

CURRICULUM VITAE

LUIS EDUARDO SABILLÓN GALEAS

New Mexico State University | 940 College Dr | Las Cruces, NM 88003 | lsabillo@nmsu.edu
www.linkedin.com/in/luissabillon

EDUCATION

Ph.D. in Food Science and Technology **December 2018**

University of Nebraska-Lincoln – Nebraska, USA

Research Area: Food Safety, Molds and Mycotoxins

Dissertation Title: A risk-based approach to evaluate the impact of interventions at reducing the risk of foodborne illness associated with wheat-based products

Master of Science in Food Science and Technology **August 2014**

University of Nebraska-Lincoln – Nebraska, USA

Research Area: Food Safety, Molds and Mycotoxins

Thesis Title: Understanding the factors affecting microbiological quality of wheat milled products: From wheat fields to milling operations

Master of Business Administration **March 2010**

Universidad Carlos III de Madrid – Madrid, Spain

Bachelor of Science in Food Technology **December 2008**

Escuela Agrícola Panamericana Zamorano (Zamorano University) – Tegucigalpa, Honduras

RESEARCH INTERESTS

Microbiological food safety; factors affecting survival, prevalence and transmission dynamics of enteric pathogens in agricultural regions; molds and mycotoxins; microbial ecology and adaptation; post-harvest processing; food sanitation; development and implementation of antimicrobial interventions to prevent food safety risks.

TEACHING INTERESTS

Food microbiology and safety; foodborne pathogens; food sanitation; commodity processing; HACCP and FSMA implementation and compliance.

ACADEMIC / RESEARCH EXPERIENCE

Assistant Professor of Microbial Food Safety **July 2020 – Present**

New Mexico State University – Department of Family and Consumer Sciences

- Conduct grant-funded research and extension programming in the area of food safety microbiology.
- Collaborate as part of the Center of Excellence on Sustainable Food and Agricultural Systems.
- Teach FSTE 480 – Food Safety and Sanitation and other courses as needed.
- Mentor domestic and international graduate and undergraduate students.
- Provide technical advice, workforce training and food safety/regulatory compliance training to clientele in the state and region to improve the safety and quality of the food supply chain.

CURRICULUM VITAE

Assistant Professor of Practice & Food Technology Specialist

September 2019 – June 2020

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

- Collaborated in the development of online modules, training activities and workshops in food sanitation and related subjects.
- Conducted grant-funded research in the area of food safety/sanitation and food processing.
- Collaborated as part of the Applied Research and Engineering unit in The Food Processing Center.
- Mentored domestic and international graduate and undergraduate students.
- Taught two upper-level undergraduate courses in the area of commodity processing as part of the 3+1 Program between the University of Nebraska-Lincoln and Northwest Agricultural and Forestry University in China.

Postdoctoral Research Associate in Applied Food Safety & Quality

October 2018 – August 2019

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

- Designed and conducted grant-funded research projects to evaluate the efficacy of novel food technologies (i.e., high-pressure processing) and interventions to improve the safety of food products, including the reduction of both microbiological (e.g., *Salmonella*) and chemical (e.g., mycotoxins) hazards.
- Collaborated as part of the Applied Research and Engineering unit in The Food Processing Center.
- Advised undergraduate and graduate students on their research projects.
- Provided technical advice and workshops to the food and feed industries in the areas of microbiological testing and better process control to improve the safety and quality of their products.

Research Assistant / Research Technician

August 2012 – September 2018

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

- Provided technical assistance in the ongoing microbiological testing that The Food Processing Center offers to the food and feed industry.
- Collaborated as part of the Applied Research and Engineering unit in The Food Processing Center.
- Designed and executed experiments to improve the safety of grain-based products through pre- and post-milling interventions, as well as assisted with any research related to outreach and extension programs.
- Provided technical assistance in mycotoxin detection, fungal identification, and improvement of postharvest practices of staple crops produced by smallholder farmers in developing countries through *The Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss*.

Undergraduate Research Internships

University of Nebraska-Lincoln – Nebraska, USA

January 2012 – June 2012

Department of Food Science and Technology

- Assisted in the execution of experiments to evaluate the functional properties of cereal-based ingredients.

