

Department of Food and Nutritional Sciences Research Achievement

Publication: Peered Review and Book Chapter 2006-2014

- Peter N. Gichuhi**, Kokoasse Kpombrekou-A2 & **Adelia C. Bovell-Benjamin**. 2014. Nutritional and Physical Properties of Organic Beaugard Sweet Potato [*Ipomoea Batatas* (L.)] as Influenced by Broiler Litter Application Rate. *Food Science and Nutrition*. Open access: doi: 10.1002/fsn3.108
- Brunson Dominique, **Peter N. Gichuhi**, Vijay Rangari, and **Adelia C. Bovell-Benjamin**. 2013. Sugar Profile, Mineral Content, and Rheological and Thermal Properties of an Isomerized Sweet Potato Starch Syrup. *International Journal of Food Science*. Vol 2013, Article ID 243412, 8 pages. *Open access*: <http://dx.doi.org/10.1155/2013/243412>.
- Horacek TM, Erdman MB, Reznar ME, Olfert M, Brown-Esters O, Kattelman KK, Kidd T, Koenings M, **Phillips B**, Quick V, Shelnut KP, White AB. 2013. Evaluation of the food store environment on and near the campus of 15 post-secondary institutions. *American Journal of Health Promotion*. *American Journal of Health Promotion*. 27 (4): e81-e90.
- Dour CA, Horacek TM, Schembre SM, Lohse B, Hoerr S, Kattelman K, White AA, Shoff S, **Phillips B**, Greene G. Process Evaluation of Project WebHealth: A Non-Dieting Web-Based Intervention for Obesity Prevention in College Students. 2013. *J Nutr Ed Behav*. 45 (4):288-295.
- Colby, S.M., Kattelman, K.K., Herrick, M.S., Shelnut, K.P., Mathews, A., **Phillips, B.W.** 2012. Sneakers and Spokes: An Assessment of the Walkability and Bikeability of U.S. Post-Secondary Institutions. *Journal of Environmental Health*. 74 (7): 8-15.
- Byrd-Bredbenner, C., Johnson, M. Quick, V.M., Walsh, J., Greene, G.W., Hoerr, S., Colby, S.M., Kattelman, K.K., **Phillips, B.W.**, Kidd, T., and Horacek, T.M. 2012. Sweet & Salty: An Assessment of the Snacks and Beverages Sold in Vending Machines on U.S. Post-Secondary Institution Campuses. *Appetite*. 58:1143-1151.
- Horacek T, Brown-Esters O, Byrd-Bredbenner C, Carey G, Colby S, Greene G, Hoerr S, Kattelman K, Kidd T, Koenings M, Olfert M, **Phillips B**, Shelnut K, White A. 2012. Obesity Prevention Behavior and Environment Relationships on U.S. Post-Secondary Campuses. International Congress of Dietetics, Australia.
- Walsh, J., Hebert, A., Byrd-Bredbenner, C., Carey, G., Colby, S., Brown-Esters, O., Greene, G., Hoerr, S., Horacek, T., Kattelman, K., Kidd, T., Koenings, M., **Phillip, B.**, Shelnut, K., White, A. 2012. The Development and Preliminary Validation of the Behavior, Environment, and Changeability Survey (BECS). *Journal of Nutrition Education Behavior*, 44 (6): 490-499.

Kattelman, K., White, A., Bred-Bredbenner, C., Greene, G., Koenings, M., Horacek, T., Hoerr, S., **Phillips, B.**, Colby, S., Brown-Esters, Stabile-Morell, J., Kidd, T., Olfert, M., Shelnutt, K. **2012.** Project YEAH: Development of a Web-Based Intervention for Preventing Excess Weight Gain in Young Adults. *International Congress of Dietetics*, Sydney Australia.

Greene, G., White, A., Hoerr, S., Loshe, B., Schembre, S., Riebe, D., Patterson, J., Kattelman, K., Schoff, S, Horacek, T., Blissmer, B. & **Phillips, B.** **2012.** Impact of an On-line Healthful Eating and Physical Activity Program for College Students. *Am J Health Promo*, 27(2); e47-e58. doi: <http://dx.doi.org/10.4278/ajhp.110606->

Kattelman, K., White, A., Greene, G., Byrd-Bredbenner, C., Horacek, T., Hoerr, S., Kidd, T., **Phillips, B.**, Colby, S., Brown-Esters, O., Koenings, M., Shelnutt, K., Olfert, M., Merrell, J. **2012.** Development of a Randomized Trial Guided by the Process of Precede-Proceed for the Prevention of Excessive Weight Gain in Communities of Young Adults. *Journal of Nutrition Education and Behavior*, 44(4s); s94-s95.

