

DARRELL W. DONAHUE, PhD, CQE

Curriculum Vita

SUMMARY AND LEADERSHIP STATEMENT

More than 25 years of experience advancing scientific and engineering initiatives across academia and industry through food safety and risk assessment. My managers, peers and direct reports identify me as a good listener who makes a difference, and I take this as the highest recommendation. Being so enables me to reach everyone on a different level and to become a true mentor. I lead by example, am a team player, and a good decision maker who can move things forward, always looking to the future while learning from my unique world view which has been molded over my growth as a person.

HIGHLIGHTS OF ACHIEVEMENT AND COMPETENCIES

Undergraduate/Graduate Programs Experience: Mentored over 70 students in my research laboratory at University of Maine (UMaine). Supported students and participated in the Science Education experience at Argonne National Labs for several summers, 2004-2010. At UMaine: faculty participant and Project Investigator in NSF Research Experiences for Undergraduates, 1999-2012; faculty participant in NSF GK-12 program 2007-2011; co-PI GK-12, 2012-2014.

Industrial Experience: Served as **process engineering consultant for Fortune 100** companies between 1992-2016. Focused on industrial systems analysis, technical specifications for processing systems, engineering economics and safety management decisions. Developed/delivered information technology solutions for monitoring system costs reduction. Established statistical process control industrial training. Provided training in high-performing teams for industries. Led strategic planning efforts for four Fortune 100 companies.

Development/Advancement Experience: Since 1999 have been involved in development activities for volunteer and professional organizations. Trained in several areas of resources development, strategic alliances, and successful entrepreneurship; *Personally, been involved in raising over \$16MM* for support of my professional and volunteer activities.

Quantitative Skills: Information Technology development. Operations Research methodology. Systems level design and manufacturing; statistical process control of industrial systems; engineering economic modeling. Development of analysis tools for technology and engineering systems. Large-scale academic budget systems management.

Qualitative Skills: Strategic planning leader and consultant. High Performing Team development. Over the last 25+ years been involved with several multidisciplinary teams in government, private industry, university and volunteer situations, as both leader and member, where I fostered consensus-building methods with positive outcomes. Global food safety systems management.

EMPLOYMENT HISTORY

MICHIGAN STATE UNIVERSITY, E. Lansing, MI July 2015-present
Professor and Chair, Biosystems & Agricultural Engineering; and Director, Institute of Water Research
Leader of engineering academic unit, responsible for undergraduate and graduate programs, increasing research funding, and advancement/development. Director of national Water Research Institute unit.

Accomplishments: Over the last four years: average of 6% undergraduate growth; nearly 45% growth in graduate programs, increase of ~12% in research funding (both units); increased annual alumni giving by ~\$80K/year; working with alumni on two \$2MM endowed professorships.

MAINE MARITIME ACADEMY, Castine, ME Aug. 2012-June 2015

Vice-President for Operations and Research Director, April 2014-June 2015

Founding Research Director, Center for Applied Research and Education, Aug. 2012-April 2014

Founding director of a research center to foster extramural research funding for faculty. As VP for Operations, managed all non-academic units for MMA (responsible for two-thirds of MMA overall budget).

Accomplishments: Research director: established grants/contracts management office, operational procedures for pre- and post-award grantsmanship, training/education workshops for faculty in grants development; championed granting for faculty and administrative leaders; resulted in ~\$9 MM funding in three years. **VP-Operations:** developed new budget development model, all operations direct reports came together for consensus budget decision-making, managed ~\$34.5 MM budget. Involved in alumni development.

UNIVERSITY OF MAINE, Orono, ME Feb. 1995-July 2012

Department of Chemical and Biological Engineering

Professor and Associate Director, Forest Bio-products Research Institute, Mar. 2009-July 2013

Professor and Research Leader of FBRI, Sept. 2006-Mar. 2009

Associate Professor and Coordinator of Biological Engineering, Aug. 2000-Aug. 2006

Assistant Professor of Bio-Resource Engineering, Feb. 1995-Aug. 2000

Developed research program in food systems engineering; designed biological engineering undergraduate program; worked with Maine stakeholders to develop engineering support for small food operations and startups.

Accomplishments: Led or co-PI of nearly \$33+MM funded research grant and contracts support. Developed process for budgeting and managing contracts/grants for FBRI research institute. Developed Innovation Engineering curriculum. Led college and university level strategic planning.

