

Curriculum Vitae

Rosana Galves Moreira

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EDUCATION

Michigan State University, East Lansing, Michigan 48824 Department of Agricultural Engineering

Ph.D. Degree in Agricultural Engineering, December 1989.
Master of Science in Agricultural Engineering, November 1983.

Campinas State University, Campinas, Brazil Department of Agricultural Engineering

Bachelor of Science in Agricultural Engineering, 1976-1980.

PROFESSIONAL REGISTRATION

Professional Engineer 74517, TX

RESEARCH INTERESTS & EXPERTISE

Food Processing Engineering

- process control
- fundamental modeling
- parameter estimation
- deep-fat frying
- food rheology
- food extrusion
- food dehydration

Food Safety

- food irradiation
- biosensors

EXPERIENCE

Texas A&M University, College Station, TX 77843-2117

Department of Biological and Agricultural Engineering

February 2012 – present - Assistant Provost – Advance Administration Fellow
September 2007 - present - Assistant Department Head for Recruiting and Distance Education.
September 2003 - present- Professor.
September 2002 - 2012- Graduate Coordinator.
September 1998 - August 2003- Associate Professor.
May 1993 - August 2003 - Assistant Professor.
September 1990 - April 1993- Visiting Professor.

Texas A&M University, College Station, TX 77843-2117

Institute of Food Science and Engineering

2004-2005 - Director of the Center for Food Processing and Engineering

Texas A&M University, College Station, TX 77843-2117

Office of the Provost

February 2012 – present- Assisting the Vice provost for Academic Affairs to evaluate the Sustainability of the International Centers

Ecole National Supérieure des Industries Agricole et Alimentaires (ENSIA) in Massy, France

February – August 2000 - Faculty development leave.

Michigan State University, East Lansing, MI 48824

Department of Agricultural Engineering

January 1989-August 1990- Visiting Specialist.
April 1982- December 1988- Graduate Research/Teaching Assistant.

CIDIAT (International Center of Water and Soils), Merida, Venezuela

May - June 1981- Visiting Researcher. Duties included design of water treatment systems for farms in Los Andes region. Funded by the OAS (Organization of American States).

FTP (Tropical Foundation for Research), Campinas, Brazil

March 1979 - December 1980 - Assistant Engineer at the FTP (Tropical Foundation for Research), Campinas, SP, Brazil. Responsibilities included design and construction of a pilot-scale plant for the production of alcohol from sugar cane.

TEACHING

Graduate Students Advising and Postdoctoral Fellows

Completed – Doctor of Philosophy degree

1. Sylvia Schonauer, Ph.D. in BAEN (Fall/91-Sp/95) - Dissertation: "Product quality adaptive control for food extruder."
2. Tsue-Er Lo, Ph.D. in BAEN (Fall/92-Sp/96) - Dissertation: "Product quality modeling for food extrusion."
3. Victoria Spadaro, Ph.D. in BAEN (Summer/94-Summer/96): Dissertation: "Biomechanical characterization of meat texture." (co-adviser Dr. Keeton, AnSc).
4. Gerald Emesih, Ph.D. in BAEN (Summer/95-Summer/97): Dissertation: "Characterization of agricultural starch based biopolymers for use in oil and gas field production processes."
5. Rita Miranda-Lopez, Ph.D. in FSTC (Fall/94- Sp/99): Dissertation: "Food Rheology/Sensory Analysis of corn tortillas." (co-adviser Dr. Rooney, SCS).
6. Ram Yamsaengsung, Ph.D. in BAEN (Fall/96-Fall/00) - Dissertation: "Modeling structural changes during Deep-fat frying of tortilla chips."
7. Nont Ekpanyaskun. Ph.D. in BAEN (Fall/02- Sp/09) - Dissertation: "Food irradiation modeling."
8. Carmen L. G. Feitosa, Ph.D. in BAEN (Sp/03-Sp/10) – Dissertation: "Radiosensitizers for food irradiation."

Completed – Master of Science degree

1. Jaime Palau, M.S. in BAEN (Sp/91 - Fall/93) - Thesis: "Deep-fat frying of tortilla chips: an integrated approach."
2. Yi-Chang Tseng, M.S. in FSTC (Fall/93-Fall/94) - Thesis: "The effects of degraded oil and pre-frying treatments on the quality of tortilla chips."
3. Youhong Chen, M.S. in BAEN (Summer/94-Fall/96) - Thesis: "Simulation of a deep-fat frying process for tortilla chips."
4. Lorenzo Brescia, M.S. in BAEN (Summer/94-Sp/96) - Thesis: "Development of a GPC control strategy for a continuous frying process based on product quality attributes."
5. Javier Lujan, M.S. in BAEN (Fall/94-Summer/96) - Thesis: "Production of low-fat tortilla chips using alternative methods of drying before frying."
6. Mei Huang, M.S. in BAEN (Fall/95-Fall/97) - Thesis: "Use of high hydrostatic pressure to produce high quality and safe fresh pork sausage."
8. Kisha Carman, M.S. in BAEN (Fall/94-Fall/00)- Thesis: "Rheology of corn dough." (co-adviser with Dr. Lacey).
9. Marie Louise Kawas, M.S. in BAEN (Sp/98-Sp/00): Thesis: "PQA Characterization during deep-fat frying of tortilla chips."
10. Aline T. Caixeta, M.S. in BAEN (Fall/98-Sp/01) - Thesis: "Impingement drying of potato chips."
11. Louise Marie Braud, M.S. in BAEN (started Fall/98-Sp/00) - Thesis: "Modeling impingement drying of tortillas."

12. Vinot Rajnan Kumar, M.S. in BAEN (Sp/99- Sp/01) - Thesis: "Stochastic modeling and visualization of a tortilla chip."
13. Jagoba Garayo, M.S. in BAEN (Fall/99-Sum/01) - Thesis: "Vacuum frying of potato chips."
14. Giovanni Brescia, M.S. in BAEN (SS/99- Sp/02) - Thesis: "Low energy electron irradiation of an apple".
15. Ashish Anand, M.S. in BAEN (began in: Fall/01-Fall/03) - Thesis: "Biosensors for food safety."
16. Ramiro G. Rivadeneira, M.S. in BAEN (began in: Fall/01-Fall/04) - Thesis: "detection of irradiation dose."
17. Claudia Granda, M.S. in BAEN (began in: Fall/02- Spr2005) – Thesis" Vacuum frying of potato chips and acrylamide reduction."
18. Yolanda Nunez, M.S. in BAEN (Fall/06-Spr/09) – Thesis: "Vacuum frying of mango chips."
19. Akhilesh Pandey, M.S. in BAEN (Fall/06-Sp/10) – Thesis: "Vaccum fryer design improvement."
20. Carla Yagua, M.S. in BAEN (Fall/07-Su/10) - Thesis: "Modeling of Deep-fat frying process."
21. Taehoon Kim, M.S. in BAEN (Fall/07-Fal/110) – Thesis: "Deep-fat frying quality issues."
22. Mauricio Martinon, M.S. in BAEN (Fall/08-Fall/11) - Thesis: "Fruits and vegetables edible coating."
23. Yagmur Ravli, M.S. in BAEN (Sp/2011-Fall/2012) – Topic: Vacuum frying of sweet potato chips
24. Zeynep Sevimli, M.S. in BAEN (Sp/2011-Sp/2013) - Topic: Vacuum impregnation of mushroom

Completed – Master of Engineering degree

1. Janakiraman Lakshminarayan, M.E. in BAEN (Fall/96-Summer/98) - Topic: Computer application software."

Post-Doctoral Fellows and Visiting Professors

1. Susan Sun - Post-Doctoral Researcher (Fall/93 - Fall/95) - Topic: "Oil Absorption in Food
2. Yongdong Zhao - Post-Doctoral Researcher (Summer/95)- Topic: "Automatic Control"
3. Yanbo Huang - Post-Doctoral Researcher (Fall/02-Su/07)- Topic: "Food Irradiation".
4. Jongsoon Kim - Post-Doctoral Researcher (Fall/07-Su/11)- Topic: "Food Irradiation".
5. Mingjin (Michael) Yang - Post-Doctoral Researcher from Southwest University, China - Focus area: Food dehydration with focus on heat and mass transfer in porous media. Fall/2011-Summer/2012. He is currently an Associate professor at Chongqing Southwest University
6. Javier Martinez Monzó, professor in the Food Technology Department of the Universidad Politécnica de Valencia, Spain – Summer 2011. Focus area: Vacuum frying of foods

In Progress

1. Paulo Fortes, Ph.D. in BAEN (S/03-present) - Topic: Vacuum frying modeling
2. Mauricio Martinon, Ph.D .in BAEN (Sp/12-present) - Topic: Edible coating

4. Zeynep Sevimli, Ph.D. in BAEN (Fall/2013) - Topic: Food irradiation
5. Keeley Sulak, M.E. in BAEN (Sp/2012) – Topic: Food processing
6. Samar Almohaimeed , M.S. in FSTC (Fall/2013) - Topic: Vacuum frying

Graduate Committee Member

Master of Science

1. David Bullok, M.S. in BAEN (Summer/91-Sp/95) - Thesis: “Modeling of a continuous food process with neural networks”.
2. Terry Howell, M.S. in BAEN (Fall/93-Sp/95) - Thesis: “Ultrasonic techniques for measuring rheological properties of rice slurries”.
3. John A. Shumbera, M.S. in BAEN (Fall/92-Fall/97) - Topic: Machine Control.
4. Meera Srivasan, M.S. in FSTC (Fall/94-Summer/96) - Thesis: “Objective methods to evaluate rheological properties of wheat flour tortilla dough”.
5. Irene Bosiger, M.S. in FSTC (Fall/94-Summer/96) - Thesis: “Texture characterization of corn tortilla”.
6. Jesus Menchaca Lara, M.S. in BAEN (Fall/94-Summer/96) - Thesis: “Analysis of the physical and mechanical properties of the pine nut as criteria in the design of a pine nut sheller”.
7. Ximena Quintero-Fuentes, M.S. in FSTC (Sp/95-SS/97) - Thesis: “A method to determine ingredient functionality in baked chips and baked tortilla chips”.
8. Sara Guajardo Flores, M.S. in FSTC (Sp/96-Fall/98) - Thesis: “Objective methods to access alkaline corn cooking”.
9. Patricia Jaar, M.S. in FSTC (Fall/96-Fall/98) - Topic: Yogurt rheological behavior.
10. Zhihong Guo, M.S. in BAEN (Fall/96-Sp/98) - Topic: Tortilla dough and tortilla rheology.
11. Maria Jose Rico, MS in Spanish (Fall/92-Sp/94) - Topic: Spanish Literature.
12. Christine Landers, MS in Spanish (Fall/94-Sp/96) - Topic: Spanish Literature.
13. Suman. Joseph, MS in FSTC (Fall/96-Sp/99) - Topic: Flour tortilla rheological properties.
14. Angela Tellez, MS in BAEN (Sp/98-Fall/99) - Topic: Alternative packaging films.
15. Martha Leon, MS in FSTC (started Fall/97) - Topic: Sorghum cooks rheological properties.
16. Randy M. Bulleman. MS in FSTC (Fall/97-S/99) - Topic: Meat tenderness.
17. Maria Moreno. MS in BAEN (Sp/02-Fall/05) - Topic: Quality of irradiated foods.
18. Oscar Rodrigues. MS in BAEN (Fall/02-Fall/07) - Topic: Quality of irradiated food
19. Daniyar Zhussupov. MS in PETE (Fall/04-Fall/06) – Topic: Radiation thermo cracking
20. Daegil Yang. MS in PETE (Fall/06-Fall/08) - Topic: Radiation thermo cracking
21. Megha Adavi. MS in FSTC (Fall/08-Sp/11) – Topic: Food safety
22. Andre Loquercio, M.S. in Food Science and Technology. Thesis topic: TBA. September 2011 – present.
23. Basri Omay. M.S. in Biological and Agricultural Engineering. Thesis topic: TBA. September 2011 – present.
24. Mustafa Guzel. M.S. in Biological and Agricultural Engineering. Thesis topic: TBA. January 2012 – present.

Doctor of Philosophy

1. Yanbo Huang, Ph.D. in BAEN (Fall/92-Summer/95) - Thesis: "Snack food frying process input-output modeling and control through artificial neural networks".
2. Harold Acosta Zuleta - Ph.D. in FSTC (Fall/92-Fall/96) - Thesis: "Processing and physico-chemical characterization of steam flaked sorghum hybrids".
3. Bootsrapa Limanond - Ph.D. in BAEN (Fall/97- Fall/00) - Topic: Dough rheology.
4. Cristina Asensio, Ph.D. in ME (Fall/92-Fall/98) - Topic: Paper Drying.
5. Cherie Floyd, Ph.D. in FSTC (Fall/93-Sp/96) - Thesis: "Protein and starch solubility and functionality during case hardening of corn and sorghum".
6. Elly Suhendro, PhD in FSTC (Fall/93-Sp/97) - Thesis: "Instrumental method for the evaluation of corn tortilla texture".
7. Jongsoon Kin, PhD in BAEN (Fall/00-S/07) - Topic: Food Irradiation.
8. Chin-Chi Liu, PhD in BAEN (Fall/98-Fall/02) - Topic: Biopolymer films.
9. Francisco Bueso, PhD in FSTC (Fall/00) - Topic: Staling.
10. Randy M. Bulleman, MS in FSTC (Fall/99-Fall/02) - Topic: Meat tenderness.
11. Jaejoon Han, PhD in FSTC (Sp/02-Fall/06) - Topic: Biopolymer packaging.
12. Jongsoon Kim – PhD in BAEN 9Fall/01-S/07) Topic: E-beam delivery strategies.
13. Ezekiel Chimbombi, PhD in BAEN (Fall/05-Fall/09) - Topic: Food Irradiation.
14. Maria Pia Cuervo. PhD (Fall/05-Sp/2011) – Topic: Food Safety
15. Alex Puerta, PhD in BAEN (Fall/07-Present) - Topic: Modeling Food Process
16. Isin Karagoz, PhD in BAEN (Fall/07-present) - Topic: Modeling Food Processing

Student Workers

1. Marie Louise Kawas - BAEN (Summer/96-Fall/98) - Topic: Development of pork based tortilla chips.
2. Giovanni Brescia - CHEN (Summer/96-Sp/97) - Topic: Superheated impingement drying of tortillas.
3. Ana Carolina Ahlers- BAEN (Summer/96) - Topic: Development of pork and peanut based tortilla chips.
4. Ramiro G. Rivadeneira - BAEN (Sp/2001) - Topic: Food Irradiation.
5. Julian Salazar – BAEN (Sp/2007) – Topic: Deep-fat frying.

