

# Curtis L. Weller

## PERSONAL DATA

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## EDUCATION

|       |                                 |                            |
|-------|---------------------------------|----------------------------|
| Ph.D. | University of Illinois-UC, 1987 | Agricultural Engineering   |
| M.S.  | University of Illinois-UC, 1983 | Food Science               |
| B.S.  | University of Illinois-UC, 1977 | Food Science (High Honors) |

## PROFESSIONAL LICENSURE

South Carolina Professional Engineer No. 14553  
Nebraska Professional Engineer No. E-8042

## PROFESSIONAL CERTIFICATION

Certified HACCP Manager (GMA) effective August 2012  
Certified Food Scientist (IFT) effective April 2013

## PROFESSIONAL EXPERIENCE

2000- **Professor of Biological Systems Engineering, and Food Science and Technology**, University of Nebraska, Lincoln, NE; Responsible for teaching and developing courses in food and process engineering. Research responsibilities are in the broad area of food engineering with particular attention on value-added processing of agricultural commodities and physical properties determination. Concentration of research effort has been on recovery and utilization of valuable lipids in grain sorghum, and predicting microbial growth in meat products based on time and environmental conditions.

- 2011-2012 **Jefferson Science Fellow**, United States Agency for International Development Bureau for Food Security Office of Markets, Partnerships and Innovation, Washington, DC; Responsibilities include reviewing, studying and discerning existing information related to processing in various food, feed and bioproduct value chains for the US Government Feed the Future focus countries. Focus was on understanding food processing issues in countries in the Horn of Africa, the establishment of the Global Food Safety Trust Fund with the World Bank and the implementation of strategies to reduce post-harvest losses for food commodities.
- 2006-2012 **Program Coordinator**, Department of Biological Systems Engineering, University of Nebraska, Lincoln, NE; Provide leadership in the development, implementation and assessment of departmental programs, and assist Department Head with coordination of research programs.
- 1994-2000 **Associate Professor of Biological Systems Engineering, and Food Science and Technology**, University of Nebraska, Lincoln, NE; Responsible for teaching and developing courses in food and process engineering. Research responsibilities are in the broad area of food engineering with particular attention on value-added processing of agricultural commodities and physical properties determination. Concentration of research effort has been on property evaluation and modification of biopolymeric films, and recovery and classification of compounds in grain sorghum wax.
- 1992-1994 **Assistant Professor of Biological Systems Engineering, and Food Science and Technology**, University of Nebraska, Lincoln, NE; Responsible for teaching and developing courses in food and process engineering. Research responsibilities are in the broad area of food engineering with particular attention on value-added processing of agricultural commodities and physical properties determination. Concentration of research effort has been on property evaluation and modification of biopolymeric films, and refining of sorghum to recover co-products.
- 1991-1992 **Associate Professor of Agricultural and Biological Engineering**, Clemson University, Clemson, SC; Food and bioprocess engineering teaching and research with teaching emphasis on engineering principles for Food Science majors, physical properties and processing of agricultural and biological material, and research emphasis on value-added processing, physical properties determination and water activity prediction.
- 1986-1991 **Assistant Professor of Agricultural and Biological Engineering**, Clemson University, Clemson, SC; Food and bioprocess engineering teaching and research with teaching emphasis on engineering principles for Food Science majors, physical properties and processing of agricultural and biological

material, and research emphasis on value-added processing, physical properties determination and water activity prediction.

- 1981-1986 **Graduate Research Assistant**, Department of Agricultural Engineering, Department of Food Science and International Agriculture, University of Illinois, Urbana, IL; Responsible for research on continuous fermentation of corn starch to ethanol with distillation, on concurrent starch hydrolysis and yeast fermentation, on conversion of corn cobs to ruminant feed using *Pleurotus ostreatus* and prediction of starch recovery from corn wet-milling.
- 1979-1981 **Sanitation Supervisor**, Central Bakery, Eisner Food Stores (Division of Jewel Companies, Inc.), Champaign, IL; Responsible for insuring that manufacturing facility was in compliance with Federal **Good Manufacturing Practices**, Jewel Corporate regulations and other applicable regulations. Trained, supervised and scheduled sanitation employees, and coordinated preventive maintenance with maintenance personnel so as to maintain the master sanitation program and keep processing equipment functioning. Oversaw pest and rodent prevention programs including recordkeeping, and application of pesticides and rodenticides. Maintained inventories of sanitation equipment and supplies. Revised and updated the Eisner Bakery Sanitation Handbook and Master Sanitation Program in 1980. Performed weekly plant inspections for and reported to plant manager. Held State of Illinois Certified Structural Pest Control Technician License #052-505302.
- 1977-1979 **Quality Control Laboratory Technician**, Muller Pinehurst Dairy, Inc., Rockford, IL; Worked in various phases of a fluid milk-ice cream-fermented products processing plant with major emphasis on monitoring product quality and plant sanitation. Became proficient in operation of many pieces of processing and sanitation equipment. Performed raw and pasteurized product microbiological and butterfat analysis in State of Illinois licensed laboratory. Provided technical assistance on matters related to processing techniques as affecting product quality to plant manager. Reported to the plant manager. Held State of Illinois Butterfat Testing License #00017. Member of Local Union No. 754 of the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America.

## **SOCIETY MEMBERSHIPS**

- AACC International, (1989 - )  
American Oil Chemists' Society (AOCS), (2007 - )  
American Society of Agricultural and Biological Engineers, (ASABE), (1984 - )  
Institute of Food Technologists, (IFT), (1984 - )  
International Society of Food Engineers, (ISFE), (2009 - )

## **PROFESSIONAL TRAINING**

**(1979)** American Institute of Baking *Food Safety and Sanitation for Food Plants* course in Manhattan, KS.

**(1979)** Bunge Milling *Good Manufacturing Practices for the Food Industry Executive Seminar* in Normal, IL.

**(2005)** Gesellschaft Deutscher Chemiker/Euro Fed Lipid *Practical Short Course on Edible Oil Refining and Processing* in Frankfurt am Main, Germany.

**(2011)** Grocery Manufacturers Association members' *Equipment & Plant Design Workshop for Allergen/Pathogen Control* in Chicago, IL.

**(2012)** Grocery Manufacturers Association *HACCP Manager Training* on-line and *HACCP Plan Development and Implementation Workshop* in Washington, DC.

## **CIVIC/COMMUNITY ORGANIZATIONS**

*Handy Andies 4-H Club, Lincoln, NE*

Volunteer Leader (1993-1994)

*Little Chiefs Youth Baseball, Lincoln, NE*

Volunteer Head Coach (1998)

Volunteer Assistant Coach (1994-1997)

*Lincoln Northeast Kiwanis, Lincoln, NE*

Business Affairs and International Programs Committee, Chair (1995-1996)

Human and Spiritual Values Committee, Chair (1997-1998)

*Special Olympics 2010 USA National Games, Lincoln, NE*

Games Management Systems Manager, Soccer Venue (2010)

*St. Andrew's Evangelical Lutheran Church, Lincoln, NE*

Sunday Church School Teacher

Adult (1995-1996, 1999-2002)

Eighth Grade (1996-1998)

Seventh/Eighth Grade (2002-2004)

Congregation Council  
President (1996)  
Member (1993-1996)  
Pastor Call Committee Co-Chair (1994-1995, 2001-2002, 2003-2004)  
Constitution Revision Committee (1997-1998)  
By-Law Revision Committee (1998)  
Peace Building Team (2007)  
Memorial Fund Ministry Team (2009-2011)  
Chair (2009-2011)  
Nominating Committee (2003-2005)  
Stewardship Committee (2004-2006)  
Building Committee (1999-2002)  
Advance Priority Group (2000)  
Teller (2007-2011)

