

## Adel H. Youkhana

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### Education:

- **PhD candidate** (will graduate in June 2010), Department of Natural Resources and Environmental Management (NREM), University of Hawaii at Manoa, Honolulu, USA.
- **MS in Forestry** (Silviculture) 1986 University of Mosul, College of Agriculture and Forestry, Mosul,
- **BS in Forestry** 1982. University of Mosul, College of Agriculture and Forestry, Mosul, Iraq

### Professional Experience:

- **Program Assistant**, USDA-funded Portal Program for Iraq & Afghanistan Provincial Reconstruction Teams (PRT-Portal) <http://extranet.agriportal.net/prtportal>, August 1<sup>st</sup> 2007-present.
- **Graduate Research Assistant**, USAID-funded programs for Revitalizing Agricultural Higher Education and Development in Iraq, Jan 2006 - August 2007.
- **Coordinator** of the Agricultural Higher Education and Development (AHEAD) project at the University of Mosul, Iraq <http://www.hawaii.edu/ahead> and as a member of University of Mosul, College of Agriculture and Forestry Advisory Committee, Sept 2003 - Sep 2004. [http://pdf.usaid.gov/pdf\\_docs/PDACH056.pdf](http://pdf.usaid.gov/pdf_docs/PDACH056.pdf)
- **Forestry Consultant**, Mosul County, Iraq, 1999-2001.
- **Assistant Professor**, Forestry Department, College of Agriculture and Forestry, University of Mosul, Mosul, Iraq, 1999-2004.
- **Librarian Manager** College of Agriculture and Forestry, University of Mosul, Mosul, Iraq, 1999-2002
- **Lecturer**, Forestry Department, College of Agriculture and Forestry, University of Mosul, Mosul, Iraq, 1996-1999.
- **Research and Teaching Assistant**, Forestry Department, College of Agriculture and Forestry, University of Mosul, Mosul, Iraq, 1992-1996.
- **Chair** of Horticultural & Forestry Research Station, State Board of Agricultural and Water Resources Research, Mosul, Iraq, 1990-1992.
- **Manager** of Forestry Research Station, Mosul, Iraq, 1989-1990.
- **Forestry Researcher**, State Board of Agricultural Research and Water Resources, Baghdad, Iraq 1987-1989.

### Honors, Awards and Appreciations:

- 1984 Two-years Scholarship, Mosul University, Mosul, Iraq
- 2004 One-year Scholarship, USAID/University of Hawaii, Honolulu, HI, USA.

### **Professional Affiliations:**

- [Hawaii Forest Industry Association](#),
- [Soil Science Society of America](#),
- [Society of American Foresters](#),
- [The Ecological Society of America](#),
- [The Geological Society of America](#),
- [American Society of Agronomy](#),
- [Hawaii Coffee Association](#)
- CTAHR Organic Working Group <http://www.ctahr.hawaii.edu>
- The International Society for Agriculture meteorology
- Kaho'olawe Island Reserve Commission (KIRC)-Hawaii
- Hawaiian Coffee Association
- UH student Climate Change Committee
- Iraqi Association of Agricultural Engineering
- Forestry Science Society of Iraq

### **Research Interests:**

- Carbon sequestration in relation to the productivity of forestry and agroforestry systems
- Determine the allocation of carbon above and below ground.
- Monitoring and modeling carbon and productivity of coffee-*Leucaena* KX2 agroforestry systems.
- Carbon budget and trade of agroforestry systems.
- Forestry and silvicultural systems.
- Biomass and growth of fast growing trees.
- Forest seed industry.
- Bio-fuel
- Extracting natural products such as volatile oils and tannins from some broadleaved and conifer trees.

### **Selected Professional Studies and Presentation Submitted:**

- Biomass and Soil Carbon Sequestration in a *Leucaena* Agroforestry System in Hawaii. July 28-30, 2009 Hawaii Conservation Conference, Honolulu, Hawaii, USA
- Aboveground and belowground biomass and carbon sequestration in a shade coffee agro-ecosystem in Hawaii. 21<sup>st</sup> annual student Research Symposium, April 4-5, 2009.
- Tree pruning residues increase soil carbon and nitrogen in shade and full-sun coffee agro-ecosystems in Hawai'i. July 28-30, 2008 Hawaii Conservation Conference, Honolulu, HI. This paper was the best NREM-PhD poster award 2008, CTAHR Student Research Symposium.
- Allometric models for estimating biomass and predicting carbon sequestration of *Leucaena leucocephala* plantations in Hawaii. 2007 CTAHR Student Research Symposium. Best NREM-PhD poster award 2007.