Internship Supervisor

1. Maria Elena Sosa - Undergraduate from University of Guanajuato, Mexico - Summer/94 - Project topic: Physical Properties of Tortilla Chips.
2. Aline T. Caixeta - Undergraduate from Federal University of Viçosa, Brazil - Summer/98 - Project topic: Rheological Properties of Tortilla.
3. Audrey Elizabeth Thomas - BAEN Undergraduate - Summer/99 - Project Topic: The effect of oil temperature and particle size distribution on the PQA of tortilla chips.
4. Bertrand Cosse - French Undergraduate Student - Institut National Agronomique Paris-Grignon - France - Summer/01 - Project Topic: Vacuum frying of sweet potato chips.

5. Nicolas Houpert - French Undergraduate Student - Institut National Agronomique Paris-Grignon - France - Summer/02 - Project Topic: Vacuum frying of sweet potato chips.
6. Guillaume P. Rebillard. French Undergraduate Student - Ecole Superieure d'Agriculture d'Angers (ESA) - Angers, France- Spring/03 - Project Topic: Vacuum frying of potato chips.
7. Anne Fink- French Undergraduate Student - Institut National Agronomique Paris- Grignon - France - Summer/04 - Project Topic: Vacuum frying of sweet potato chips
8. Cristian Encina. Visiting scientist - Food Science Department - Universidad de Chile - Santiago, Chile - Summer/2006 - Acrylamide in potato Chips.

Research Experience for Undergraduates and High School Teachers

Students

1. Carmen Louise Gomes Feitosa - Undergraduate from Federal University of Viçosa, Brazil - Summer/00 - Project topic: “Rheological Properties of Peanut-Butter”
2. Mirtes Ione Ujikawa - Undergraduate from State University of Campinas, Brazil - Fall/00-S/01 - Project Topic: Biopolymers.
3. David Gonzales - BAEN Undergraduate - Summer/01 - Project Topic: The effect of oil temperature and pressure on the PQA of Sweet potato chips.
4. Shannon Sera Davis - BAEN Undergraduate - Summer/02 - Project Topic: Low oil content potato chips.
5. Valerie Vega - ANSC Undergraduate - Prairie View A&M University - Summer/04 - Project Topic: Food Irradiation
6. Lorenzo Hayes - ANSC Undergraduate - Prairie View A&M University - Summer/ 04 - Project Topic: Food Irradiation
7. Chrystal Murray - ANSC Undergraduate - Prairie View A&M University - Summer/04 - Project Topic: Food Irradiation.
8. Alka Menon - high school student - 2005 - Project Topic: Food Engineering.

Teachers (E3 – College of Engineering)

1. William Fesperman - Cesar Chavez High School - Summer/03 - Potato Chips Project
2. Dairell Hurst - A.C. Jones High School - Summer/03 - Simulation Project
3. Veronica Galvan - Hondo High - Summer/04 - Food Irradiation project
4. Marlo Diosomito - San Houston High School - Summer/04 - Food Irradiation Project
5. Lesley Baker - Student-Texas A&M University - Summer/05 - Food Irradiation Project
6. Shelly Lingo-Ortiz - Jourdanton High School - Summer/05 - Food Irradiation Project

Faculty Advisor to Student Organizations

1. Panamanian Student Association - 1992-95
2. Society of Hispanic Engineering Professionals (SHEP) – 1997-99

Courses Taught

Graduate

1. BAEN 681 "Graduate Seminar" (1 cr) Fall 1991 - Co-taught with Dr. Whittaker (BAEN);
2. BAEN 685 "Special Problems"
 - a. "Adaptive control" (3 cr), Fall 1992
 - b. "Food Rheology" (3 cr), Spring 1993
3. BAEN 620 "Food Rheology" (3 cr) Spring 1994 - 2003
4. BAEN 690 "Theory of Research", Fall 1996
5. BAEN 625 "Advances in Food Engineering" (Food Irradiation) (3 cr) Spring 2002-present
6. BAEN 622 "Unit Operations in Food Processing" (3 cr) Fall 2006 - present

Undergraduate

1. BAEN 130 "Introduction to Agricultural Engineering Management", (1 cr) Fall 1990
2. BAEN 403 "Processing and Storage of Agricultural Products" (3 cr), Fall 1990-1993
3. AGSM/FSTC 213 "Food Plant Engineering" (4 cr), Spring 1991-1994, Fall 2000
4. BAEN/BAEN 485 "Special Problems"
 - "Thermal Properties of Tortilla Chips" (3 cr), Summer, 1992
 - "Production of Low Fat Tortilla Chips using Impingement Drying Technology". (3 cr), Spring 1996
 - "Evaporator Design" (3 cr), Spring 1993
 - "Production of Pork Based Tortilla Chips" (3 cr), Fall 1996
 - "Steam Impingement Drying of Tortilla Chips" (3 cr), Spring 1997
 - "Better Taste and Flavor for Pork Tortilla Chips" (3 cr), Summer 1997
5. BAEN 474/CHEN "Unit Operations in Food Processing" (3 cr) Fall 1993 - present
6. BAEN 281 "Ag. Engr. Sophomore Seminar" (1 cr), Fall 1994, Fall 1998
7. AGSM/FSTC 315 "Food Plant Engineering" (4 cr), Fall 2001
8. BSEN 366 "Heat and Mass Transfer in Biological Systems", Sp 2003-present

RESEARCH

Technical Publications

Peer-Reviewed Publications

* Indicates students under Dr. Moreira supervision; ** Indicates post-doctoral fellow under Dr. Moreira's supervision; ***Indicates member of student committee

1. Alfi, M., Barrufet, M.A., Da Silva, P., and Moreira, R. 2013. Simultaneous Application of Heat and Electron Particles to Effectively Reduce the Viscosity of Heavy Deasphalted Petroleum Fluids. *Energy Fuels*: 5117-5127. [dx.doi.org/10.1021/ef400883z](https://doi.org/10.1021/ef400883z) | *Energy Fuels* 2013, 27, 5116–5127
2. Yagmur, R.*, Da Silva, Paulo*, and **Moreira, R.** 2013. Two-stage frying process for high-quality sweet-potato chips. *Journal of Food Engineering*. 118: 31–40. <http://dx.doi.org/10.1016/j.jfoodeng.2013.03.032>
3. Chimbombi, E.***, **Moreira, R.**, Castell-Perez, E., and Puerta-Gomez, A. 2013. Assessing accumulation (growth and internal mobility) of *Salmonella* Typhimurium LT2 in fresh-cut cantaloupe (*Cucumis melo* L.) for optimization of decontamination strategies. *Food Control*. 32: 574-581. [DOI.org/10.1016/j.foodcont.2013.01.042](https://doi.org/10.1016/j.foodcont.2013.01.042)
4. Puerta-Gomez***, A.F, Kim** J., **Moreira, R.G.**, Klutke, G.-A., and Castell-Perez, M.E. 2013. Quantitative assessment of the effectiveness of intervention steps to reduce the risk of contamination of ready-to-eat baby spinach with *Salmonella*. *Food Control*, 31: 410-418. [DOI.org/10.1016/j.foodcont.2012.10.022](https://doi.org/10.1016/j.foodcont.2012.10.022)
5. Puerta-Gomez***, A.F, **Moreira, R.G.**, Kim** J., and Castell-Perez, M.E. 2013. Modeling the growth rates of *Escherichia Coli* spp. and *Salmonella* Typhimurium LT2 in baby spinach leaves under slow cooling. *Food Control*, 29: 11-17. [DOI.org/10.1016/j.foodcont.2012.05.070](https://doi.org/10.1016/j.foodcont.2012.05.070)
6. **Moreira, R.G.** and Kim*, T. 2013. De-oiling and pretreatment for high quality potato chips. *Journal of Food Process Engineering*. 36:267-275 - [DOI:10.1111/j.1745-4530.2012.00686.x](https://doi.org/10.1111/j.1745-4530.2012.00686.x)
7. **Moreira, R.**; Puerta-Gomez***, A.; Kim, J.*; Castell-Perez, M.E. 2012. Factors affecting radiation *D*-values (D_{10}) of an *Escherichia coli* cocktail and *Salmonella typhimurium* LT2 inoculated in fresh produce. *J. Food Science*, 77(4):E104-11. [DOI: 10.1111/j.1750-3841.2011.02603.x](https://doi.org/10.1111/j.1750-3841.2011.02603.x)
8. Brasil, I.M., Gomes*,C., Puerta-Gomez***, A., Castell-Perez, M.E., **Moreira, R.G.** 2012. Polysaccharide-based multilayered antimicrobial edible coating enhances quality of fresh-cut papaya. *LWT/Food Science and technology*. [DOI:10.1016/j.lwt.2012.01.005](https://doi.org/10.1016/j.lwt.2012.01.005).
9. Gomes*, C.; **Moreira, R.**; and Castell-Perez, E. 2011. Microencapsulated antimicrobial compounds as a means to enhance electron beam irradiation treatment of fresh produce. *J. Food Microb.* 76(6): E479-E488. [DOI: 10.1111/j.1750-3841.2011.02264.x](https://doi.org/10.1111/j.1750-3841.2011.02264.x)
10. Gomes, C.*; **Moreira, R.**; and Castell-Perez, E. 2011. Poly (DL-lactide-co-glycolide) (PLGA) nanoparticles with entrapped *trans*-cinnamaldehyde and eugenol for antimicrobial delivery applications. *J. Food Science*. 76:N16-N24. [DOI: 10.1111/j.1750-3841.2010.01985.x](https://doi.org/10.1111/j.1750-3841.2010.01985.x)

11. Gomes, C*.; **Moreira, R.**; and Castell-Perez, E. 2011. Radiosensitization of *Salmonella* spp. and *Listeria* spp. in ready-to-eat baby spinach leaves. J. Food Science. 76: E141-E148. DOI: 10.1111/j.1750-3841.2010.01904.x.
12. Kim, J.**; **Moreira, R.** and Braby, L. 2011. Simulation of gamma-ray irradiation of lettuce Leaves in a ¹³⁷Cs irradiator using MCNP. Progress in NUCLEAR SCIENCE and TECHNOLOGY, 2 (October): 442-446. Atomic Energy Society of Japan.
13. Kim, J.**; **Moreira, R.** and Castell-Perez, E. 2011. Optimizing irradiation treatment of shell eggs using simulation. J. Food Science. 76: E173-E177. DOI: 10.1111/j.1750-3841.2010.01931.x
14. Chimbombi, E.***, **Moreira, R.**; Kim, J.**; and Castell-Perez, E. 2011. Prediction of Targeted *Salmonella enterica* serovar Typhimurium inactivation in fresh cut cantaloupe (*Cucumis melo* L.) using electron beam irradiation. J. Food Eng.103:409-416. DOI:10.1016/j.jfoodeng.2010.11.011.
15. **Yagua, C.* and Moreira, R.** 2011. Characterization of product quality attributes and thermal properties of potato chips during vacuum frying. J. Food Eng. 104:272-283. DOI:10.1016/j.jfoodeng.2010.12.018.
16. Pandey, A.* and **Moreira, R.** 2011. Batch vacuum frying system analysis for potato chips. J. Food Proc. Eng. DOI: 10.1111/j.1745-4530.2011.00635.x.
17. Kim, J.**; **Moreira, R.**; Castell-Perez, E. 2010. Simulation of pathogen inactivation in whole and fresh-cut cantaloupe (*Cucumis melo*) using electron beam treatment. J. Food Eng. 97(3): 425-433. <http://dx.doi.org/10.1016/j.jfoodeng.2009.10.038>.
18. **Moreira, R.**; Ekpanyaskun, N.*; and Braby, L.A. 2010. Theoretical Approach for the Calculation of Radiation D10-value. J. Food Proc. Eng. 33(s1): 314-340. DOI: 10.1111/j.1745-4530.2009.00512.x
19. **Gomes, C.*; Da Silva, P*.; Moreira, R.G.**; Castell-Perez, E.; Ellis, A.; Pendleton, M. 2009. Understanding E. coli internalization in lettuce leaves for optimization of irradiation treatment. Int. J. of Microbiology.135:238-247. <http://dx.doi.org/10.1016/j.ijfoodmicro.2009.08.026>.
20. Nunes, Y.* and **Moreira, R.** 2009. Effect of Osmotic Dehydration and Vacuum-Frying Parameters to Produce High-Quality Mango Chips. J. Food Science. 74(7): E355-E362. <doi/10.1111/j.1750-3841.2009.01257.x/pdf>
21. **Moreira, R.**; Da Silva, P*.; and Gomes, C*. 2009. Effect of a De-Oiling Mechanism to Process High-Quality Vacuum Fried Potato Chips. J. Food Eng. 92: 297-304. <http://dx.doi.org/10.1016/j.jfoodeng.2008.11.012>
22. Da Silva, P.* and **Moreira, R.** 2008. Vacuum Frying of High-Quality Fruit and Vegetable-Based Snacks. LWT. 10: 1758-1767. <http://dx.doi.org/10.1016/j.lwt.2008.01.016>
23. Han, J.***; Castell-Perez, E. and **Moreira, R.** 2008. Effect of Food Characteristics, Storage Conditions, and Electron Beam Irradiation on Active Agent Release from Polyamide-Coated LDPE Films. J. Food Science. 73: 37-43. DOI: 10.1111/j.1750-3841.2007.00616.x
24. Gomes, C.*, Da Silva, P.*, Chimbombi, E.***, Castell-Perez, E. and **Moreira, R.G.** 2008. Effects of low-dose electron beam irradiation and storage on quality of broccoli heads (*Brassica oleracea* Lvar Italica). LWT. 41(10): 1828-1833. DOI.org/10.1016/j.lwt.2008.02.014