*Clemson Clovers 4-H Club, Clemson, SC*

Volunteer (1988-1990)

*Clemson Toastmasters Club No. 5540, Toastmasters International, Clemson, SC*

Administrative Vice-President (1989-1990)  
Educational Vice-President (1991-1992)

*Six Mile Community 4-H Club, Six Mile, SC*

Volunteer (1990-1992)

*University Lutheran Church, Clemson, SC*

Sunday Church School Teacher and Mentor (1989-1992)  
Coach, Church League Softball (1990-1992)  
Head Usher (1991-1992)

*University YMCA, Clemson, SC*

Coach, Youth Baseball (1990)  
Linesman, Youth Soccer (1987-1992)

*Illi-Dell Cooperative Corporation, University of Illinois-UC, Champaign, IL*

President, Board of Directors (1981-1982)  
Vice-President, Board of Directors (1980-1981)  
Member, Board of Directors (1979-1980)

*Prince of Peace Lutheran Church, St. Joseph, IL*

Sunday Church School Teacher, Sixth Grade (1985-1986)

## **PROFESSIONAL ACTIVITIES**

### *International*

Korean Society of Applied Biological Chemistry

Journal Editorial Advisory Board (2009- )

American Society of Agricultural and Biological Engineers (member since 1984)

Nominating Committee

Member (2002-2003)

T-1 Standards (Policy and Adoption) Committee

Member (1992-1996)

ED-414 Engineering Licensure Committee

Chairman (1999-2001)

Vice-Chairman (1997-1999)

Secretary (1995-1997)

Liaison to Examinations for Professional Engineers Committee (2001-2003)

Member (1992- )

FPE-03 Food and Process Engineering Standards Committee

Chairman (1992-1996)

Vice-Chairman (1990-1992)

Member (1989-2010)

FPE-703 Food and Process Engineering Food Processing Committee

Member (1989-1992, 1997- )

FPE-711 Food and Process Engineering Packaging Committee

Chairman (1992-1993)

Vice-Chairman (1991-1992)

Member (1989-1993)

FPE-811 Food and Process Engineering Education Committee

Member (1990-1993)

M-154 DFISA-ASAE Food Engineering Award Jury

Member (1990-1991)

Member (1994-1995)

1991 International Winter Meeting

Table Moderator, Roundtable Forum Luncheon

1992 International Winter Meeting

Session Chair: Challenges and Opportunities for Standards in the Food Industry

1993 International Winter Meeting  
Session Chair: Films and Foams: Alternatives of Packaging Materials  
1994 International Summer Meeting  
Session Chair: FPEI One-on-One Presentations  
1995 Mid-Central Conference  
Session Chair: Application of Extrusion Technology in Bioprocessing  
2008 Mid-Central Conference  
Chair  
2010 Mid-Central Conference  
Awards Chair

Institute of Food Technologies (member since 1984)

Engineering Division

AACC International (member since 1989)

Engineering and Processing Division  
Chair (1994-1995)  
Chair-Elect (1993-1994)  
Secretary-Treasurer (1992-1993)  
Member (1991- )

1994 Annual Meeting  
Symposium Co-Chair: Computer and Sensor Aided Process Control

American Institute of Chemical Engineers

1991 Conference on Food Engineering  
Session Co-Chair: Properties of Food Ingredients  
2001 Conference on Food Engineering  
Session Vice-Chair: Structure and Functionality of Biopolymers

*State*

South Carolina Section of ASAE

Local Host Chair's Committee, 1992 International Meeting (1991-1992)  
Student Recruitment Committee (1987-1988)  
Vice-Chair, Public Relations (1988-1989)  
Member (1986-1992)

Nebraska Section of ASAE

Advisor (1999-2001)  
Chair (1998-1999)

Vice-Chair, Programs (1997-1998)  
Secretary-Treasurer (1993-1997)  
Member (1992- )

Dixie Section of IFT

Co-Coordinator, Clemson Meeting (1989-1990)  
Program Coordinator, Clemson Meeting (1991)  
Member (1986-1992)

Aksarben Section of IFT

Member (1992- )

Nebraska Section of AACC

Member (1995-1998)

Sigma Xi - Clemson University Chapter

Member, High School Awards Committee (1989-1990)  
Member, High School Research Grant Committee (1990-1991)

Phi Tau Sigma - University of Nebraska Chapter

Chair (1996-1997)  
Vice-Chair (1995-1996)

## **INTERNATIONAL ACTIVITIES**

**(1984-1985)** Worked as a Graduate Research Assistant at the University of Illinois-UC on USAID Title XII Strengthening Grant Project No. 38 for *Microbial conversion of biomass into feed, fuel or fertilizer in developing countries*. This project was in cooperation with researchers in Kenya and specifically involved work on conversion of corn cobs to ruminant feed using *Pleurotus ostreatus*.

**(1992)** Hosted Dr. Peter Kolster from the Agrotechnological Research Institute (ATO-DLO) in Wageningen, The Netherlands who is doing similar research with wheat gluten edible, degradable films.

**(1993)** Reviewed a research proposal for the Israel Science Foundation, Jerusalem, Israel that proposed to do work on application of edible films and coatings.

**(1993)** Advised Ms. Luz Marie Ortega from the Option II Masters Program in Food Science and Technology with a minor in Agricultural and Biological Systems Engineering. She was at the University of Nebraska-Lincoln on a USAID Peace Fellowship and returned to Guatemala in 1994.



**(1994)** Hosted Dr. Hyun Jin Park, Mokpo National University and Mr. Chun-Ho Bae, Sam Yang Group Research and Development, Republic of Korea. Information concerning utilization of zein and properties of edible, degradable films was discussed and shared. Dr. Park and Mr. Bae also toured eastern Nebraska where they viewed corn production, handling and processing facilities.

**(1994)** Hosted Dr. Lyndon Kurth, Program Leader, Meat Technology, CSIRO Division of Food Science and Technology, Brisbane, Australia. Information on edible films and coatings for meat products was shared. Visits were also coordinated with Food Science and Technology, and Animal Science. As a result of Dr. Kurth's visit, one of my students worked in his lab as a visiting scientist in Spring 1995.

**(1994)** Visited various institutions in the Republic of Korea under the sponsorship of Dr. Hyun Jin Park at Mokpo National University. Research presentations were made at Mokpo National University, Korea Food Research Institute and Sunhill Research Laboratory of Sam Yang Group.

**(1994)** Presented a special guest lecture at Korea University, Seoul, Republic of Korea on edible films and coatings in Dr. Chul Rhee's *Water in Foods* graduate class.

**(1995)** Formalized **International Letter of Intent** between Mokpo National University and University of Nebraska-Lincoln to promote collaborative research efforts in food and packaging science.

**(1995)** Hosted William Montaville from L'Etablissement National d'Enseignement Supérieur Agronomique de Dijon, France in an intern exchange program. His project was to build and calibrate three laboratory grain dryers.

**(1995)** Consulted for the U.S. Feed Grains Council in Colombia, Brazil and Venezuela for 13 days to complete a market survey of uses for U.S. corn.

**(1996)** Served as co-organizer of International Symposium of Biopolymer-based Films for Food and Industrial Uses at Mokpo National University, Mokpo, Korea with Dr. Hyun Jin Park.

**(1996)** Hosted Carole Cezeirat from Ecole Nationale Supérieure Agronomique de Montpellier, France in an intern exchange program. Her project was research on soy protein and egg white films.

**(1996)** Lectured on *Food Microbiology* at the Technical University of Tajikistan in Dushanbe and Khujand. Also toured various food processing facilities in Tajikistan.