- Dynamic of atmospheric CO<sub>2</sub> and forest degradation, April 2006, Study submitted to Department of Natural Resources and Environmental Management, University of Hawaii at Manoa.
- Forest carbon sequestration a tool for global warming policymakers, Dec 2005, study submitted to Department of Natural Resources and Environmental Management, University of Hawaii at Manoa.
- Mosul Forest Management and Development, March 1998. Work plan submitted to Nineveh Province, Iraq.
- Natural Forest Development in Northern Iraq, 2000. Study submitted to Ministry of Agriculture, Baghdad, Iraq.
- Using Eucalyptus plantation as a source of tannic acid for tannery processes. 1995 Paper submitted to Ministry of Higher Education, Baghdad, Iraq, and this work was awarded as the best Iraqi Scientific Research 1995.

### **Courses Taught / Mosul University**

- **Undergraduate Courses:** Experimental Design and Analysis Practice of Silviculture, Principles of Silviculture, Forest Nurseries, A forestation, Forest Ecology.
- **Graduate Courses:** Advanced Silvicultural Systems, Forest Seed Industry, Research Methods.

### **Graduate Committee Advisees:**

- Ekhlash D. Sulaiman , 2002-2004, MS- Silviculture candidate , , Forestry Dept., College of Agriculture & Forestry, Mosul University, Mosul, Iraq.
- Salih Abdulla, 2003-2004, MS- Forestry / Silviculture candidate, Forestry Dept., College of Agriculture & Forestry, Mosul University, Mosul, Iraq.

### **Graduate Committee Member:**

- Member of MS Committee of MS Candidate 2002: Joan O. Othman, Forestry. College of Agriculture and Forestry, Mosul University, Mosul, Iraq.

### **Conferences and Workshop attendance / presentations:**

- **Hawaii Conservation Conference**, Honolulu, HI. June 28-30, 2009, **Oral presentation:** Biomass and Soil Carbon Sequestration in a Leucaena Agroforestry System in Hawaii.
- **21<sup>st</sup> Annual College of Tropical Agricultural and Human Resources, Student Research Symposium.** April 3-4, 2009 **Poster title:** Aboveground and belowground biomass and carbon sequestration in a shade coffee agroecosystem in Hawaii.
- **2009 Agricultural and Environmental Awareness Day**, Honolulu HI, March 5, **Presentation:** Forests of Hawaii.
- **2008 Bi-Regional NAFSA Conference (Association of International Educators, Region 1 and 12)**, Honolulu HI, November 10-14, **Presentation:** Carbon sequestration and productivity of Coffee-Leucaena agroforestry systems in Hawaii.
- **2008 Joint Annual Meeting, (GSA, SSSA, ASA, CSSA, GCAGS & HGS)**

- Houston, Texas, USA October 5-9, **presentation:** Tree Pruning residues increase soil carbon and nitrogen in shade and full-sun coffee agroecosystems in Hawai'i. session: U.S. Agriculture's Role in soil carbon sequestration and greenhouse gas mitigation.
- **Hawaii Conservation Conference**, Honolulu, HI. June 2008, **presentation:** Tree Pruning residues increase soil carbon and nitrogen in shade and full-sun coffee agroecosystems in Hawaii.
  - **20<sup>th</sup> Annual College of Tropical Agricultural and Human Resources, Student Research Symposium.** April 11-12, 2008. **Poster title:** Tree Pruning residues increase soil carbon and nitrogen in shade and full-sun coffee agroecosystems in Hawai'i. This poster award as NREM best PhD student poster presentation 2008.
  - **19<sup>th</sup> Annual College of Tropical Agricultural and Human Resources, Student Research Symposium.** April 6-7, 2007. **Poster title:** Allometric models for estimating biomass and predicting carbon sequestration of *Leucaena leucocephala* plantation in Hawaii. This poster award as NREM best PhD student poster presentation 2007.
  - **Soil Moisture Sensing Technology Conference**, March 19-21, 2007. Honolulu, Hawaii (Attending)
  - **18<sup>th</sup> Annual College of Tropical Agricultural and Human Resources, Student Research Symposium.** April 6-7, 2006. **Presentation Title:** Nutrient and soil improvement of two legume trees under two pollarding systems in Northern Iraq.
  - **Horticultural & Forestry Sciences Professional Development and Strategic Planning Workshop** at the Faculty of Agriculture at the University of Jordan/Amman, August 15-19, 2004.
  - **2<sup>nd</sup> Scientific conference in plant production**, Dec 24-25, 2002, Tikrit University, Salahaldeen, Iraq. with two **presentations:**
    - Impact of various pre-treatments on seeds germination and seedlings growth of four exotic *Acacia* species.
    - Biomass production of 52 Poplar clones growing in short rotation.

