

M. Elena Castell-Perez

EDUCATION:

1980 - *BS in Food Engineering*. Department of Food Engineering, Campinas State University, Campinas, Brazil.

1984 - *MS in Agricultural Engineering*. Department of Agricultural Engineering, Michigan State University, East Lansing, MI.

1990 - *Ph.D. in Agricultural Engineering*. Department of Agricultural Engineering, Michigan State University, East Lansing, MI.

1986. Master of Arts in Spanish literature. Department of Romance and Classical Languages. Michigan State University, East Lansing, MI.

1990. A.B.D. in Spanish Literature. Option: Contemporary Latin American Theater. Department of Romance and Classical Languages. Michigan State University, East Lansing, MI.

Professional Engineer 84533, Texas – 1999.

EXPERIENCE:

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

Department of Agricultural Engineering – *Professor* – September 2005-present.
Associate Professor - September 2000- present. *Assistant Professor*, June 1996-August 2000.

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

Center for Food Processing and Engineering – *Director (1998-2004)*. Responsible for providing support for excellence in research and education in critical areas of food manufacturing technology by encouraging interaction within scientists and the food manufacturing community; increase membership of TAMU faculty in Center; supervise interdisciplinary projects linked to the Center; and work with the Institute of Food Science and Engineering’s Director to represent and promote the Center activities nationwide.

Alabama A&M University, Normal, AL 35762

Department of Food Science and Animal Industries - *Assistant Professor of Food Engineering*, May 1991-June 1996.

Michigan State University, East Lansing, MI 48824

Department of Agricultural Engineering - *Visiting Specialist*, 1990-91.
Teaching/Research Assistant, 1986-1989.

FUNDED RESEARCH PROJECTS:

1. *Improving safety of leafy vegetables. Phase 2.* 2010-2011. Texas Specialty Crop Block program. Texas Department of Agriculture. Co-PI. Funds: \$80,000.00. PI: R.G. Moreira (BAEN). Co-PIs: G.-A. Klutke (IEEN) and J. Anciso (HORT). Time: 15%.
2. *Extended Shelf Life Shell Eggs.* 2010-2011. CORANET. Co-PIs: H-J Sue (MEEN, C. Ruiz-Feria (POSC). Funds: \$ 180,000 for year 1. Total funded: \$300,000. Time: 20%.
3. *Improving safety of leafy vegetables. Phase 1.* 2009-2010. Texas Specialty Crop Block program. Texas Department of Agriculture. Co-PI. Funds: \$78,439.00. PI: R.G. Moreira (BAEN). Co-PIs: G.-A. Klutke (IEEN) and J. Anciso (HORT). Time: 15%.
3. *Study of the Use of Oxygen-Absorbing Packaging Material to Prolong Shelf Life of Rations. Phase III -* 2009-2010. CORANET. Co-PI. PI: H-J. Sue (MEEN). Funds: \$ 187,344. Responsible for \$187,344 Time: 20%.
4. *A Rheometer for Characterization of Food and Other Materials.* USDA-NRI Equipment Grant. Funds: \$18,000. October 2007. PI. Responsible for \$18,000.
5. *Study of the Use of Oxygen-Absorbing Packaging Material to Prolong Shelf Life of Rations. Phase II -* 2007-2008. CORANET. Co-PI. PI: H-J. Sue (MEEN). Funds: \$ 112,000. Responsible for \$112,000. Time: 20%.
6. *Study of the Use of Oxygen-Absorbing Packaging Material to Prolong Shelf Life of Rations. Phase I -* 2006-2007. CORANET program. Co-PIs: H.J. Sue (Mechanical Engineering) and E. Castell-Perez, Biological and Agricultural Engineering. 1/2006-12/2007. Funds: \$306,000.
7. *2. Low Dose Irradiation Effects on Quality and Shelf Life of Selected Tropical Fruits –* National Center for Electron Beam Research Grant - 2003/04. PI. CO-PI: R. Moreira - Funds \$25,000.00.
8. *Improving Safety of Complex Food Items using Electron Beam Technology -* USDA/NIFSI - National Integrated Food Safety Initiative - 2002. CO-PI. PI: R. Moreira, CO-PI: A. Vestal. Funds: \$1,061,739 for 4 years.
9. *A Powerful New Approach to improve Electron Beam Treatment of Complex Food Items.* NRI/USDA - 2002 – CO-PI. PI: Moreira. Funds: 270,000 for 3 years.
10. *Beam Delivery Configuration for Treatment of Irregularly Shaped Targets.* 1999 -2001 Texas Advanced Research Program (ARP). \$120,000. CO-PI. PI: R. Moreira, Agricultural Engineering, and Dr. Braby, Nuclear Engineering.