**(1996-1997)** Hosted Akihiro Handa from Q.P. Corporation, Fuchu-City, Tokyo, Japan as part of a cooperative research project on egg white films.

**(1996)** Coordinated a tour of white corn production and processing facilities for five Colombian snack food processors with the U.S. Feed Grains Council and the Nebraska Corn Board.

**(1996-1998)** Hosted Dr. Jong Whan Rhim from the Department of Food Engineering at Mokpo National University, Mokpo, Korea during his research study leave funded in part by the Korean Ministry of Education and the Nebraska Soybean Board. His research has been primarily related to soy protein film production, modification and utilization.

**(1997)** Hosted Julie Arrault from Ecole Nationale Supérieure Agronomique de Montpellier, France in an intern exchange program. Her project was research on classifying compounds in sorghum wax.

**(1998)** Toured Bourgogne region of France with University of Nebraska and University of Kentucky students, ATO-DLO of Wageningen, Netherlands, The Royal Veterinary and Agricultural University of Copenhagen, Denmark and the Swedish University of Agricultural Sciences in Uppsala, Sweden.

**(1998)** Hosted Carine Gaudoin from Ecole Nationale Supérieure de Biologie Appliquée à la Nutrition et à l'Alimentation, Dijon, France in an intern exchange program. Her project was research on measuring oxidation effects on sorghum wax fraction quantity and quality.

**(1998)** Surveyed past, present and future markets for white corn and high oil content corn, and offered technical assistance where appropriate in Venezuela for the U.S. Grains Council.

**(1999)** Presented information on high oil corn and grain sorghum for use in swine and poultry rations to grain buyers and users in Chile for the U.S. Grains Council.

**(1999)** Visited the Agroindustries Department of the University of Concepcion, Chillan Campus in Chile to explore opportunities for faculty and student exchanges.

**(1999)** Hosted Rodrigo Rizzo from Agroindustries Department of the University of Concepcion, Chillan Campus in Chile in an intern exchange program. His project was research on measuring respiration of coated and uncoated fresh cut fruit samples.

**(2000)** Hosted Pier Brizzi from Agroindustries Department of the University of Concepcion, Chillan Campus in Chile in an intern exchange program. His project was research on measuring respiration of coated and uncoated fresh apples.

**(2000)** Arranged for shipment of a container-load of textbooks from the Nebraska Book Company of Lincoln, NE to the Khujand branch of the Technological University of Tajikistan through support from the Eurasia Foundation and Bridge to Asia.

**(2000-2003)** Hosted Dr. Keum Taek Hwang from the Department of Food Science and Nutrition at Chonbuk National University, Chonbuk, Korea during his research study leave

funded in part by his University and the Industrial Agricultural Products Center. His research was primarily related to classification of compounds in grain sorghum wax and development of techniques for classification.

**(2001)** Co-led UNL students from four majors to the SIMA 2001 The Paris International Agri-Business Show and the Salon International de l'Agriculture in Paris, France, to Ecole Nationale Supérieure de Biologie Appliquée à la Nutrition et à l'Alimentation and Etablissement National d'Enseignement Supérieur Agronomique de Dijon in Dijon, France, and to a winery and supermarket in the Bourgogne region.

**(2001)** Visited and presented seminar on grain sorghum wax chemistry to Food Science and Human Nutrition departments at Chonbuk National University, Jeonju, Korea.

**(2001)** Served as session co-chair at the Pre-Congress Short Course of IUFOST entitled Active Biopolymer Films and Coatings for Food and Biotechnological Uses at Korea University, Seoul, Korea.

**(2001)** Hosted Karine Hubert from Ecole Nationale Supérieure de Biologie Appliquée à la Nutrition et à l'Alimentation, Dijon, France in an intern exchange program. Her project was research on comparing coatings of sorghum wax to coatings of carnauba wax on hard candies.

**(2002)** Co-led UNL students from three majors to Chile as part of a Agro/Bio Industries Study-Abroad Tour in the central valley around Santiago and Chillan, and presented an invited seminar on trends in engineering education to the faculty of the University of Concepción.

**(2002)** Hosted Dr. Mustafa F. Ertugay from the Department of Food Engineering at Atatürk University, Erzurum, Turkey during his research study leave funded by his University. His research was primarily related to clarification of wax recovered from grain sorghum dried distillers grains.

**(2003)** Co-led UNL students from three majors to Ireland as part of a U.S. Department of Education FIPSE program to study and compare the food industry in Ireland, the European Union and the United States.

**(2003-2004)** Hosted Oscar A. Ochoa from the Zenú Corporation in Medellín, Colombia and a doctoral student at the Energy and Thermodynamics Institute of the Universidad Pontificia Bolivariana for completion of his doctoral research on meat thermal properties and for design of a controlled environment wind tunnel.

**(2004)** Co-led UNL students from six majors and five U.S. institutions to Institut Supérieur Agricole de Beauvais in Beauvais, France as part of a U.S. Department of Education FIPSE program to study and compare the food industry in France, the European Union and the United States.

**(2005)** Formalized **Memorandum of Understanding** between Center for Healthcare Technology Development, Chonbuk National University and Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln to promote collaborative research efforts in nutraceutical recovery and utilization.

**(2006)** Visited with the Mr. Byong Ryol Min, a Director for the US Grains Council in Asia and product development researchers at Haitai, a major Korean snack food company, to discuss the latest nutritionally-beneficial research on grain sorghum lipids underway at UNL.

**(2007)** Hosted Laura Nyström from the Department of Applied Chemistry and Microbiology at the University of Helsinki in Finland to conduct research on scarification of food grade grain sorghum.

**(2007)** Hosted Jihan Cepeda Jiménez from La Sabana University in Chía, Colombia on an intern exchange program. Her internship research was related to heat transfer modeling during beef carcass chilling.

**(2007-2008)** Hosted Bo Hyun Lee from the Department of Food and Nutrition at Seoul National University in Korea to conduct research on extraction of waxy and oily lipid fractions from grain sorghum for use in hamster feeding trials.

**(2007)** Presented state-of-the-art information on ethanol production from grain and sweet sorghum for the Federación Nacional de Cultivadores de Cereales y Leguminosas to producers and government officials in Bogotá, Espinal and Valledupar, Colombia.

**(2008)** Visited the Faculty of Food Engineering at the State University of Campinas in Campinas and the Center of Technology at the Federal University of Cereá (UFC) in Fortaleza in Brazil to explore opportunities for faculty and student exchanges, and to check progress of M.S. graduate student, Juan Garcia, at UFC in his dual-degree research program.

**(2008)** Accompanied other UNL faculty members on visit to Zamorano University in Honduras to investigate opportunities for UNL to offer distance education offerings in bioenergy, food processing and irrigation.

**(2010)** Traveled to South America to participate in a workshop, *La Necesaria Innovacion en el Procesamiento de Alimentos Base Cereales*, presented in Buenos Aires, Argentina; Santiago, Chile; and Lima, Peru for Granotec, a large South American company by speaking on *Alternative Processing Technologies for Non-traditional Cereals and Grains*, and *Preparation of Wheat Flours with High Nutritional Benefits*.

**(2010)** Traveled to Africa with David Jackson (Food Science and Technology, UNL and ARD Associate Dean) to meet with collaborators at Sokoine University of Agriculture in Tanzania, and the University of Zambia for a project with INTSORMIL to promote the increased use of sorghum and millet in East Africa, and to build a sustainable infrastructure for product development for entrepreneurs and industry.

**(2010)** Hosted Andrés Felipe Doblado Maldonado from La Sabana University in Chía, Colombia on an intern exchange program. His internship research was related to degradation of inulin in chicory root during drying and storage.

**(2011)** Presented five modules covering *Principles of Food Engineering* to undergraduate students in a mid-session course offering at the University of Shizuoka Department of Food and Nutritional Sciences, Shizuoka, Japan.