DEPARTMENT OF HOMELAND SECURITY, Washington, DC Sep. 2007-Aug. 2008

Fellow, American Association for the Advancement of Science, Office of Health Affairs

Scientific/Technical Advisor and *Chief of Staff* for Assistant Secretary and Division Director in OHA.

Accomplishments: Developed new operational and management plan for Threats and Countermeasures division of OHA. Budget leader for OHA in overall DHS budget development. Managed BioWatch program.

NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC Feb. 1993-Jan. 1995

Director of Information Systems. The Graduate School

Directed all electronic information systems for the graduate school.

Accomplishments: Developed **first-ever** digital records system that enable electronic submission of graduate school applications. Developed **first-ever** electronic budget system for budget and grants management.

EDUCATION AND PROFESSIONAL DEVELOPMENT

NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC	
Ph.D., Operations Research and Engineering. Minor: Statistics	1992
M.S., Engineering and Mathematics	1986
B.S., Zoology and Chemistry, Minor: Mathematics	1981
FOOD SYSTEMS LEADERSHIP INSTITUTE (cohort 15)	2019-2021
Development of individual leadership skills and institutional leadership effectiveness	
AMERICAN SOCIETY OF QUALITY	
Certified Quality Engineer (CQE)	2008+
U. S. FDA – HACCP Train the Trainer program	2000-2004

RESEARCH AREAS

- Quantitative risk assessment and modeling
- Process engineering design and economics; systems analysis
- Systems technology development
- Near-infrared spectroscopy of biological materials

TEACHING

Graduate

Risk Assessment in Biological and Chemical Systems
Computer Simulation and Analysis of Industrial Processes

Undergraduate

Innovation Engineering (university-wide interdisciplinary minor)
Chemical Engineering Capstone Sequence (senior engineering course)
Chemical Unit Operations I & II
Process Systems Analysis (upper level/graduate engineering)
Statistical Process Control and Analysis (upper level engineering)

GRADUATE ADVISING

Chair for 12 MS students and 3 PhD students
Committee Member for 12 MS and 7 PhD students

PROFESSIONAL AND VOLUNTEER AWARDS

Professional

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
Science and Technology Policy Fellow, Department of Homeland Security, 2007-08

UNIVERSITY OF MAINE COLLEGE OF ENGINEERING
Dean's Award for Excellence, 2006

GOLDEN KEY HONOUR SOCIETY
Honorary member, Mar. 2004

US ARMY
Commander's Medal, Mar. 2004

USDA
USDA Research Honor Award, June 2003

Volunteer

AMERICAN FOLK FESTIVAL, BANGOR, ME
2011 Gerry Turner Excellence in Volunteerism Award

BOY SCOUTS OF AMERICA

- National Distinguished Service Award, 2009
- Silver Beaver, 2002
- District Award of Merit, 1987
- Vigil Honor, 1981
- Eagle Scout with palms, 1975

GRANTS AND CONTRACTS

Summary: Over \$41MM total funding applied for as PI or Co-PI since 1995; over 80 proposals submitted.

Funded/in review

USDA/AFRI: Education and Workforce Development program. 2020-2025. Food Processing, Technology and Safety Workforce Development: Dual Certificate and Associate Degree Program. \$499,999. PI: Millenbah, K., co-PI: Donahue, D., *in review*.

USGS NIWR grants program, 2017-2019. Water Quality and Quantity in the Great Lakes Region. \$1,237,541. PI: Donahue, D., co-PI: Asher, A.

Explore it! Building the Next Generation of Sustainable Forest Bioproduct Researchers, 2014. NSF-REU, \$540,000. PI: D. Gardner (UMaine), co-PIs: Donahue, Kimball.

Development of Methodology to Measure and Assess Ship Emissions. International Association of Maritime Universities, \$60,000. March, 2015. PI: V. Garaniya (AMC), co-PIs: Kimball, Donahue.

Marine Engine Testing and Emissions Laboratory. Department of Transportation / UTC, \$2,990,000. November, 2014. PIs: R. Kimball, D. Donahue.

Maine HydroKinetic Energy Cluster Grant, Maine Technology Institute, \$483,000. August, 2012. PIs: Donahue, Armstrong/MMA; von Vogt/MCA.

Engineering analysis of biomaterial and nanocomposites, IDEXX Laboratories Inc, \$220,100, May, 2011-May, 2012. PI: Donahue, co-PIs: Neivandt, Mason.