Pace, RD, Dawkins, N and Johnson, M. **2012.** Strategies for Cardiovascular Disease Prevention in Rural Southern African American Communities. "*Public Health - Social and Behavioral Health*", ISBN 979-953-307-499-2. (Book Chapter).

Horacek, Tanya M.; White, Adrienne A.; Greene, Geoffrey W.; Reznar, Melissa M.; Quick, Virginia M.; Morrell, Jesse S.; Colby, Sarah M.; Kattelman, Kendra K.; Herrick, Minette S.; Shelnutt, Karla P.; Mathews, Anne; **Phillips, Beatrice W.**; Byrd-Bredbenner, Carol. **2012.** Sneakers and Spokes: An Assessment of the Walkability and Bikeability of U.S. Postsecondary Institutions. *Journal of Environmental Health*, 74 (7):8-15.

Byrd-Bredbenner, C Horacek, T.M., White, A.A., Greene, G.W., Reznar, M.M., Quick, V.M., Morrell, J.S., Colby, S.M., Kattelman, K.K., Herrick, M.S., Shelnutt, K.P., Mathews, A., **Phillips, B.W.** **2012.** Sneakers and Spokes: An Assessment of the Walkability and Bikeability of U.S. Post-Secondary Institutions. March. *Journal of Environmental Health*. 74(7):8-15.

Megumi Marishima, Sharon L. Hoerr, Scheryl O. Hughes, Kendra K. Kattelman, **Beatrice W. Phillips.** **2012.** Maternal Parenting Behaviors during Childhood Relate to Weight Status and Fruit and Vegetable Intake of College Students. *J Nutrition Education and Behavior*. 44(6):556-563.

Greene, G., Schembre, S., White, A., Hoerr, S. Lohse, B., Shoff, S., Horacek. T, Riebe, D., Patterson, J., **Phillips, B.**, Kattelman, K., and Blissmer, B. **2011.** Identifying Clusters of College Students at Elevated Health Risk Based on Eating and Exercise Behaviors and Psychosocial Determinants of Body Weight. *J Am Diet Association*; 111 (3):394-400.

Karna P, Gundala SR, Gupta MV, Shamsi SA, **Pace RD**, Yates C, Narayan S, Aneja R. **2011.** Polyphenol-Rich Sweet Potato Greens Extract Inhibits Proliferation and Induces

- Apoptosis in Prostate Cancer Cells in Vitro and In Vivo. *Carcinogenesis*. 32(12):1872-1880.
- Kim, K.W., **B.J. Min.**, Y.T. Kim., R.M. Kimmel., K. Cooksey and S.I. Park. **2011**. Antimicrobial Activity against Foodborne Pathogens of Chitosan Biopolymer Films of Different Molecular Weights. *LWT – Food Science and Technology*. 44(2):565-569.
- Johnson, M. and **Pace, R.** **2010**. Sweet Potato Leaves: Properties and Synergistic Interactions that Promote Health and Prevent Disease. *Nutrition Reviews*. 68(10):604-615.
- Carter, V. **Dawkins, N.**, Howard, B. **2010**. Healthy Lifestyle: A Community-Based Cancer Awareness and Prevention Intervention Program. *J Health Care Poor Underserved* 21:107-118.
- Pace RD**, Gray AL and **Dawkins NL.** **2010**. Reduction of Modifiable CVD risk factors in a Rural Population. Professional Agriculture Workers Conference Proceedings. Department of Food & Nutritional Sciences, CAENS, Tuskegee University, Tuskegee AL
- Dawkins, N.**, McMickens, T, Findley, H. and **Pace, R.** **2010**. Knowledge And Perception of Community Leaders on Obesity: Implications for Outreach Education. *J. of Ext.* 48 (5), Article #: 5RIB2.
- Bovell-Benjamin, AC**, **Dawkins, N.**, **Pace RD**, Shikany, JM. **2010**. Dietary Consumption Practices and Cancer Risk in African Americans in the Rural South. *J Health Care Poor Underserved*. 21:57-25.
- Greene, G., White, A., Schembre, S., Shoff, S., Riebe, D., Patterson, J., Lohse, B., **Phillips, B.**, Kattelman, K., & Hoerr, S. **2011**. College Students Differ in Weight Related Behaviors and Cognitive Variables by Gender and Relative Weight Status. *J. Am. Dietetic Assoc.* 111:394-400.
- Min, B.** Han, I, and Dawson, P. **2010**. Antimicrobial Gelatin Films Reduce *Listeria monocytogenes* on Turkey Bologna. *Poultry Science*. 89:1307-1314.
- P.N. Gichuhi**, D. Mortley, **E. Bromfield**, and **A.C. Bovell-Benjamin.** **2009**. Nutritional, Physical, and Sensory Evaluation of Hydroponic Carrots (*Daucus carota* L.) from Different Nutrient Delivery Systems. *Journal of Food Science*. 74 (9):S403-S412.
- Huang, Z**, **Wang, B**, Williams, P, and **Pace, RD.** **2009**. Identification of Anthocyanins in Muscadine Grapes with HPLC-ESI-MS. *Food Science and Technology*. 42: 819-24.
- Huang, Z**, **Wang, B**, **Pace, RD**, Yoon, S. **2009**. Trans Fat intake Lowers Total Cholesterol and High Density Lipoprotein Cholesterol Levels without Changing Insulin Sensitivity Index in Wistar Rats. *Nutr. Rev.* 29: 2006-12.

