

Nael M. El-Hout, Ph.D.
Director of Agronomic Services
Wedgworth's, Inc.
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Curriculum Vitae

Summary of Qualifications

A highly motivated, innovative, and results oriented professional with exceptional training and over 25 years of experience in various aspects of production agriculture, including agronomic, horticultural and bioenergy crops. Demonstrates strong organizational skills, is detail oriented, and has a proven record of excellence. Effectively handles multiple tasks simultaneously, and has the ability to identify creative solutions to complex problems, increase productivity, and add value to the bottom line. Well regarded for outstanding leadership and strong interpersonal, written, and verbal communication skills.

Education

Ph.D. in Agronomy (Soil Fertility), Iowa State University, Ames, Iowa (1987).

Dissertation: The effect of soil fertility levels on the dry weight and nutrient composition of corn plant parts during the seed-filling period.

M.S. in Agronomy (Soil Fertility), Iowa State University, Ames, Iowa (1982).

Thesis: The effects of chelating agents in foliar fertilizer application on the yield and nutrient content of soybean plants.

B.S. in Agronomy, Iowa State University, Ames, Iowa (1975).

Employment

2015-Present: Director of Agronomic Services, Wedgworth's, Inc., Belle Glade, Florida.

2010-2015: Senior Agronomist, BP Biofuels, Tampa, Florida.

2008-2010: Research Scientist, Texas AgriLife Research, Texas A & M University System, Weslaco, Texas.

2002-2008: Chief Soil Scientist-Manager of the Soils Department, United States Sugar Corporation, Clewiston, Florida.

1999-2002: Senior Soil Scientist, United States Sugar Corporation.

1994-1999: Soil Scientist, United States Sugar Corporation.

1990-1994: Technical Director, South Bay Growers, Inc., South Bay, Florida.

1989-1990: Program Coordinator, Department of Agronomy, Iowa State University, Ames, Iowa.

1987-1989: Postdoctoral Research Associate, Department of Agronomy, Iowa State University.

1985-1987: Pre-doctoral Research Associate, Department of Agronomy, Iowa State University.

1978-1985: Research Assistant, Department of Agronomy, Iowa State University.

Duties – Wedgworth’s, Inc.

Maximize customers' returns by utilizing Wedgworth's full range of crop inputs, products, services, and resources. Use knowledge, experience and available technology to help solve customers' problems and create new opportunities for Wedgworth's, Inc.

- Develop and organize an agronomy department which includes hiring and training new personnel.
- Advise the sales team on all aspects of designing and establishing field plots to evaluate new products.
- Review soil and tissue test results and assist the sales team in making sound fertilizer recommendations.
- Review the science behind existing and new products for their viability as useful tools for customers.
- Organize test results in formats that can be used effectively by the sales team.
- Develop and cultivate good working relationships with customers and assist them with all aspects of their farming practices.
- Work with suppliers and their agronomy teams on market development of their products.
- Work closely with agronomy personnel of large corporate farming interests.
- Serve as a member of the state's review team of the existing fertilizer inspection process.
- Work with research stations and universities on projects that pertain to fertilization and/or fertilizer practices.
- Work closely with water management and industry organizations to develop and implement Best Management Practices that are economically and environmentally feasible, practical and doable.
- Represent Wedgworth's, Inc. in grower organizations including the ASSCT FL Division, Turf Producers of Florida, Highlands County Citrus Growers, etc., and participate, along with the sales team, in different shows and/or growers' meetings.