Explore It! Building the Next Generation of Sustainable Forest Bioproducts Researchers, NSF-REU program, \$564,545. August, 2010. Neivandt, D; Donahue, D. (co-PI).

CREATE GK-12, NSF GK-12 program, \$3,063,074. June, 2010. PI: D. Donahue, co-PI: M. Bird.

Entrepreneurship in Maine. Maine US Congressional Delegation. \$3,000,000. January, 2010. Harkins, J (Business), Donahue, D (Engineering), McConnon, J (Extension).

Explore It! Building the Next Generation of Sustainable Forest Bioproducts Researchers, NSF-REU program, \$544,327. October, 2009. Neivandt, D; Donahue, D. (co-PI).

Life Cycle Assessment of Macro Algae as a Bio-Fuel Feedstock Source. \$263,316. Northeast Region Aquaculture Center. December, 2009. PI: D. W. Donahue, co-PIs: P. van Walsum, A. Halog, C. Yarish (UConn), C. Neefus (UNH).

American Association for the Advancement of Science, Science and Technology Policy Fellowship. \$125,000. March, 2007. D. W. Donahue.

Explore it! Building the next Generation of Sustainable Energy Researchers. \$350,008. NSF-REU program. December, 2006- November, 2009. D. W. Donahue, co-PIs: D. Neivandt, and D. Gardner.

Bioproducts through Forest Biorefinery Development, \$21,000,000. NSF/DOE-UIRC. December, 2006. H. Pendse, Donahue (co-PI).

Sustainable Bioproducts through Forest Biorefinery Principles. \$6,800,000. NSF-EPSCoR. November, 2004. Shaler and Pendse, PDs; (Donahue Co-PI).

Mechanical Properties of bone and implant materials after orthopedic implant surgery. \$71,033. (Stryker Biomedical, Inc.) DIC portion of grant to perform materials testing. March, 2005. I. D. Dickey and D. W. Donahue.

Wild Blueberry processing technologies. \$245,000. USDA-CSREES-Blueberry tax funds. November, 2004. D K. Bell, D. Donahue (co-PI).

Wild Blueberry processing technologies. \$241,000. USDA-CSREES-Blueberry tax funds. November, 2003. D K. Bell, D. Donahue (co-PI).

Development of Ultrasonic Rotary Pulsation (URP) Technology for Improving Human and Industrial Wastewater Treatment. \$116,000. Maine Technology Institute. January, 2003. IPET, Inc. (Jim Shue, principle), Co-PIs: D. W. Donahue, A. Amirbahaman.

Wild Blueberry processing technologies. \$241,000. USDA-CSREES. February, 2003. D K. Bell, D. Donahue (co-PI).

Ultrasonic Rotary Pulsation (URP) Processing of Liquid Food: A seed grant. \$30,200. Maine Technology Institute. February, 2003. IPET, Inc. (Jim Shue, principle) and D. W. Donahue (co-PI).

Maine Space Grant Consortium, Travel Funds Program. \$1,500. NASA-MSGC. July, 2002 – October, 2002. D. W. Donahue.

Maine Space Grant Consortium, Undergraduate Fellowship Program. \$6,700. NASA-MSGC. April 2002. September 2002 – May 2003. D. W. Donahue.

GK-12: Sensors!. \$1,494,860. NSF-GK-12. October 2001. May, 2002 – April, 2005, UMaine: College of Engineering, J. F. Vetelino, co-PI: D. W. Donahue.

Examining NIRS for blueberry quality. \$240,000. USDA-CSREES: Wild Blueberry Production and Processing Technologies. February, 2002. D K. Bell, D. Donahue (co-PI).

Using NIR for Maggot Identification. \$18,000. USDA-CSRS: Wild Blueberry Commission of Maine, February, 2001. D. W. Donahue.

Separation Methods of Maggot-Infested Blueberries in the IQF Processing Line. \$16,836. USDA-CSRS: Wild Blueberry Commission, June, 2000. D.W. Donahue.

Evaluation and Design of a Packaging System for Chocolate-covered Maine Wild Blueberries. \$6,300. Maine Agriculture Center. March, 2000. D. W. Donahue and A. A. Bushway.

Key equipment needs – enhancement of current near-infrared (NIR) laboratory unit. \$4,000. College of NSFA R&D Funds Competition. December, 1999. D. W. Donahue.

Lobster Stock Assessment using GIS/GPS Techniques. \$50,000. Maine Science and Technology Foundation. August, 1999. Maine Department of Marine Resources, R. C. Bayer, and D. W. Donahue.