Ward, J A, **Dawkins N**, Shikany, J and Pace, RD. **2009**. Boost for Purslane. *The World of Food Ingredients*. 1:58-60.

Bovell-Benjamin, AC. **2009**. Bioactivity, Benefits and Safety of Traditional and Ethnic Foods. In: *Ensuring Global Food Safety: Exploring Global Harmonization*. Boisrobert, C., Stjepanovic, A., Oh, S., Lelieveld, H. (eds.). Nova Science Publishers, NY, USA.

Bovell-Benjamin, AC. **2009**. Sweetpotato Utilization in Human Health, Industry and Animal Feed Systems. In: Ray, RC, Tomlins, KI (Eds.). *Sweet potato: Postharvest aspects in food feed and industries*. Nova Science Publishers, NW, USA.

Bovell-Benjamin, AC, Dawkins, N., Pace, RD, Shikany, J. **2009**. Use of focus Groups to Understand African-Americans' Dietary Practices: Implications for Modifying a Food Frequency Questionnaire. *Prev Med Prev.* 48 (6):549-554.

Huang, Z, Wang, B, Eaves, D., Shikany, J. & Pace, R. **2009**. Total Phenolics and Antioxidant Capacity of Indigenous Vegetables in the Southeast United States: The ACCE Project. *Int J of Food Sci Nutr.* 60(2):100-8.

Bovell-Benjamin, AC. Hathorn, C., **Gichuhi, P.** **2008**. Using Sweetpotato Peels in Breadmaking as a Source of Dietary Fiber for Space Diets. Paper 2008-01-2177. *Society of Automotive Engineers (SAE)*. Warrendale, PA.

Do, MY, Kattelmann, K, Boeckner, L, White, A, Greene, G, Hoerr, S, Horacek, T, **Phillips, B,** Lohse, B. **2008**. Low Income Young Adults Report Increased Variety in Fruit and Vegetable Following a Stage-Tailored Intervention. *Nutrition Research.* 28:517-522.

Gichuhi , P, Hathorn, C, Mortley, D **Bovell-Benjamin, AC.** **2008**. Evaluation of Nutritional Properties and Consumer Acceptance of Hydroponic Carrots (*Daucus carota* L.) Grown Under Different Light Intensities and CO₂ Concentrations. Technical Paper # 2008-01-2173. *Society for Automotive Engineers (SAE)*, Warrendale, PA.

Hathorn CH, Biswas, M A,. **Gichuhi, PN, Bovell-Benjamin, AC.** **2008**. Comparison of Chemical Physical, Micro-Structural, and Microbial Properties of Breads Supplemented with Sweetpotato Flour and High-Gluten Dough Enhancers. *LWT: Food Science and Technology.* 41, 803-815.

McDonald SP, **Gichuhi, PN,** Mortley, D., **Bovell-Benjamin, AC.** **2008**. Evaluation of Amylose/Amylopectin, Dietary Fiber, Sugar and Vitamin C in Two Processed and Unprocessed Hydroponic Sweetpotato Cultivars. Technical Paper # 2008-01-2174. *Society for Automotive Engineers (SAE)*, Warrendale, PA.

Bovell-Benjamin AC, Hathorn CS, Ibrahim S, **Gichuhi P, Bromfield E.M.** **2008**. Healthy Food Choices and Physical Activity Opportunities in two Contrasting Alabama Cities. *J Health & Place.* Doi:10.1016/j.healthplace.2008.08.001.