Duties and Accomplishments - BP Biofuels

Served as an internal and external technical expert on energy grasses, focusing on the identification, selection, evaluation, and multiplication of germplasm, as well as the implementation of agronomic practices, harvest strategies, and storage options to support feedstock production and supply and enable the most rapid commercial deployment of lignocellulosic feedstocks. Specific duties included:

- Designed, implemented, interpreted, and documented multi-location field trials (in Florida, Louisiana, and Texas) and managed continued implementation and documentation of existing and new trials.
- Created and maintained field plans, future requirements, and operation plans for all experimental activities and worked with business partners to ensure delivery of data-based, quality information to support business decisions.
- Managed an external network of consultants, contractors, and collaborators to access and assess the most effective germplasm and technology options for cost-

- effective feedstock production.
- Identified and accessed cost-effective germplasm multiplication technology.
 - Recommended a short list of species/varieties by region each year to provide adequate genetic diversity of feedstock crops.
 - Assessed peak and year-round yield potential of napier grass and energy cane as part of multi-year studies.
 - Defined and implemented a strategy to provide recommendations for optimized fertilization (including the potential use of factory waste water).
 - Built and strengthened contacts with Gulf Coast germplasm breeders and suppliers.
 - Authored and co-authored several internal documents on various subjects including germplasm evaluation, carbon sequestration, energy cane development for lignocellulosic ethanol, residue management, harvest-time impact on subsequent energy cane yield, slow release and soluble sources of nitrogen fertilization, and potential use of factory effluent for irrigation and as a source of nutrients, among others.
 - Consulted with all BP Biofuels stakeholders.

Duties and Accomplishments - Texas AgriLife Research

Developed and lead a strong research program resulting in commercially viable, sustainable agronomic cropping systems for a variety of novel new crops for emerging high priority markets such as biofuels and high value products. Specific duties included:

- Provided scientific program leadership and effectively managed a technical support staff.
- Designed, built and managed a fully integrated diagnostic laboratory.
- Developed and successfully implemented agronomic systems and fertility programs for multiple crops including high-biomass grasses and sub-tropical crops.
- Worked on optimizing integrated cropping systems in a commercial environment.
- Collaborated with high-biomass, grain, and vegetable crop breeding programs.
- Developed a well-funded and internationally recognized research program.
- Submitted seven inventions to the IP Office, Texas A&M University.

Duties and Accomplishments - United States Sugar Corporation

Provided scientific leadership, developed, implemented new and novel crop nutrition programs that enhanced crop productivity, reduced costs, and minimized environmental impact. As Chief Soil Scientist I was ultimately responsible for the soil fertility and plant nutrition programs for 150,000 acres of sugarcane and 19,000 acres of citrus owned and leased by U.S. Sugar Corporation. Specific duties included:

- Managed the Soils Division within budget guidelines and constraints.
- Worked with regulators, elected officials, university scientists, and private consultants on methodologies to improve the relationship between agriculture and environmental concerns.
- Developed and implemented a leaf-based (Diagnosis and Recommendation Integrated System) supplemental fertilization program, resulting in significant increases in cane and sugar production, and an approximate ROI of almost 100% (increased revenue of

approximately \$1.8 million per year).

- Revised existing criteria for calcium silicate recommendations and eliminated “maintenance” and other applications where calcium silicate additions were not required by soil test. Achieved an annual savings of \$1.0-1.5 million.
- Quantified the agronomic benefits of mill mud applications to sandy soils, which doubled the life cycle of sugarcane and amounted to relative increases of 81% and 46% in cane and sugar production.
- Introduced U. S. Sugar’s fertility program to area growers, who used the program on over 4000 acres of their sugarcane land.
- Evaluated the results of long-term comparisons of green versus burn harvest of sugarcane and identified specific situations in which green harvest could become a viable alternative to burning through direct and indirect economic benefits.
- Discovered and implemented a program of efficacious foliar applications of secondary and/or minor elements to sugarcane where deficiency symptoms of these elements are found.
- Developed trend analysis tools of cane and sugar production, which enabled farm managers to identify and address factors that have impacted sugarcane production on their farms.
- Provided early fertilizer and soil amendment estimates for budgetary planning and purchase bidding, which resulted in significant cost savings.
- Provided sugarcane growth measurement evaluations and hurricane and freeze damage assessments for crop production estimates, harvest scheduling, and associated financial forecasts.
- Initiated a new QA/QC program for the soils laboratory and supervised the applicability of NIR for leaf analysis, which resulted in reduced cost while improving sample turn-around time, analytical precision, and accuracy.