Partial support for Native American High School Student Involvement in Research Activities. \$1,000. Northeast Blueberry Company, Columbia Falls, Maine. June, 1999. G. Sockabasin and D. W. Donahue.

UV Pasteurization with the Model 5300 Cider Unit. \$5,300. MAFES R&D Research Funds (Department of Biosystems Science and Engineering). December, 1998. D. W. Donahue.

Separation Methods of Maggot-Infested Blueberries in the IQF Processing Line. \$12,836. USDA-CSRS: Wild Blueberry Commission, November, 1998. D.W. Donahue and F. A. Drummond.

Instrumented Flow Control for Laboratory. \$5,000. UMaine Regular Faculty Research Funds Competition - University of Maine, November, 1998. D. W. Donahue.

Wild Blueberry Production and Processing Technologies. \$29,860. USDA-CSRS: Wild Blueberry Commission, November, 1997. D.W. Donahue.

Development of an *Escherchia coli* Detection System for Liquid Food Applications. \$99,929. NSF/STTR. February, 1998. J. C. Andle (BIODE, Inc.) and D. W. Donahue.

A Prototype Liquid Food Sampling System for Biosensing Applications. \$50,000. USDA-Seed Grants. December 1998. D. W. Donahue.

Investigations of Physical Properties of Biological Materials. \$24,030. USDA-NRI Equipment Grants Program, February, 1997. D. W. Donahue.

Equipment Evaluation for Field Moisture Removal in Maine Wild Blueberries. \$5,000. UMaine Summer Faculty Research Funds, February, 1997. D. W. Donahue.

Assessment of Near Infrared Photographic Images on IPM for Maine Wild Blueberries. \$2,695. UMaine Agriculture and Forestry Experiment Station, January, 1997. D. W. Donahue, F. A. Drummond, D. E. Yarborough and S. A. Sader.

Process Design for the Application of Gum Surfactant to IQF Maine Wild Blueberries. \$10,800. USDA-Wild Blueberry Advisory Commission Tax Funds, November, 1996. D. W. Donahue and A. A. Bushway.

Determination of Aeration Rates, End-product Quality and Economic Analysis of In-vessel Composting of Crab Processing Wastes. \$87,960. US Dept. of Commerce/NOAA, May, 1996. R. M. Seymour and D. W. Donahue.

Evaluating Hands-on Design Courses for First Year Students. \$3,300. UMaine Student Retention Grant Program, February, 1996. L. E. Katz and D. W. Donahue.

SCHOLARSHIP

Summary: 40 refereed journal articles, over half with undergraduates as co-authors; 12 refereed proceedings, two book chapters, 10 technical engineering reports and reviews, and 150+ professional scientific/engineering presentations. Most of these works were with graduate and/or undergraduate students as co-authors.

PUBLICATIONS, REPORTS AND PROCEEDINGS

Published (Refereed)

Microorganisms in Foods 7: Microbiological Testing in Food Safety Management, 2nd edition, 2018. International Commission on Microbiological Specifications for Foods. (Co-Author: D. Donahue). Springer, USA.