25. Kim, J.***, **Moreira**, R., and Castell-Perez. 2008. Validation of Irradiation of Broccoli with a 10 MeV Electron Beam Accelerator. *J. Food Eng.* 86(4): 595-603.
<http://dx.doi.org/10.1016/j.jfoodeng.2007.11.018>
26. Gomes, C.*, **Moreira**, R., Castell-Perez, Kim, J.***, and Da Silva, P.*, Castillo, A. 2008. E-Beam Irradiation of Bagged Ready-to-Eat Spinach Leaves (*Spinacea oleracea*): An Engineering Approach. *J. Food Science.* 73: 95-102. DOI: 10.1111/j.1750-3841.2007.00629.x
27. Huang, Y.*, Kim, J.***, **Moreira**, R., and Castell-Perez, E. 2008. A Web-Based Information System for MCNP Simulation of Irradiation of Complex-Shaped Foods. *App. Eng. in Ag.* 24: 233-242.
<https://elibrary.asabe.org/azdez.asp?JID=3&AID=24256&CID=aeaj2008&v=24&i=2&T=1&refer=7&access=&dabs=Y>
28. Moreno, M.***, Castell-Perez, M.E., Gomes, C.*, Da Silva, P.*, Kim, J.***, and **Moreira**, R.G. 2008. Treatment of Cultivated Highbush Blueberries (*Vaccinium corymbosum* L.) with Electron Beam Irradiation: Dosimetry and Product Quality. *J. Food Proc. Eng.* 31: 155-172. DOI: 10.1111/j.1745-4530.2007.00172.x
29. Kim, J.***, **Moreira**, R. Huang, Y*., and Castell-Perez, M.E. 2007. 3-D dose distributions for Optimum Radiation treatment Planning of Complex Foods. *J. Food Eng.* 79(1): 312-321. <http://dx.doi.org/10.1016/j.jfoodeng.2006.01.061>
30. Moreno, M.***, Castell-Perez, M.E., Gomes, C.*, Da Silva, P.*, and **Moreira**, R.G. 2007. Quality of Electron Beam Irradiation of Blueberries (*Vaccinium corymbosum* L.) at Medium Dose Levels (1.0–3.2 kGy). *LWT.* 40(7): 1123-1132.
<http://dx.doi.org/10.1016/j.lwt.2006.08.012>
31. Moreno, M.***, Castell-Perez, M.E., Gomes, C.*, Da Silva, P.*, Kim, J.*, and **Moreira**, R.G. 2007. Optimizing Electron Beam Irradiation of Tommy Atkins Mangoes (*Mangifera indica* L.). *J. Food Pro. Eng.* 31(2), 120-134. DOI: 10.1111/j.1745-4530.2007.00111.x
32. Rivadeneira, R.*, **Moreira**, R., Kim, J.***, and Castell-Perez, M.E. 2007. A 3-D Dosimeter for Complex-Shaped Foods using Electron-Beam Irradiation. *Trans. ASABE.* 50(5):1751-1758.
<https://elibrary.asabe.org/azdez.asp?JID=3&AID=23932&CID=t2007&v=50&i=5&T=1&refer=7&access=&dabs=Y>
33. Han ***, J., M. E. Castell-Perez and R. G. **Moreira**. 2007. The influence of electron beam irradiation of antimicrobial-coated LDPE/polyamide films on antimicrobial activity and film properties. *LWT.* 40(9):1545-1554. <http://dx.doi.org/10.1016/j.lwt.2006.11.012>
34. Rodriguez, O.,*** M.E. Castell-Perez and R.G. **Moreira**. 2007. Effect of sugar content and storage temperature on the survival and recovery of irradiated *Escherichia coli* K-12 MG1655. *LWT.* 40(4):690-696. <http://dx.doi.org/10.1016/j.lwt.2006.02.023>
35. Rivadeneira, R.*, **Moreira**, R., Kim, J.***, and Castell-Perez, M.E. 2007. Dose Mapping of Complex-Shaped Foods using Electron-Beam Accelerators. *Food Control.* 18 910):1223-1234. <http://dx.doi.org/10.1016/j.foodcont.2006.07.023>
36. Bueso, F.***; Waniska, R.; Moreira, R., Seetharaman, K., and Rooney, L. 2006. Effect of temperature on Texture of Corn Tortillas with and without Antistaling Agents. *Cereal Chem.* 83(4):348-353. <http://dx.doi.org/10.1094/CC-83-0348>
37. Gomes, C.*, Da Silva, P. F., Castell-Perez, M.E., and R. G. Moreira. 2006. Quality and Microbial Population of Cornish Game Hen Carcasses as Affected by Electron Beam Irradiation. *J. Food Science,* 71(7), E327-336. DOI: 10.1111/j.1750-3841.2006.00135.x

38. Han ***, J., M. E. Castell-Perez and R. G. **Moreira**. 2006. The Influence of Electron Beam Irradiation on the Effectiveness of Trans-cinnamaldehyde Coated LDPE/polyamide Films. *J. Food Science*, 71(5), E245-E251. DOI: 10.1111/j.1750-3841.2006.00049.x
39. Rodriguez, O.***, M. E. Castell-Perez, N. Ekpanyaskun*, R. G. **Moreira** and A. Castillo. 2006. Surrogates for Validation of Electron Beam Irradiation of Foods. *Int. J. Food Microb.* 110(2), 117-122. <http://dx.doi.org/10.1016/j.jfoodmicro.2006.01.041>
40. Moreno, M.***, Castell-Perez, M.E., Gomes, C.*, Da Silva, P.*, and **Moreira**, R.G. 2006. The Effects of Electron Beam Irradiation on Physical, Textural and Micro structural Properties of Tommy Atkins Mangoes (*Mangifera indica* L.). *J. Food Science* 71(2), E80-E86. doi/10.1111/j.1365-2621.2006.tb08900.x/pdf
41. Kim, J.***, Rivadeneira, R*.G., Castell-Perez, M.E. and **Moreira**, R.G. 2006. Development and validation of a methodology for dose calculation in electron beam irradiation of complex-shaped foods. *J. Food Eng.* 74:359-369. <http://dx.doi.org/10.1016/j.jfoodeng.2005.03.008>
42. Kim, J.***; **Moreira**, R.G.; Rivadeneira, R*.; and Castell-Perez, M.E. 2005. Monte Carlo based Food Irradiation Simulator. *J. Food Proc. Eng.* 29 (1):72- 88. DOI: 10.1111/j.1745-4530.2006.00050.x
43. Granda, C*., R. G. **Moreira**, and Elena Castell-Perez.2005. Effect of raw potato composition on acrylamide formation in potato chips. *J. Food Science.* 70(9):E519-525. DOI: 10.1111/j.1365-2621.2005.tb08313.x
44. Granda, C*. and R. G. **Moreira**.2005. Kinetics of acrylamide formation during traditional and vacuum frying of potato chips. *J. Food Proc. Eng.* 28: 478-493. doi/10.1111/j.1365-2621.2005.tb08313.x/pdf
45. Han, J.***, C. L. Gomes-Feitosa*, E. Castell-Perez, R. G. **Moreira** and P. da Silva*. 2004. Quality of Packaged Romaine Lettuce Hearts Exposed to Low-dose Electron Beam Irradiation. *LWT*, 37(7): 705-715. <http://dx.doi.org/10.1016/j.lwt.2004.02.007>
46. Castell-Perez, M.E., Moreno***, M., Rodriguez, O***. and **Moreira**, R.G. 2004. Electron Beam Irradiation Treatment of Cantaloupes: Effect on Product Quality. *Food Sci. and Tech. Int.* 10(6): 383-390. DOI: 10.1177/1082013204049385.
47. Granda, C.*, R.G. **Moreira**, and S. E. Tichy. 2004. Reduction of Acrylamide Formation in Potato Chips by Low Temperature Vacuum Frying. *J. Food Science*, 69(8):405-411. DOI: 10.1111/j.1365-2621.2004.tb09903.x
48. Henry, J.***; A. Anand*, M. Chowdury, G. Cote, R. **Moreira**, T. Good. 2004. Development of a nanoparticle based - surface modified fluorescence assay for the detection of prion proteins. *Anal. Biochem.* 223:1-8. <http://dx.doi.org/10.1016/j.ab.2004.07.008>
49. Anand, A.*, R. G. **Moreira**, J. Henry***, M. Chowdhury, G. Cote, and T. Good, . 2004. A bio-sensing strategy for the detection of prions in foods. *LWT*. 38(8): 849-858. <http://dx.doi.org/10.1016/j.lwt.2004.09.015>
50. Kumar; V.R.*, R.G. **Moreira**, and M. Barrufet. 2003. Modeling the structural changes of a food product during frying. *J. Food Eng.* 60(2): 165-175. [http://dx.doi.org/10.1016/S0260-8774\(03\)00037-2](http://dx.doi.org/10.1016/S0260-8774(03)00037-2)
51. Brescia, G*, R. G. **Moreira**, L. Braby, and M.E. Castell-Perez. 2003. Monte Carlo simulation and dose distribution of low energy electron irradiation of an apple. *J. Food Eng.* 60 (1): 31-39. [http://dx.doi.org/10.1016/S0260-8774\(03\)00007-4](http://dx.doi.org/10.1016/S0260-8774(03)00007-4)

52. Limanond, B***, M.E. Castell-Perez, and R.G. **Moreira**. 2003. Quantifying Texture Changes in Corn Tortillas due to Staling. *J. Texture Studies*, 33(1):215-219. [doi/10.1111/j.1745-4603.2002.tb01333.x/pdf](https://doi.org/10.1111/j.1745-4603.2002.tb01333.x/pdf)
53. Garayo, J* and R.G. **Moreira**. 2002. Vacuum frying of potato chips. *J. Food Eng.* 55(2):181-191. [http://dx.doi.org/10.1016/S0260-8774\(02\)00062-6](http://dx.doi.org/10.1016/S0260-8774(02)00062-6)
54. Spadaro, V*; D.H. Allen, J.T. Keeton, R.G. **Moreira** and R. M. Boleman. 2002. Biochemical properties of meat and their correlation to tenderness. *J. Texture Studies*. 33:59-87. [doi/10.1111/j.1745-4603.2002.tb01335.x/pdf](https://doi.org/10.1111/j.1745-4603.2002.tb01335.x/pdf)
55. Limanond, B***, M.E. Castell-Perez, and R.G. **Moreira**. 2002. Modeling the kinetics of corn tortilla staling using stress relaxation data. *J. Food Eng.* 53(3): 237-247. [http://dx.doi.org/10.1016/S0260-8774\(01\)00162-5](http://dx.doi.org/10.1016/S0260-8774(01)00162-5) .
56. Yamsaengsung, R* and R.G. **Moreira**. 2002. Modeling the structural change during deep-fat frying of foods. Part II: Model validation and sensitivity analysis. *J. Food Eng.* 53(1):11-25. [http://dx.doi.org/10.1016/S0260-8774\(01\)00135-2](http://dx.doi.org/10.1016/S0260-8774(01)00135-2)
57. Yamsaengsung, R* and R.G. **Moreira**. 2002. Modeling the structural change during deep-fat frying of foods. Part I: Model development. *J. Food Eng.* 53(1):1-10. [http://dx.doi.org/10.1016/S0260-8774\(01\)00134-0](http://dx.doi.org/10.1016/S0260-8774(01)00134-0)
58. Caixeta, A.T*, R.G. **Moreira** and M.E. Castell-Perez. 2001. Impingement drying of potato chips. *J. Food Proc. Eng.* 25(1): 63-90. DOI: 10.1111/j.1745-4530.2002.tb00556.x
59. Braud, L*, R.G. **Moreira** and M.E. Castell-Perez. 2001. Mathematical modeling of impingement drying of corn tortilla. *J. Food Eng.* 50(3):121-128. [http://dx.doi.org/10.1016/S0260-8774\(00\)00234-X](http://dx.doi.org/10.1016/S0260-8774(00)00234-X)
60. **Moreira**, R.G. 2001. Impingement drying of foods using hot air and superheated steam. *J. Food Eng.* 49(4):291-295. [http://dx.doi.org/10.1016/S0260-8774\(00\)00225-9](http://dx.doi.org/10.1016/S0260-8774(00)00225-9)
61. Kawas, M.L* and R.G. **Moreira**. 2001. Effect of degree of starch gelatinization on quality attributes of tortilla chips during frying. *J. Food Science*. 66(2):300-306. [doi/10.1111/j.1365-2621.2001.tb11336.x/pdf](https://doi.org/10.1111/j.1365-2621.2001.tb11336.x/pdf)
62. Singh, S.K., M.E. Castell-Perez, and R.G. **Moreira**. 2000. Viscosity and Textural Attributes of Reduced-Fat Peanut Pastes. *J. Food Science* 65(5): 849-853. DOI: 10.1111/j.1365-2621.2000.tb13599.x
63. Kawas, M.L* and R.G. **Moreira**. 2000. Characterization of product quality attributes of tortilla chips during the frying process. *J. Food Eng.* 47(2):97-107. [http://dx.doi.org/10.1016/S0260-8774\(00\)00104-7](http://dx.doi.org/10.1016/S0260-8774(00)00104-7)
64. Limanond, B***, Castell-Perez, M.E and **Moreira**, R.G. 1999. Effect of Time and Storage Conditions on the Rheological Properties of Masa for Corn Tortillas. *LWT*. 32(6):344-348. <http://dx.doi.org/10.1006/ftsl.1999.0563>
65. Li, Y.B**; Seyed-Yagoobi, J., **Moreira**, R. and Yamsaengsung, R*. 1999. Superheated steam impingement drying of tortilla chips. *Drying Tech.* 17(1&2):191-213. DOI:10.1080/07373939908917525
66. Huang, M*; R.G. **Moreira**, and E. Murano. 1999. Use of hydrostatic pressure to produce high quality and safe fresh pork sausage. *J. Food Proc. and Preserv.* 23(4):265-284. [doi/10.1111/j.1745-4549.1999.tb00385.x/pdf](https://doi.org/10.1111/j.1745-4549.1999.tb00385.x/pdf)
67. Suhendro, E.L***, H.D. Almeida-Dominguez, L.W. Rooney, R.D. Waniska and R.G. **Moreira**. 1999. Use of extensibility to measure corn tortilla texture. *Cereal Chem.* 76(4):536-540. <http://dx.doi.org/10.1094/CCHEM.1999.76.4.536>