11. *Evaluation of High Barrier Non-Foil Films for MRE Packaging Applications*. US Army Natick RD&E Center. \$ 499,115.71 (1997-2001). Co-Principal Investigator.
12. *Understanding Changes in Food Rheology and Structure due to Microwave Heating: An Engineering Approach*. USDA CSRS. \$ 167,300 (1994-1996). Principal Investigator.
13. *Understanding and Modifying Rheology of Dough due to Storage and Composition*. USDA National Research Initiative Competitive Grants Program (Seed Grant). \$ 50,000 (1994-1996). Principal Investigator.

SOCIETY MEMBERSHIP AND AWARDS:

- a. American Society of Agricultural Engineers (ASAE) - 1987- present
- b. Institute of Food Technologists (IFT) - since 1985. Professional Member since 1992
- c. The Society of Rheology - 1992 - present
- d. American Association of University Women (AAUW) - 1996 - present
- e. Society of Women Engineers (SWE) - 1998 - present
- f. Alpha Epsilon Agricultural Engineering Society
- g. Phi Beta Delta International Scholar Honor Society
- h. Phi Tau Sigma Food Science Honorary Society
- i. 1995 Outstanding Teacher Award, Alabama A&M University's School of
- j. Agricultural and Environmental Sciences
- k. 1996 Nominee for Outstanding Research Award, Alabama A&M University's
- l. School of Agricultural and Environmental Sciences
- m. Wakonse Fellow - 1998
- n. Nominated for the ASAE Board of Trustees - Fall 1998
- o. Nominated for the Center for Teaching Excellence Montague Scholar Award – Fall 1999.
- p. Nominated for the COALS Teaching Award – Spring 2006. Texas A&M.
- q. 2010 Agricultural and Biological Engineering Department Award for Teaching Excellence
- r. Co-editor, *Journal of Food Process Engineering*, Wiley Periodicals
<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291745-4530>

GRADUATE STUDENTS: 25 MS, 14 PhD

POST-DOCTORAL FELLOWS: 3 (Taiwan, Novi-sad, Brazil)

Publications List

M.E. Castell-Perez

1. Fang, A., Castell-Perez, E, Puerta-Gomez, A, Zhou, S. and Sowers, J. 2010. Lapping of Polycrystalline Diamond Compact (PDC). *Advanced Materials Research Vols. 126-128 (2010) pp 469-474.*
2. Gomes, C., Moreira, R.G., Castell-Perez, M.E. 2010. Radiosensitization of Salmonella spp. and Listeria spp. in ready-to-eat baby spinach leaves. *Journal of Food Science.* Accepted proof.
3. Gomes, C., Moreira, R.G., Castell-Perez, M.E. 2010. Poly (DL-lactide-co-glycolide) (PLGA) nanoparticles with entrapped trans-cinnamaldehyde and eugenol for antimicrobial delivery applications. *Journal of Food science.* Accepted proof.
4. Chimbombi, E., Kim, J., Moreira, R.G., Castell-Perez, M. E. 2010. Prediction of targeted Salmonella enterica serovar Typhimurium inactivation in fresh-cut cantaloupe (Cucumis melo L.) using electron beam irradiation..*Journal of Food Engineering.* Accepted Nov. 2010.
5. Kim, J., Moreira, R.G., Castell-Perez, M.E. 2010. Optimizing irradiation treatment of shell eggs using simulation. *Journal of Food Science.* Available online.
6. Kim, J., Moreira, R.G., Castell-Perez, M.E. 2010. Simulation of pathogen inactivation in whole and fresh-cut cantaloupe (Cucumis melo) using electron beam treatment. *Journal of Food Engineering*,97(3), 425-433.
7. Carmen Gomes, Paulo Da Silva, Rosana G. Moreira, Elena Castell-Perez, E. Ann Ellis, Michael Pendleton. 2009. Understanding *E. coli* internalization in lettuce leaves for optimization of irradiation treatment. *International Journal of Food Microbiology* ,135 238–247.
8. Carmen Gomes, M. Elena Castell-Perez, Ezekiel Chimbombi, Dazhi Sun, Jia (Daniel) Liu, Hung-Jue Sue, Peter Sherman, Patrick Dunne, and Alan O. Wright. 2009. Effect of Oxygen Absorbing Packaging on the Shelf life of a Liquid-based Component of Military Operational Rations. *Journal of Food Science* 74(4), E167-E176.
9. Gomes, C., Da Silva, P., Chimbombi, E., Kim, J., Castell-Perez, M. E., and Moreira, R. G. 2008. Electron-Beam Irradiation of Fresh Broccoli Heads (*Brassica oleracea* L. *Italica*). *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology*, 41 1828–1833.