- FAO/UN. Statistical Aspects of Microbiological Criteria Related to Foods: A Risk Managers Guide (#24, Microbiological Risk Assessment Series). 2016. Food and Agriculture Organization of the United Nations. (Co-Author: D. Donahue).
- FAO/WHO. 2015. Development of statistical process sampling methods for Ready-to-Use Foods (RUF) for Management of Moderate and Severe Acute Malnutrition in developing nations (D.W. Donahue, FAO). Coleman, M.E., H.M. Marks, T. A. Bartrand, D. W. Donahue, S. A. Hines, J. E. Comer and S. C. Taft. 2017. Modeling Rabbit Responses to Single and Multiple Aerosol Exposures of *Bacillus anthracis* Spores, *Risk Analysis*, 37:5, pp. 943-957.
- Council of Canadian Academies (Donahue, Co-Author, Panelist). 2011. Healthy Animals, Healthy Canada: The Expert Panel on Approaches to Animal Health Risk Assessment. Council of Canadian Academies, Ottawa, Canada.
- Dickey, ID, Donahue, DW, Peshlov, B, Nohe, A, Khalil, A, Mason, M, Zhang, R, Aponte, C, Davisson, TH, Engelman, D, Hawkins, M. 2009. Pore size modulates strength of soft-tissue in-growth and growth factor expression into novel porous titanium implants, *Transactions of the Orthopaedic Research Society*.
- Peshlov, B., Dowell, F., Lu, R., and D. Donahue. 2009. Comparison of three NIR spectrophotometers for infestation detection in wild blueberries using multivariate calibration models, *Journal of Near-Infrared Spectroscopy*, 17:203-212.
- Dickey, ID, Donahue, DW, Peshlov, B, Aponte, C, Davisson, TH, Hawkins, M. 2008. Pore size and morphology modulate strength of soft tissue in-growth into porous titanium implants, *Transactions of the Orthopaedic Research Society*, #1865, Vol. 33.
- Donahue, D.W., Peshlov, B., Dowell, F.E., Drummond, F.A. 2006. Detecting infestation in Maine wild blueberries using NIRS, *The NIR Spectrum*, 1, 6-9.
- Food and Drug Administration (FDA). 2005. Quantitative Risk Assessment on the Public Health Impact of Pathogenic *Vibrio parahaemolyticus* in Raw Oysters. (Chair of technical/analytical review team: D. W. Donahue). July.
- Eastern Research Group (Editors). 2005. Microbial Risk Assessment Workshop. EPA Contract No. 68-C-02-060. Lexington, MA. February. (Presenter and author: D. W. Donahue).
- Donahue, D. W., N. Canitez, and A. A. Bushway. 2004. Evaluation of a Low-cost UV treatment for Apple Cider. *Journal of Food Processing and Preservation*, 28:368-387.
- Wentworth, D.S., Skonberg, D., Donahue, D.W., and Ghanem, A. 2004. Application of Chitosan Entrapped β -galactosidase in a Packed Bed Reactor System. *Journal of Applied Polymer Science*, 91(2): 1294-1299.
- Institute of Medicine, National Research Council. 2003. Scientific Criteria to Ensure Safe Food. Institute of Medicine, *The National Academies*. Washington, DC: National Academies Press. (Steering committee and co-author: D. W. Donahue).
- Benoit, P. W. and D. W. Donahue. 2003. Review: Methods for Rapid Separation and Concentration of Bacteria in Food that Bypass Time-consuming Cultural Enrichment. *Journal of Food Protection*, 66(10):1935-1948.
- Ziegler, C. R., D. W. Donahue, F. A. Drummond, and S. N. Smith. 2002. The Ecological Economics of Insecticide Use Associated with the Maine Potato Industry Based Upon a Producer Survey. *Journal of Alternative Agriculture*, 17(4):159-166.
- Wentworth, D. S., D. W. Donahue, and R. M. Seymour. 2002. Economic Analysis of Composting Crab Processing Waste. *Compost Science and Utilization*, 10(1): 47-56.
- Ziegler, C. R., D. W. Donahue, F. A. Drummond, and S. N. Smith. 2002. The Ecological Economics of Insecticide Use Associated with the Maine Potato Industry Based Upon a Producer Survey. *Journal of Alternative Agriculture*, 17(4):159-166.
- Wentworth, D. S., D. W. Donahue, and R. M. Seymour. 2002. Economic Analysis of Composting Crab Processing Waste. *Compost Science and Utilization*, 10(1): 47-56.
- Skonberg, D. I., D. W. Donahue, R. C. Bayer, E. Floreto, and J. G. Riley. 2001. Quality Evaluation of American Lobsters Fed Diets Containing Crab Processing Waste. *Journal of Aquatic Food Product Technology*, 10(2):17-29.