Duties and Accomplishments - South Bay Growers

As Technical Director, it was my responsibility to oversee and manage the Soil, Plant, and Water Testing Laboratory and the Insect Scouting Program for one of the largest corporate leafy vegetable producers in the United States. The Technical Director was also expected to develop practical, scientific, and economically feasible solutions to unique problems encountered by vegetable growers within the South Bay organization, as well as contract producers. The specific tasks and duties of this assignment follow:

- Managed the Technical Laboratory.
- Worked with regulators and elected officials on methodologies to improve the relationship between agriculture and environmental concerns.
- Designed, developed, and implemented best management practices for vegetable production in the ecologically sensitive Everglades Agricultural Area, and wrote the company’s BMP permitting program and compliance reports for the South Florida Water Management District.
- Cooperated with several faculty members of the Everglades Research and Education Center of the University of Florida on various scientific projects, and participated in the release of phosphate-use-efficient vegetable varieties.

- Collaborated with Third Party Registrants and the Florida Fruit and Vegetable Association to test the efficacy of new formulations of chemical and biological fungicides, insecticides, and herbicides.
- Delivered fertilizer recommendations for the company's 10,000 acres of leafy vegetables, as well as many other sugarcane and vegetables acres in the Everglades Agricultural Area.
- Developed creative new methods to improve phosphorus fertilization efficiency, resulting in 45% reduction in phosphorus fertilizer inputs for vegetable crops on organic soils.
- Presented research results at local, regional, and national meetings.

Duties and Accomplishments - Iowa State University

Held different appointments as a graduate research assistant, pre-doctoral research associate, postdoctoral research associate, and staff member. Some tasks and duties of these appointments follow:

- Coordinated an educational program to implement a late-spring soil test for nitrogen management of corn in Iowa.
- Developed informational material (brochures, bulletins, slides/audio presentations, video tapes, etc.) describing soil and tissue tests for N and the potential use of these tests to improve N fertilization practices in Iowa.
- Made presentations to farmers, fertilizer dealers, agricultural consultants, county extension agents, and students.
- Developed and demonstrated best management practices for corn in different rotations.
- Maintained field plots to calibrate soil and tissue tests for N sufficiency.
- Evaluated N fertility for corn production in farmers' fields.
- Used N-15 labeling to study the recovery of N fertilizers in soils and plants.
- Modeled yield response data to identify optimum rates of N fertilization for corn production in Iowa.
- Conducted field and laboratory experiments with soybeans and corn to fulfill the research requirements for the M.S. and Ph.D. degrees in agronomy with emphasis on soil fertility and plant nutrition.

Additional Skills and Experience

- Proficient in Microsoft Office (Excel, Word, PowerPoint), SigmaPlot, and SAS.
- Fluent in English and Arabic with working knowledge of French and Spanish.
- Agricultural Editor: Journal of the American Society of Sugar Cane Technologists, 2000-2003.
- Book Review: Sustainable Soils: The Place of Organic Matter in Sustaining Soils and Their Productivity, The Haworth Press, 2003.
- Adjunct Instructor, Palm Beach Community College, Belle Glade Campus, Belle Glade, Florida. Intermediate Algebra (Math. 1033): 1995-1996.
- Adjunct Instructor, Palm Beach Community College, Belle Glade Campus, Belle Glade, Florida. Principles of Chemistry (Chem. 1015): 1991- 1993.