**(2011)** Lectured at Seoul National University Department of Food and Nutrition in the *Food Chemistry* undergraduate class of Dr. Keum Taek Hwang on *Units and their Use*.

**(2012)** Reviewed research proposals for the Swiss National Science Foundation, Berne, Switzerland, the Biotechnology and Biological Sciences Research Council, Swindon, UK, and the National Research Council, Bucharest, Romania.

**(2013)** Represented the USAID INTSORMIL Collaborative Research Support Program Director at the *Examining Opportunities for Linkages in Collaborative Research, Tehcnology Dissemination, and Human and Institutional Capacity Development Workshop* in Morogoro, Tanzania and co-hosted workshop participants during site visit to the UMOJA Women's Group in Chamwino, Tanzania.

## **UNIVERSITY, COLLEGE AND DEPARTMENT SERVICE**

### *University of Nebraska-Lincoln*

Academic Planning Committee (APC), Physical Sciences  
Representative (2010- )

Academic Senate, Department of Biological Systems Engineering  
Representative (2001-2004)

Department of Modern Languages and Literatures Academic Program Review  
APC Representative Team Member (2012)

General Education Advisory Committee, College of Engineering  
Representative (2005-2007)

Marshall, Commencement (Sm 02, Sm 04, Sm 05, Sm 06, F 08, S 09, Sm 09, F 09)

Office of Campus Recreation External Review, Internal Faculty Review Team  
Member (2003)

International Affairs Study Abroad Advisory Committee  
Chair (2008-2010)

CASNR Representative (2006-2010)

University Curriculum Committee, APC Representative (2010-2011)

### *Institute of Agriculture and Natural Resources - University of Nebraska-Lincoln*

IANR Team and Initiative Team Awards Selection (1997)

Food Products Safety Research Center Technical (1998)

Search, Filley Hall Business Center Manager (2009)

Search, Agricultural Research Division Dean and Nebraska Agricultural  
Experiment Station Director (2010-2011)  
Heuermann Lecture Program Committee (2012- )

*Agricultural Research Division - University of Nebraska-Lincoln*

*ad hoc* Khem Shahani Professor in Food Science and Technology Procedures and  
Criteria for Selection Development (2003-2004)

*College of Agricultural Sciences and Natural Resources - University of Nebraska-Lincoln*

Faculty Advisory (1993-1995)  
Curriculum (2001-2003)  
*ad hoc* Core Curriculum (2008-2009)  
PEARL Project  
Peer Reviewer (2006-2009)  
MSYM Program Representative (2005-2011)  
International Agriculture and Natural Resources Minor Coordinator (2001-2006)

*College of Agricultural Sciences - Clemson University*

Honors (1987-1992)

*College of Agriculture - University of Illinois*

Paul A. Funk Recognition Awards Program Planning (1985)

*College of Engineering - University of Nebraska-Lincoln*

Curriculum  
Member (1993-2000, 2001-2007)  
Chair (2007-2011)  
*ad hoc* Chemistry for Engineers (2002, 2006)  
By-laws (2002-2004)  
Search, Chemical Engineering Chair (2002-2003)

*College of Engineering - Clemson University*

Honors Program (1990-1992)

*VBI Business Center - University of Nebraska-Lincoln*

Search, Staff Assistant (2000)  
Search, Accounting Clerk III (2006)

*Industrial Agricultural Products Center - University of Nebraska-Lincoln*

Search, Technology Transfer Assistant (2000)  
Search, Technician (2001-2002)

*Food Processing Center - University of Nebraska-Lincoln*

Search, Extrusion Specialist (1999-2000)  
Search, Process Engineer (2006, 2007)

*Department of Biological Systems Engineering - University of Nebraska-Lincoln*

Curriculum (1992-2011)  
    Chairman (1993-2000, 2001-2011)  
    BSE Task Force (1992-1993, 1996-1998)  
Student Support (1996-1998)  
Faculty Retreat (1996)  
Displays and Exhibits (1992-1995)  
Promotion and Tenure (2000- )  
    Secretary (2009-2011)  
    Chairman (2011- 2013)  
Recruiting, Placement and Scholarships (1992-1996;1998-2004)  
Scholarship (2006-2011)  
Teaching Equipment (1992-1996, 1997-2004)  
Hazardous Materials (1993-1994)  
    Chairman (1993-1994)  
Graduate (1993-1996, 2006-2007)  
Search, Grantwriter (1993)  
Search, Grantwriter (1996)  
Search, Clerical Associate (2007)  
Search, Staff Secretary II (1994)  
Search, Staff Secretary III (2003-2004, 2005, 2006, 2007)  
Search, Accountant (1994)  
Search, Food and Bioprocess Engineer (2001-2002, 2003-2004)  
Search, Research Engineer (2006)  
Search, Mechanized Systems and Bioenergy Engineer (2008)  
Search, Industrial Ecologist (2009)

*Department of Agricultural and Biological Engineering - Clemson University*

Engineering Curriculum (1986-1991)  
    Secretary (1990-1991)  
Teaching Equipment Needs (1987)  
Departmental Name Change (1987-1988)  
Space Utilization (1987-1990, 1991-1992)  
    Chairman (1989-1990)

Seminar (Fall 1989, Fall 1991)  
Reappointment, Tenure and Promotion (1990-1992)  
Faculty/Student Social (1989-1991)  
Chairman (1991)

*Department of Food Science and Technology - University of Nebraska-Lincoln*

Curriculum Revision (1992-1993)  
Promotion and Tenure (2000- )  
Chairman (2004, 2012)  
Graduate Committee (2006-2011)  
Search, Food Scientist (2009)  
*ad hoc* Vision Committee (2010-2011)

*Department of Food Science - Clemson University*

Search, Research/Teaching Packaging Position (1988)  
Search, Extension Packaging Position (1990)  
Search, Stender Professor of Agricultural Sciences (1990-1991)

**HONORS AND AWARDS**

Alpha Zeta (1975)  
55th Collegiate Dairy Products Evaluation Contest - Atlantic City, NJ (1976)  
1st in Milk Competition and 5th in Overall Competition  
Gamma Sigma Delta (1977)  
Sigma Xi (1982)  
Alpha Epsilon (1985)  
Competent Toastmaster (1990)  
Toastmasters International Area No. 53 Table Topics Contest - Clemson, SC (1991)  
1st Place  
Phi Tau Sigma (1993)  
Honorable Mention Paper Award - American Society of Agricultural Engineers (1994)  
Faculty Research Award (Associate Professor) - College of Engineering and Technology,  
University of Nebraska-Lincoln (1995)  
Recognition Award for Innovative Use of Glycerine - Soap and Detergent Association  
(1995, 1996)  
Certificate of Recognition for Contributions to Students - Parents' Association,  
University of Nebraska-Lincoln (1999, 2001)  
Engineer of the Year Award - Nebraska Section of the ASAE (2001)  
President's Citation - ASAE, The Society for Engineering in  
Agricultural, Food, and Biological Systems (2002)  
Excellent Advisor Recognition - College of Engineering and Technology  
Student Advisory Board, University of Nebraska-Lincoln (2004)  
Superior Paper Award - American Society of Agricultural and Biological Engineers (2006)  
Distinguished Service Award - ASABE MidCentral Conference (2008)



Excellence in Teaching Award - AACC International (2010)  
Research Award of Merit - Gamma Sigma Delta Nebraska Chapter (2011)  
President's Citation - American Society of Agricultural and Biological Engineers (2011)  
College of Engineering Distinguished Teaching Award - University of Nebraska-Lincoln  
(2013)