- Seymour, R.M., D. W. Donahue, M. Bourdon, J. R. Evans, and D. Wentworth. 2001. Intermittent Aeration for In-vessel Composting of Crab Processing Waste. *Compost Science and Utilization*, 9(2):98-106.
- Ziegler, C.R., D.W. Donahue, F.A. Drummond, and S.N. Smith. 2000. Agrelation: a computerized decision-making tool for Colorado potato beetle population management and environmental quality concerns. *Maine Agricultural and Forest Experiment Station Technical Bulletin* No. 176.
- Donahue, D. W. and P. W. Benoit, B. J. Lagasse, and W. R. Buss. 2000. Sensory, Instrumental and Neural Network Evaluation of Maine Wild Blueberries for the Fresh Pack Market. *Postharvest Biology and Technology*, 19: 221-228.
- Benoit, P. W., D. W. Donahue, A. A. Bushway, J. A. Storey, and T. M. Player. 2000. Surfactant Application System to Prevent Anthocyanin Leakage of IQF Blueberries. *Journal of Food Quality*, 23(3):271-282.
- Long, D. W., F. A. Drummond, E. Groden, and D. W. Donahue. 2000. Modeling *Beauveria bassiana* Horizontal Transmission. *Agricultural and Forest Entomology*, 2:19-32.
- Long, D. W., F. A. Drummond, E. Groden, and D. W. Donahue. 1999. Modeling Insect-Pathogen Dynamics. *Trends in Entomology*, 2:55-62.
- McKeage, K. K, D. K. Skinner, R.M. Seymour, D. W. Donahue, and T. Christensen. 1999. Implementing an Interdisciplinary Marketing/Engineering Course Project: Project Format, Preliminary Evaluation and Critical Factor Review. *Journal of Marketing Education*, 21(3):217-231.
- Donahue, D. W., A. A. Bushway, J. M. Smagula, P. W. Benoit, R. A. Hazen. 2000. Assessment of Pre-harvest Treatments on Maine Wild Blueberry Fruit Shelf-life and Processing Quality. *Small Fruits Review*, 1(1):23-34.
- Donahue, D. W., A. A. Bushway, K .E. Moore, and B. J. Lagasse. 1999. Evaluation of Current Wining Systems for Maine Wild Blueberries. *Applied Engineering in Agriculture*, 15(5):423-427.
- Donahue, D. W., R. C. Bayer, J. G. Riley, A. A. Bushway, P. B. Brown, R. A. Hazen, K. E. Moore, and D. A. deBruyne. 1999. The Effect of Soy-based Diets on Weight Gain, Shell Hardness and Flavor of the American Lobster (*Homarus americanus*). *Journal of Aquatic Food Product Technology*, 8(3):69-77.
- Donahue, D. W., A. A. Bushway, K .E. Moore, and B. J. Lagasse. 1999. Maine Wild Blueberries Field Wining Systems. *MAFES Technical Bulletin* No. 174, University of Maine, Orono.
- Donahue, D. W., D. A. deBruyne, J. D. Fecteau, J. A. Storey, and R.A. Hazen. 1999. Consumer Preference and Mechanical Property Assessment of Maine Wild Blueberries for the Fresh Pack Market. *Journal of Food Quality*, 22(5):545-551.
- Seymour, R. M., D. W. Donahue and K.K McKeage. 1999. Teaching Team-work Through Interdisciplinary Projects. Chapter One, *American Institute of Chemical Engineers*. February, p.1-3.
- Donahue, D. W., A. A. Bushway, K. E. Moore, R. A. Hazen. 1999. Forced Air Removal of Surface Moisture from Maine Wild Blueberries for the Fresh Pack Market. *Applied Engineering in Agriculture*, 15(2):147-152.
- Garland, M. P. and D. W. Donahue. 1998. Review of Potential Pasteurization Methods for Apple Cider. *MAFES Technical Bulletin* No. 847, University of Maine, Orono.
- Donahue, D. W., R. C. Bayer, and M. Loughlin. 1998. Examination of Lead Levels in the American Lobster, *Homarus americanus*, from Three Sites in Maine. *Journal of Shellfish Research*, 17(4):1247-49.
- Donahue, D. W. and T. M. Work. 1998. Sensory and Textural Evaluation of Maine Wild Blueberries for the Fresh Pack Market. *Journal of Texture Studies*, 29:305-312.
- Donahue, D. W., R. C. Bayer, and J. G. Riley. 1998. Effects of Diet on Weight Gain and Shell Hardness of New-shell American Lobster, *Homarus americanus*. *Journal of Applied Aquaculture*, 8(2):79-85.
- Donahue, D. W., J. A. Chalmers, and J. A. Storey. 1998. Evaluation of In-vessel Composting of University Postconsumer Food Wastes. *Compost Science and Utilization*, 6(2):75-81.
- Bayer, R. C., J. G. Riley, and D. W. Donahue. 1998. The Effect of Dissolved Oxygen Level on the Weight Gain and Shell Hardness of New-shell American Lobster, *Homarus americanus*. *Journal of the World Aquaculture Society*, 29(4):491-493.
- Donahue, D. W., R. C. Bayer, T. M. Work and J. G. Riley. 1997. The Effect of Diet on Weight Gain, Shell Hardness, and Flavor of New-shell American Lobsters, *Homarus americanus*. *Journal of Applied Aquaculture*, 7(4):69-77.