Monterrey Institute of Technology and Higher Education – Monterrey, Mexico

January 2008 – April 2008

Department of Biotechnology and Food Engineering

- Executed experiments to determine the impact of decorticating sorghum on bioethanol production by fermentation with *Saccharomyces cerevisiae* and *Zymomonas mobilis*.
- Evaluated changes in quality parameters of biofuels by spectroscopy and chemical methods.

CURRICULUM VITAE

TEACHING EXPERIENCE

New Mexico State University

Department of Family and Consumer Sciences

- **Course Instructor:** Food Safety and Sanitation (FSTE 480) **Fall 2020 – Present**

University of Nebraska-Lincoln

Department of Food Science and Technology

- **Course Instructor:** Cereal Technology (FDST 412) **Fall 2019**
- **Course Instructor:** Dairy Products & Technology (FDST 429) **Fall 2019**
- **Laboratory Lecturer:** Dairy Products & Technology (FDST 429/829) **Spring 2015**
- **Laboratory Lecturer:** Food Microbiology Laboratory (FDST 406/806) **Fall 2013**

Escuela Agrícola Panamericana Zamorano

Department of Food Science and Technology

- **Laboratory Lecturer:** Meat Science and Technology (5AGI3154) **Fall 2010/2011**
- **Laboratory Lecturer:** Food Engineering (5AGI3084) **Spring 2010/2011**
- **Laboratory Lecturer:** Unit Operations in Food Processing (5AGI4194) **Fall 2010/2011**

WORK / INDUSTRY EXPERIENCE

Meat Processing Plant Instructor

January 2010 – December 2011

Escuela Agrícola Panamericana Zamorano – Tegucigalpa, Honduras

- Directed and coordinated the daily plant operational activities to ensure that total manufacturing objectives were accomplished in a timely and cost-effective manner.
- Implemented processing improvements to increase efficiency, productivity, and safety.
- Led and supervised a team of 7 employees on a day-to-day basis.
- Instructed and supervised undergraduate students as they engaged in the meat processing operations as part of the learning-by-doing program implemented by Zamorano University.
- Designed and provided training sessions to undergraduate students on meat harvesting and processing.

Interim Fruit and Vegetable Processing Plant Instructor

July 2009 – December 2009

Escuela Agrícola Panamericana Zamorano – Tegucigalpa, Honduras

- Directed and coordinated the daily operations of the fruit and vegetable processing plant.
- Implemented processing improvements to increase efficiency, productivity, and safety.
- Led a team of 5 employees on a day-to-day basis.
- Instructed and supervised undergraduate students as they engaged in the daily plant operational activities as part of the learning-by-doing program implemented by Zamorano University.
- Designed and provided training sessions to undergraduate students on produce processing and food safety.

Technical Field Advisor – Value Added Project

January 2009 – June 2009

Millennium Challenge Corporation / Escuela Agrícola Panamericana Zamorano – Tegucigalpa, Honduras

- Provided advice and technical assistance to 60 Small and Medium-Sized Food Enterprises (SMEs) in Honduras to improve the quality and safety of their food products.
- Provided training sessions and workshops to participating SMEs in the areas of good manufacturing practices, product development and standardization, food safety, and quality standards.
- Developed Standard Operating Procedures (SOPs) to improve the safety and quality of the food products manufactured by participating SMEs.