Leadership and Management Training

- *Positive Management Leadership*, PML Associates, Clewiston, FL, 2001
- *The 7 Habits of Highly Effective People*, Franklin Covey, Clewiston, FL, 2001
- *The Path of Dialogue*, Vitality Alliance, Clewiston, FL, 2001
- *What Matters Most*, Franklin Covey, Clewiston, FL, 2001
- *Writing Advantage*, Franklin Covey, Clewiston, FL, 2001
- *Building Trust*, Development Dimensions International, Clewiston, FL, 2002
- *Facilitating Improved Performance*, Development Dimensions International, Clewiston, FL, 2002
- *Utilizing Effective Disciplinary/Corrective Action*, Development Dimensions International, Clewiston, FL, 2002
- *Conflict Management*, Development Dimensions International, Clewiston, FL, 2002
- *Effective Discipline/Supervision*, Mark Stanley and Company, Clewiston, FL, 2002
- *Mental Models-Innovation Works*, Light Storm Consulting, West Palm Beach, FL, 2002
- *Building Your Team*, Development Dimensions International, Clewiston, FL, 2003
- *Fundamentals of Successful Project Management*, SkillPath Seminars, Clewiston, FL, 2003
- *DISC Behavior Profiles*, Vitalwork, Fort Myers, FL, 2003
- *The Basics of Personnel Law*, Padgett-Thompson, Clewiston, FL, 2004
- *Managing Multiple Priorities*, Fred Pryor Seminars, McAllen, TX, 2009
- *How to Become a More Effective Supervisor*, CareerTrack, Corpus Christi, TX, 2009

Professional Societies

American Society of Agronomy
Soil Science Society of America
Crop Science Society of America
American Society of Sugar Cane Technologists

Professional Activities

President, American Society of Sugarcane Technologists (2006-2007)
First Vice President, American Society of Sugarcane Technologists (2005-2006)
Chairman, UF/IFAS Sugarcane Extension Advisory Committee (2006-2007)
Member, UF/IFAS Sugarcane Focus Group (2006-2007)
Member, UF/IFAS Sugarcane Fertilization Task Force (2007)
Member, UF/IFAS Sulfur Task Force (2007)
Member, UF/IFAS Sand Land Sugarcane Forum (2006-2007)
Member, UF/IFAS Sand Land Nitrogen Task Force (2006-2007)
Member, Hendry County Overall Extension Advisory Committee (2007)
Member, EREC Soil Testing Lab Oversight Committee (1990-2003, 2015-present)
Member, Southwest Florida UF/IFAS Sugarcane Advisory Committee (1995-2003)
Member, EAA Vegetable Extension Advisory Committee (1990-1994)
Member, Committee on Agricultural Resources in the Everglades (1990-1994)

Awards and Honors

Spot Bonus Awards, BP Biofuels, 2013 and 2014.

Best Agricultural Presentation Award, ASSCT, 2008.

Excellence in Team Playing Award, United States Sugar Corporation, 2004

Who's Who in America, 47th ed., 1992

Who's Who in Science and Engineering, 1st ed., 1992

Sigma Xi, the Scientific Research Society, 1990

Gamma Sigma Delta, the Honor Society of Agriculture, 1982

Grants Received (Texas A&M University)

Lignocellulosic Feedstock Development for Gen II Biofuels. 2008. CHEVRON Technology Ventures (\$1.275 M).

Revitalization of the sugarcane industry in Majar Al Kabir, Maysan Province, Iraq. 2010. U.S. Department of Defense (\$85,000).

IP and Technology Transfer (Texas A&M University)

1. Establishment of an *in vitro* propagation system for 'Miscane', a novel bioenergy crop, (TAMUS 3033), 2010.
2. A rapid system for the *in vitro* propagation of the novel bioenergy crop 'Miscane' using early inflorescence, (TAMUS 3034), 2010.
3. High density production system for plant biomass, (TAMUS 3035), 2010.
4. An optimized shoot induction liquid medium for Miscane, (TAMUS 3149), 2010.
5. A new medium for embryogenic callus induction for Miscane, (TAMUS 3150), 2010.
6. Selection of eleven superior energy cane genotypes, (TAMUS 3162), 2010.
7. Revitalization of the sugarcane industry in Majar Al Kabir, Maysan Province, Iraq, U.S. Department of Defense, 2010.