68. Guo, Z***, M.E. Castell-Perez, M.E. and R.G. **Moreira**. 1999. Characterization of masa and low-moisture corn tortilla using stress relaxation methods. *J. Texture Studies*. 30(2):197-216. DOI: 10.1111/j.1745-4603.1999.tb00211.x
69. Murano, E.A.; P.S. Murano, R.E. Brennan, K. Shenoy and R.G. **Moreira**. 1999. Application of high hydrostatic pressure to produce safe and long-lasting fresh pork sausage. *J. Food Protection*. 62(5):480-483. DOI: 10.1007/978-0-387-89026-5_7
70. Emesih, G.C*, R.G. **Moreira** and M.A. Barrufet. 1999. Evaluation of modified starches for improved oil recovery. *App. Eng. in Agriculture*. 15(3):237-242.
<http://elibrary.asabe.org/azdez.asp?JID=3&AID=5770&v=15&i=3&CID=aeaj1999&T=2>
71. Suhendro, E.L***, H.D. Almeida-Dominguez, L.W. Rooney, R.D. Waniska and R.G. **Moreira**. 1998. Tortilla bending technique: An objective method for corn tortilla texture measurement. *Cereal Chem*. 75(6):854-858.
<http://dx.doi.org/10.1094/CCHEM.1998.75.6.854>
72. Tsue-Er Lo*, R.G. **Moreira** and M.E. Castell-Perez. 1998. Effect of operating conditions on melt rheological characteristics during twin-screw food extrusion. *Transactions ASAE*. 41(6):1721-1728.
<http://elibrary.asabe.org/azdez.asp?JID=3&AID=17315&v=41&i=6&CID=t1998&T=2>
73. Tsue-Er Lo*, R.G. **Moreira** and M.E. Castell-Perez. 1998. Modeling product quality during twin-screw food extrusion. *Transactions ASAE*. 41(6): 1729-1738.
<http://elibrary.asabe.org/azdez.asp?JID=3&AID=17316&CID=t1998&v=41&i=6&T=2&redirType=>
74. Tsue-Er Lo*, R.G. **Moreira** and M.E. Castell-Perez. 1998. Rheological properties of corn meal dough. *Food Sci. and Tech. Int*. 5(1):61-68. DOI: 10.1177/108201329900500106
75. **Moreira**, R.G. and M.A. Barrufet. 1998. A new approach to describe oil absorption in fried foods: a simulation study. *J. Food Eng*. 35(1):1-22. [http://dx.doi.org/10.1016/S0260-8774\(98\)00020-X](http://dx.doi.org/10.1016/S0260-8774(98)00020-X)
76. Chen, Y* and R.G. **Moreira**. 1997. Modeling of a batch deep-fat frying process. *Food and Bioproducts Processing*. 75(3): 181-190. <http://dx.doi.org/10.1205/096030897531531>
77. Lujan, F.J* and R.G. **Moreira**. 1997. Reduction of oil in tortilla chips using impingement drying. *LWT*. 30(8):834- 840. <http://dx.doi.org/10.1006/fstl.1997.0282>
78. Brescia, L* and R.G. **Moreira**. 1997. Modeling and control of a continuous frying process: II Control development. *Food and Bioproducts Processing* 75(1):12-16.
<http://dx.doi.org/10.1205/096030897531315>
79. Brescia, L* and R.G. **Moreira**. 1997. Modeling and control of a continuous frying process: I Dynamic analysis and system identification. *Food and Bioproducts Processing* 75(1): 3-11. <http://dx.doi.org/10.1205/096030897531306>
80. Lujan, F.J*, R.G. **Moreira**. 1997. Effects of different drying processes on oil absorption and microstructure of tortilla chips. *Cereal Chem*. 74(3):216-223.
<http://dx.doi.org/10.1094/CCHEM.1997.74.3.216>
81. Schonauer, S* and R.G. **Moreira**. 1997. Dynamics analysis of on-line product quality attributes for automation of food extruders. *Food Sci. and Tech. Int*. 3: 413-421.
doi:10.1177/108201329700300603
82. Lujan, F.J*, R.G. **Moreira** and J. Seyed-Yagoobi. 1997. Impingement drying of tortilla chips. *Drying Tech*. 15(3&4):881-897. DOI:10.1080/07373939708917266

83. **Moreira, R.G., Sun, X** and Chen, Y*.** 1997. Factors affecting oil uptake in tortilla chips in deep-fat frying. *J. Food Eng.* 31(4):485-498. [http://dx.doi.org/10.1016/S0260-8774\(96\)00088-X](http://dx.doi.org/10.1016/S0260-8774(96)00088-X)
84. Tseng, Y.*, **R.G. Moreira** and X. Sun**. 1996. Total frying-use time effects on soybean oil deterioration and on tortilla chip quality. *Int. J. of Food Science and Techn.* 31(3): 287-294. DOI: 10.1046/j.1365-2621.1996.00338.x
85. Schonauer, S.* and **R.G. Moreira.** 1996. A variable restrictive valve as an extra independent control variable for food extrusion process. *Food Sci. and Tech. Int.* 2(4): 241-248. doi:10.1177/108201329600200406
86. Sun, X** and **R.G. Moreira.** 1996. Relationships between proton relaxation time and free fatty acids and polar materials of degraded soybean oil. *J. Food Proc. and Preserv.* 20(2): 157-167. DOI: 10.1111/j.1745-4549.1996.tb00852.x
87. **Moreira, R.G.** and M.A. Barrufet. 1996. Spatial distribution of oil after deep-fat frying from a stochastic model. *J. Food Eng.* 27(3):279-290. [http://dx.doi.org/10.1016/0260-8774\(95\)00010-0](http://dx.doi.org/10.1016/0260-8774(95)00010-0)
88. Schonauer, S.* and **R.G. Moreira.** 1995. Development of a fixed-GPC controller for a food extruder based on PQA- Part II: Control development, implementation and analysis. *Transactions Inst. Chem. Eng.* 73(c):200-210.
89. Schonauer, S.* and **R.G. Moreira.** 1995. Development of a fixed-GPC controller for a food extruder based on PQA- Part I: System identification. *Transactions Inst. Chem. Eng.* 73(c):189-199.
90. **Moreira, R.G., T. Lo* and M.E. Castell-Perez.** 1995. Rheological changes in cooked corn meal dough to differences in moisture content. *Food Sci. and Tech. Int.* 1(1):41-45. doi:10.1177/108201329500100107
91. **Moreira, R.G., J. Palau* and V. Sweat.** 1995. Thermal and physical properties of tortilla chips as a function of frying time. *J. Food Proc. and Preserv.* 19(3):175-189. DOI: 10.1111/j.1745-4549.1995.tb00287.x
92. **Moreira, R.G.** and J. Palau*. 1995. Deep-fat frying of tortilla chips- an engineering approach. *J. Food Tech.* 49(4): 146-150.
93. **Moreira, R.G.;** J. Palau* and X. Sun**. 1995. Simultaneous heat and mass transfer during deep fat frying of tortilla chips. *J. Food Proc. Eng.* 18:307- 320. DOI: 10.1111/j.1745-4530.1995.tb00369.x
94. **Moreira, R.G.;** M.H. Gomez, L. Rooney and M.E. Castell-Perez. 1994. Moisture Diffusion and Dry Matter Loss of Corn During Alkaline- Steeping. *Rev. Agroquim. Tecnol. Alim.* 34(1):65-76.
95. Mwaura, E.N.;; **R.G. Moreira** and F.W. Bakker-Arkema. 1993. Performance Evaluation of the Drying of Maize in an In-Bin Counterflow System Using Biomass Energy. *AMA.* 24(1):31-36.
96. Castell-Perez, M.E.;; **R.G. Moreira** and J.F. Steffe. 1993. "Viscometria de Dispositivo de Mezcla (tipo bandera) para el Analisis de Fluidos Que Siguen la Ley de la Potencia. A simple procedure to determine power-law curves: The flag viscometer. *Sp. J. Food Sci. and Tech.* 33(5):529-547.
97. Maier, D.E., **R.G. Moreira** and F.W. Bakker-Arkema. 1992. Comparison of Conventional and Chilled Aeration of Grains under Texas Conditions. *Appl. Eng. in Agriculture.* 8(5):661-667.

<http://elibrary.asabe.org/azdez.asp?JID=3&AID=26139&CID=aeaj1992&v=8&i=5&T=1&redirType=>

98. **Moreira**, R.G. and F.W. Bakker-Arkema. 1992. Grain Dryer Controls: A review. *Cereal Chem.* 69(4):390-396.
http://www.aaccnet.org/cerealchemistry/backissues/1992/69_390.pdf
99. Castell-Perez, M.E.; J.F. Steffe and R.G. **Moreira**. 1991. Simple Determination of Power Law Flow Curves Using a Paddle Type Mixer Viscometer. *J. Texture Studies.* 22(3):303-316. DOI: 10.1111/j.1745-4603.1991.tb00022.x
100. **Moreira**, R.G.; A.K. Srivastava and J.B. Gerrish. 1990. Feedforward Control Model for a Twin-Screw Food Extruder. *Food Control.* 1(3):179-184.
[http://dx.doi.org/10.1016/0956-7135\(90\)90009-2](http://dx.doi.org/10.1016/0956-7135(90)90009-2)
101. **Moreira**, R.G. and F.W. Bakker-Arkema. 1990. Unsteady-State Simulation of a Multi- Stage Concurrent-flow Maize Dryer. *Drying Tech.* 8(1):61-75.
DOI:10.1080/07373939008959864
102. **Moreira**, R.G. and F.W. Bakker-Arkema. 1990. Feedforward/ Feedback Adaptive Control for Commercial Cross-flow Grain Driers. *J. Agric. Engng. Res.* (45)1:107- 116.
[http://dx.doi.org/10.1016/S0021-8634\(05\)80143-X](http://dx.doi.org/10.1016/S0021-8634(05)80143-X)
103. **Moreira**, R.G. and F.W. Bakker-Arkema. 1989. Moisture Desorption Model for Nonpareil Almonds *J. Agric. Engng. Res.* (42)2:123-133. [http://dx.doi.org/10.1016/0021-8634\(89\)90045-0](http://dx.doi.org/10.1016/0021-8634(89)90045-0)
104. **Moreira**, R.G.; M.E. Castell-Perez and F.W. Bakker-Arkema. 1988. Dehydration of Almonds at High Temperatures -in Spanish. *Rev. Agroquim.Tecnol.Alim.* 28(4):509-518.

Most cited or Most Downloaded Articles

- Granda, C.*, R.G. Moreira, and S. E. Tichy. 2004. Reduction of Acrylamide Formation in Potato Chips by Low Temperature Vacuum Frying. *Journal of Food Science*, 69(8):405-411- Most cited JFS paper of 2004 (as of the end of May, 2007).
- Kim, J.**, Rivadeneira, R*.G., Castell-Perez, M.E. and Moreira, R.G. 2006. Development and validation of a methodology for dose calculation in electron beam irradiation of complex-shaped foods. *Journal of Food Engineering*, 34(3):359-369.- Top 25 - Hottest Articles - April - June/2006: #1: *J Food Engineering* ; #1 among all journals in *Agric and Biolog Sciences - Elsevier* (326 journals).
- Kim, J.**; Moreira, R.G.; Rivadeneira, R*.; and Castell-Perez, M.E. 2005. Monte Carlo based Food Irradiation Simulator. *J. Food Process Engineering.* 29 (1):72-88. - The top 20 most popular articles for *J. Food Process Engineering* based on the number of full text downloads from 2005-2007.
- Granda, C*. and R. G. Moreira. .2005. Kinetics of acrylamide formation during traditional and vacuum frying of potato chips. *J. of Food Process Engineering.* 28: 478- 493.- Top cited articles for *J. of Food Process Engineering*, based on ISI citation data collected from journals published in the last 3 years from 2005-2007.

Book Chapters

1. **Moreira**, R.G. 2001. Deep-fat frying of foods. In: *Food Process Operations - modeling and analysis for design.* Editor Irudayaraj, J. Marcel Dekker Inc. New York.
2. **Moreira**, R.G. 2002. Instrumentation and Process Control. In *Encyclopedia of Food Sciences and Nutrition.* Ed. B. Caballero, L. Trugo, and P. Finglas. Academic Press.

