

- I led the agro-meteorological component of the EU Agriculture Development Project -Early Warning Systems for Pest & Diseases for the establishment of an automated agrometeorological network in Lebanon that collect, store, and diffuse information on weather of consistent quality to farmers and other agricultural users at in-real time basis;
- I have 15-year experience in research development on the optimal use of rainfall and water in crop production systems under water scarcity and other environmental stresses (heat, saline) and the response of crops and forest species to climate variability, in addition to the use of SPI (Standardized Precipitation Index) as an indicator/trigger for hydrological & agricultural drought;
- I gained an appreciable knowledge of management, development of work plan & activities, procurement of equipment and other logistics, budget management, reporting and Monitoring & Evaluation for medium (2-5 years) and long (> 5 years) term research & development projects funded by US Agency for International Development and European Union;
- Promote effective contribution of National teams for the development and follow up of the Millennium Development Goals (MDGs) in collaboration with International Organizations, as well as participation UN Water Decade (2005-2015), Water for Life, Global Water Partnership, EU Horizon 2020 Initiative, EU-WFD Water Framework Directive;
- Good understanding of UN, USAID, EU and other donors policies for cooperative projects and acquaintance with the EC's administrative and financial procedures.

List of publications in peer reviewed scientific journals

- <u>Karam, F.</u>, Mouneimne, A.H., Aichouche, F., Rapaport, A., and J. Harmand. 2019. Processing soil water content measurements to estimate crop water requirements and optimize irrigation supply. In: Proceedings of 1st Workshop on 'Control Methods for Water Resources Systems', International Federation of Automatic Control, 19-20 September 2019, Delft, The Netherlands.
- Amacha, N., <u>Karam, F.</u>, Jerdi, M., Frank, P., Viala, E., Hussein, D., Kheireddin, S., and S. Baydoun. 2017. Assessment of the Efficiency of a Pilot Constructed Wetland on the Remediation of Water Quality; Case Study of Litani River, Lebanon. Environment Pollution and Climate Change, 1:119.
- 3. <u>Karam, F.</u>, and V. Nangia. 2016. Improving Water Productivity in Semi-arid Environments through Regulated Deficit Irrigation. Annals of arid zones 55 (3&4): 79-87.
- 4. Mahfouz, M., Mitri, M., Jazi, m., <u>Karam, F</u>. 2016. Investigating the Temporal Variability of the Standardized Precipitation Index in Lebanon. Climate, 4, 27; doi:10.3390/cli4020027.
- <u>Karam, F.</u>, Amacha, N., Katerji, W., Wu, W., Domínguez, A., Baydoun, S. 2016. Using Remote Sensing to Improve Crop Water Allocation in a Scarce Water Resources Environment. International Journal of Science and Research, Vol. (1), 1481-1498, ISSN (Online): 2319-7064.
- Wu, W., Fadhil, A.M., Zucca, C., Mhaimeed, A., Al-Shafie, W. and <u>F. Karam</u>, 2016. Impacts of climate change on rangeland productivity in Western Asia. 2016. In: Proceedings of UNOOSA & ISA Joint Workshop: Use of Space Technology for Dust Storm and Drought Monitoring in the Middle East Region, Tehran, Iran, East China University of Technology, DOI:10.13140/RG.2.2.17245.41444
- Wu, W., Zucca, C., <u>Karam, F.</u>, Liu, G. 2016. Enhancing the performance of regional land cover mapping. International Journal of Applied Earth Observation and Geoinformation, 52, 422–432.
- Amacha.N, Saadeh.M, <u>Karam.F</u>, Eter.R, Jomaa.R, Koubaissi. A and S. Baydoun. 2015. Spatial-temporal characterization of water quality indicators of the open irrigation canal 900 of qaraoun reservoir, Lebanon. International Journal of Recent Scientific Research, 6 (2), 2611-2615.
- Abi Saab, M.T., Albrizio, R., Nangia, V., <u>Karam, F</u>. and Y. Rouphael. 2014. Developing scenarios to assess sunflower and soybean yield under different sowing dates and water regimes in the Bekaa valley Lebanon: Simulations with Aquacrop. International Journal of Plant Production, (8): 4, 457-482.
- 10. Karam, F. Amacha, N., Fahed, S., EL Asmar, T., and A. Domínguez. 2014. Response of potato to full and deficit irrigation under semiarid climate: Agronomic and economic implications. Agricultural Water Management, 142, 144–151.
- <u>Karam, F.</u>, Mouneimne, A.H., El-Ali, F., Mordovanaki, G., and Y. Rouphael. 2013. Wastewater management and reuse in Lebanon. Journal of Applied Sciences Research, 9(4): 2868-2879,
- 12. <u>Karam, F.</u>, Doulis, A., Ozturk, M., Dogan, Y. and S. Sakcali. 2011. Eco physiological behaviour of two woody oak species to combat desertification in the east Mediterranean-a case study from Lebanon. The 2nd International Geography Symposium GEOMED 2010. *Procedia Social and Behavioral Sciences*, 19, 787–796.