PEER-REVIEWED PUBLICATIONS

Published in Peer-Reviewed Journals

- **Sabillón, L.**, Stratton, J., Rose, D.J., Bianchini, A. 2020. Reduction in pathogenic load of wheat by tempering with saline organic acid solutions at different seasonal temperatures. *International Journal of Food Microbiology*. 313: 108381. <https://doi.org/10.1016/j.ijfoodmicro.2019.108381>.
- **Sabillón, L.**, Stratton, J., Rose, D.J., Bianchini, A. 2019. Effect of saline organic acid solutions applied during soft wheat tempering on microbial load and flour functionality. *Cereal Chemistry*. 96(6): 1048-1059. <https://doi.org/10.1002/cche.10210>.
- Gulati, P., **Sabillón, L.**, Rose, D.J. 2018. Effects of processing method and solute interactions on pepsin digestibility of cooked proso millet flour. *Food Research International*. 109: 583-588. <https://doi.org/10.1016/j.foodres.2018.05.005>.
- Mendoza, J.R., Rodas, A., Oliva, A., **Sabillón, L.**, Colmenares, A., Clarke, J., Hallen-Adams, H., Campabadal, C., Bianchini, A. 2018. Safety and quality assessment of smallholder farmers' maize in the western highlands of Guatemala. *Journal of Food Protection*. 81(5): 776-784. <https://doi.org/10.4315/0362-028X.JFP-17-355>.
- **Sabillón, L.**, Stratton, J., Bianchini, A., Rose, D.J. 2017. Effect of saline organic acid solutions applied during wheat tempering on flour functionality. *Cereal Chemistry*. 94 (3): 502-507. <https://doi.org/10.1094/CCHEM-07-16-0197-R>.
- Mendoza, J.R., **Sabillón, L.**, Martínez, W., Campabadal, C., Hallen-Adams, H., Bianchini, A. 2017. Traditional maize post-harvest management practices amongst smallholder farmers in Guatemala. *Journal of Stored Products Research*. 71:14-21. <https://doi.org/10.1016/j.jspr.2016.12.007>.
- **Sabillón, L.**, Stratton, J., Rose, D.J., Flores, R.A., Bianchini, A. 2016. Reduction in microbial load of wheat by tempering with organic acid and saline solutions. *Cereal Chemistry*. 93(6):638-46. <https://doi.org/10.1094/CCHEM-05-16-0153-R>.
- **Sabillón, L.**, Stratton, J., Rose, D.J., Regassa, T.H., Bianchini, A. 2016. Microbial load of hard red winter wheat produced at three growing environments across Nebraska, USA. *Journal of Food Protection*. 79(4):646-54. <https://doi.org/10.4315/0362-028X.JFP-15-424>.
- **Sabillón, L.**, Bianchini, A. 2016. From field to table: A review on the microbiological quality and safety of wheat-based products. *Cereal Chemistry*. 93(2):105-15. <https://doi.org/10.1094/CCHEM-06-15-0126-RW>.
- Pérez-Carrillo, E., Cortés-Callejas, M.L., **Sabillón-Galeas, L.E.**, Montalvo-Villarreal, J.L., Canizo, J.R., Moreno-Zepeda, M.G., Serna-Saldivar, S.O. 2011. Detrimental effect of increasing sugar concentrations on ethanol production from maize or decorticated sorghum mash fermented with *Saccharomyces cerevisiae* or *Zymomonas mobilis*. *Biotechnology Letters*. 33(2):301-07. <https://doi.org/10.1007/s10529-010-0448-9>.

Manuscripts Submitted for Publication in Peer-Reviewed Journals

- **Sabillón, L.**, Stratton, J., Rose, D.J., Eskridge, K., Bianchini, A. 2020. Effect of high-pressure processing on the microbial load and functionality of sugar-cookie dough. Under Review. *Cereal Chemistry Journal*.
- **Sabillón, L.**, Stratton, J., Rose, D.J., Bianchini, A. 2020. A microbiological survey of equipment and end-products of the wheat-milling operation. Under Review. *Cereal Chemistry Journal*.