10. KIM, J., Moreira, R.G. and Castell-Perez, M.E. 2008. Validation of Irradiation of Broccoli with a 10 MeV electron beam accelerator. *Journal of Food Engineering* 86(4), 595-603.
11. Moreno, M.A., Castell-Perez, M.E., Gomes, C., Da Silva, P.F., Kim, J. and Moreira, R.G. 2008. Treatment of cultivated highbush blueberries (*Vaccinium corymbosum L.*) with electron beam irradiation: Dosimetry and product quality. *Journal of Food Process Engineering* 31, 155-172.
12. Gomes, C., Moreira, R.G., Castell-Perez, M.E., Kim, J., Da Silva, P., and Castillo, A. 2007. E-Beam Irradiation of Bagged Ready-to-Eat Spinach Leaves (*Spinacea oleracea*): An Engineering Approach. *Journal of Food Science* 73(2) E95-E102.
13. J. Han, M. E. Castell-Perez and R. G. Moreira. 2007. Effect of Food Characteristics, Storage Conditions, and Electron Beam Irradiation on Active Agent Release from Polyamide-Coated LDPE Films. *Journal of Food Science*. 73(2) E37-E42.
14. Huang, Y., Kim, J., Moreira, R.G. and Castell-Perez, M.E. 2008. A web-based information system for MNCP simulation of irradiation of complex-shaped foods. *Applied Engineering in Agriculture*. 24(2): 233-242.
15. Kim, J., Moreira, R. Huang, Y., and Castell-Perez, M.E. 2007. A 3-D Dosimeter for Complex-Shaped Foods using Electron-Beam Irradiation. *Transactions of the ASABE* 50(5): 1751-1758.
16. 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, 1223-1234.
17. Moreno, M., Castell-Perez, M.E., Gomes, C., Da Silva, P., J. Kim*, and Moreira, R.G. 2007. Optimizing electron beam irradiation of “Tommy Atkins” mangoes (*mangifera indica L.*). *Journal of Food Processing Engineering* 30(4), 436-457.
18. Moreno, M.A., 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). *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology* 40, 1123-1132.