Publications*

* Between 1994-2008 and, more recently, 2010-2014, I was actively involved in conducting multiple research projects at United States Sugar Corporation and BP Biofuels, respectively. As is often the case in corporate research environments, essentially all of my research findings are considered proprietary business assets of the two companies, and, as such, reside in internal company documents and manuscripts. Under either company's policy, no publications are permitted for research conducted by corporate scientists except on rare occasions and with special permissions.

Sandhu, H. S., R. A. Gilbert, J. C. Comstock, V. Gordon, P. Korndorfer, **N. El-Hout**, and R. Arundale. 2015. Registration of 'UFCP 74-1010' sugarcane. *J. Plant. Reg.* 9: 179-184.

Sandhu, H. S., J. C. Comstock, R. A. Gilbert, V. Gordon, P. Korndorfer, R. Arundale, and **N. El-Hout**. 2015. Registration of 'UFCP 78-1013' sugarcane. *J. Plant. Reg.* (accepted).

Sandhu, H. S., R. A. Gilbert, J. C. Comstock, V. Gordon, P. Korndorfer, **N. El-Hout**, and R. Arundale. 2015. Registration of 'UFCP 82-1655' sugarcane. *J. Plant Reg.* (accepted).

Gordon, V., J. C. Comstock, H. S. Sandhu, R. A. Gilbert, P. Korndorfer, R. Arundale, and **N. El-Hout**. Registration of 'UFCP 84-1047' Sugarcane. *J. Plant Reg.* (submitted).

Gordon, V., J. C. Comstock, H. S. Sandhu, R. A. Gilbert, P. Korndorfer, R. Arundale, and **N. El-Hout**. Registration of 'UFCP 87-0053' Sugarcane. *J. Plant Reg.* (submitted).

Todd, J., B. Glaz, M. S. Irey, D. Zhao, C-J Hu, and **N. El-Hout**. 2014. Sugarcane genotype selection on a sand soil with and without added mill mud. *Agron J.* 106:315-323.

Sandhu, H. S., R. A. Gilbert, J. Comstock, V. Gordon, **N. El-Hout**, and R. Arundale. 2014. New Energy Cane Varieties in Florida. Annual Meeting of the American Society of Agronomy, Long Beach, California, November 2-5, 2014. Abstract # 60-2.

Jifon, J.L., J.A. da Silva G. Acuna, and **N. El-Hout**. 2013. High-throughput Quality Characterization of Warm Season Lignocellulosic Feedstocks. Annual Conference of the American Society for Horticultural Sciences (ASHS), July 22-25, 2013, Palm Desert, California. Program & Abstracts.

Sharma, V, S. Garlapati S, G. M. Acuna, M. Damaj, and **N. M. El-Hout**. 2010. Methods for Rapid Micro-propagation of Clean Energy Cane Seed. Pacific Rim Summit on Industrial biotechnology and bioenergy, Dec 11-14, 2010, Honolulu Hawaii.

Sharma, V., G. M. Acuna, N. Solis-Gracia, M. B. Damaj, and **N. M. El-Hout**. 2010. Development of an Efficient *In Vitro* Propagation System for Miscane. *Journal of Subtropical Plant Science Society* (62), Abstract # 26.

Sharma, V., G. M. Acuna, M. Damaj, and **N. M. El-Hout**. 2010. A high-throughput *in vitro* propagation system for sugarcane using apical meristems. *Sugar Journal* 73(1): 26.

Sharma, V., G. M. Acuna, M. Damaj, and **N. M. El-Hout**. 2010. Rapid *in vitro* micro-propagation of clean sugarcane seed. ASA-CSSA-SSSA joint annual meeting , Long Beach, California, Oct 31-Nov 4, 2010. Abstract # 188-25.

El-Hout, N. M., G. M. Acuna, and V. Sharma. 2010. Cell Wall Components of Potential Cellulosic Bioenergy Crops. *Journal of Subtropical Plant Science Society* (62), Abstract # 11.