- <u>Karam, F.</u>, Saliba, R., Skaf, S., Breidy, J., Rouphael, Y., and J. Balendonck. 2011. Yield and water use of eggplants (*Solanum melongena* L.) under full and deficit irrigation regimes. Agricultural Water Management, 98: 1307-1316.
- Dominguez Padilla, A., Tarjuello, J.M., Breidy, J., and <u>F. Karam.</u> 2011. Deficit irrigation under water stress and salinity conditions: The MOPECO-SALT Model. Agricultural Water Management, 98: 1451-1461.
- <u>Karam, F.</u>, Masaad, R., Skaf, S., Breidy, J., and Y. Rouphael. 2011. Potato response to potassium application rates and timing under semi-arid conditions. Adv. Hort. Sci., 25(4), 265-268.
- Redpath, D.A.G., McIlveen-Wright, D., Kattakayam, T., Hewitt, N.J., El Amsar, T., Geha, D., <u>Karam, F.</u>, Karlowski, J., and P. Griffiths. 2010. Battery powered electric vehicles developed for light agricultural duties in remote areas in the southern Mediterranean region, International Journal of Ambient Energy, 31 (3), 1-17.
- Villegas, D., Casadesus, J. Atienza, S.G., Martos, V., Maalouf, F., <u>Karam, F.</u>, Aranjuelo, I., and S. Nogues. 2010. Tritordeum, wheat and triticale yield components under multi-local Mediterranean drought conditions. Field Crops Research, 116, 68-74.
- Ozturk, M., Dogan, Y., Sakcali, S., Doulis, A., and <u>F. Karam</u>. 2010. Ecophysiological responses of some maquis (Ceratonia siliqua L., Olea oleaster Hoffm. & Link, Pistacia lentiscus and Quercus coccifera L.) plant species to drought in the east Mediterranean ecosystem. J. Environ. Biol., 31, 233-245.
- <u>Karam, F.,</u> Rouphael, Y., Lahoud, R., Breidi, J., and G. Colla. 2009. Influence of genotypes and potassium application rates on yield and potassium use efficiency of potato. Journal of Agronomy, 8 (1): 27-32.
- 20. Karam, F., Masaad, R., Bachour, R., Rhayem, C. and Y. Rouphael. 2009. Water and Radiation Use Efficiencies in Drip-irrigated Pepper (*Capsicum annuum* L.): Response to Full and Deficit Irrigation Regimes. Europ. J. Hort. Sci., 74 (2). S. 79–85.
- 21. <u>Karam</u>, F., Kabalan, R., Breidi, J, Rouphael, Y. and T. Oweis. 2009. Yield and waterproduction functions of two durum wheat cultivars grown under different irrigation and nitrogen regimes. Agricultural Water Management, 96: 603-615.
- 22. <u>Karam</u>, F., J. Breidy, C. Stephan, G. Colla and Y. Rouphael. 2007. Evaluation of CERES-Maize model performance in the semi-arid environments of the Bekaa valley of Lebanon. Agricoltura Mediterranea, 136: 117-127.
- 23. <u>Karam, F.</u>, Geagea, L and M. Saadeh. 2007. Improving water use efficiency for a sustainable productivity of agricultural systems in Lebanon. Options Méditerranéenes, Series A, 72, 57-62.
- <u>Karam</u>, F., R. Lahoud, R. Masaad, R. Kabalan, J. Breidi, C. Chalita and Y. Rouphael.
 <u>2007</u>. Evapotranspiration, seed yield and water use efficiency of drip irrigated sunflower under full and deficit irrigation conditions. Agricultural Water Management, 90: 213-223.
- 25. Rouphael, Y., G. Colla, S. Fanasca and <u>F. Karam</u>. 2007. Leaf area estimation of sunflower leaves from simple linear measurements. Photosynthetica, 45 (2) 306-308.
- <u>Karam, F.,</u> K. Karaa and N. Tarabey. 2007. Effects of deficit irrigation on yield and water use efficiency of some crops under semi-arid conditions of the Bekaa valley of Lebanon. Options Méditerranéenes, Series B, 57, 139-154.
- 27. Karaa K., <u>F. Karam</u> and N. Tarabey. 2007. Improving water use efficiency of field crops through regulated deficit irrigation. Options Méditerranéenes, Series B, 56 (1), 143-151.