## **TEACHING, EVALUATION AND ADVISING**

### *Clemson University*

AGE 465, Engineering Properties of Biological Material, Spring 87, 88, 89, 90  
AGE 473, Special Topics in Agricultural Engineering, Fall 88  
AGE 442/642, Properties and Processing of Biological Products, Spring 91, 92  
AGE 871, Selected Topics in Agricultural Engineering, Spring 90, Fall 90  
FDSC 305, Dairy and Food Engineering, Fall 87, 88, 89, 90, 91  
FDSC 811, Physical and Thermo-physical Properties of Food, Fall 88, 90

### *University of Nebraska-Lincoln*

AGEN (BSEN) 112, Spring 05,06  
AGEN (BSEN) 218, Fundamentals of Agricultural and Biological Systems Engineering, Fall  
97,98,99  
AGEN (BSEN) 225, Engineering Properties of Biological Materials, Spring  
93,94,95,96,97,98,99,00  
AGEN (BSEN) 225, Engineering Properties of Biological Materials, Fall 00,01,02,03  
AGEN (BSEN) 303, Principles of Process Engineering, Spring 00,04  
AGEN (BSEN) 470, Senior Design I, Fall 12  
AGEN (BSEN) 480, Senior Design II, Spring 13  
AGEN (BSEN) 889, Seminar I, Fall 06,07,08,09,10,12  
AGEN (BSEN) 989, Seminar II, Spring 07  
AGRI 310, Study Tours in International Agriculture, Spring 01,02,03,04  
AGRI 388, Employment Seminar, Spring 97, Fall 01  
AGRI 496, French Ag and Food Industries, Summer 04  
AGRO 437/837, Feed, Food and Industrial Uses of Grains, Spring  
02,03,04,05,06,07,08,09,10  
BSEN 446/846, Unit Operations of Biological Processing, Spring 01,02,05,06,07,08,11,13  
BSEN 935, Engineering Properties of Biological Materials, Fall 95  
FDST (MSYM) 363, Heat and Mass Transfer, Fall 04,05,06,07,08,09,10,11,12  
FDST 396/896, Food Industry Field Trip, Summer 97  
FDST (MSYM) 464/864, Heat and Mass Transfer, Fall 92,93,94,95,96,97,98,99,00,01,02,03  
FDST (MSYM) 465/865, Food Engineering Unit Operations, Spring  
93,94,95,96,97,98,99,00,01,02,03,04,05,06,07,08,09,10,11,13  
FDST 896, Food Plant Design, Spring 10  
FDST 951, Advanced Food Science Seminar, Fall 95,00,12

## **EXTERNAL DOCTORAL EVALUATOR**

Yusuf Byenkya Byarahanga, University of Pretoria, Faculty of Natural and Agricultural Sciences, Department of Food Science, Pretoria, South Africa, 2005

## **POST-DOCTORAL ADVISING**

Hyun Jin Park, University of Georgia, 1991-1992  
Soumya Roy, Pennsylvania State University, 1993-1995  
Lijun Wang, University College - Dublin, 2002-2004

## **ACADEMIC ADVISING**

*Graduate M.S. Research Advisor and Committee Chair - Clemson University*

Timothy P. Aydt, AGE, M.S. 1989  
Aristippos Gennadios, AGE, M.S. 1991  
Lisa Kay F. Johnson, AGE, M.S. 1991

*Graduate Committee Member - Clemson University*

D. Glenn Black, AGE, M.S. Left while in progress  
Alice E. Brandenburg, FDTECH, Ph.D. 1993  
Michael J. Buschermohle, AGE, Ph.D. 1989  
Alice E. Holley, ANFDI, M.S. 1990  
Norsaadah Husain, FDTECH, Ph.D. Left while in progress  
Thomas A. Trezza, ANFDI, M.S. Left while in progress  
Huoy-Juin Jean Wang, FDTECH, Ph.D. 1991

*Graduate Ph.D. Research Advisor and Committee Chair - University of Nebraska-Lincoln*

Alejandro Amézquita, ENGR, Ph.D. 2004  
DeJing Fu, FDST, Ph.D. 2000  
Aristippos Gennadios, ENGR, Ph.D. 1995 (Co-Chair)  
Nyambe Luslo Mkandawire, FDST, Ph.D. 2013 (Co-Chair)  
Eric C. Newgard, ENGR, Ph.D. 2012  
Karen Lochte-Watson, ENGR, Ph.D. 2001  
Pimsiree Suwan, FDST, Ph.D. 2014 (Co-Chair)

*Graduate M.S. Research Advisor and Committee Chair - University of Nebraska-Lincoln*

Roberto Buffo, FDST, M.S. 1995  
Jihan Cepeda J., ABSE, M.S. 2010 (Co-Chair)  
Katrina Christiansen, ABSE, M.S. 2006  
Juan J. Garcia-Noguera, MSYM, M.S. 2008  
Li-Chung Hua, FDST, M.S. 2000

Carolina Leguizamón, FDST, M.S. 2008  
Onesmo Mella, FDST, M.S. 2011 (Co-Chair)  
Luz Marie Ortega, FDST, M.S. 1993  
Irsham Raza, FDST, M.S. 1995  
Raquel Saraiva, FDST, M.S. 1995  
Bradley A. Schmidt, MSYM, M.S. 2002

*Graduate Committee Member - University of Nebraska-Lincoln*

Salah A. Almainan, FDST, Ph.D. 1997  
Pratik Bhandari, ENGR, Ph.D. 2012  
Sreenivasula Reddy Boreddy, BENG, Ph.D. 2016  
Andrés Felipe Doblado Maldonado, FDST, M.S. 2012  
Darin L. Dux, ABSE, M.S. 1998  
Qi Fang, ENGR, Ph.D. 1999  
Jermaine Flennoy, FDST, M.S. 2000  
Girish Ganjyal, ENGR, Ph.D. 2004  
Junjie Guan, FDST, M.S. 2002  
Vinod Gumudavelli, FDST, M.S. 2006  
Monica R. Hargens, NUTR, M.S. 1995  
Xiaolei Huang, TXSC, M.S. 2000  
Elliot Jesch, NUTR, Ph.D. 2008  
Manjusha Kasinadhuni, FDST, M.S. 2009  
Ajay Kumar, ABSE, M.S. 2006  
Lalita A. Kunte, FDST, M.S. 1996  
Bo Hyun Lee, FDST, Ph.D. 2012  
Heng Li, FDST, M.S. 1993  
Fangrui Ma, ENGR, Ph.D. 1998  
Francois P. Matthey-de-L'endroit, ABSE, M.S. 1996  
Vesselin Miladinov, FDST, M.S. 1994  
Vesselin Miladinov, FDST, Ph.D. 1998  
Serap Ozcan, FDST, Ph.D. 2003  
Krishnamoorthy Pitchai, FDST, Ph.D. 2014  
Heartwin Pushpadass, ENGR, Ph.D. 2008  
Mary C. Regier, ABSE, M.S. 2011  
Marcos Sanchez, FDST, Ph.D. 2004  
Mahmut Seker, FDST, Ph.D. 2001  
Donald L. Shandera, Jr., FDST, Ph.D. 2000  
Ashini Surati, ENGR, Ph.D. 1998  
Andreas Vargas-Montes, FDST, M.S. 2005  
Steve Weier, MSYM, M.S. 2003  
Yi Wu, NUTR, Ph.D. 1999  
Zeliha Yildirim, FDST, M.S. 1998  
Nucharee Yoovidhya, FDST, M.S. 1996  
Bo Yuan, FDST, Ph.D. 2015  
DaNian Zheng, FDST, M.S. 1993

Weijie Xu, TXCD, Ph.D. 2009

*Graduate - University of Nebraska-Lincoln*

**(2011)** Jihan Cepeda J., M.S. - Agricultural and Biological Systems Engineering, received the College of Engineering Outstanding Thesis Award and Fellowship for her work entitled "Modeling heat transfer during cooling of ready-to-eat meat using three-dimensional finite element analysis and web-based simulation." (C.L. Weller, advisor)

*Undergraduate - Clemson University*

Served as an undergraduate advisor to AGE students who were in the Food Engineering emphasis.