El-Hout, N, M., G. M. Acuna, and V. Sharma. 2009. Cell wall components of tropical grasses as determined by an ANKOM²⁰⁰⁰ Fiber Analyzer. *JASSCT* (29):84-85.

El-Hout, N. M. 2009. Cell Wall Components of Tropical Grasses. Abstract ID: 4726. Pacific Rim Summit on Industrial Biotechnology and Bioenergy, Honolulu, Hawaii, November 10, 2009.

Larsen, J. F., R. P. DeStefano, and **N. M. El-Hout**. 2009. Strategies for reducing soil in the cane supply to the factory. *JASSCT* (29):94.

Glaz, B., M. S. Irey, C. J. Hu, **N. M. El-Hout**, J. Langdale, and I. A. del Blanco. 2009. Sugarcane genotype selection for sand soils in Florida. *JASSCT* (29):89-90.

Glaz, B., M. S. Irey, **N. El-Hout**, and J. Langdale. 2008. Efficient chlorophyll fluorescence measurements of sugarcane. *Agron. Abstr.* 720-5.

Nuessly, G. S., N. A. Larsen, and **N. M. El-Hout**. 2007. Effectiveness of reduced Phorate rates for wireworm control in sugarcane grown in mineral vs. organic Soils. *JASSCT* (27):70-71.

Sanchez, C. A., and **N. M. El-Hout**. 1995. Response of diverse lettuce types to fertilizer phosphorus. *HortScience* 30(3):528-531.

Green, C. G., **N. M. El-Hout**, and A. M. Blackmer. 1995. Nitrogen utilization during the decomposition of corn residues in soils. *Agron. Abstr.* p. 234.

El-Hout, N. M. 1994. Fertilizer banding reduces P inputs into commercial lettuce production on Histosols. *HortScience* 29(5):526.

El-Hout, N. M., and C. A. Sanchez. 1994. Different lettuce types respond similarly to P fertilization. *HortScience* 29(5):525-526.

El-Hout, N. M., and C. A. Sanchez. 1994. Banding mixed N-P and N-P-K fertilizers for lettuce on Histosols. *Agron. Abstr.* p. 401.

Morris, T. F., A. M. Blackmer, and **N. M. El-Hout**. 1993. Optimal rates of nitrogen fertilization for first-year corn after alfalfa. *J. Prod. Agr.* 6(3):344-350.

El-Hout, N. M. 1993. Fertility best management practices for vegetables and other crops in the Everglades Agricultural Area. *Agron. Abstr.* p. 315.

El-Hout, N. M., C. A. Sanchez, and S. Swanson. 1992. Response of five lettuce types to K fertilizers on Histosols. *HortScience* 27(6):665.

Morris, T. F., A. M. Blackmer, and **N. M. El-Hout**. 1991. Optimal rates of nitrogen fertilizer for first-year corn after alfalfa. *Agron. Abstr.* p. 295.

El-Hout, N. M., and C. A. Sanchez. 1991. Relative response of five lettuce types to phosphorus fertilizer. *Agron. Abstr.* p. 286.

Binford, G. D., A. M. Blackmer, and **N. M. El-Hout**. 1990. End-of-season tissue test for excess nitrogen during corn production. p. 99-100. *In Farming Systems for Iowa: Seeking Alternatives*. Leopold Center for Sustainable Agriculture 1990 Conference Proceedings.

El-Hout, N. M., T. F. Morris, and A. M. Blackmer. 1990. Nitrogen fertilizer requirements for corn after alfalfa. p. 100. *In Farming Systems for Iowa: Seeking Alternatives*. Leopold Center for Sustainable Agriculture 1990 Conference Proceedings.

El-Hout, N. M., and A. M. Blackmer. 1990. Handling soil samples for the late-spring nitrate test. *Agron. abstr.* p. 267.

Blackmer, A. M., **N. M. El-Hout**, D. R. Keeney, and R. D. Voss. 1990. Estimating nitrogen needs by soil testing. Pm-1381. Iowa State University, Ames, Iowa.