3. **Moreira**, R.G. 2003. Process Instrumentation and Control. In Food Engineering. Encyclopedia of Life Support Systems (EOLSS). UK.
4. **Moreira**, R.G. 2003. Deep-fat frying. In The Encyclopedia of Agricultural, Food and Biological Engineering. Editor: Dennis R. Heldman. Taylor and Francis.
5. **Moreira**, R.G. and M.E. Castell-Perez. 2004. Decontamination Systems. In: Pre-Harvest and Post-Harvest Food Safety: Contemporary Issues and Future Directions.
6. **Moreira**, R.G. 2004. Food Irradiation. In: Handbook of Food Technology and Food Engineering. Marcel Dekker, Inc.
7. **Moreira**, R.G. 2004. Deep-fat frying. In: Handbook of Food Technology and Food Engineering. Marcel Dekker, Inc. Ed. Dennis Heldman.
8. Castell-Perez, M.E. and R.G. **Moreira**. 2004. Decontamination Systems. In: Preharvest and Postharvest Food Safety: Contemporary Issues and Future Directions. IFT Press/Blackwell Publishing. Ed. Baier, Pillai, and Phillips
9. **Moreira**, R.G. 2005. Mass transfer, Steady-State. In: Encyclopedia of Agricultural, Food and Biological Engineering. Editor: Dennis R. Heldman. Taylor and Francis.
10. **Moreira**, R.G. 2005. The Engineering Aspects of Deep-fat Frying. In: Handbook of Food Science, Technology, and Engineering, 4. Editor Hui. CRC Press.
11. **Moreira**, R. 2007. Deep-fat frying. In: Heat Transfer in Food Processing. Editors Yanniotis and Sunden. WIT Press. Boston.
12. **Moreira**. 2010. Vacuum frying. Encyclopedia of Agricultural, Food and Biological Engineering. Editor: Dennis R. Heldman. Taylor and Francis.
13. Castell-Perez and **Moreira**, R. 2010. Radiation inactivation of pathogens. Encyclopedia of Agricultural, Food and Biological Engineering. Editor: Dennis R. Heldman. Taylor and Francis.
14. **Moreira**, R.G. 2012. Vacuum Frying of Fruits Applications in Fruit Processing – Chapter 14. In Advances in Fruit Processing Technologies (a volume in the Contemporary Food Engineering Series). Edited by Sueli Rodrigues and Fabiano André Narciso Fernandes. CRC Press. Taylor & Francis Group.
15. Castell-Perez and **Moreira**, R.G. 2012. Irradiation applications in fruit and other fresh produce processing - Chapter 7. In Advances in Fruit Processing Technologies (a volume in the Contemporary Food Engineering Series). Edited by Sueli Rodrigues and Fabiano André Narciso Fernandes. CRC Press. Taylor & Francis Group.
16. **Moreira**, R. G. 2012. Tortilla processing. Encyclopedia of Agricultural, Food and Biological Engineering. Editor: Dennis R. Heldman. Taylor and Francis.

Books

1. **Moreira**, R.G.; M.E. Castell-Perez, and M.A. Barrufet. 1999. Deep-Fat Frying: Fundamental and Applications. Aspen Publisher. Boston, MA.
2. **Moreira**, R.G. 2001. Automatic Control for Food Processing Systems. Aspen Publishers. Boston, MA.

Theses

1. **Moreira**, R.G. 1983. Dehydration of Almond Nuts. Master Thesis. Department of Biological Systems Engineering. Michigan State University.

2. **Moreira, R.G.** 1989. Adaptive Control of Continuous-flow Grain Dryers. Doctoral Dissertation. Department of Biological Systems Engineering. Michigan State University.

Proceedings and Industrial Journals

1. Moreira, R.G. 1989. Automatic Control of Crossflow Grain Dryers. CIGR Proceedings. In Agricultural Engineering: Power, Processing and System. Balkema Publisher. 4:2199-2204.
2. Moreira, R.G. and F.W. Bakker-Arkema. 1990. The Concept of Dynamic Modeling and Adaptive Control of the Multi-Stage Concurrent-Flow Drying Process. ASAE Proceedings. In Food Processing Automation. ASAE Publication 02-90:301-302.
3. Moreira, R.G., A.K. Srivastava and J.B. Gerrish. 1990. Dynamic Modeling and Control Strategy of a Twin-Screw Food Extruder. ASAE Proceedings. In Food Processing Automation. ASAE Publication, 313-320.
4. Moreira, R.G. 1993. Aeration of grain using natural and chilled air. Proceedings of the International Symposium on Grain Conservation. Drying and Storage. FAO. 177-196. Canela, Rio Grande do Sul, Brazil. 19-23 October 1993. FAO and CESA.Plus Comunicacoes, Porto Alegre, 1994.
5. Schonauer, S. and R.G. Moreira. 1996. Product quality adaptive control system for a food extruder. Proceedings of the AIChE Conference on Food Engineering - Chicago, IL.
6. R.G. Moreira, Tseng, Y, and X. Sun. 1996. The mechanism of oil absorption in tortilla chips. Proceedings of the AIChE Conference on Food Engineering - Chicago, IL.
7. Schonauer, S. and R.G. Moreira. 1995. Modeling and simulation of PQA of a twin screw extrusion process for control development. ASAE Proceedings. In Food Processing Automation IV. ASAE Publication, 348-357.
8. Schonauer, S. and R.G. Moreira. 1995. Development of a GPC-fixed control strategy for a twin-screw food extruder based on PQA. ASAE Proceedings. In Food Processing Automation IV. ASAE Publication, 413-419.
9. Schonauer, S. and R.G. Moreira. 1995. Analysis of the dynamics of a food extrusion process for automatic control based on product quality attributes. Extrusion Communiqué. (8)3: 13-14.
10. Moreira, R.G. 2002. Studying health frying. Prepared Foods - e-News Weekly. 4(10).
11. Moreira, R.G. 2005. Vacuum frying - a lower cooking temperature. The Food and Beverage Journal. September 2005.
12. Kim, J.; Moreira, R. and Braby, L. 2010. Simulation of gamma-ray irradiation of lettuce leaves in a ¹³⁷Cs irradiator using MCNP. Joint International Conference on Supercomputing in Nuclear Applications and Monte Carlo 2010 (SNA + MC2010). Hitotsubashi Memorial Hall, Tokyo, Japan, October 17-21, 2010.
13. Castell-Perez, M.E. and Moreira, R.G. 2011. An Engineering Approach to Ensuring the Safety of Fresh and Fresh-cut Fruits and Vegetables. Focus: Produce Safety. Food safety Magazine – Feb/March-2011.

IFT & AICHE Abstracts, ASAE Papers and Others

1. Bakker-Arkema, F.W.; R.G. Moreira and R. Byler. 1983. Drying of Almonds. ASAE Paper No. 83-3045. St. Joseph, MI.

2. Moreira, R.G.; F.W. Bakker-Arkema. 1989. Digital Control of Crossflow Grain Dryers. ASAE Paper No. 89-6535. St. Joseph, MI.
3. Bakker-Arkema, F.W., R. Keley and R.G. Moreira. 1990. In-bin Continuous-flow Dryer Control. ASAE Paper No. 90-6565. St. Joseph, MI.
4. Castell-Perez, M.E.; R.G. Moreira and J.F. Steffe. 1990. A New Method to Determine the Rheological Characteristics of Suspension-Type Non-Newtonian Fluids Using Mixer Viscometry. Presented at the 1990 Conference in Bridging the Gap - Case Studies of University Technology Transfer to Industry. Michigan Biotechnology Institute, E.Lansing, MI.
5. Maier, D.E.; K.D. Weidmayer, F.W. Bakker-Arkema and R.G. Moreira. 1991. Regular and chilled aeration of grains in Texas - ASAE Paper No. 91-6062. St. Joseph, MI.
6. Castell-Perez, M.E., R.G. Moreira and J.F. Steffe. 1991. A simple procedure to determine power-law flow curves: the flag viscometer - ASAE Paper No. 91-6504. St. Joseph, MI.
7. Moreira, R.G., V.E. Sweat, M.E. Castell-Perez and J. Palau. 1991. Moisture loss and oil absorption during deep fat frying of tortilla chips. ASAE Paper No. 91-6501. St. Joseph, MI.
8. Moreira, R.G., J. Palau, V.E. Sweat and M.E. Castell-Perez. 1992. Heat and mass transfer mechanisms and oil degradation during deep-fat frying of tortilla chips. ASAE Paper No. 92-6599. St. Joseph, MI.
9. Moreira, R.G., J. Palau and V.E. Sweat. 1992. Thermal properties of tortilla chips during frying. ASAE Paper No. 92-6595. St. Joseph, MI.
10. Moreira, R.G. and J. Palau-Echeberry. 1994. Deep-fat frying of tortilla chips: An Engineering Approach. IFT Annual Meeting - Atlanta, GA.
11. Lo, Tsuey-Er and R.G. Moreira. 1994. Squeezing flow test of cooked corn meal dough. Poster Presentation - IFT Annual Meeting - Atlanta, GA.
12. Sun, X. and R.G. Moreira. 1994. Interfacial tension on oil uptake during deep fat frying of tortilla chips. Poster Presentation - IFT Annual Meeting - Atlanta, GA.
13. Lo, T. and R.G. Moreira. 1994. Squeezing flow test of cooked corn meal dough. IFT International Meeting -Atlanta, GA.
14. Sun, X. and R.G. Moreira. 1994. Interfacial tension on oil uptake during deep-fat frying of tortilla chips. IFT International Meeting - Atlanta, GA.
15. Lo, T. and R.G. Moreira. 1994. Determination of viscosity of corn meal in a twin- screw extruder. ASAE Paper No. 94-6505. St. Joseph, MI.
16. Sun, X. and R.G. Moreira. 1994. Oil distribution in tortilla chips during deep-fat frying. ASAE Paper No. 94-6506. St. Joseph, MI.
17. Tseng, Y., R.G. Moreira and X. Sun. 1994. Physical and chemical properties of oil degradation related to food quality in deep-fat frying. ASAE Paper No. 94-6524. No. 94-6506. St. Joseph, MI.
18. Schonauer, S. and R.G. Moreira. 1995. Steady state analysis of a food extrusion process for a PQA Based automatic control. Abstract. IFT International Meeting - Anaheim, CA.
19. Schonauer, S. and R.G. Moreira. 1995. Dynamics analysis of a food extrusion process for a PQA based automatic control. IFT International Meeting - Anaheim, CA.
20. Tseng, Y., R.G. Moreira and X. Sun. 1995. Effects of pre-frying treatment on oil absorption in tortilla chips during deep fat frying. IFT International Meeting - Anaheim, CA.
21. Sun, X. and R.G. Moreira. 1995. Oil absorption during and after deep fat frying at varying frying conditions. IFT International Meeting - Anaheim, CA.

22. Schonauer, S*. and R.G. Moreira. 1995. Product quality adaptive control system for a food extruder. Abstract/presentation of the AIChE Conference on Food Engineering - Chicago, IL.
23. Moreira, Y. Tseng and X. Sun. 1995. The mechanism of oil absorption in tortilla chips. Abstract/presentation of the AIChE Conference on Food Engineering - Chicago, IL.
24. Lujan, F.J*., R. G. Moreira and X. Sun. 1995. Reduccion del contenido de aceite en tortilla chips al cambiar su estructura interna. Congreso Nacional de Ingenieria Agricola. Guanajuato, Gto - Mexico - Nov/29 - Dec/1st.
25. Tsue-Er Lo and R.G. Moreira. 1996. Product quality modeling of a twin-screw extrusion process. IFT International Meeting - New Orleans, LA.
26. Lujan, F.J., R. G. Moreira and X. Sun. 1996. Oil content reduction in tortilla chips by changes in their microstructures. IFT International Meeting - New Orleans, LA.
27. Brescia, L.E. and R. G. Moreira. 1996. Development of a GPC Control strategy for a continuous fryer based on product quality attributes. IFT International Meeting - New Orleans, LA.
28. Chen, Y.; R. G. Moreira. 1996. Simulation of a deep-fat fryer for processing tortilla chips. IFT International Meeting - New Orleans, LA.
29. Spadaro, V., R.G. Moreira, J.K. Keeton, D. Allen. 1996. Mechanical characterization of meat texture. IFT International Meeting - New Orleans, LA.
30. Lujan, F.J., P. Sanders, R. G. Moreira and J. Seyed-Yagoobi. 1996. Impingement drying of tortilla chips. 4th Annual Drying Research Symposium. April/1996 - Department of Mechanical Engineering - TAMU.
31. Lujan, F.J., R.G. Moreira and J. Seyed-Yagoobi. 1996. Reduced fat tortilla chips by impingement drying. Research Technology Transfer Symposium. Institute of Food Science and Engineering. TAMU.
32. Chen, Y.; R. G. Moreira. 1996. Modeling of a deep-fat fryer for processing tortilla chips. Research Technology Transfer Symposium. Institute of Food Science and Engineering. TAMU.
33. Brescia, G.; M.L. Kawas, and R.G. Moreira. 1997. 5th Annual Drying Research Symposium. April/1997 - Department of Mechanical Engineering - TAMU.
34. Seyed-Yagoobi, J; Y.B. Li, and R.G. Moreira. 1998. Impinging superheated steam drying of foods. International Conference on Food Science and Technology. Symposium on Advances in Drying. Dallas, TX. April 1-3, 1998.
35. Moreira, R.G. 1998. Product quality attributes of extrudates as function of operating conditions. International Conference on Food Science and Technology. Symposium on Food System Functionality. Dallas, TX. April 1-3, 1998.
36. Li, Y.B.; R. Yamsaengsung, R.G. Moreira and J. Seyed-Yagoobi. 1998. Superheat impingement drying of tortilla. IFT International Meeting - Atlanta, GA.
37. Huang, M. and R.G. Moreira. 1998. Use of hydrostatic pressure for safe and long last pork sausage. IFT International Meeting - Atlanta, GA.
38. Li, Y.B., R. Yamsaengsung, R.G. Moreira and J. Seyed-Yagoobi. 1998. Superheated impingement drying of foods. 6th Annual Drying Research Symposium. April/1998 - Department of Mechanical Engineering - TAMU.
39. Miranda-Lopez, R.; C. McDough, R.G. Moreira and L. Rooney. 1998. Corn tortilla staling changes evaluated by instrumental and sensory methods. AACC Annual Meeting. Sept-13-17. Minneapolis, MN.