- 28. Slafer, G.A., M. Karrou, <u>F. Karam</u>, C. Thabet, H.J. Spiertz, R. Dahan, J. Foulkes, S. Nogues, P. Peltonen-Sainio, R. Albrizio, J.Y. Ayad and H.M. Mellouli. 2007. WatNitMED. Management improvements of WUE and NUE of Mediterranean strategic crops (wheat and barley). Options Méditerranéenes, Series B, 56 (3), 291-299.
- 29. <u>Karam</u>, F., R. Lahoud, R. Masaad, A. Daccache, O. Mounzer and Y. Rouphael. 2006. Water use and lint yield response of drip irrigated cotton to the length of irrigation season. Agricultural Water Management, 85, 287-295.
- <u>Karam</u>, F., R. Masaad, T. Sfeir, O. Mounzer and Y. Rouphael. <u>2005</u>. Evapotranspiration and seed yield of field grown soybean under deficit irrigation conditions. Agricultural Water Management, 75(3): 226-244.
- Rouphael, Y., G. Colla, A. Salerno, C.M. Rivera and <u>F. Karam</u>. 2005. Water use efficiency of greenhouse summer squash in relation to the method of culture: soil vs. soilless. Acta Horticulturae, 697: 81-86.
- 32. <u>Karam</u>, F., R. Lahoud, R. Masaad, C. Stephan, Y. Rouphael, and G. Colla. 2005. Yield and tuber quality of potassium treated potato under optimum irrigation conditions. Acta Horticulturae, 684: 103-108.
- 33. Karaa, K., <u>Karam, F.</u> and N. Tarabey. 2005. Wastewater treatment and reuse in Lebanon: Key factors for future agricultural uses. Options Méditerranéennes, Series B, 53: 215-226.
- <u>Karam, F</u>. 2004. Automated climatic database for a sustainable productivity and management of agricultural systems in Lebanon. World Meteorological Organization, Report series, 42: 179- 183.
- 35. Karaa K., F. Karam and N. Tarabey. 2004. Attempts to determine some performance indicators in the Qasmieh-Ras-El-Ain irrigation scheme (Lebanon), Options Méditerranéennes, Series B, 52: 149-158.
- 36. <u>Karam</u>, F., J. Breidy, C. Stephan, and Joe Rouphael. 2003. Evapotranspiration, Yield and Water Use Efficiency of Drip Irrigated Corn in the Bekaa Valley of Lebanon. Agricultural Water Management, 63: 125-137.
- <u>Karam, F.</u>, Breidy, J., J. Rouphael et R. Lahoud. 2002. Stress hydrique, comportement physiologique et rendement du maïs hybride (cv. Manuel) au Liban. Cahiers Agricultures, (11) 4: 285-291.
- <u>Karam, F.</u>, Skaff, S., Hajj Hassan, S. et R. Lahoud. <u>2002</u>. Evaluation de l'effet de la contrainte hydrique et du niveau de la fertilisation azotée sur la production de la betterave à sucre en conditions semi-arides de la Békaa Centrale (Liban). Sécheresse, (13) 2: 113-119.
- <u>Karam</u>, F., O. Mounzer, F. Sarkis, and R. Lahoud. 2002. Yield and Nitrogen Recovery of Lettuce under Different Irrigation Regimes. Journal of Applied Horticulture, 13: 285-295.
- 40. <u>Karam, F.</u> and K. Karaa. 2000. Recent trends in the development of a sustainable irrigated agriculture in the Bekaa valley of Lebanon. Options Méditerranéennes, Series B, 31: 65-86.
- 41. Katerji, N., van Hoorn, J. W., Hamdy, A., Mastrorilli, M. and <u>F. Karam.</u> 1998. Salinity and Drought, a comparison of their effects on the relationship between yield and evapotranspiration. Agricultural Water Management, 36: 45-54.
- 42. Castrignanò, A. M., Katerji, N., Hamdy, A., <u>Karam, F.</u> and M. Mastrorilli. <u>1998</u>. A modified version of CERES-Maize model for predicting crop response to salinity stress. Ecological Modelling, 111: 107-120.