El-Hout, N. M., and A. M. Blackmer. 1990. Changes in nitrogen concentrations of corn leaves near silking time. *Commun. Soil Sci. Plant Anal.* 21:169-178.

El-Hout, N. M., and A. M. Blackmer. 1990. Nitrogen status of corn after alfalfa in 29 Iowa fields. *J. Soil Water Conserv.* 45(1):115-117.

Binford, G. D., A. M. Blackmer, and **N. M. El-Hout**. 1990. A tissue test for excess nitrogen during corn production. *Agron. J.* 82:124-129.

El-Hout, N. M., and A. M. Blackmer. 1989. Nitrogen utilization during decomposition of corn residue in soils. *Agron. Abstr.* p. 238.

Blackmer, A. M., G. D. Binford, and **N. M. El-Hout**. 1989. Effects of rates of nitrogen fertilization on corn yields, nitrogen losses from soils, and energy consumption. p. 23-28. *In Integrated Farm Management Demonstration Program, 1989 Progress Report*. Pm-1380. Iowa State University, Ames, Iowa.

Binford, G. D., **N. M. El-Hout**, T. F. Morris, and A. M. Blackmer. 1989. Spring mineralization of nitrogen in Iowa cornfields. *Agron. Abstr.* p. 233.

El-Hout, N. M., and A. M. Blackmer. 1988. The nitrogen status of corn after alfalfa in 29 Iowa fields. *Agron. Abstr.* p. 234.

El-Hout, N. M. 1987. The effect of soil fertility levels on the dry weight and nutrient composition of corn plant parts during the seed-filling period. Library, Iowa State University, Ames, Iowa. 456 pp.

El-Hout, N. M. 1982. The effects of chelating agents in foliar fertilizer application on the yield and nutrient content of soybean plants. Library, Iowa State University, Ames, Iowa. 129 pp.

Presentations

Sandhu, H. S., R. A. Gilbert, J. Comstock, V. Gordon, **N. El-Hout**, and R. Arundale. 2014. New Energy Cane Varieties in Florida. Presented at the Annual Meeting of the American Society of Agronomy (ASA-CSSA-SSSA), Long Beach, California, November 2-5, 2014.

Gordon, V. S., H. Sandhu, J. Comstock, R. Gilbert, **N. El-Hout**, and R. Arundale. 2014. Development of Energy Cane Cultivars in Florida. Poster Presentation. 44th Annual Joint Meeting of the American Society of Sugar Cane Technologists, June 17-19, 2014. Bonita Springs, Florida.

Jifon, J.L., J.A. da Silva G. Acuna, and **N. El-Hout**. 2013. High-throughput Quality Characterization of Warm Season Lignocellulosic Feedstocks. Presented at the Annual Conference of the American Society for Horticultural Sciences (ASHS), July 22-25, 2013, Palm Desert, California.

Sharma, V., S. Garlapati, G. M. Acuna, M. Damaj, and **N. M. El-Hout**. 2010. Methods for rapid micro-propagation of clean energy cane seed. Presented at the Pacific Rim Summit, Honolulu, Hawaii, December, 2010.

Sharma, V., G. M. Acuna, M. Damaj, and **N. M. El-Hout**. 2010. A high-throughput *in vitro* propagation system for sugarcane using apical meristems. Presented at the 40th Annual Joint Meeting of the ASSCT, Panama City, Florida, June 16-18, 2010.

El-Hout, N. M., G. M. Acuna, and V. Sharma. 2010. Cell Wall Components of Potential Cellulosic Bioenergy Crops. Poster Presentation at the 64th Annual Meeting of the Subtropical Plant Science Society, Weslaco, Texas, January 25, 2010.

Sharma, V., G. M. Acuna, N. Solis-Gracia, M. B. Damaj, and **N. M. El-Hout**. 2010. Development of an Efficient *In Vitro* Propagation System for Miscane. Poster Presentation at the 64th Annual Meeting of the Subtropical Plant Science Society, Weslaco, Texas, January 25, 2010.