40. Kawas, M.L. and R.G. Moreira. 1999. Oil absorption during frying and cooling: effect of raw material and operating conditions. IFT International Meeting - Chicago, IL.
41. Moreira, R.G. 1999. Impingement drying of foods. Symposium in "Advances in Drying Technology in the Food Industry. IFT International Meeting - Chicago, IL.
42. Tellez, A.M; M.E. Castell-Perez and R.G. Moreira. 1999. Peanut/soybean protein film: mechanical properties. IFT International Meeting - Chicago, IL.
43. Lio, C.C; M.E. Castell-Perez and R.G. Moreira. 1999. Peanut/soybean protein film: structure characterization. IFT International Meeting - Chicago, IL.
44. Murano, E., P. Murano, A. Brennan, S. Shenoy and R. G. Moreira. 1999. Application of high hydrostatic pressure to eliminate listeria from fresh pork sausage. IFT International Meeting - Chicago, IL.
45. Moreira, R.G. and M.L. Kawas. 1999. Physical properties of tortilla chips. CoFE/99. Dallas, TX.
46. Caixeta, A.; R.G. Moreira and J. Sayed-Jagoobi. 2000. Impingement drying of potato chips. IFT International Meeting - Dallas, TX.
47. Limanond, B.; M.E. Castell-Perez, and R.G. Moreira. 2000. Rheological changes during staling of corn tortillas. IFT International Meeting - Dallas, TX.
48. Moreira, R.G. and R. Yamsaengsung. 2001. Modeling the structural change during deep-fat frying of foods. III Iberoamerican Conference in Food Engineering - Valencia, Spain
49. Moreira, R.G. and R. Yamsaengsung. 2001. Modeling the structural change during deep-fat frying of foods. IFT International Meeting - New Orleans, LA
50. Braud, L., R.G. Moreira and M.E. Castell-Perez. 2001. Mathematical modeling of impingement drying of corn tortilla. IFT International Meeting - New Orleans, LA
51. Garayo, J. and R.G. Moreira. 2002. Vacuum frying of potato chips - IFT International Meeting - Anaheim, CA.
52. Brescia, G. and R.G. Moreira. 2002. Low Energy Electron Irradiation of an Apple - IFT International Meeting - Anaheim, CA.
53. Henry, J; A. Anand, R. Moreira, and T. Good. 2002. Nanoparticle based sensors for prion detection. Cell Culture Engineering Conference, Aspen, CO
54. Mallikarjunan, K.; R.G. Moreira, D.P. Wiesenborn, and L.A. Wilsom. 2003. Frying oil quality measured using various objective methods. ASAE Paper# 26063. St Joseph, MI.
55. Anand, A.; R.G. Moreira, T. Good, and G. Cote. 2003. Biosensor for prion detection. IFT International Meeting - Chicago, IL.
56. Moreira, R and C. Granda. 2003. The effect of frying operation conditions on acrylamide formation in potato chips. CoFE - S. Francisco, CA.
57. Moreira, R., J. Kim, and E. Castell-Perez. 2003. Dose distribution calculation in complex shaped irradiated food. CoFE - S. Francisco, CA.
58. Chowdhury, Anand, Henry, Moreira, Good, and Cote. 2003. The use of surface enhanced Raman spectroscopy (SERS) in a competitive affinity binding assay for detection of prions. IEEE-EMBS Conference . Cancun, Mexico.
59. Chowdhury, Anand, Henry, Moreira, Good and Coté. 2003. Implementation and optimization of a Surface Enhanced Raman Spectroscopy (SERS) based Competitive Affinity Binding Assay for the detection of Prions (PrP). Biomedical Engineering Society Meeting (BMES), Nashville, TN.

60. Kim, J., R. Moreira and E. Castell-Perez. 2004. Dose distribution calculation in irradiated fresh produces using Monte Carlo simulation of electron transport. IFT International Meeting - Las Vegas, NE.
61. Han, J., C.L. Gomes, P. Da Silva, E. Castell-Perez, and R. G. Moreira. 2004. Quality of packaged romaine lettuce hearts exposed to low-dose electron beam irradiation. IFT International Meeting - Las Vegas, NE.
62. Granda, C., R. Moreira, S. Tichy, and L. Dangott. 2004. The effect of operating conditions and potato varieties on the acrylamide formation in potato chips. FT International Meeting - Las Vegas, NE.
63. Granda, C., R. Moreira, S. Tichy, and C. Miller. 2004. A new approach to reduce the development of acrylamide in potato chips. Potato Association of America. Scottsbluff, NB. August 9, 2004
64. Granda, C, R.G. Moreira, and S.E. Tichy. 2005. Asparagine and Glucose Concentration on the Formation of Acrylamide in Potato Chips. IFT International Meeting, New Orleans, July 2005.
65. Han, J., Castell-Perez, M.E. and Moreira, R.G. 2005. Antimicrobial films as a technology to increase pathogen radiation sensitivity. IFT International Meeting, New Orleans, July 2005.
66. Kim J., Huang, Y., Moreira, R.G. and Castell-Perez, M.E.2005. 3-D dose distributions for optimum radiation treatment planning of complex foods. IFT International Meeting, New Orleans, July 2005.
67. Moreira, R.G. 2005. Dose distribution calculation in complex-shaped food products. IFT Symposium on Advances in Food Irradiation. IFT International Meeting, New Orleans, July 2005.
68. Moreno, M., C. Gomes-Feitosa, P. da Silva, E. Castell-Perez and R.G. Moreira. 2005. Effect of electron beam irradiation on quality of blueberries (*Vaccinium corymbosum* L.). IFT International Meeting, New Orleans, July 2005.
69. Moreno, M., C. Gomes-Feitosa, P. da Silva, E. Castell-Perez and R.G. Moreira. 2005. Quality of mangoes (*Mangifera indica*) exposed to electron beam irradiation. IFT International Meeting, New Orleans, July 2005.
70. Rivadeneira, R., Kim, J., Moreira, R.G. and Castell-Perez. 2005. A chemical dosimeter for optimization of electron beam irradiation of foods. IFT International Meeting, New Orleans, July 2005.
71. Rodriguez, O., M.E. Castell-Perez, ad R.G. Moreira. 2005. Effect of fruit maturity stage (sugar content) on efficacy of electron beam irradiation treatments. IFT International Meeting, New Orleans, July 2005.
72. Rodriguez, O., N. Ekpanyaskun, M.E. Castell-Perez, R.G. Moreira, and A. Castillo. 2005. Evaluation of surrogates for validation of electron beam irradiation treatments. IFT International Meeting, New Orleans, July 2005.
73. Huang, Y., J. Kim, R. Moreira, E. Castell-Perez. 3-D Geometric Modeling of Foods for Irradiation Simulation through Digital Image Processing. ASAE 2005.
74. Gomes, C., P. C. Da Silva,. Castell-Perez, M.E., and Moreira, R.G. 2006. Quality of irradiated chicken meat. IFT International Meeting, Orlando, Florida, June.
75. Han, J., Castell-Perez, M.E., and Moreira, R.G. 2006. The Influence of Electron Beam Irradiation on the Effectiveness of Antimicrobial Films. IFT International Meeting, Orlando, Florida, June.

76. Huang, Y., Kim, J., Moreira, R.G. and Castell-Perez, M.E. 2006. A Web-Based Integrated System for Simulation of Particle Transport in Foods. IFT International Meeting, Orlando, Florida, June
77. Kim, J., Huang, Y., Moreira, R.G. and Castell-Perez, M.E. 2006. Dose distributions in broccoli for accurate irradiation treatment planning. IFT International Meeting, Orlando, Florida, June.
78. Kim, J., Huang, Y., Moreira, R.G. and Castell-Perez, E. 2007. Validation of irradiation treatment of broccoli with a 10MeV electron beam accelerator. IFT International Meeting, Chicago, Illinois, July.
79. Kim, J., Huang, Y., Moreira, R.G. and Castell-Perez, E. 2007. Image-processing scheme to quantify color of irradiated fresh produce. IFT International Meeting, Chicago, Illinois, July.
80. Gomes, C., Silva, P., Castell-Perez, E. and Moreira, R.G. 2007. Quality of baby spinach (*Spinacia oleracea* L.) exposed to low-dose electron beam irradiation. IFT International Meeting, Chicago, Illinois, July.
81. Silva, P. and Moreira, R.G. 2007. Vacuum frying of high-quality fruit and vegetable-based snacks. IFT International Meeting, Chicago, Illinois, July.
82. Silva, P., Gomes, C., Chimbombi, E., Barros, F. Negi, S., Castell-Perez, E. and Moreira, R.G. 2007. Effects of low-dose electron beam irradiation and storage on quality of broccoli heads (*Brassica oleracea* L var *Italica*). IFT International Meeting, Chicago, Illinois, July.
83. Moreira, R.G. 2007. Food safety engineering. TX Section ASABE Technical Session – October 11, 2007. TX.
84. Gomes, C., Silva, P., Kim, J., Castell-Perez, E. Moreira, R. and Sanchez-Plata, M. 2008. Enhancing the killing effect of e-beam irradiation with radiosensitization strategies using modified atmosphere packaging (MAP). IFT International Meeting, New Orleans, Louisiana, July.
85. Da Silva, P. and Moreira, R.G. 2008. Vacuum frying of potato chips: The de-oiling effect. IFT International Meeting, New Orleans, Louisiana, July.
86. Kim, J., Moreira, R., Castell-Perez, E. and Huang, Y. 2008. Simulation of pathogen inactivation in cantaloupes (whole and fresh-cut) using electron beam treatment. IFT International Meeting, New Orleans, Louisiana, July.
87. Chimbombi, E., Castell-Perez, M.E., Moreira, R.G., Sanchez-Plata, M.X. 2009. Prediction of accumulation (growth and mobility) of *Salmonella typhimurium* in fresh cantaloupe (*Cucumis melo*, L). IFT International Meeting, Anaheim, CA, June.
88. Gomes, C., Da Silva, P., Castell-Perez, M.E., Moreira, R.G., Sanchez-Plata, M.X., 2009. Antimicrobial activity of food-grade compounds against *Salmonella* spp. and *Listeria* spp. IFT International Meeting, Anaheim, CA, June.
89. Gomes, C., Moreira, R.G., Castell-Perez, M.E. 2009. Does effectiveness of irradiation treatment depend on fresh produce variety? IFT International Meeting, Anaheim, CA, June.
90. Chimbombi, E., Castell-Perez, M.E., Moreira, R.G., Kim, J., Sanchez-Plata, M.X. 2009. Targeted elimination of *Salmonella typhimurium* in cantaloupe (*Cucumis melo*, L) using electron beam irradiation. IFT International Meeting, Anaheim, CA, June.
91. Kim, K.; R.G. Moreira, and M.E. Castell-Perez. 2009. Simulation of Irradiation Treatment of Romaine lettuce (*Lactuca sativa* L. var. *longifolia*). IFT International Meeting, Anaheim, CA, June.

92. Pandey, A. and Rosana Moreira. 2009. Vacuum frying process for potato chips – de-oiling and condenser design. IFT International Meeting, Anaheim, CA, June.
93. Nunes ,Y. and Rosana Moreira. 2009. A Suitable Process for Vacuum Frying of Mango Chips. IFT International Meeting, Anaheim, CA, June.
94. Castell-Perez, M.E., Chimbombi, E., Moreira, R.G. 2010. Optimizing electron beam irradiation schemes for inactivation of internalized *Salmonella typhimurium* LT2 in fresh-cut cantaloupe (*Cucumis melo* L.). IFT International Meeting, Chicago, IL, July.
95. Kim, Taehoon, Da Silva, P.; and , Moreira, R.. 2010. Oil reduction in potato chips by using a de-oiling system after frying. IFT International Meeting, Chicago, IL, July.
96. Moreira, R. and Pandey, A. 2010. Design and optimization of a batch vacuum fryer for potato chips. IFT International Meeting, Chicago, IL, July.
97. Kim, J.; Moreira, R.; and Castell-Perez, E. 2010. Optimizing irradiation treatment of shell eggs using simulation. IFT International Meeting, Chicago, IL, July.
98. Kim, J.; Moreira, R. and Braby, L. 2010. Simulation of gamma-ray irradiation of lettuce leaves in a ¹³⁷Cs irradiator using MCNP. Joint International Conference on Supercomputing in Nuclear Applications and Monte Carlo 2010 (SNA + MC2010). Hitotsubashi Memorial Hall, Tokyo, Japan, October 17-21, 2010
99. Martinon, M.; R.G. Moreira, E. Castell-Perez, and C. Gomes. 2011. Shelf-Life Extension of Fresh-Cut Cantaloupe (*Cucumis melo* L.). IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
100. Kim, J; A.F. Puerta-Gomez, R.G. Moreira, E. Castell-Perez, and G. A. Klutke. 2011. Dynamic growth model of *Salmonella Typhimurium* in baby spinach. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
101. Karagoz,I; R.G. Moreira, E. Castell-Perez. 2011. Reduction of Detrimental Effect of Irradiation on the Quality of Vacuum Packed Pecans. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
102. Kim, J.; A.F. Puerta-Gomez, R.G. Moreira, E. Castell-Perez, and G. A. Klutke. 2011. Development of a quantitative risk assessment model for *Salmonella Typhimurium* in fresh baby spinach. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
103. Gomes, C., Moreira, R.G., Castell-Perez, E. 2011. Microencapsulated antimicrobial compounds as a means to enhance electron beam irradiation treatment of fresh produce. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011
104. Brasil, I. , Gomes, C., Puerta-Gomez, A., Castell-Perez, M.E., Moreira, R.G. 2011. Freshness retention of minimally processed fruits using multilayered edible coating containing microencapsulated essential oil. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
105. Moreira, R.G. 2011. Understanding food irradiation: the case of fresh produce. Discussion Panel on Food losses: A food safety perspective. IFT (Institute of Food Technologists) Annual Meeting, New Orleans, LA, June 2011.
106. Kim, J., Moreira, R.G., Castell-Perez, M.E. and Braby, L. 2012. Optimizing phytosanitary irradiation treatment of mangoes using computer simulation. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
107. Puerta-Gomez, A.F., R.G. Moreira and Castell-Perez, M.E. 2012. Physical Characterization of Octenyl Succinate-Modified Biopolymers for Encapsulation Purposes. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.