19. J. Kim, R.G. Moreira, Y. Huang, M.E. Castell-Perez. 2007. 3-D dose distributions for optimum radiation treatment planning of complex foods. *Journal of Food Engineering*, 79(1), 312-321.
20. J. Han, 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. *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology* 40(9)1545-1554 (Accepted, Nov. 2006).
21. Rodriguez, O., Castell-Perez, M.E. and Moreira, R.G. 2007. Effect of sugar content and storage temperature on the survival and recovery of irradiated Escherichia coli K-12 MG1655. *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology* 40(4) 690-696 (Accepted February 2006).
22. C. Gomes, P. F. Da Silva, M. E.Castell-Perez, and R. G. Moreira. 2006. Quality and Microbial Population of Cornish Game Hen Carcasses as Affected by Electron Beam Irradiation. *Journal of Food Science*, 71(7), E327-336.
23. Kim, J., Moreira, R.G., Rivadeneira, R. and Castell-Perez, M.E. 2006. Monte Carlo-based Food Irradiation Simulator. *Journal of Food Process Engineering*, 29(1), 72-88. The top 20 most popular articles based on number of full text downloads from 2005-2007.
24. J. Han, 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. *Journal of Food Science*, 71(5), E245-E251.
25. O. Rodriguez, M. E. Castell-Perez, N. Ekpanyaskun, R. G. Moreira and A. Castillo. 2006. Surrogates for Validation of Electron Beam Irradiation of Foods. *International Journal of Food Microbiology*, 110(2), 117-122.
26. 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 Microstructural Properties of Tommy Atkins Mangoes (*Mangifera indica* L.). *Journal of Food Science* 71(2), E8.
27. Kim, J., Moreira, R. Huang, Y., and Castell-Perez, M.E. 2006. 3-D dose distributions for optimum radiation treatment planning of complex foods. *Journal of Food Engineering*, 34(3), 359-369. Top 25 – Hottest Articles – April-June/2006: #1 among all journals in Agriculture and Biological Sciences – Elsevier (326 journals).

28. Kim, J., Rivadeneira, R., 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* 74(3), 359-369.
29. Granda, C., R. G. Moreira, and E. Castell-Perez. 2005. Effect of raw potato composition on acrylamide formation in potato chips. *Journal of Food Science* (9): E519-525.
30. Liu, C.C., Tellez, M.A and Castell-Perez, M.E. 2004. Physical and Mechanical Properties of Peanut Protein Films. *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology* 37(7): 731-738.
31. Castell-Perez, M.E., Moreno, M., Rodriguez, O. and Moreira, R.G. 2004. Electron Beam Irradiation Treatment of Cantaloupes: Effect on Product Quality. *Food Science and Technology International* 10(6): 383-390.
32. Han, J. C. L. Gomes-Feitosa, E. Castell-Perez, R. G. Moreira and P. Silva. 2004. Quality of Packaged Romaine Lettuce Hearts Exposed to Low-dose Electron Beam Irradiation. *Lebensmittel-Wissenschaft und-Technologie/Food Science and Technology*. 37(7): 705-715
33. Brescia, G., Moreira, R.G., L. Braby and Castell-Perez, M.E. 2003. Monte Carlo simulation and dose distribution of low energy electron irradiation of an apple. *Journal of Food Engineering* 60(1): 31-39.
34. Limanond, B., Castell-Perez, M.E. and Moreira, R.G. 2002. Modeling Staling of Corn Tortilla. *Journal of Food Engineering*. 53(3): 237-247.
35. Limanond, B., Castell-Perez, M.E. and Moreira, R.G. 2002. Quantifying Texture Changes in Corn Tortillas due to Staling. *Journal of Texture Studies*, 33 (1): 35-45.
36. Caixeta, A., Moreira, R.G. and Castell-Perez, M.E. 2002. Impingement Drying of Potato Chips. *Journal of Food Process Engineering*. 25(1): 63-83.
37. Braud, L.M., Moreira, R.G. and Castell-Perez, M.E. 2001. Mathematical Modeling of Impingement Drying of Tortillas. *Journal of Food Engineering*. 50(3): 121-128.
38. Braud, L.M., Castell-Perez, M.E., and Matlock, M. 2000. Risk-Based Design of Aseptic Processing of Heterogeneous Food Products. *Society for Risk Analysis Journal*, 20(4): 405-412.
39. Singh, S.K., Castell-Perez, M.E. and Moreira, R.G. 2000. Viscosity and Textural Attributes of Reduced-Fat Peanut Pastes. *Journal of Food Science*, 65(5): 849-853.