*Undergraduate - University of Nebraska-Lincoln*

Served as coordinator for International Agriculture and Natural Resources minor for College of Agricultural Sciences and Natural Resources from 2001 to 2006.

Serve as an undergraduate advisor to students who are in the Food and Bioproducts Engineering emphasis of BSEN and to those in the Processing emphasis of MSYM.

**(2002)** Kourtney M. Mueller completed an Honors Thesis entitled "The electronic nose as an indicator of warmed-over flavor in turkey" for the University of Nebraska Honors Program. (K. Mallikarjunan and C.L. Weller, advisors)

**(2003)** Kimberly A. Ryland completed an Honors Thesis entitled "Estimation of convective heat transfer coefficient of ham meat cut in different cooling environments" for the University of Nebraska Honors Program. (C.L. Weller, advisor)

**(2008)** Brent Hanson completed an Honors Thesis entitled "Comparison of dryers for yogurt" for the University of Nebraska Honors Program. (C.L. Weller, advisor)

*Student Club*

**(1988)** Chaperoned members of the Clemson University ASAE Student Engineering Branch to the Annual Southeast Rally of ASAE Student Branches in April at Auburn University, Auburn, AL.

**(1988-1990)** Served as Faculty Advisor to the Clemson University ASAE Student Engineering Branch.

**(1988-1989)** Served as the Faculty Advisor to the Annual Southeast Rally of ASAE Student Branches hosted at Clemson University.

**(1989)** Spoke to the ASAE Student Engineering Branches on future opportunities in Food Engineering in March.

**(1990)** Chaperoned members of the Clemson University ASAE Student Engineering Branch to the Annual Southeast Rally of ASAE Student Branches in March at VPI&SU, Blacksburg, VA.

**(1992-1994)** Served as Junior and Senior Advisors to the University of Nebraska-Lincoln Mechanized Systems Management Student Club.

**(1995-1997)** Served as Junior and Senior Advisor to the University of Nebraska-Lincoln Food Science Club.

**(2002-2005)** Served as Junior, Senior and Past Advisors to the University of Nebraska-Lincoln ASABE Student Branch.

#### *Recruitment*

Bright Lights Engineering Day Camp, Summer 96, 97, 98, 99, 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11

UNL Honors Colloquium Academic Session, Summer 05

CASNR Power of Red Open House, Fall 03, 04, 07, 08

Big Red Road Show, Spring 06, 07, 08, 09, 10, 11

UNL Distinguished Scholars Night, Fall 08, 09, 10

Omaha Diversity Recognition Night, Fall 08, 09, 10

#### **ADDITIONAL ACTIVITIES**

**(1994)** Presented two short lectures at the USDA-sponsored Physical Properties Workshop at Washington State University, Pullman, WA. Topics were measuring edible film properties, and a classification system for rheological properties of liquid foods and pumpable pastes.

**(1994-2008)** Prepared and presented a lecture on *Extrusion Equipment Types and Design* for the Annual Applied Extrusion Workshop of the UNL Food Processing Center.

**(1994- )** Wrote and reviewed items for the Agricultural Engineering Principles and Practice examination for the American Society of Agricultural and Biological Engineers, St. Joseph, MI and the National Council of Examiners for Engineering and Surveying, Clemson, SC.

**(2003)** Served as a panelist for CSREES Comprehensive Review of the Department of Biological Systems Engineering at the University of Wisconsin-Madison.

**(1999-2000)** Participated in ESCOP/ACOP Leadership Development Program Class 9 including Phase II internship in CASNR Dean's office under Dean Donald Edwards.

**(1995)** Served as review panelist for USDA CSRS SBIR Plant Production and Protection (Engineering) grant proposals in Washington, DC.

**(2003-2005)** Served as review panelist for USDA CSREES 1890 Institution Teaching and Research Capacity Building grant proposals in Washington, DC.

**(2005- )** Wrote and reviewed items for the Fundamentals of Engineering examination for the National Council of Examiners for Engineering and Surveying, Clemson, SC.

**(2010)** Served as review panelist for USDA-ARS NP 306 *Quality and Utilization of Agricultural Products* project proposals in Beltsville, MD.

**(2011-2012)** Served as review panelist for NSF pre-proposals.

#### **FUNDED RESEARCH**

Production of Gluten and Germ by Ethanol Fermentation of Raw Corn. Illinois Department of Energy and Natural Resources (1983-1984). Co-Investigator. \$39,964.

Edible Films from Maize and Soybeans. Clemson University Provost Research Award (1987-1988). Principal Investigator. \$2,000.

Determination of Barrier and Mechanical Properties of Edible, Degradable Films Produced from Soy and Cereal Protein. South Carolina Agricultural Experiment Station (1989-1992). Principal Investigator. \$46,000.

Development and Verification of a Thermal Process Model for Continuous-Flow Food Mix Cooking. South Carolina Agricultural Experiment Station (1989-1992). Co-Investigator. \$40,200.

Production and Properties of Edible, Degradable Soybean Films. South Carolina Soybean Board (1990-1991). Principal Investigator. \$8,000.

Edible Protein Film and Coating Properties: Factors that Influence Application in Fast-Food Packaging. South Carolina Agricultural Experiment Station (1991-1992). Principal Investigator. \$36,992.

Production and Properties of Edible, Degradable Soybean Films. South Carolina Soybean Board (1991-1992). Principal Investigator. \$8,000.

Factors Affecting Edible Films and Coatings from Soy Protein. United Soybean Board (1992-1994). Principal Investigator. \$33,194.

Production of Wheat Gluten-Based Films for Studying the Effect of Sucrose on Physical Properties of Wheat Gluten-Based Films. The Sugar Association, Inc (1992-1993). Co-Investigator. \$24,576.

Utilization of Poultry Skin. UNL IANR ARD Interdisciplinary Research Project Program (1992-1994). Co-Investigator. \$37,830.

Enhancement of Sorghum Refining. Nebraska Sorghum Development, Utilization, and Marketing Board (1993-1995). Principal Investigator. \$54,625.

Modification and Utilization of Grain Protein Films. USDA-CSRS National Research Initiative Competitive Grants Program (1992-1995). Co-Investigator. \$141,000.

Analysis of Mass Transfer and Glass Transition Properties of Protein Films Derived from Agricultural Commodities. University of Nebraska-Lincoln Faculty Layman Award (1994-1995). Principal Investigator. \$9,715.

Pathogen Control Using Natural Compounds in Starch and Protein Films. Nebraska Beef Council (1994-1996). Co-Investigator. \$60,235.

Nonedible Wheat Gluten Films for Use as Mulch and Bags. USDA-CSRS National Research Initiative Competitive Grants Program (1994-1997). Co-Investigator. \$172,000.

Supercritical Recovery of Zein from Alcohol Extraction Solvent. Nebraska Corn Board (1994-1995). Principal Investigator. \$19,260.

Continuous Soy Protein Film Formation Using SCF Extraction. Nebraska Soybean Board (1995-1996). Principal Investigator. \$19,900.

Sorghum Wax Analysis. Nebraska Technology Development Corporation (1996-1997). Principal Investigator. \$5,000.

Egg Albumen Films. Mussehl Poultry Research Endowment (1996-1997). Co-Investigator. \$8,000.