108. Kim, J., Puerta-Gomez, A.F., R.G. Moreira, Castell-Perez, M.E. and Klutke, G.-A. 2012. Development of a quantitative risk assessment model for Salmonella Typhimurium in fresh baby spinach. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
109. Chimbombi, E., Moreira, R.G., Castell-Perez, M.E. and Puerta-Gomez, A.F.. 2012. Prediction of accumulation (growth and mobility) of Salmonella enterica serovar Typhimurium in fresh cut cantaloupe (*Cucumis melo* L.) IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
110. Puerta-Gomez, A.F., R.G. Moreira and Castell-Perez, M.E. 2012. Comparison of growth rates of *Escherichia Coli* spp. and Salmonella Typhimurium LT2 in baby spinach leaves (*Spinacea oleracea*) under slow cooling. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
111. Mantilla, N., Moreira, R.G., Gomes, C. and Castell-Perez, M.E. 2012. Development of an Alginate-based edible coating to extend the shelf life of fresh-cut pineapple (*Ananas comosus*). IFT (Intitute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
112. Sipahi, R.E., Castell-Perez, M.E., Moreira R.G., and Gomes. C. 2012. Alginate-based Edible Coating to Enhance Quality and Extend Shelf life of Fresh-Cut Watermelon (*Citrus Lanatus*). IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
113. Karagoz, I., Moreira, R.G. and Castell-Perez, M.E. 2012. Effect of modified atmosphere packaging conditions on pathogen radiosensitization to assure the safety and quality of irradiated pecans. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
114. Rivli, Y., Da Silva, P.F. and Moreira, R.G. 2012. Improving the vacuum frying process for high quality sweet potato chips. IFT (Institute of Food Technologists) Annual Meeting, Las Vegas, NA, June 2012.
115. Puerta-Gomez, A.F., Moreira, R.G. and Castell-Perez, E. 2013. Zero-Shear-Viscosity as a measure of hydrophobic interactions of associative biopolymers. IFT (Institute of Food Technologists) Annual Meeting, Chicago, IL, July 2013.
116. Omac, B., Puerta-Gomez, A.F., Moreira, R.G. and Castell-Perez, E. 2013. Growth Patterns of *Listeria Innocua* in Fresh Baby Spinach under the Presence of Different Levels of Natural Microbiota. IFT (Institute of Food Technologists) Annual Meeting, Chicago, IL, July 2013.
117. Sevimli, Z., Moreira, R.G., and Castell-perez, E. 2013. Extending Shelf Life of Sliced Mushrooms (*Agaricus bisporus*) by using Vacuum Impregnation and Electron-Beam Irradiation. International Nonthermal Food Processing Workshop. Florianopolis, Brazil Sept/30-Oct/02.
118. Castell-Perez, E., Moreira, R.G., and Karagoz, I. 2013. Effect of Irradiation Setup and Modified Atmosphere Packaging on Radiation D_{10} values for *Salmonella* Typhimurium LT2 and an *Escherichia coli* cocktail in pecan nuts (Kanza cultivar). International Nonthermal Food Processing Workshop. Florianopolis, Brazil Sept/30-Oct/02.
119. J. Kim, S. Kwon, R.G. Moreira, and E. Castell-Perez . 2013. Simulation of irradiation treatment of peaches (*Prunus persica* L. Batsch) at e-beam and gamma-rays from Husman irradiator. IFT (Institute of Food Technologists) Annual Meeting, Chicago, IL, July 2013.

120. Sevimli, Z. Moreira, R.G, and Castell-Perez, E. 2013. Extending Shelf Life of Sliced Mushrooms (*Agaricus bisporus*) by Vacuum Impregnation and Electron-beam Irradiation. IFT (Institute of Food Technologists) Annual Meeting, Chicago, IL, July 2013.

Invited Presentations and Lectures

1. Moreira, R.G. 1986. Grain drying automatic control. Agricultural University of Wageningen. Holland.
2. Moreira, R.G. 1991-1996. Continuous-flow grain dryer. Lecturer for BAEN 365 - unit Operations in Agricultural Engineering. Agricultural Engineering Department. TAMU.
3. Moreira, R.G. 1992. Modeling and control of food processing systems. Food Science Graduate Seminar. TAMU.
4. Moreira, R.G. 1993. Aeration of grain using natural and chilled air. International Symposium in Grain Conservation - Brazil - Sponsored by FAO.
5. Moreira, R.G. 1994. Deep-fat frying of tortilla chips: An Engineering Approach. International Symposium in Deep-fat Frying - IFT Annual Meeting - Atlanta, GA.
6. Moreira, R.G. 1994. Food rheology. Universidad de Guanajuato - Irapuato -Mexico - May/30-June/11.
7. Moreira, R.G. 1995. Deep-fat frying of tortilla chips. Universidad Simon Bolivar - Mexico City. Mexico.
8. Moreira, R.G. 1995. Food Engineering: Curriculum and Job Opportunities. Lecture for Sophomore Seminar. Agricultural Engineering Department. TAMU.
9. Moreira, R.G. and E. Castell-Perez. 1996. Rheology in product development and process design. Research Technology Transfer Symposium. Institute of Food Science and Engineering. TAMU, September.
10. Moreira, R.G. 1996. The mechanism of oil absorption during frying. Food Science Graduate Seminar. TAMU.
11. Moreira, R.G. 1996. Oil absorption during frying and processes to produce reduced- fat chips using impingement drying and frying - Corn Tech Seminar and Extrusion Workshop - Snack Food Association - Lincoln, NE - September 11.
12. Moreira, R.G. 1997. The mechanism of heat and mass transfer in frying - Rich-SeaPak Corp., - Seminar - St. Simon Island, GA.
13. Moreira, R.G. 1997. The process of making tortilla chips - Interview for Brazilian TV - Globo Television Network for the Program "Scientia" (science) - Shown to more than 20 million people in Brazil on the week of 3-8 of May/1997.
14. Moreira, R.G. 1997. The food engineering profession and the engineering aspects in the manufacturing of food products - Society of Women Engineering Summer Camp - TAMU - July 15, 1997.
15. Moreira, R.G. 1998. Deep-fat frying of food. Sixth Annual Meeting. Texas A&M University. Drying Research Center.
16. Moreira, R.G. 1998. The food engineering program at Texas A&M University. TEES Summer Program for 10th grades female students. Summer/99.
17. Moreira, R.G. 1998. What food engineers do. Summer Experience for Teachers - NSF Program. TEES. Texas A&M University.
18. Moreira, R.G. 1998. Deep-fat frying of foods. Ital - Institute Tecnologico de Alimentos - Campinas, Brazil - Aug/1998

19. Moreira, R.G. 1999. Properties of porous media. Seventh Annual Meeting. Texas A&M University. Drying Research Center. Texas A&M University
20. Moreira, R.G. 1999. The Agricultural and Food Engineering Program at Texas A&M University. TEES SEE (Summer Enrichment in Engineering) Program. Summer/99.
21. Moreira, R.G. 1999. What food engineers do. Summer Experience for Teachers - NSF Program. TEES. Texas A&M University.
22. Caixeta, A.; R.G. Moreira and J. Sayed-Jagoobi. 2000. Impingement drying of potato chips. Drying Research Center. Texas A&M University.
23. Braud, L.M*; M.E. Castell-Perez and R.G. Moreira. 2000. Mathematical modeling of impingement drying of corn tortillas. Drying Research Center. Texas A&M University.
24. Moreira, R.G. 2000. Model predictive control. Control Group at ENSIA - France
25. Moreira, R.G. 2000. Deep-fat frying of foods. Seminar at ENSIA - France
26. Moreira, R.G. 2000. Food engineering in the USA. Seminar at ENSIA - France
27. Moreira, R.G. 2000. Energy calculation in a twin-screw food extruder. Seminar at Frito-Lay R&D International. London, England. May 7, 2000.
28. Moreira, R.G. 2001. Modeling the structural changes in food during frying. Drying Research Center. Texas A&M University. April 12, 2001.
29. Moreira, R.G. 2001. Drying potato chips with superheated steam impingement drying. Drying Research Center. Texas A&M University. April 12, 2001.
30. Moreira, R.G. 2001. Modeling and control of food processing system. Texas Science Partnership. Food Science & Engineering - Texas A&M University April 10, 2001.
31. Moreira, R.G. 2002. Impingement drying of foods. International Symposium in Food processing with air impingement systems: Innovations and opportunities - IFT International Meeting - Anaheim, CA
32. Miller, R.K. and R.G. Moreira. 2002. Meat quality. International Symposium in Ultrasonic Sensors - IFT International Meeting - Anaheim, CA
33. Moreira, R.G. 2004. "Presented highlights of our research findings to high school food science and nutrition teachers at the Food Safety and Food Irradiation Family and Consumer Sciences High School Teacher Professional Development Workshop - Feb/03/04.
34. Moreira, R.G. 2004. "Determination of Dose Distribution in Complex Shaped Foods" Food Science Graduate Seminar Series - Feb/24/2004.
35. Moreira, R.G. 2004. 'Determination of Dose Distribution in Complex Shaped Foods in March 30-April 2, 2004. 1st International Food Irradiation Workshop on. Sponsored by the Institute of Food Science and Engineering, TAMU.
36. Moreira, R.G. 2005. "Radiation: Research Needs" - May 26, Washington D.C. Workshop on Emerging Food Processing Technologies. Sponsored by USDA - CSREES.
37. Moreira, R.G. 2005. 2005 Ethel Ashworth-Tsutsui Memorial Lecturer - Research in Food Engineering. BAEN/TAMU, November, 2005.
38. Moreira, R.G. 2007. "Reduction of Acrylamide in Potato Chips by Vacuum Frying". Acrylamide Workshop - Santiago, Chile April, 2007.
39. Moreira, R.G. 2007. "Research in Food Engineering" - Food Engineering Department - Chonchun, China - June, 2007.
40. Moreira, R.G. 2007. "Research in Food Engineering" - University of Jilin- Zhengzhou, China - June, 2007.

41. Moreira, R.G. 2007. "Research in Food Engineering" - Agriculture University, Beijing, China - June, 2007.
42. Moreira, R.G. and Castell-Perez, E. 2007. "Irradiation of Chickens" - Poultry 101 Workshop, Texas A&M University, August, 2007.
43. Moreira, R.G. 2007. "Food safety engineering". ASABE Texas Section Meeting - Kerrville, TX, October 12, 2007.
44. Moreira, R.G. 2008. "Understanding e-beam irradiation: the case of fresh produces". 10th International Food safety Conference - XXV National Meeting of Microbiology, Hygiene and Toxicology of Foods - Annual Meeting of the Mexican Association for Food Protection (AMEPA). November 6, 7 and 8, 2008 - Puerto Vallarta, Jalisco, México
45. Moreira, R.G. 2010. "Understanding e-beam irradiation: the case of fresh produces" – Department of Horticulture Graduate Seminar – March/25/2010.
46. Moreira, R.G. 2011. "Food quality issues with irradiation of fruits and vegetables. Second Research Coordination Meeting (RCM) of CRP D62008 on the Development of Generic Irradiation Doses for Quarantine Treatments - Texas A&M University, College Station USA: 11 – 15 April, 2011
47. Moreira, R.G. 2012. How to be successful in getting grants. ADVANCE Symposium – October -2012 – TAMU – TX.
48. Moreira, R.G. 2013. Irradiation of Fresh Fruits and Vegetables. International Nonthermal Food Processing Workshop. Florianopolis, Brazil Sept/30-Oct/02
49. Moreira, R.G. 2013. Fundamentals of Food Irradiation. International Nonthermal Food Processing Short Course Florianopolis, Brazil Sept/30.

Research Proposals

Funded Research/Projects

- Heavy oil e-beam thermal cracking. CONOCO. PI: Barrufet and Moreira. Funds: \$75,000 – Jan/2010-Aug/2011.
- Improving Safety of Texas Leafy Vegetables. Texas Department of Agriculture. PI: Moreira, co-PI: Castell and Klutke. Funds: \$228,000 – 2009-2012.
- Texas GAPs and GHPs Food Safety Training Curriculum. Texas Department of Agriculture. PI: Anciso. Funds: \$8,000. 2010.
- Refining of Heavy Oils through E-Beam Thermal Cracking. Crisman Institute. PI: Barrufet and Moreira. Funds: \$150,000 - 2007-2009.
- Research in food engineering. 2004- present. Frito-Lay Inc. - PI: Dr. Moreira. Funds: \$10,000/year.
- Low Dose Irradiation Effects on Quality and Shelf-Life of Selected Tropical Fruits - SureBean - 2003/04. PIs: Castell and Moreira - Funds \$25,000.
- Improving safety of complex food items using electron beam technology - USDA/ NIFSI - National Integrated Food Safety Initiative - 2002. PI: Moreira, co-PI: Castell-Perez, A. Vestal. Funds: \$1,061,739 - 2002-2007.
- A powerful new approach to improve electron beam treatment of complex food items. NRI/USDA - 2002 - PI: Moreira, Co-PI: Castell-Perez. Funds: 270,000 - 2002-2006.
- Research in food engineering. 2003-2008. Frito-Lay Inc.- PI: Dr. Moreira. Funds: \$100,000.
- Enrichment Experience in Engineering (E3) for Teachers Summer Research Program. - NSF - 2003 - PIs: Butler, Autenrieth, Price and Rinehart. Collaborators: Moreira, Castell-Perez, Klutke. Funds: \$447,961. 2003-2006.