- Bovell-Benjamin, AC., Gichuhi, PN. 2008.** Using Sweetpotato Peels in Breadmaking as a Source of Dietary Fiber for Space Diets. Technical Paper Number 2008-01-2177, *Society for Automotive Engineers (SAE)*, Warrendale, PA.
- Hathorn, C.S., **Gichuhi, P.N., Bovell-Benjamin, A.C. 2008.** Identification of Styrene and Hexanol during Baking of Sweetpotato Bread in a Closed Chamber. Technical Paper # 2008-01-2176, *Society for Automotive Engineers (SAE)*, Warrendale, PA.
- Murphy, Tulani, **P. N., Gichuhi., Bovell-Benjamin A.C. 2008.** Glycemic Responses of Zucker Fatty Rats to a Sweetpotato [Ipomoea batatas (L.) Lam] Starch Syrup. Technical Paper # 2008-01-2175, *Society for Automotive Engineers (SAE)*, Warrendale, PA.
- Shetty K, Adyanthaya I, Kwon YI., Apostolids, E., **Min, BJ**, Dawson, P. **2008.** Post-Harvest Enhancement of Phenolic Phytochemical in Apples for Preservation and Health Benefits. In: G. Paliyath, D.P. Murr, A.K. Handa, S. Lurie. Postharvest Biology and Technology of Fruit, Vegetables, and Flowers. Blackwell.
- Shireen, KF, **Pace, RD**, Mahboob, M. and Khan, AT. **2008.** Effects of Dietary Vitamin E, C and Soybean Oil Supplementation on Antioxidant Enzyme Activities in Liver and Muscles of Rats. *Food Chem. Toxicology*. 46:3290-3294.
- Huang, Z, Wang, B & Pace, R. D. 2008.** Potentials of Phytochemicals in Disease Prevention and Health Promotion. *Recent Advances in Agriculture*. Chapter 4. pg 63-97.
- Pace, R., Dawkins, N., Wang, B. Person, S. & Shikany, J.M. 2008.** Rural Africa-Americans' Dietary Knowledge, Perceptions, and Behavior in Relation to Cardiovascular Disease: the ACCE Project. *Ethnicity & Disease*. 18:6-12.
- Brown, Cynthia, **Wang, B., and Oh, J Hyun. 2008.** Antimicrobial Activity of Lactoferrin Incorporated into Edible Chitosan Film against Foodborne Pathogenic Bacteria. *J of Food Protection*. 71: 319-324.
- Hathorn, CS., Biswas, M A, **Gichuhi P, Bovell-Benjamin, AC. 2008.** Comparison of Chemical, Physical, Microstructural and Microbial Properties of Breads Supplemented with Sweetpotato Flour and High-Gluten Dough Enhancers. *LWT-Food Sci Technol*. 41:803–815.
- Huang Z, Wang B, Eaves DH, Shikany JM, Pace RD. 2007.** Phenolic Compound Profiles of Selected Vegetables Frequently Consumed by African Americans in the Southeast United States. The ACCE Project. *J Food Chem*. 103:1395-1402.
- Yang, H., Wang, Y., Jiang, M., **Oh, J-H.**, Herring, J., and Zhou, P. **2007.** Two-Step Optimization of the Extraction and Subsequent Physical Properties of Channel Catfish (*Ictalurus Punctatus*) Skin Gelatin. *J of Food Sci*. 72(4):C188-C195.