Market Study on Sorghum Wax. Nebraska Sorghum Board (1997). Co-Investigator. \$2,500.

Recovery and Characterization of Gelatin from Poultry Skin and Bones. Banner Pharmacaps, Inc. (1997-1998). Co-Investigator. \$38,956.

Quality Evaluations of Fresh Cut Fruit under Edible Coating and MAP. American Air Liquide (1997-1998). Co-Investigator. \$8,500.

Measuring Corn's Intrinsic Value: Assessment of Value for Industrial Use. Nebraska Corn Board (1997-1998). Co-Investigator. \$25,252.

Measuring Corn's Intrinsic Value: Assessment of Value for Industrial Use. Nebraska Corn Board (1998-1999). Co-Investigator. \$22,515.

Edible, Spice-laden Films. ConAgra Grain Processing Companies (1998). Principal Investigator. \$1,450.

Edible, Spice-laden Flakes. ConAgra Grain Processing Companies (1998). Principal Investigator. \$850.

Removal of Maize Pericarp. Pioneer Hi-Bred International, Inc. (2000). Principal Investigator. \$2,860.

Ivy and Jo Lip Balm. Nebraska Soybean Board (2000). Co-Investigator. \$6,927.

Improving HACCP Systems for Small Meat and Food Processors in Four Midwest States. USDA-CREES Integrated Research, Education and Extension Competitive Grants Program - National Food Safety Initiative (2001-2003). Co-Investigator. \$539,993.

Graduate Education for the Biobased Products Industry. US DOE Solicitation DE-PS-00I013962 (2001-2004). Co-investigator. \$299,675.

Biodegradable Spray-on Mulch from Soy Protein. Nebraska Soybean Board (2001-2002). Co-Investigator. \$29,100.

Biodegradable Spray-on Mulch from Soy Protein. Nebraska Soybean Board (2002-2003). Co-Investigator. \$31,100.

Plasma Cholesterol Levels in Hamsters Fed Grain Sorghum Lipid Supplements. Nebraska Grain Sorghum Board (2003-2004). Co-Investigator. \$10,000.

Identification and Characterization of Grain Sorghum Lipid Compounds Responsible for Lowering Cholesterol Levels in Hamsters. UNL IANR ARD Special Hatch Act Grants Program (2004-2005). Co-Investigator. \$35,000.

HACCP Assistance for Small and Very Small Processors with Development and Validation of Safe Meat Chilling Processes. USDA-CREES Integrated Research, Education and Extension Competitive Grants Program - National Integrated Food Safety Initiative (2004-2007). Co-Investigator. \$599,916.

Purification Process Influences on Structural and Nutritional Function of Grain Sorghum Lipids. USDA-CSREES National Research Initiative Competitive Grants Program - Improving Food Quality (2004 2007). Principal Investigator. \$338,000.



Development of Sorghum Lipids as Nutraceuticals. USDA-ARS Specific Cooperative Agreement (2004-2009). Principal Investigator. \$141,300.

Entrepreneurship and Product Development in East Africa: A Strategy to Promote Increased Use of Sorghum and Millet. INTSORMIL Sorghum/Millet Collaborative Research Support Program (2005-2006). Co-Investigator. \$105,000.

Improvement of Production Efficiency and Product Quality During Thermochemical Conversion of Biomass. University of Nebraska-Lincoln Faculty Layman Award (2005-2006). Co-Investigator. \$10,000.

Technical and Economical Analyses of Combined Heat and Power Generation from Distillers Grain in Ethanol Plants. University of Nebraska-Lincoln Nebraska Center for Energy Sciences Research (2006-2007). Co-Investigator. \$5,000.

Identification of bioactive compounds with cholesterol-lowering and anti-inflammatory properties in *Nostoc* commune, a blue-green alga. University of Nebraska-Lincoln Research Council (2007-2008). Co-Investigator. \$20,000.

Building a Sustainable Infrastructure for Product Development and Food Entrepreneur/Industry Technical Support: A Strategy to Promote Increased Use of Sorghum and Millet in East Africa. INTSORMIL Sorghum/Millet Collaborative Research Support Program (2007-2013). Co-Investigator. \$348,500.

Distillers' grains: Carbohydrate utilization. Nebraska Ethanol Board (2009-2011). Co-Investigator. \$30,286.

Identification of the "prebiotic" fraction of grain sorghum lipid extract. United Sorghum Checkoff Program (2009-2012). Principal Investigator. \$93,700.

Evaluation of athero-protective role of blue-green algae. National Institute of Health (2009-2011). Collaborator. \$387,365.

Metabolic syndrome - mitigation through multi-system effects of dietary exposure to sorghum bioactive compounds. United Sorghum Checkoff Program (2010-2013). Co-Investigator. \$59,503.

## **PUBLICATIONS**

### *Refereed Journal*

Weller, C.L., M.P. Steinberg and E.D. Rodda. 1984. Fuel ethanol from raw corn. *Trans. ASAE* 27(6):1911-1916.

Weller, C.L., M.R. Paulsen and M.P. Steinberg. 1988. Correlation of starch recovery with assorted quality factors of four corn hybrids. *Cereal Chem.* 65(5):392-397.

- Weller, C.L., M.R. Paulsen and S. Mbuvi. 1989. Germ weight, germ oil content, and estimated oil yield for wet-milled yellow dent corn as affected by moisture content at harvest and temperature of drying air. *Cereal Chem.* 66(4):273-275.
- Weller, C.L., M.R. Paulsen and M.P. Steinberg. 1990. Stress cracking and breakage susceptibility as affected by moisture content at harvest for four yellow dent corn hybrids. *Trans. ASAE* 33(3):863-869.
- Aydt, T.P., C.L. Weller and R.F. Testin. 1991. Mechanical and barrier properties of edible corn and wheat protein films. *Trans. ASAE* 34(1):207-211. (SCAES Technical Contribution No. 3065)
- Gennadios, A. and C.L. Weller. 1991. Edible films and coatings from soybeans and soy protein. *Cereal Foods World* 36(12):1004-1009. (SCAES Technical Contribution No. 3168)
- Brandenburg, A.H., C.V. Morr and C.L. Weller. 1992. Effect of removal of low molecular weight components on the gelation of commercial whey protein concentrates. *J. Food Sci.* 57(2):427-432. (SCAES Technical Contribution No. 3257)
- Gennadios, A., C.L. Weller and R.F. Testin. 1993. Modification of physical and barrier properties of edible wheat gluten-based films. *Cereal Chem.* 70(4):426-429. (SCAES Technical Contribution No. 3189)
- Gennadios, A., C.L. Weller and R.F. Testin. 1993. Property modification of edible wheat gluten films *Trans. ASAE* 36(2):465-470. (SCAES Technical Contribution No. 3164)
- Gennadios, A., C.L. Weller and R.F. Testin. 1993. Temperature effect on oxygen permeability of edible protein-based films. *J. Food Sci.* 58(1):212-214,219. (SCAES Technical Contribution No. 3306)
- Brandenburg, A.H., C.L. Weller and R.F. Testin. 1993. Edible films and coatings from soy protein. *J. Food Sci.* 58(6):1086-1089. (SCAES Technical Contribution No. 3389)
- Park, H.J. C.L. Weller, P.J. Vergano and R.F. Testin. 1993. Permeability and mechanical properties of cellulose-based films. *J. Food Sci.* 58(6):1361-1364,1370. (SCAES Technical Contribution No. 3411)
- Gennadios, A., A.H. Brandenburg, C.L. Weller, R.F. Testin. 1993. Effect of pH on properties of wheat gluten and soy protein isolate films. *J. Agr. Fd. Chem.* 41(11):1835-1839. (NE Journal Series No. 10315 and SCAES Technical Contribution No. 3402)
- Gennadios, A., H.J. Park and C.L. Weller. 1993. Relative humidity and temperature effects on tensile strength of edible protein and cellulose ether films. *Trans. ASAE* 36(6):1867-1872. (SCAES Technical Contribution No. 3324)