40. Mangold, A.K., Flores, R. and Castell-Perez, M.E. 1999. Use of a Spiral Adapter in the Characterization of Commercial Cream Cheeses. *Applied Engineering in Agriculture Journal* 15(5): 539-542
41. 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. *Food Science & Technology, Lebensmittel-Wissenschaft und-Technologie* 32: 344-348.
42. Guo, Z., Castell-Perez, M.E. and Moreira, R.G. 1999. Texture of masa and low-moisture corn tortilla using stress relaxation methods. *Journal of Texture Studies* 30(2): 197-215.
43. Lo, T.E., Moreira, R.G. and Castell-Perez, M.E. 1999. Rheological properties of corn meal dough. *Food Science and Technology International* 5(1): 61-68.
44. Griffith, L.D. and Castell-Perez, M.E. 1999. Maximizing energy density in weaning foods used by developing countries. *J. American Diet. Assoc.* 9 (Suppl): A-29.
45. Griffith, L. and Castell-Perez, M.E. 1998. Effect of roasting and malting on physicochemical properties of select cereals and legumes. *Cereal Chemistry* 75(6): 780-784.
46. Griffith, L., Castell-Perez, M.E. and Griffith, M.E. 1998. The impact of blend vs. processing method on the nutritional quality of weaning foods made from select cereals and legumes. *Cereal Chemistry* 75(1): 105-112.
47. Lo, T.E., Moreira, R.G. and Castell-Perez, M.E. 1998. Modeling product quality during twin-screw food extrusion. *Transactions of the ASAE* 41(6): 1729-1738.
48. Lo, T.E., Moreira, R.G. and Castell-Perez, M.E. 1998. Effect of operating conditions on melt rheological characteristics during twin-screw food extrusion. *Transactions of the ASAE* 41(6): 1721-1728.
49. Pan, B. and Castell-Perez, M.E. 1997. Textural and viscoelastic characteristics of canned biscuit dough during microwave and conventional baking. *Journal of Food Process Engineering* 20: 383-399.
50. Viquez, O.M., Castell-Perez, M.E. and Shelby, R. 1996. Occurrence of fumonisin B₁ in maize grown in Costa Rica. *J. Agr. Food Chem.* 44(9): 2789-2791.
51. Castell-Perez, M.E. and Mishra, A. 1995. Flow behavior of regular and peanut-fortified idli batters. *J. Texture Studies* 26(3): 273-279.
52. Moreira, R.G., Lo, T.E. and Castell-Perez, M.E. 1995. Rheological changes in cooked corn meal dough due to differences in moisture content using squeezing flow viscometry. *Food Sci. Tech. Int.* 1: 41-45.

53. Viquez, O.M., Castell-Perez, M.E., Shelby, R.A. and Brown, G. 1994. Aflatoxin contamination in corn samples due to environmental conditions, aflatoxin-producing strains, and nutrients in grain grown in Costa Rica. *J. Agr. Food Chem.* 42(11): 2551-2555.
54. Moreira, R.G., Gomez, M.H., Rooney, L.W. and Castell-Perez, M.E. 1994. Diffusion rates and dry matter loss of corn during alkaline-steeping. *Sp. J. Food Sci. Techn.* 34(1): 65-76.
55. Castell-Perez, M.E., Moreira, R.G. and Steffe, J.F. 1993. A simplified procedure to determine power-law flow curves: The flag viscometer. *Sp. J. Food Sci. Techn.* 33(5): 529-547.
56. Castell-Perez, M.E., Steffe, J.F. and Moreira, R.G. 1991. Simple determination of power law flow curves using a paddle type mixer viscometer. *J. Texture Studies* 22(3): 303-316.
57. Castell-Perez, M.E. and Steffe, J.F. 1990. Evaluating shear rates for power-law fluids using mixer viscometry. *J. Texture Studies* 21(4): 439-453.
58. Castell-Perez, M.E., Heldman, D.R. and Steffe, J.F. 1989. Computer simulation of microbial growth during freezing and frozen storage. *J. Food Proc. Engng.* 10: 249-268.
59. Steffe, J.F., Castell-Perez, M.E., Rose, K. and Zabik, M.E. 1989. Rapid testing method for characterizing the rheological behavior of gelatinizing corn starch slurries. *Cereal Chemistry* 66: 65-68.
60. Moreira, R.G., Castell-Perez, M.E. and Bakker-Arkema, F.W. 1988. Desecacion de almendras a altas temperaturas (Dehydration of almonds at high temperatures). *Rev. Agroquim. Tecnol. Alim.* 28(4): 509-518.
61. Castell-Perez, M.E., Steffe, J.F. and Morgan, R.G. 1987. Adaptation of a Brookfield HBTD viscometer for mixer viscometry studies. *J. Texture Studies* 18: 359-365.