- Zhang, S., Wang, Y., Herring, J., and **Oh, J-H.** 2007. Characterization of Edible Film Fabricated with Channel Catfish (*Ictalurus Punctatus*) Gelatin Extract using Selected Pretreatment Methods. *J of Food Sci.* 72(9):C498-503.
- Qian, J. **Wang, B., Dawkins, N., Gray, A. & Pace, R.** 2007. Reduction of Risk Factors for Cardiovascular Disease in Africans with a 12-Week Nutrition Education Program. *Nutr. Res.* 27:252-257.
- Nitzke, S; Kritsch, K; Boeckner, L; Greene, G; Hoerr, S; Horacek, T; Kattelmann, K; Lohse, B; Oakland, M.J; **Phillips, B;** and White, A. 2007. A Stage-Tailored Multi-Modal Intervention Increases Fruit and Vegetable Intakes of Low-Income Young Adults. *Am. J. of Health Promotion.* 22 (1):6-14.
- Bovell-Benjamin, A.C., Gichuhi, P.,** Hathorn, C., **Bromfield, E.** 2007. Diet and Cancer Prevention Knowledge, Beliefs and Barriers among Students in Historically Black Colleges and Universities. *J Nutr.* 137: 281S
- Bovell-Benjamin, AC.** 2007. Sweetpotato: A Review of its Past, Present and Future Role in Human Nutrition. *Adv Food Nutrition Res.* 52: 1-59.
- Bovell-Benjamin, AC.** 2007. Prospects for the use of Dietary Antioxidants in Cancer Risk Reduction in Astronauts on Mars. IUFoST World of Food Science. Invited review.
- Bovell-Benjamin, AC,** Hathorn, C., **Gichuhi, P.** 2007. Preparation and Characterization of Sweetpotato Peels for use as Dietary Fiber Enhancement in Space Foods. Technical Paper 2007-01-3053. *Society for Automotive Engineers (SAE), Warrendale, PA.*
- Hathorn C., **Gichuhi, P., Bromfield, E., Bovell-Benjamin, AC.** 2007. Disparities in environmental risk factors for cancer prevention in two rural cities. *J Nutr.* 137: 281S.
- Camille C Ragin, Emanuela Taioli, Norma McFarlane-Anderson, Gordon Avery, Franklyn Bennett, **Adelia Bovell-Benjamin,** Angela Brown Thompson, Agatha Carrington, Lydia Campbell-Everett, Jacqueline Ford, Anselm Hennis, Maria Jackson, Sandra Lake, M Cristina Leske, Carol Magai, Barbara Nemesure, Alfred Neugut, Folakemi Odedina, Michael Okobia, Alan Patrick, Wallis Best Plummer, R Renee Reams, Robin Roberts, Sharaneen Scott-Hastings, Sangita Sharma, Victor Wheeler, Suh-Yuh Wu and Clareann Bunker. 2007. African-Caribbean Cancer Consortium for the Study of Viral, Genetic and Environmental Cancer Risk Factors. *J Infectious Agents Cancer.* 2:17 (doi:10.1186/1750-9378-2-17).
- Gichuhi, PN,** Hathorn, C, Kpombrekou-A, K, **Bovell-Benjamin, AC.** 2007. Evaluation of Sweetpotatoes Grown with and without Ryegrass Cover Crop, Technical Paper 2007-01-3048. *Society for Automotive Engineers (SAE), Warrendale, PA.*
Note: Judged among the most outstanding SAE Technical Papers of 2007.
- Simelton-Edgeston CM, **Gichuhi, P.,** Kpombrekou-A, JK., **Bovell-Benjamin, AC.** 2007.

Comparative Treatments of Organically Grown Sweetpotatoes for use in Space Foods. Technical Paper 2007-01-3052. *Society for Automotive Engineers (SAE)*, Warrendale, PA.

McDonald, SP, **Gichuhi, PN**, Mortley, D., **Bovell-Benjamin, AC**. 2007. β -Carotene Content of Dehydrated Hydroponic Sweetpotatoes Grown under Different Lighting Conditions., Technical Paper 2007-01-3051, *Society for Automotive Engineers (SAE)*. Warrendale, PA.

Hathorn, CS, **Gichuhi, PN**, **Bovell-Benjamin, AC**. 2007. Analysis of Volatile Compounds from Sweetpotato Breads using Gas-Chromatography and Solid Phase Microextraction., Technical Paper 2007-01-3050. *Society for Automotive Engineers (SAE)*, Warrendale, PA.

Huang, Z, Wang, B, Pace, R. and Oh, J. 2006. Trans Fatty Acid Content of Selected Foods in an African-American Community. *J. Food Sci*: 71 (6):C322-C327.

Liu, Yoon Kook Park, **Zhiliang Huang, Baowu Wang**, Ramble O. Ankumah, and Prosanto K. Biswas. 2006. Product Identification and Distribution from Hydrothermal Conversion of Walnut Shells. *Energy Fuels*. 20(2):446-454.

Sohail, S. S., Wang, B., Biswas, M.A., **Oh, J-H**. 2006. Physical, Morphological, and Barrier Properties of Edible Casein Films with Wax Applications. *Journal of Food Science*. 71(4):C255–C259.

Wang, B. Chapter 29. Chemical Composition of Red Meat. In *Handbook of Food Science, Technology, and Engineering*. Y.H. Hui ed. CRC Taylor and Francis. Boca Raton.