CURRICULUM VITAE

RESEARCH FUNDS: GOVERNMENT AND INDUSTRY GRANTS

- Andréia Bianchini (PI), Jagger Harvey (Co-PI), John Leslie (Inv.), **Luis Sabillón** (Inv.). Grant, **“Assessment of Mycotoxins in the Corn Value Chain in Western Honduras”**. USAID/Honduras, PHL-IL. 03/01/17 – 12/30/19. **Contribution:** I contributed by developing the sampling design and research protocols. I also assisted by providing training to lab and field technicians on sample collection and mycotoxin analysis. I also aided with collection, review, and analysis of data. I will also contribute to the dissemination of findings among stakeholders, local government organizations, and the scientific community.
- Andréia Bianchini (PI), Jane Stratton (Co-PI), **Luis Sabillón** (Research Assistant), Industry Grant, **“Effect of Organic Acids and NaCl Applied during Wheat Tempering on Pathogenic Microorganisms at Different Seasonal Temperatures”**. 10/01/2016 – 04/30/2017. **Contribution:** I collaborated in the drafting/preparation of the grant application package and in the development of the experimental design. I also assisted with the collection, review and analysis of data, and report writing.
- Andréia Bianchini (PI), Heather Hallen-Adams (Inv.), Carlos Campabadal (Inv.), **Luis Sabillón** (Research Assistant). Grant, **“From “Milpas” to the Market: A Feasibility Study on the Use of Metal Silos for Safer and Better Storage of Guatemalan Native Corn”**. USDA – SCRP, PHL-IL, 07/01/14 – 12/31/2016. **Contribution:** I collaborated in the drafting/preparation of the grant application package and in the development of the experimental design and research protocols. I also assisted by providing training to lab and field technicians on sample collection and mycotoxin analysis. I also helped with data collection and dissemination of findings.
- Andréia Bianchini (PI), Jayne Stratton (Co-PI), **Luis Sabillón** (Collaborator). Grant, **“Development of the Technical Content of the Virtual Course on Food Auditing, in Spanish and English”**. Inter-American Institute for Cooperation on Agriculture, 02/08/2016 – 06/20/2016. **Contribution:** I collaborated in the development of teaching materials and content (video lectures, exercises, tests, and reading material) to the program.
- John Leslie (PI), Andréia Bianchini (Co-PI), **Luis Sabillón** (Research Assistant). Grant, **“Rapid Assessment of Mycotoxin in Afghanistan’s Food Value Chains”**. USAID, PHL-IL, 01/01/15 – 12/31/15. **Contribution:** I collaborated by developing the research protocols and providing training to the lab personnel on sample collection and mycotoxin analysis. I also assisted in the collection and analysis of data, record keeping, and dissemination of findings.

POSTERS AND ORAL PRESENTATIONS IN PROFESSIONAL MEETINGS AND WORKSHOPS

Invited Speaker

- Food Microbiology Workshop. The Food Processing Center, University of Nebraska-Lincoln. March 19-21, 2019. Presentation title: *Pathogenic microorganisms: Listeria monocytogenes and Staphylococcus aureus*.
- Wheat Flour Safety Summit – Pathogen Mitigation. Sponsored by General Mills. Minneapolis, MN. April 25-26, 2017. Presentation title: *From field to table: Improving the safety of wheat-based products*.
- Better Process Control School for Acidified Foods. The Food Processing Center, University of Nebraska-Lincoln. April 3-4, 2017. Presentation title: *Introduction to microbiology of foods*.
- Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss. Stakeholder and Advisory Board Meeting. Guatemala City, Guatemala. November 13-17, 2016. Presentation title: *Evaluación de micotoxinas en el altiplano occidental de Guatemala*.

CURRICULUM VITAE

- International Conference on Food Quality and Safety. New Delhi, India. March 14-16, 2016. Presentation title: *Mycotoxin analysis: Effect of each step on data reliability*.

Oral Presentations

- **Sabillón, L.**, Mendoza, R., Campabadal, C., Bianchini, A. 2017. Corn storage technologies: A comparative study in the western highlands of Guatemala. In: Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss Annual Meeting. Manhattan, KS. April 26-28, 2017.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D. 2016. Pre-milling interventions to reduce the microbial load of wheat grain with minimal impact on flour functionality. In: AACCI Annual Meeting. Savannah, GA. October 23-26, 2016.
- **Sabillón, L.** Stratton, J. Rose, D. Regassa, T., Bianchini, A. 2016. Microbial load of hard winter wheat varieties produced at three growing environments across the state of Nebraska, USA. In: NC-213 Annual Meeting. Austin, TX. March 1-2, 2016.
- **Sabillón, L.** Stratton, J. Rose, D., Bianchini, A. 2015. Improving the microbial safety of wheat flour through non-thermal pre-milling interventions. In: NC-213 Annual Meeting. Kansas City, MO. February 18-19, 2015.
- **Sabillón, L.** Stratton, J., Rose, D., Bianchini, A., Flores, R.A. 2014. Microbial load reduction of wheat milled products through pre-milling interventions and milling. In: Conference of Food Engineering. Omaha, NE. April 7-9, 2014.