- 43. Castrignanò, A. M., Katerji, N., Hamdy, A., <u>Karam, F.</u> and M. Mastrorilli. <u>1998</u>. A comparison between two models for predicting corn yield in saline stress conditions. Maydica, 43: 35-44.
- 44. <u>Karam, F.</u>, Katerji, N., Hamdy, A. and M. Mastrorilli. <u>1998</u>. Effects of irrigation water salinity and soil texture on potatoes growth and production. Acta Horticulturae, 458: 89-94.
- 45. Castrignanò, A. M., Katerji, N., <u>Karam, F.</u>, M. Mastrorilli and A. Hamdy. <u>1997</u>. La risposta del mais all'irrigazione con acqua salmastra: proposata di un modello di simulazione. Irrigazione e Drenaggio, 44, 4: 64-69.
- 46. <u>Karam, F.</u>, Katerji, N., Hamdy, A. and M. Mastrorilli. <u>1997</u>. Solanum tuberosum water status and yield as affected by salinity and soil texture. ActaHorticulturae, 449, 2: 635-640.
- 47. Katerji, N., van Hoorn, J. W., Hamdy, A., Mastrorilli, M. and <u>F. Karam</u>. 1996. Effects of salinity on water stress, growth and yield of maize and sunflower. Agricultural Water Management, 30: 237-249.
- 48. Katerji, N., van Hoorn, J. W., Hamdy, A., Mastrorilli, M. and <u>F. Karam</u>. <u>1994</u>. Effects of salinity on emergence and on water stress and early seedling growth of Sunflower and Maize. Agricultural Water Management, 26: 81-91.

Papers in Proceedings of International Conferences and Symposia (last ten years)

- Karam, F. and G. Mitri. 2017. Relationship between monthly precipitation and 850 hPa air temperature in a typical East Mediterranean mountain area. European Conference for Applied Meteorology and Climatology on "Serving Society with better Weather and Climate Information", European Meteorological Conference, Dublin, Ireland, 4-8 September 2017.
- Karam, F. and G. Mitri. 2016. Using the Standardized Precipitation Index as a key meteorological drought indicator to study climate change impacts on water resources in dry Mediterranean environments. MedCLIVAR International Conference 2016 Learning from the past, perceiving the present, engaging for the future (26–30 SEP 2016), Propylaea, University of Athens, Greece.
- Karam, F. Amacha, N., Katerji, W., Cheng, T. 2013. Assessing supplemental irrigation needs using remote sensing data of wheat grown under semi-arid climate of the Bekaa Valley (Lebanon). ACSAD Regional Conference on "Rainwater Harvesting as an Option for Adaptation to Climate Change in the MENA Region", Beirut, 20-22 May 2013 (ACSAD Proceedings).
- Karam, F. 2011. Optimizing Water Management Using Smart Irrigation Controller: A Farm Management Level for Irrigation under Deficit. *In*: First National Congress on 'Agriculture and Exposition', 27-30 April, 2011, Osmangazi University, Eskisehir, Turkey.
- Karam, F. 2010. Possible effects of climate change on land use and agricultural development in Lebanon: Adaptation and mitigation of impacts. *In*: National Conference on 'Impact of Climate Change on Lebanon' – June 3-4, 2010, Notre Dame University, Louaize, Lebanon.
- Karam, F., Doulis, A., Ozturk. M., Dogan Y. and S. Sakcal. 2010. Eco-physiological behavior of two woody oak species to combat desertification in the East Mediterranean- A case study from Lebanon. *In*: The 2nd International Geography Symposium – Mediterranean Environment – GEOMED 2010 – June 2-5, 2010, Kemer, Antalya, Turkey.
- Balendonck, J., Pardossi, A., Tuzel, H., Tuzel, Y., Rusan, M. and <u>F. Karam</u>, 2010. FLOW-AID, a Deficit Irrigation Management System using Soil Sensor Activated Control: Case Studies. *In*: Transactions of the "Third International Symposium on Soil Water Measurement Using Capacitance, Impedance and TDT", Murcia, Spain, April 7-9, 2010, editors: I.C. Paltineau and J.V. Muñoz; Paper 1.8, pp.19.
- Karam, F. and S. Sarraf. 2010. Strategic planning for water resources management and agricultural development for drought mitigation in Lebanon. In: International Conference on: Food Security and Climate Change in Dry Areas 1-4 February, 2010, Amman, Jordan.
- Balendonck, J., Pardossi, A., Tuzel, H., Tuzel, Y., Rusan, M. and <u>F. Karam</u>, 2009. FLOW-AID, a farm level tool for irrigation management under deficit conditions: Preliminary case study results. In: Striver Conference on 'Integrated Water Resources Management in Theory and Practice. Brussels, 28 May, 2009. Striver Conference Book, page 64.
- Karam, F. 2006. Water Use Efficiency in Lebanon. *In*: Proceedings of the Expert Consultation Meeting, Water Use Efficiency Network, AARINENA, ICARDA, Aleppo, Syria, 26-27 November, 2006, pp 105-117.