Book Chapters

1. Castell-Perez, M.E. and Moreira, R.G. 2010. Radiation Inactivation of Pathogens. In *Encyclopedia of Agricultural and Food Engineering* (EAFE). Marcel Dekker. Editor: Dennis R. Heldman. Forthcoming.
2. Castell-Perez, M.E. and Moreira, R.G. 2004. Decontamination Strategies. Chapter 25 In R.C. Beir, S.D. Pillai, T.D. Phillips, R.L. Ziprin (Eds.), *Preharvest and Postharvest Food*

Safety: Contemporary Issues and Future Directions. Iowa State Press: A Blackwell Publishing Company, Ames, IA, 337-347.

3. Castell-Perez, M.E. 2004. Friction. In *Encyclopedia of Agricultural and Food Engineering* (EAFE). Updated Version. Marcel Dekker. Editor: Dennis R. Heldman.
4. Castell-Perez, M.E. 2003. Non-Newtonian Models. *ENCYCLOPEDIA OF AGRICULTURAL AND FOOD ENGINEERING* (EAFE). Food Engineering - Rheology of Foods Chapter. Marcel Dekker. Editor: Dennis R. Heldman.
5. Ibarz, A., Castell-Perez, M.E. and Barbosa-Canovas, G. 2002. Newtonian and Non-Newtonian Flow. Article 5.10.3.3. In *Food Rheology and Texture*. Encyclopedia of Life Support Systems (EOLSS), 5.10 Food Engineering Theme. (Barbosa-Cánovas, G., Ed.). Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford UK, [<http://www.eolss.net>], 9 pages.
6. Castell-Perez, M.E. 2002. Fluids and Semi-Fluid Foods. Article 5.10.3.3. In *Food Rheology and Texture*. Encyclopedia of Life Support Systems (EOLSS), 5.10 Food Engineering Theme. (Barbosa-Cánovas, G., ed.).
7. Castell-Perez, M.E. and Steffe, J.F. 1992. Viscoelastic Properties of Dough. Chapter 3 In *Viscoelastic Properties of Foods* (Rao, M.A. and Steffe, J.F., eds.), Elsevier Applied Science Publishers, Barking, England.
8. Castell-Perez, M.E. and Steffe, J.F. 1992. Using Mixing to Evaluate Rheological Properties. Chapter 10 In *Viscoelastic Properties of Foods* (Rao, M.A. and Steffe, J.F., eds.), Elsevier Applied Science Publishers, Barking, England.

Popular Press Articles

Written by co-author or me:

1. Castell-Perez, M.E. and Moreira, R.G. 2011. An Engineering Approach to Ensuring the safety of Fresh and Fresh-cut Fruits and Vegetables. Food Safety Magazine.
2. Castell-Perez, M.E. 1996. Consider a consumer-driven career in food engineering. *Careers and the Engineer* 8(2): 75.

About my research:

1. AgriLife Researchers find way to cut food-irradiation levels by half. 2010. agnews.tamu.edu.
2. Irradiating Confidence: Improving Food Quality. 2009 issue of the Texas A&M Engineer magazine. Texas A&M University. <http://engineering.tamu.edu/magazine/>

3. Goodbye, “Sell By”: Better Packaging for fresher, safer produce. 2009 issue of the Texas A&M Engineer magazine. Texas A&M University.
<http://engineering.tamu.edu/magazine/>
4. Food Irradiation: Recent E. coli outbreaks heighten interest in the technology. January 15, 2007. Chemical and Engineering News, 85(3), 41-43.
5. Food Safety Could Be Enhanced Through ‘Smart Packaging’. August 25, 2006. AgNews: News and Public Affairs. Texas A&M University System Agriculture Program.