Poster Presentations

- **Sabillón, L.**, Bianchini, A., Stratton, J., Bing, W. 2019. Quantitative assessment of the effectiveness of intervention strategies to reduce the risk of *E. coli* O157:H7 infection due to consumption of uncooked ready-to-bake cookie dough. In: AACCI Annual Meeting. Denver, CO. November 03-05, 2019.
- **Sabillón, L.**, Stratton, J., Rose, D., Bianchini, A. 2018. A microbiological survey of equipment and end-products of the wheat-milling operation. In: AACCI Annual Meeting. London, UK. October 21-23, 2018.
- **Sabillón, L.**, Stratton, J., Rose, D., Bianchini, A. 2018. The efficacy of high-pressure processing treatments on the reduction of *Escherichia coli* in sugar-cookie dough and its impact on baking performance. In: AACCI Annual Meeting. London, UK. October 21-23, 2018.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D. 2017. Reduction in pathogenic load of wheat by tempering with saline organic acid solutions at different seasonal temperatures. In: AACCI Annual Meeting. San Diego, CA. October 8-11, 2017.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D., Flores, R.A. 2016. Reduction in microbial load of soft wheat by tempering with organic acid and saline solutions. In: AACCI Annual Meeting. Savannah, GA. October 23-26, 2016.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D., Flores, R.A. 2016. Novel tempering solutions to reduce the microbial load of soft wheat flour with minimal impact on flour functionality. In: AACCI Annual Meeting. Savannah, GA. October 23-26, 2016.
- Campabadal, C., Bianchini, A., **Sabillón, L.**, Mendoza, R., Morales-Quiros, A. 2016. Improving food security of smallholder farmers in the Western Highlands of Guatemala through reduction of post-harvest losses in maize. In: Engineering and Technology Innovation for Global Food Security, ASABE. Cape Town Stellenbosch, South Africa. October 24-27, 2016.

CURRICULUM VITAE

- Morales-Quiros, A., Campabadal, C.A., Bianchini, A., **Sabillón, L.**, Mendoza, R. 2016. Improved drying technologies to reduce post-harvest losses in the Western Highlands of Guatemala. In: Engineering and Technology Innovation for Global Food Security, ASABE. Cape Town Stellenbosch, South Africa. October 24-27, 2016.
- Mendoza, R., **Sabillón, L.**, Colmenares, A., Rodas, A., Oliva, A., Campabadal, C., Clarke, J., Hallen-Adams, H., Bianchini, A. 2016. Traditional postharvest management practices of maize amongst smallholder farmers in the western highlands of Guatemala and its implications in mycotoxin contamination. IAFP Annual Meeting. St. Louis, MO. July 31-August 3, 2016.
- Martínez, B., Bianchini, A., Stratton, J., **Sabillón, L.** 2016. Identification of sporeforming bacteria isolated from a condensed milk chain and its potential entry points. In: IAFP Annual Meeting. St. Louis, MO. July 31-August 3, 2016.
- **Sabillón, L.**, Stratton, J., Rose, D., Regassa, T., Bianchini, A. 2015. Microbial load of hard red winter wheat produced at three growing environments across Nebraska, USA. In: AACCI Annual Meeting. Minneapolis, MN. October 18-21, 2015.
- Campabadal, C., Bianchini, A., Maier, D., Reddy, V., Ellis, J., **Sabillón, L.** 2014. Improving food security and food safety of smallholder farmers in the Western Highlands of Guatemala through reduction on post-harvest losses of corn. In: International Working Conference in Stored Product Protection. Chiang Mai, Thailand. November 24-28, 2014.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D., Flores, R.A. 2014. Improving safety of wheat milled products through processing. In: IAFP Annual Meeting. Indianapolis, IN. August 3-6, 2014.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Flores, R.A., Rose, D. 2014. Pre-milling interventions to reduce lipase activity and lipid degradation of straight-grade and whole-grain flour during storage. In: AACCI International Annual Meeting, (Poster # 180-P). Providence, RI. October 5-8, 2014.
- **Sabillón, L.**, Stratton, J., Rose, D., Flores, R.A. Bianchini, A. 2014. Pre-milling interventions to reduce the microbial load of straight-grade and whole-grain flour with minimal impact on flour functionality. In: AACCI International Annual Meeting, (Poster # 179-P). Providence, RI. October 5-8, 2014.
- Bianchini, A., **Sabillón, L.**, Stratton J., Rose D., Flores, R.A. 2013. Microbial load reduction of wheat milled products through pre-milling interventions and milling. In: AACC International Annual Meeting. Albuquerque, NM. September 29 – October 2, 2013.
- **Sabillón, L.**, Bianchini, A., Stratton, J., Rose, D., Flores, R.A. 2013. Microbiological quality of winter wheat harvested in different regions of Nebraska, United States. In: Institute of Food Technologists Annual Meeting. Chicago, IL. July 13-16, 2013.
- **Sabillón-Galeas, L.E.**, Acosta, A.M., Ugarte, E.E. 2009. Effect of K-carragenine and sodium lactate in purge, physicochemical and sensory properties of cooked ham in lighted or unlighted shelf display. In: Institute of Food Technologists Annual Meeting. Anaheim, CA. June 6-9, 2009.