- Donahue, D. W., R. S. Sowell and N. M. Bengtson. 1996a. Simulation of Alternative Agricultural Marketing Systems. *Agricultural Systems*, 51(4):395-406.
- Donahue, D. W., R. S. Sowell and N. M. Bengtson. 1996b. Economic Analysis of Alternative Marketing Systems for Flue-cured Tobacco Produced in the United States. *Tobacco Science*, 40:48-55.

Technical Reviews

- Council of Canadian Academies. 2011. Animal Health Risk Assessment.
- US EPA. 2011. Microbial Risk Assessment Guideline, Chair, Technical Panel Review.
(For the EPA risk assessment, the focus was on drinking water. My emphasis on this review was evaluation and assessment of the current and proposed analysis tools for quantitative risk assessment.)
- Food and Drug Administration (FDA). 2005. Quantitative Risk Assessment on the Public Health Impact of Pathogenic *Vibrio parahaemolyticus* in Raw Oysters. (Chair of technical/analytical review team: D. W. Donahue). July.
(For the FDA risk assessment, I was the primary technical reviewer of the risk assessment model devoting approximately five months to the evaluation effort.)
- Eastern Research Group (Editors) 2005. Microbial Risk Assessment Workshop. EPA Contract No. 68-C-02-060. Lexington, MA. February. (Presenter and author: D. W. Donahue).

Conference Proceedings (* indicates refereed proceedings, presenter is underlined)

- * Donahue, D., and A. Kiermeier. 2018. Guide and Resources to the Statistical Aspects of Food Safety (a Codex/FAO tasking). Presentation at the Annual International Meeting, ASABE, 29 July-01 August, Detroit, MI.
- Holland, A., Bousfield, D., Donahue, D., and Hermann, B. 2012. *Environmental Life Cycle Assessment of Packaging Paper with Pulping Alternatives*. Poster presented at the LCA XII Conference, Tacoma, WA, September.
- St. Peter, A., Hermann, B., Halog, A., Bousfield, D., and Donahue, D. 2011. *LCA of Label Release Paper from an Integrated Pulp and Paper Mill*. Poster presented at the LCA XI Conference, Chicago, IL, October.
- St. Peter, A., Halog, A., and Donahue, D. *Life Cycle Assessment of Macro Algae as a Bio-Fuel Feedstock Source*. 2010. Poster presented at the Industrial Ecology Gordon Research Conference, New London, NH, July.
- AOAC International. 2005. Best Practices for Validation of Microbiological Methodology, International Standards Committee. (Steering committee and co-author: D.W. Donahue). Proceedings of the AOAC International Annual Meeting, 12-15 September, Orlando, FL.
- * Donahue, D. W., E. Deane, and K. Rawls. 2004. H2O-Safe: Simulation Tool for Risk Assessment of Public Water Distribution Systems. Proceedings of the Society for Risk Analysis Annual Meeting.
- * Donahue, D. W. and M. N Cohen. 2004. Transparency in regulations: A perspective. Proceedings of the Society for Risk Analysis Annual Meeting.
- * Seymour, R.M., K. K. McKeage, D. W. Donahue, D. K. Skinner and T. E. Christensen. 1999. Interdisciplinary Team Projects with Marketing Students To Improve Engineering Capstone Experience. Proceedings of the American Society of Engineering Education Annual Conference, 9-12 June.
- Long, D., F.A. Drummond, E. Groden, and D. Donahue. 1998. Modeling transmission of an entomopathogenic fungus in the summer generation of the Colorado potato beetle, *Leptinotarsa decemlineata*. Proceedings of the 24th Annual Maine Biological and Medical Sciences Symposium, p. 5.
- Donahue, D. W., J. A. Chalmers, and L.A. Storey. 1997. In-vessel Compost System Evaluation Using University Food Wastes. Paper # 976052, presented at the 1997 ASAE Annual Meeting, Minneapolis, Minnesota, 10-14 August.
- Ziegler, R., F.A. Drummond, and D. W. Donahue. 1997. Environmental concerns and pest management. Proceedings of the Maine Biological and Medical Sciences Symposium, Augusta, Maine. June, p. 34.

Riley, J., D. Donahue, G. Ozbay, and R. Bayer. 1996. Shipping and Handling of Live Lobsters (*Homarus americanus*). Proceedings of the Marketing and Shipping Live Aquatic Products '96, Seattle, Washington, 13-15 October, pp. 73-76.