Weller, C.L. and J.M. Bunn. 1993. Drying rate constants for yellow dent corn as affected by fatty acid ester treatments. *Trans. ASAE* 36(6):1815-1819. (SCAES Technical Contribution No. 3259)

Gennadios A., C.L. Weller and C.H. Gooding. 1994. On the measurement of water vapor transmission rate of hydrophilic edible films. *J. Food Engr.* 21:395-409. (SCAES Technical Contribution No. 3301)

Gennadios, A. and C.L. Weller. 1994. Moisture adsorption by grain protein films. *Trans. ASAE* 37(2):535-539. (SCAES Technical Contribution No. 3447)

Gennadios, A., A.H. Brandenburg, J.W. Park., C.L. Weller and R.F. Testin. 1994. Water vapor permeability of wheat gluten and soy protein isolate films. *Ind. Crops Prod.* 2:189-195. (NE Journal Series No. 10429 and SCAES Technical Contribution No. 3445)

Park, J.W., R.F. Testin, H.J. Park, P.J. Vergano and C.L. Weller. 1994. Fatty acid concentration effect on tensile strength, elongation, and water vapor permeability of laminated edible films. *J. Food Sci.* 59(4):916-919. (NE Journal Series No. 10649 and SCAES Technical Contribution No. 3490)

Park., H.J., J.M. Bunn, C.L. Weller, P.J. Vergano and R.F. Testin. 1994. Water vapor permeability and mechanical properties of grain protein-based films as affected by mixtures of polyethylene glycol and glycerin plasticizers. *Trans. ASAE* 37(4):1281-1285. (SCAES Technical Contribution No. 3514)

Cherian, G., A. Gennadios, C.L. Weller and P. Chinachoti. 1995. Thermomechanical behavior of wheat gluten films: Effect of sucrose, glycerin and sorbitol. *Cereal Chem.* 72(1):1-6. (NE Journal Series No. 10601 and MAS Project 000623)

Ghorpade, V.M., A. Gennadios, M.A. Hanna and C.L. Weller. 1995. Soy protein isolate/poly(ethylene oxide) films. *Cereal Chem.* 72(6):559-563. (NE Journal Series No. 11067)

Park, J.W., R.F. Testin, P.J. Vergano, H.J. Park and C.L. Weller. 1996. Fatty acid distribution and its effect on oxygen permeability in laminated edible films. *J. Food Sci.* 61(2):401-406. (NE Journal Series No. 11100 and SCAES Technical Contribution No. 4072)

Gennadios, A., C.L. Weller, M.A. Hanna and G.W. Froning. 1996. Mechanical and barrier properties of egg albumen films. *J. Food Sci.* 61(3):585-589. (NE Journal Series No. 11285)

Gennadios, A., V.M. Ghorpade, C.L. Weller and M.A. Hanna. 1996. Heat curing of soy protein films. *Trans. ASAE* 39(2):575-579. (NE Journal Series No. 11206)

Park, J.W., R.F. Testin, P.J. Vergano, H.J. Park and C.L. Weller. 1996. Application of laminated edible films to potato chip packaging. *J. Food Sci.* 61(4):766-768,777. (NE Journal Series No. 11148 and SCAES Technical Contribution No. 4096)

- Han, Y.J., Y. Feng and C.L. Weller. 1996. Frequency domain image analysis for detecting stress cracks in corn kernels. *Appl. Eng. Agric.* 12(4):487-492. (SCAES Technical Contribution No. 4093)
- Jo, K.H., H.J. Park, S.T. Jung, J.W. Rhim and C.L. Weller. 1996. Water vapor permeability and mechanical properties of soy protein films as affected by plasticizer, solvent, pH and salt. *Foods and Biotechnology* 5(3):243-248. (NE Journal Series No. 11705)
- Kunte, L.A., A. Gennadios, S.L. Cuppett, M.A. Hanna and C.L. Weller. 1997. Cast films from soy protein isolates and fractions. *Cereal Chem.* 74(2):115-118. (NE Journal Series No. 11507)
- Buffo, R.A., C.L. Weller and A.M. Parkhurst. 1997. Optimization of sulfur dioxide and lactic acid steeping concentrations for wet-milling of grain sorghum. *Trans. ASAE.* 40(6):1643-1648. (NE Journal Series No. 11673)
- Hubbard, C.M., C.L. Weller and D.D. Jones. 1997. Selected physical properties of jointed goatgrass (*Aegilops cylindrica* Host.). *Appl. Eng. Agric.* 13(6):747-750. (NE Journal Series No. 11616)
- Buffo, R.A., C.L. Weller and A.M. Parkhurst. 1998. Relationships among grain sorghum quality factors. *Cereal Chem.* 75(1):100-104. (NE Journal Series No. 11781)
- Buffo, R.A., C.L. Weller and A.M. Parkhurst. 1998. Wet-milling factors of sorghum and relationship to grain quality. *J. Cereal Sci.* 27(3):327-334. (NE Journal Series No. 11694)
- Gennadios, A., A. Handa, G.W. Froning, C.L. Weller and M.A. Hanna. 1998. Physical properties of egg white-dialdehyde starch films. *J. Agric. Food Chem.* 46(4):1297-1302. (NE Journal Series No. 12062)
- Weller, C.L., A. Gennadios, R.A. Saraiva and S.L. Cuppett. 1998. Grain sorghum wax as an edible coating for gelatin-based candies. *J. Food Qual.* 21(2):117-128. (NE Journal Series No. 11776)
- Gennadios, A., J.W. Rhim, A. Handa, C.L. Weller and M.A. Hanna. 1998. Ultraviolet radiation affects physical and molecular properties of soy protein films. *J. Food Sci.* 63(2):225-228. (NE Journal Series No. 11883)
- Rhim, J.W., A. Gennadios, C.L. Weller, C. Cezeirat and M.A. Hanna. 1998. Soy protein isolate-dialdehyde starch films. *Ind. Crops Prod.* 8:195-203. (NE Journal Series No. 12010)
- Weller, C.L., A. Gennadios and R.A. Saraiva. 1998. Edible bilayer films from zein and grain sorghum wax or carnauba wax. *Lebensmittel-Wissenschaft und Technologie.* 31(3):279-285. (NE Journal Series No. 11959)

- Rhim, J.W., C.L. Weller and K.S. Ham. 1998. Characterization of chitosan films as affected by the type of solvent acid. *Food Sci. Biotech.* 7(4):263-268.
- Roy, S., C.L. Weller, A. Gennadios, M.G. Zeece and R.F. Testin. 1999. Physical and molecular properties of wheat gluten films cast from heated film-forming solutions. *J. Food Sci.* 64(1):57-60. (NE Journal Series No. 12148 and SCAES Technical Contribution No. 4259)
- Rhim, J.W., Y. Wu, C.L. Weller and M. Schnepf. 1999. Physical characteristics of a soy protein isolate and propyleneglycol alginate composite film. *J. Food Sci.* 64(1):149-152. (NE Journal Series No. 12185)
- Rhim, J.W., Y. Wu, C.L. Weller and M. Schnepf. 1999. Physical characteristics of emulsified soy protein-fatty acid composite films. *Sciences des Aliments* 19(1):57-71. (NE Journal Series No. 12229)
- Fu, D. and C.L. Weller. 1999. Rheology of zein solutions in aqueous ethanol. *J. Agric. Food Chem.* 47(5):2103-2108. (NE Journal Series No. 12343).
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## **PRESENTATIONS**

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