El-Hout, N. M. 2009. Cell Wall Components of Tropical Grasses. Presented at the Pacific Rim Summit on Industrial Biotechnology and Bioenergy, Honolulu, Hawaii, November 10, 2009.

El-Hout, N. M. 2009. Leaf analysis: an opportunity to improve sugarcane production. Presented at the 63rd Annual Meeting of the Rio Grande Valley Horticultural Society, Weslaco, Texas, January 21, 2009. (invited).

El-Hout, N. M. 2008. Use of foliar analysis to improve sugarcane production. Presented at the American Society of Sugar Cane Technologists 38th Annual Joint Meeting of the Florida & Louisiana Divisions, Orlando, Florida, June 20, 2008. Sugar Journal: 71(1): 20-22.

El-Hout, N. M. 2008. Response of sugarcane to mill mud application on a sandy soil. Presented at the American Society of Sugar Cane Technologists 38th Annual Joint Meeting of the Florida & Louisiana Divisions, Orlando, Florida, June 20, 2008. Sugar Journal: 71(1): 19-20.

El-Hout, N. M. 2007. President's Message - Florida. Presented at the American Society of Sugar Cane Technologists 37th Annual Joint Meeting of the Florida & Louisiana Divisions, New Orleans, Louisiana, June 15, 2007. Sugar Journal: 70(1):13-14.

El-Hout, N. M. 2005. Interpretation of foliar analysis: The Critical Level or Sufficiency Range concept versus the Diagnosis and Recommendation Integrated System. Presented at the South/Central Florida IFAS Livestock Extension Agents In-Service Training Seminar, Clewiston, Florida, December 14, 2005. (Invited).

El-Hout, N. M. 2002. Response of plant cane to mill mud application on sand. Presented at the 33rd Annual Meeting of the American Society of Sugar Cane Technologists. Everglades Research and Education Center, Belle Glade, Florida, September 20, 2002.

El-Hout, N. M. 1994. Practices to Reduce Nutrient Loading: Banding Phosphorus Fertilizers. Presented at the Lake Apopka Hydrologic Unit Area Project Workshop. Zelwood, FL. December 13, 1994. (Invited).

El-Hout, N. M. 1994. Best Management Practices for Using Liquid Fertilizers. Presented at a "Vegetable Growers Seminar". Everglades Research and Education Center. Belle Glade, FL. September 20, 1994. (Invited).

El-Hout, N. M. 1993. Fertility Best Management Practices for Vegetables and Other Crops in the Everglades Agricultural Area. Presented at a symposium entitled: "Bridging Agronomic and Ecological Visions to Save the Everglades Symposium". ASA Annual Meetings, Cincinnati, OH. November 8, 1993. (Invited).

El-Hout, N. M. 1993. Current Phosphorus Fertility Research for Lettuce Production on Histosols. Presented at a seminar entitled: "Environmental Management for Agriculture-Success Stories". Agriculture and the Environment Forum. Clayton B. Hutcheson Auditorium, West Palm Beach, FL. October 9, 1993. (Invited).

El-Hout, N. M. 1993. Current Phosphorus Research: Growers Response. Presented at an IFAS/EAA Lake Apopka Project Seminar. Everglades Research and Education Center, Belle Glade, FL. June 29, 1993. (Invited).

Blackmer, A. M., **N. M. El-Hout**, T. F. Morris, and G. D. Binford. 1990. The late-spring soil test for nitrogen availability. Presented at the Soil and Water Conservation Society West North Central Regional Conference. La Crosse, Wisconsin, June 27-29, 1990.

El-Hout, N. M., T. F. Morris, and A. M. Blackmer. 1989. Optimal rates of N fertilization for first-year corn after alfalfa in northeastern Iowa. Presented at the North Central Branch American Society of Agronomy Meeting. Columbia, Missouri, June 27-29, 1989.