Miscellaneous Publications

Donahue, D W. 1998. University of Maine Fruits and Vegetables Research. Fruit & Vegetable Products Division Newsletter, Institute of Food Technologists, 18(1):5.

Donahue, D. W. 1998. New Biomedical Engineering at UMaine. College of Engineering Alumni Newsletter, Fall Edition.

Donahue, D. W., J. G. Riley, and R. C. Bayer. 1998. Does Oxygen Affect Lobster Growth and Shell Hardness? Aquaculture & Fisheries Update, Spring.

Donahue, D. W. 1996. In-vessel Composter Designed by University Bio-Resource Department. *Biocycle*, 37(8):77.

SERVICE

Professional, Government & International

- **American Society of Quality**, 2014-present. Certified Quality Exam referee. Assisted with developing CQE exam.
- **FAO/WHO**, 2013-present. Expert consultancy on statistical and mathematical basis for microbiological criteria in foods; continual reviews.
- **International Committee on Microbiological Specifications for Foods**, 2011-2016, Expert consultant; 2016-present, member.
- **NSF, NSF/SBIR, DOE, USDA, USDA/SBIR**, Research proposal review member, 1999-2016.
- **Council of Canadian Academies**, 2009-2011. Expert Panel on Evaluation of Risk Assessment Methods for the Canadian Food Inspection Agency.
- **AOAC International**, 2004-2006, microbiological best management practices.
- **USDA/US EPA**, November 2011. Chair, Microbiological Risk Assessment Guidance Document technical review.
- **US EPA**, 2003-2004. National Center for Environmental Assessment, Science Advisory Board.
- **US FDA**, 2003-2004. *Vibrio parahaemolyticus* risk assessment model review team.
- **US Army Center for Health Promotion and Preventive Medicine**, 2003-2008; anthrax risk assessment.
- **National Academy of Sciences, Expert Panel on Risk Assessment**, Main and subcommittee chair appointments, 2002-2004.

Professional Societies

- **Society for Risk Analysis**, member, 2003-2019; editorial board, 2011-2018; conferences/workshops committee, 2005-2019.
- **American Indian Science and Engineering Society, Professional Member**, 2009-present.
- **American Association for the Advancement of Science**, member, 2006-present; Fellow and Fellowship application reviewer, 2008-present.
- **American Society of Agricultural and Biological Engineers**, member, 1984-present.
- **American Society of Quality, CQE**, member, 2000-present, statistics and education divisions.
- **Institute for Operations Research and Management Science**, member, 1990-2004.
- **International Association of Food Protection**, member, 2003-present; editorial board, 2008-present.
- **Institute of Food Technologists**, 1995-2004; professional member; associate editor-JFSE, 2000-2003.

University

- Tau Beta Pi Engineering Honor Society, member, 1986-present; Chief Faculty Advisor, 2000-2010. National Scholarship & Fellowship Board, 2010-2014.
- Advisory Board (Faculty Representative) of three university programs -1999-2008.
- College of Engineering Research Committee, member, 1999-2007.
- Graduate School Governing Board, member, 1999-2005.

- University-wide search committees, 22 committees since 1996, six as chair.

Local Industry

- **Savannah Process Control, LLC**, 2015-present. Founder and Principal Engineer.
- **Process Design Consultant**: Provided process design and engineering services to small local businesses in North Carolina, Maine and Michigan, intermittent 1992-present.
- **Maine Extension Food Engineer**: On a volunteer basis, supported food science extension/outreach efforts requiring engineering expertise, 1996-2011.

National Non-Profit & Community

BOY SCOUTS OF AMERICA: continuous membership since 1971; adult leader since 1977.

- **Troop level**: Assistant Scoutmaster, 1977-2003; Scoutmaster 2003-2006.
- **District level**: Various Training Committees, 1982-2002; District fund-raising 2000-2006.
- **Council level**: Council Executive Board, 2002-present (current Vice-President: Outdoor Adventures); Council Endowment Committee, 2013-2015; OA Lodge Advisor: 1983-2007; JYLT Scoutmaster, Wood Badge, 2005; Training Committees, 1984-2015.
- **National level**: National Health & Safety Committee, 2008-2012; National Order of the Arrow Committee, 2008-present.

HIGH SCHOOL BOOSTERS CLUB support, 1998-2007.

FRIENDS OF THE LIBRARY, 2000-2007.