#### **Training Experiences:**

- Training course in Automated Library Management & Modern information Technologies. October 1-12, 2000 at the International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo – Syria.

#### **Reviews:**

Manuscript Reviewer for:

- **Mesopotamia Journal of Agriculture**, University of Mosul, Mosul, Iraq.
- **Journal of Al-Taqani**, Technical Foundation Institute, Baghdad, Iraq.
- **Tikrit Journal of Agricultural Sciences**, Tikrit University, Iraq
- **The Iraqi Agriculture**, Mosul, Iraq.
- **Zanco**, University of salahdeen, Arbil, Iraq.
- **Journal of Tropical forest science.**

#### **References:**

- Dr. Samir El-Swaify, [elswaify@hawaii.edu](mailto:elswaify@hawaii.edu)
- Dr. Travis Idol, [idol@hawaii.edu](mailto:idol@hawaii.edu)
- Dr. Ekhlass Jarjees, [ekhlass@hawaii.edu](mailto:ekhlass@hawaii.edu)

**Languages Known:**

English, Arabic, Aramaic (Assyrian), Kurdish

**PUBLICATIONS (Last 8 years):**

- **Youkhana, A.** and Idol, T. (2010): Dynamics of size–density fractions of soil C after the addition of *Leucaena leucocephala*-KX2 pruning residues in shaded coffee agroecosystem in Hawaii. In preparation.
- **Youkhana, A.** and Idol, T. (2009) Allometric models for predicting aboveground and belowground biomass and carbon and nitrogen sequestration of *Leucaena leucocephala* KX2 in shaded coffee agroecosystems in Hawaii. In preparation.
- **Youkhana, A.** and Idol, T. (2009) Tree pruning mulch increases soil C and N in a shaded coffee agroecosystem in Hawaii. *Soil biology and Biochemistry* 41, issue 12: 2527-2534. <http://dx.doi.org/10.1016/j.soilbio.2009.09.011>
- Idol, T.W. and **Youkhana A.** (2009) Managing Shade Trees for Coffee Can Benefit the Soil. Hanai'AI/The Food Provider, December. The CTAHR Sustainable and Organic Agriculture Program <http://www.ctahr.hawaii.edu/sustainag/news/>
- Habte, M. and **Youkhana, A.** (2009) Optimization of a controlled release fertilizer for the production of mycorrhizal seedlings of *Leucaena leucocephalla* in a soil-based medium in containers. Submitted to *Journal of Tropical Forest Science*, Sept 2009.
- **Youkhana, A.** & Idol, T. (2008) First-year biomass production and soil improvement in young *Leucaena* and *Robinia* stands under different pollarding systems. *Journal of Tropical Forest Science*, 20(3):181-187.
- **Youkhana, A. H.** (2004) Effect of coppicing on biomass production of American Sycamore (*Platanus occidentalis*) plantation in northern Iraq. *Journal of Al-Taqani*, 1(7):33-38.
- **Youkhana, A. H.** and Al-Ashoo, J. (2002) Effect of clone origin and cutting length on propagation of poplar in Northern Iraq. *The Iraqi Journal of Agricultural Sciences*, 3 (3): 37-41.
- **Youkhana, A. H.** and Al-Ashoo, J. (2002) Effect of clones, cutting lengths and dormant buds on propagation of *Populus deltoides*. *The Iraqi Journal of Agricultural Sciences*, 3(3):37-41.
- **Youkhana, A. H.** (2002) Effect of collection time and storage methods on seed viability of *Cupressus sempervirens* in northern Iraq. *Tikrit Journal of Agricultural Sciences*, 2(3):39-49.
- **Youkhana, A. H.** (2002) Timing collection of Ash seeds in Northern Iraq. *Tikrit Journal of Agricultural Sciences*, 2(3):59-64.
- **Youkhana, A. H.** (2001) Effect of tree age and cutting time collection on rooting and growth of American Sycamore. *Tikrit Journal of Agricultural Sciences*, 1(4):172-178.
- **Youkhana, A. H.** (2001) Impact of various pre-treatment on seed germination and

seedling growth of Russian olive. Tikrit Journal of Agricultural Sciences, 1(4):145-151.

- **Youkhana, A. H.** (2000) Impact of methods and storage periods on the growth of American sycamore seedlings. Mesopotamia Journal of Agriculture, 32(1):88-92.
- **Youkhana, A. H.** (2000) Impact of wounding and growth regulators (IAA, IBA) on vegetative propagation of Lebanon Cedar (*Cedrus libani*). Mesopotamia Journal of Agriculture, 32(1):83-87.