

Hala I. Chaoui

halayc@gmail.com
(416) 949-5944

SUMMARY OF QUALIFICATIONS

- Provided technical support by analyzing crop research data and creating user-friendly excel tools to mine data as a technical manager at Winfield Solutions.
- Developed and commercialized a structure for suspended indoor gardens, to utilize vertical space in greenhouses.
- Created workflow systems for lab teams and used excel automation to streamline the work.
- Communicated research results to the public, wrote an OMAFRA factsheet.
- Designed, conducted and disseminated the results of experiments related to organic fertilizers, tested on plants grown in controlled environments.
- Managed two research labs including growth chamber experiments, field trials, and budgets.
- Bilingual certification (advanced plus) in French fluency from the Ontario Government.
- Graduate degrees in Plant, Soil and Environmental Science and in Agricultural and Biological Engineering.
- Chair of ecological engineering committee and technical sessions organizer at ASABE.org.

PROFESSIONAL EXPERIENCE

Winfield Solutions Inc. (a Landolakes company), Toronto, ON

Technical seed manager and agronomist November 2014 - October 2015

- Programmed excel sheets to automatically help growers select the right plant varieties.
- Presented research data in layman's terms, to retail managers and marketing experts.
- Shared with management literature demonstrating the yield potential of organic agronomic crop, and the yield per input-efficiency of organic agriculture.

Urban Farms Organic Inc. (research and development business), Toronto, ON

Principal, 4 years within January 2010 - present time (except maternity leave and full time job)

- Developed and commercialized structures for suspended gardens, to utilize vertical space in controlled environments.
- Presented a paper on Technological Advances and Technological Needs in Ecological Agriculture (Organic and Urban Farming) at the CIGR and AGM annual meeting, Québec City (2010).
- Created a website (www.urbanfarmsorganic.com) and online outreach material
- Wrote excel applications for preparing earthworms feed mixes, and designing aerated earthworm containers.
- Created a modular, adobe-engineered device for waste processing by earthworms, and an electric earthworm separator.

The Ontario Ministry of Agriculture, Farming and Rural Affairs, Alfred, ON

Substitute (3 months contract) Air Quality Research Engineer, June 2009 – September 2009

- Published factsheet on vermicasting (vermicomposting)
- Revised factsheets on the effect of air quality on animal and human health.

Academic research and teaching work

The University of Illinois, Champaign, IL, March 2008 – June 2009

- Coordinated and trained a research team including undergraduate students
- Collaborated with an engineering team on optimizing biomass handling from the field to the processing plant.
- Designed and conducted experiments to model biomass losses during storage.
- Created a workflow chart to coordinate the lab staff analyzing samples.

The Pennsylvania State Univ., Ag. and Biol. Engineering, State College, PA, July 2006 – March 2008

- Managed and optimized the work of a research lab team through workflow charts, excel automation and completed the work under budget.
- Designed experiments to reduce greenhouse gas emissions from manure through compost biofilters, presented results at ASABE's annual meeting in 2007.
- Served as a thesis advisor to an undergraduate student, trained several students and coordinated a research team in the lab I managed.
- Committee Officer at Ecological engineering committee at ASABE (2006 – 2009) and organizer of an ASABE session on 'Innovative technologies in organic farming' (2005 to 2009).

- Designed a wooden structure holding 25 tons of animal waste in the field. Conducted experiments to test models of ammonia mass transfer. Results published in Transactions of ASABE.

University of Florida Citrus Research Station, Lake Alfred, FL, April 2006 – July 2006

- Designed and conducted experiments to contrast capacitor-based, TDR and Echo soil moisture sensors
- Wrote an algorithm for processing spatial data from a citrus harvester and yield monitor.

*Food, Agricultural and Biological Engineering Dept., Ohio State University, Columbus, OH
January 2001– March 2006*

- January - March 2006: Postdoc research and conference paper on odor emissions from organic waste
- Posted online reviews and studies on comparing earthworm casts and compost system.
- Created a tool that uses electricity to move earthworms out of the fertilizer they've generated from biodegradable waste.
- Consulted for Yelm Worms in Seattle, Village One Foundation, and a vermicomposting feasibility study.
- August 2004 - August 2005: Assisted in teaching precision agriculture and using the related software.

Soil Ecology Lab, Ohio State University, Columbus, OH

Research assistant, July 2000 - September 2000

- Developed and performed an experiment demonstrating plant disease suppression due to earthworm casts. Disseminated results at conferences. Provided support to other researchers through data collection.

The University of Maine, Plant and Soil Science Dept., Orono, ME

Master's research, January 1998 – June 2000

- Designed experiments to compare organic and synthetic fertilizers, presented at conferences and in the Soil Biology and Biochemistry Journal (8th most downloaded article in 2003, cited 100 times).
- Conducted plant experiments in growth chamber to evaluate different fertilizer types.

Cutflower Production “Relais d’Art”, Beirut, Lebanon

Production developer and manager, September 1996 – May 1997

- Compiled greenhouse plant maintenance schedules based on Dutch cut flower industry practices, creating an improved plant growing protocol.
- Implemented protocol in the field with a greenhouse crew. Reorganized warehouse.

EDUCATION AND ACCREDITATION

- Ohio State University, Columbus, OH: *Ph.D. in Agricultural and Biological Engineering, December 2005*
Member of the American Society of Agricultural and Biological Engineers (ASABE), The Canadian Society for Bioengineering (CSBE) and Gamma Sigma Delta Honor Society of Agriculture.
- National Council of Examiners for Engineering and Surveying, Clemson, SC: *Fundamentals of Engineering License, April 2005*
- Ontario Government, March 2009: *Bilingual certification (advanced plus) in French fluency, July 2009*
- University of Maine, Orono, ME: *M.S. in Plant and Soil Science, June 2000*
- American University of Beirut, Beirut, Lebanon: *B.S. in Agriculture and Diplôme d'Ingénieure Agricole, June 1996*
- Lycée Franco-Libanais, Beirut, Lebanon: *French Baccalaureate, June 1991*