SELECTED HONORS & AWARDS

- **Cereal Chemistry Editor's Pick – Issue December 2016.** Manuscript entitled: Reduction in Microbial Load of Wheat by Tempering with Organic Acid and Saline Solutions.
- **Best Student Research Paper Competition – 1st Place.** American Association of Cereal Chemists International, October 2016.

CURRICULUM VITAE

- **Graduate Student People's Choice Award.** NC-213 - U.S. Quality Grains Research Consortium, March 2016.
- **Preparing Future Faculty Fellow.** University of Nebraska-Lincoln, 2015-16 Academic Year.
- **Graduate Student People's Choice Award.** NC-213 - U.S. Quality Grains Research Consortium, February 2015.
- **Shear-Miles Agricultural Fellowship** - University of Nebraska-Lincoln, 2014.
- **Larrick-Whitmore Graduate Student Travel Award.** University of Nebraska-Lincoln, October 2014.

ACADEMIC AND PROFESSIONAL ASSOCIATIONS

- Cereals and Grains Association (*aka*: AACCI)
Member of the Food Safety and Microbiology Committee
- International Association for Food Protection (IAFP)
- Gamma Sigma Delta, Honor Society of Agriculture – Zamorano University Chapter, Honduras

PROFESSIONAL DEVELOPMENT (SINCE 2013)

- UNL Summer Institute for Online Teaching (SIOT). May 18-29, 2020.
- FSPCA Preventive Controls for Animal Food, Food Safety Preventive Controls Alliance. March 17, 2018.
- 27th Campuswide Workshops for Graduate Teaching Assistants. Sponsored by the Office of Graduate Studies, University of Nebraska-Lincoln. August 15, 2017.
- Fusarium Laboratory Workshop. Sponsored by Kansas State University. June 25-30, 2017.
- "Write Winning Grant Proposals" Seminar. Sponsored by the Office of Research and Economic Development, University of Nebraska-Lincoln. March 17, 2017.
- "College Teaching: Classroom Management" Workshop. Sponsored by the Office of Graduate Studies, University of Nebraska-Lincoln. February 16, 2017.
- High Pressure Processing Summit. Sponsored by Universal Pasteurization. October 3-5, 2016.
- Preparing Future Faculty Program. Sponsored by the University of Nebraska-Lincoln. 2015-2016.
- "Writing for Publication" Workshop. Sponsored by the Office of Graduate Studies, University of Nebraska-Lincoln. October 8, 2015.
- Fundamental Writing Skills Workshop for Graduate Students. Sponsored by the Office of Graduate Studies, University of Nebraska-Lincoln. September 25, 2014.
- Basic Milling Principles for Wheat. Sponsored by Kansas State University. June 3-6, 2014.
- Extrusion Processing Workshop. October 15-17, 2013. The Food Processing Center, University of Nebraska-Lincoln.
- Better Process Control School Workshop. October 1-3, 2013. The Food Processing Center, University of Nebraska-Lincoln.