- Development of cell and nanoparticle based sensors for BSE - FDA/NIH - 2001 - PI: Good Co-PI: Moreira. Funds: \$196,713. 2001-2003.
- Development of a nanosphere sensor for DNA detection of Salmonella in raw fresh poultry meat - 2001 - Institute of Food Science & Engineering - Center for Food Processing and Engineering - Moreira and Good. Funds: \$5,000.
- Beam delivery strategy for treatment of irregularly shaped products. Advanced Research Program, The Texas Higher Education Coordinating Board - 1999 - PI: Moreira. Funds: \$120,000. 1999-2001.
- Electron Beam - VanderGraaf Installation. 1999. TAES and TEES. Texas A&M University. PI: Moreira. Funds: 50,000.
- Laboratory Pasteurizer - Reserve Funds of the Agricultural Equipment Access Fee - 2001 - Castell-Perez and Moreira. Funds: \$23,681.
- Determination of masa properties as related to oil absorption during frying. 1999. Frito-Lay Inc.- PI: Dr. Moreira. Funds: \$13,500.
- TAES Faculty Research Development Program- Infrastructure Development. 1998. Castell, Moreira, Lacey and Osborn. \$25,000.
- Enhancing the Quality of Guar Gels for Oil Production - A Feasibility Study - 1997. Halliburton Energy Services - PI: Dr. Moreira, Co-PI: Dr. Sweat. Funds: \$70,571.
- Establishment of Existing Drying Research Center at Texas A&M as a Nationally Recognized Center. 1996. Strategic Initiative Proposal - TEES - TAMU - PI: Dr. Sayed-Yagoobi (ME), Co-PI: Dr. Moreira. Funds: \$20,000 - 1996-1998.
- Improved Oil Production using Economical Biopolymer Surfactant Blends for Profile Modification and Mobility Control. Department of Energy. 1996-1998. PI: Dr. Gusman, Praire View, TX. Total project cost: \$400,000 - Responsible for: \$50,000.
- Biopolymer Technology. 1996. Chemstar. PI: Dr. Barrufet (PETE), Co-PI: Dr. Moreira - \$10,000.
- Use of High Hydrostatic Pressure to Produce Safe and Long-Lasting Fresh Pork Sausage. 1996. PI: Dr. Elsa Murano (AnSc), Co-PI: Dr. Moreira - National Pork Producers Council. Total project cost: \$17,000.
- Elimination of E. coli O157:H7 by High Level Hydrostatic Pressure. Research and Enhancement Program. TAMU. 1996. PI: Dr. Moreira, Co-PI's: Elsa Murano, Peter Murano. Total project cost: \$20,000.
- Evaluation of Biopolymers to Reduce Water Production from Oil and Gas Wells. Interdisciplinary Research Initiatives. TAMU. 1995. PI: Dr. Barrufet (PETE), Co- PI: Dr. Moreira. Total project cost: \$25,000 . 1995-1997.
- Commercialization of a New Control Technology for a High Quality Food Extrusion System. Advanced Technology Development Program, The Texas Higher Education Coordinating Board. 1994. PI: Dr. Moreira; Co-PI: Dr. Nikolau (CHEN). Total project cost: \$318,297 - 1994-1996.
- Commercialization of a New Control Technology for a High Quality Food Extrusion System. Advanced Technology Development Program, The Texas Higher Education Coordinating Board. Supplement Grant for a Minority pursuing a graduate program in Engineering. 1994. PI: Dr. Moreira. Total project cost: \$24,000. 1994-1996.
- Development of the Bio-processing and Food Engineering Course. USDA Higher Education Challenge Grants Programs. 1994. \$5,000.
- Center for Teaching Excellence Award - 1993. TAMU - \$5,000.

- A New Control Technology for a High Quality Food Extruder. Advanced Technology Program, The Texas Higher Education Coordinating Board. 1992. PI: Dr. Whittaker. Total project cost: \$208,000. 1992-1994.

Patents

- Spadaro, M.V.; Keeton, J.; Moreira, R.G., Allen, D.H. 1999. Biomechanical Characterization of Meat Texture, U.S. No. 6,001,655.

International Activities

- Invited to give a 2-week lecture in Food Rheology to Graduate Students at the University of Guanajuato, Irapuato - Mexico - May/1994.
- Invited to give a Seminar at the University Simon Bolivar, Mexico City, Mexico - August/1995.
- Visited the Animal Science Department of the “Universidad Nacional Autonoma de Mexico” (UNAM), - August/1995.
- Visited and gave a seminar at the ITAL - Institute Tecnologico de Alimentos - Campinas, Brazil - August/1998.
- Faculty Development Leave at ENSIA - Ecole National Superieure des Industries Agricole et Alimentaires in Massy, France - Feb-Aug/2000.
- Guest Editor for the Journal of Food Engineering - Volume 4, No.4- September 2001.
- Initiated the MOA between TAMU and ENSIA - Ecole National Superieure des Industries Agricole et Alimentaires in Massy, France – 2001.
- Initiated the MOA between TAMU and King Mongkut's University of Technology Thonburi (KMUTT), Thailand - 2003 .
- Reviewer for the Argentina National Foundation - 1999 – present.
- Reviewer for the Chilean National Foundation - 2000 – present.
- Member of the selection Committee for the 2007 Texas A&M University Bush Excellence Award for faculty in International Research.
- Invited as a speaker for the Workshop in Acrylamide in Foods - in Santiago, Chile - April, 2007.
- Effect of Irradiation on Poultry Quality and Shelf-Life (in Spanish). Poultry 101 Workshop (sponsored by the Poultry Science department), Texas A&M University, August 22, 2007.
- Visited the University of Chile and discussed possible recruiting and areas of research interests - Santiago, Chile - April, 2007.
- Visited several universities in mainland China to discuss potential collaboration agreements and give presentation on research on Effect of Processing in Food Properties: Measurement and Prediction. July 6-17, 2007.
- Visited South Africa mango and other agricultural commodity plantations, Westfalia Technological Services. January 22-31, 2011
- Invited Speaker for the International Nonthermal Food Processing Workshop and Short Course. Florianopolis, Brazil Sept/30-Oct/02.

SERVICE

Professional Service

- External Assessor for a Professorial Position- Faculty of Engineering, University Putra Malaysia – review the Promotion Dossier of one of our faculty members – May/2013
- External reviewer - Promotion Dossier of one of our faculty members of Department of Food Science and Human Nutrition at the University of Illinois, Urbana/Champaign – September/2013
- Panelist member for review of the 2013 USDA/NIFA - Nanotechnology for Agriculture and Food Systems program – April/2013
- Web and newsletter Editor for the Food Engineering Division of the IFT – 2007-2011
- Core-Science (Food Engineering) Subpanel Chair – IFT – 2009-2010
- Chair - Food Engineering Division of IFT – 2007-2008
- Chair Elect - Food Engineering Division of IFT – 2006-2007
- Moderator of Technical Session – Advances in Food Engineering - 2007 IFT Annual Meeting - Chicago, IL
- Appointed by the Governor of Texas - Bill Perry - member of the Texas Radiation Advisory Board - 2006 - present
- Secretary - Food Engineering Division of IFT – 2005-2006
- Co-Editor of the Journal of Food Process Engineering, Willey - 2005-present
- Member-at-large of the Food Engineering Division of IFT - 2004-2006
- Chair of the NC-1023 Committee - 2002
- Vice-Chair of the NC-1023 Committee - 2001
- Secretary of the NC-1023 Committee - 2000
- Moderator of the Food Process Engineering Session - IFT Meeting/2002
- Guest Editor for the Journal of Food Engineering - Volume 4, No.4- September 2001
- Moderator of Technical Sessions: Food Processing Engineering (Lecture and Poster) - 2002 IFT Annual Meeting - Anaheim, California
- Editor-in-Chief - CIGR ejournal - March/1999 - 2004
- Moderator of Technical Sessions: Food Processing Engineering (Lecture and Poster) - 1997 ASAE Annual Meeting - Minneapolis, Minnesota
- Moderator of the Technical Session: Mass Transfer - 1997 - IFT Annual Meeting - Orlando, Florida
- Member of the Food Engineering Division of IFT - 1997
- ASAE/IFT Alliance Committee (1996)
- Moderator of the Technical Session: Extrusion/Rheology - 1995 IFT Annual Meeting - Anaheim, California
- Vice-Chair of the FPE-703 Food Processing Committee of ASAE (1992-94)
- Chair of the FPE-703 Food Processing Committee of ASAE (1994-96)

University Service

- Difficult Dialog Training Workshop – March/2013
- Mediation Training Workshop – Jan/2013
- Assistant to the provost – Advance Administration Scholar – Feb/2012-present
- Member of the ADVANCE Scholar Team –Diversity Department - TAMU – 2011-present
- Member of the ADVANCE Recognition Committee, 2011 - present
- Shared Services Committee, 2010 - 2012

- Graduate Coordinator - Department of Biological & Agricultural Engineering, 2002 – present
- University Grievance Committee (UGC) Member, 2009-2010
- Graduate Program Council (GPC) Member, 2002-2012
- Graduate Instructional Committee (GIC) Member, 2002 - 2012
- STEW - Summer Transfer Engineering Workshop, 2009 - present
- Promotion and Tenure Committee Member – COALS, 2008-2009
- Engineering Faculty Advisory Council Member, EFAC, 2006-2009
- In charge of the Graduate Program Review - self study report for the BAEN department - 2007
- Committee Member - Presidential Search Advisory Committee –T AMU, 2007
- Director of the Center of Food Processing and Engineering – TAMU, 2004-2005
- Council of Principal Investigators, 2005-2008
- Faculty Senate - Texas A&M University, 2002 – 2008
- Member of the Women in Engineering Faculty Interest group (WEFIG) – 2007 – present.
- Member of University Standing Committees - 'Committee on Committees'; "Personnel and Wafare Committee"; Subcommittee on the "Status of Women in the University" – 2002-2005
- Member of the "Committee on Academic Freedom, Responsibility, and Tenure" (CAFRT) – 2003-2005
- ESP (Engineering Scholar Program) Coordinator – 2003-2006
- Committee Member - TAMU VPSA (Vice President for Student Affairs) – 2003
- Texas A&M representative of the NC-1023 Thermal Processing of Foods Committee- (1994-present)
- Member of the Food Science Graduate Faculty - TAMU (1994-present)
- Member of the Implementation Team for the Food and Nutrition Sciences Department - Texas A&M University- 2002
- Member of the Food and Nutrition Sciences Faculty Executive Committees - Texas A&M University- 2002
- Chair of the Search Committee for the Assistant/Associate Professor in Biological Systems Engineering - 2002.
- Member of the BAEN Undergraduate committee (2000 - 2005)
- Member of the Center of Food Processing and Engineering- Institute of Food Science and Engineering - TAMU – (1995-2005)
- Member of the Center of Food Safety - Institute of Food Science and Engineering - TAMU – (1995-2005)
- BAEN Coordinator for the Engineering Scholar Program -TAMU- (1994-2003)
- Member of the Drying Research Center - Mechanical Engineering Department – (1994-2003)
- Chair of the BAEN Food engineering committee (1997 - 2000)
- Texas A&M student mentor (1992-2000)
- Chair of the BAEN Recruiting committee (1995 - 1999)
- Member of the BAEN Graduate committee (1995-1998)
- Member of the BAEN Food engineering committee (1994 - 1997)
- Member of the Search Committee for selecting the Director of Research Foundation- (May-June/94)
- Secretary of the Phi Tau Sigma Honor Society - (1996-1997)
- Faculty Advisor of the Panamanian Student Association (1992-1995)
- Faculty Advisor of the Society of Hispanic Engineering Professionals - TAMU – (1997-2000)

- Faculty Judge on best display on the International Student week (1993)

Consulting & Industrial Work

- The International Food Network – Deep-fat frying - 2010
- Chiquita Banana – Division of fresh produce – Irradiation technology - 2009
- Frito-Lay - USA - Vacuum frying of fruits and vegetable - 2005-2006
- The Schwann Food Company - Consulting in deep-fat frying process - 2006
- Frito-Lay - USA - Energy calculation in a twin-screw food extruder. Seminar at Frito-Lay R&D International. London - May/2000
- Elma Chips - PepsiCo of Brazil - RVA Analysis of corn meal - Oct/1999
- Elma Chips - PepsiCo of Brazil - RVA Analysis of corn meal - Sep/1998
- Rich-SeaPak Corp., St. Simons Island, GA - Deep fat frying - 1997
- MRV, Austin, TX - Dehydration of hibiscus for tea production - 1993
- FAO consultant - Grain Drying and Storage - Brazil - 17-23 of October - 1993
- Frito-Lay, Inc., Irving, TX - Automation of food extrusion processes - 1991
- Kellogg, Co., Battle Creek, MI - Translation of operation manuals of corn mill processes - 1989

Society Membership

- American Society of Agricultural Engineers (ASAE) - 1987-present
- Institute of Food Technologists (IFT) - 1987-present
- American Association of Cereal Chemists (AACC) - 1992-1997
- Gamma Sigma Delta Agriculture Honor Society
- Phi Tau Sigma Secretary -1995-1996
- Alpha Epsilon Agricultural Engineering Honor Society
- Phi Beta Delta International Scholars Honor Society

Honors, Awards, Scholarships, Recognitions

- TAMU SEC-ALDP Fellow - 2013-14 - SEC Academic Leadership Development Program (ALDP)
- Dean's Outstanding Achievement Awards – Service Award – College of Agriculture and Life science - 2013
- IFT Fellow - 2013
- William Keeler Fellow – Faculty Fellow - Dwight Look College of Engineering – 2013
- Advance Administrative Fellow – 2012-2013
- Charles Crawford Distinguished Service – Dwight Look College of Engineering -2011
- Hans Merensky Fellow for food irradiation, 2011 – Hans Merensky Foundation – South Africa
- IFT Outstanding FE Division Volunteer – 2010
- BAEN – Excellence in Service Award - 2010
- COALS Faculty Fellow - 2006
- Dwight Look College of Engineering Fellow - 2006
- Nominated for the IFT Nicolas Appert Award – 2006
- Merit Award for the work done for CIGR ejournal as editor- in-chief - 2006
- Journal of Food Science Award: Most cited JFS paper - 2006

- Member at Large - IFT - 2002-2004 from 2004 to 2007
- 2005 Ethel Ashworth-Tsutsui Memorial Lecturer
- Center for Teaching Excellence Award -1993-1994 -TAMU
- Fellowship Award from the “Thoman Fellowship Program” - MSU- 1986
- Scholarship Award from Brazilian Government - 1982-1986
- Scholarship Award from Brazil-Venezuela Educational Agreement - 1981

LANGUAGES

- Portuguese, and Spanish – fluent
- French and Italian - fair.