### VITA

#### MICHAEL JOHN BEST North Carolina State University Raleigh, NC 27606 mjbest@ncsu.edu

#### **EDUCATION:**

- DOCTOR OF PHILOSOPHY in Agricultural Economics, University of Kentucky - 1995, Lexington, KY. Specialization in Marketing and Price Analysis. Dissertation: "A Nonlinear Dynamic Modeling Approach to the Analysis of Biotechnological Innovations in the U.S. Beef Cattle Industry." Research performed under supervision of Barry W. Bobst and Joe T. Davis.
- MASTER OF SCIENCE in Agricultural Economics, University of Tennessee - 1990, Knoxville, TN. Specialization in Marketing. Thesis: "Sequential Cropping of Vegetables for Market Windows." Research performed under supervision of John R. Brooker.
- BACHELOR OF SCIENCE in Agriculture, Major in Agribusiness, Berea College - 1988, Berea, Kentucky.

#### **RECENT EXPERIENCE:**

- ASSISTANT TEACHING PROFESSOR at North Carolina State University. Responsibilities: Teach and advise students in the Agriculture and Resource Economics program and the Agricultural Institute.
- PROFESSOR OF AGRICULTURAL ECONOMICS at Tennessee Tech University. Responsibilities: To teach and advise students in the Agribusiness Economics program, perform public service and research in the agricultural business discipline. (July 1, 2009 – December 31, 2021)
- ASSOCIATE PROFESSOR OF AGRICULTURAL ECONOMICS at Tennessee Tech University. (August 1, 2005 June 30, 2009)
- STATE EXTENSION SPECIALIST at the University of Georgia, College of Agriculture and Environmental Sciences. Responsibilities: To perform feasibility studies (financial and marketing analysis) for agricultural crops and value-added enterprises in Georgia (May 2004 – August 2005)

- ASSISTANT PROFESSOR OF AGRIBUSINESS at Southeast Missouri State University. Responsibilities included teaching courses such as Agricultural Economics, Agricultural Marketing, Agricultural Policy and World Food and Society. (August 2003 – May 2004)
- EXECUTIVE DIRECTOR and AGRICULTURAL ECONOMIST- at the Sustainable Mountain Agriculture Center in Berea, KY. Responsibilities include: Directing Internship Program, Managing the Production of Seed Stock and Produce for Sale, Budgeting, Fundraising and Directing Ongoing Research Projects. (August 2000 July 2003)
- ASSISTANT PROFESSOR OF AGRICULTURE AND ECONOMICS at Berea College. Responsible for teaching such courses as: Microeconomics -- Intermediate and Principles, Farm Management, Entrepreneurship, Marketing, Agricultural Economics. Responsible for Horticultural Farms and was a labor supervisor. (September 1996 –July 2000)
- ASSISTANT PROFESSOR OF AGRICULTURAL ECONOMICS at the University of Arkansas at Monticello. A 75/25 teaching/research split appointment. Responsible for teaching such courses as: Futures Marketing, Agricultural Economics. Research areas are in Horticultural and Beef Cattle Marketing. Responsibilities also included advising 28 students and serving on University committees. (August 1995 - August 1996)

#### **COURSES TAUGHT**

**Agricultural Economics** Agricultural Finance Agricultural and Commodity Marketing **Futures Marketing Agribusiness Management** Farm Management Small Farms, Specialty Crops and Entrepreneurship Agricultural and Biological Statistics Principles of Microeconomics Intermediate Microeconomics **Agricultural Policy** Information Acquisition, Analysis and Presentation World Food and Society Study Abroad in the Netherlands Study Abroad in the Czech Republic US Study Tour of Agriculture Crops and Sustainable Systems

Goose Beans Agriculture, Culture and Mythology World Issues Since 1945 Marketing - First You and then Your Product Connections to Agriculture Honors Colloquium on World Food Issues

### **RESEARCH AND EDUCATIONAL GRANT PROPOSALS AND CONTRACTS:**

- Received **\$53,000 private gift** for use in the greenhouse program at Oakley Farm, 2021.
- NSF Grant Submission Scientific and Technological Foundations for Cooperative Smart Ecosystems with Agricultural Applications, Dr. Maanak Gupta, Lead PI, Assistant Professor of Computer Science \$563,009, Not Funded, 2020.
- Received **\$50,000 private gift** for use in the greenhouse program at Oakley Farm, 2020.
- Received a **\$220,000 grant** from the Tennessee Department of Agriculture to convert the high tunnels at Oakley Farm to hydroponics, 2019
- Received **\$350,000 private gift** to construct new greenhouse space and facilities for the vegetable operations at the Oakley Farm, 2017.
- Received a **\$50,000 private gift** from Farm Credit Services of Mid-America for equipment and a storage/office/bathroom building at the Oakley Farm, 2016.
- Requested and **received \$10,000** from the TTU's President's office to build a high tunnel greenhouse on the Shipley farm for plant breeding and research, 2016.
- Preproposal USDA SCRI. Project Title: "Characterization of heirloom green beans for improvement and delivery of value-added green bean germplasm to regional market consumers," 2016, Requested funding \$50,000 (Not funded).
- Tennessee Department of Agriculture Specialty Crops Block Grant Fall 2016. The grant is to develop the appropriate packaging for heirloom tomatoes and a coop logo and stickers for traceability and marketing channels for the Upper Cumberland Produce Cooperative. **Funded at \$24,900.**
- USDA Rural Development Grant Community Facilities, **Funded at \$25,000**, Oakley Greenhouse
- USDA Rural Development Grant Rural Business Enterprise Grant, Funded at \$25,000, Oakley Greenhouse
- Improving the Viability of Honey Bee Populations to Increase Pollination of Tennessee Specialty Crops, USDA Specialty Crops Program 2013, \$465,113. (Not Funded)

- "Demonstration of Strawberry Production Methods for Early Market -Specialty Crop Block grant - Innovative Specialty Crop Project" USDA Specialty Crop Block Grant- Tennessee Department of Agriculture, **Funded at \$29,949**, PD: Michael J. Best (September 2010)
- An Economic Analysis of Yield and Quality Differences Associated with Two Different High-Tunnel Techniques for Heirloom Tomatoes. Technological University Faculty Research Grant, **Funded at \$5,000** (April 2010)
- "Developing a Local Foodshed by Utilizing Electronic Marketing, a Promotion and Education Program and a New EBT Project in Tennessee's Upper Cumberland Region" USDA FMMP, Funding Requested \$93,491 (Not Funded) PD: Michael J. Best (April 2010)
- "High Tunnel Construction and Management with Video, Demonstration and Written Guidelines for Year Round Crop Production" USDA CIG, Funding Requested \$250,000 (Not Funded), PD: Kim Stearman Co PI: Michael J. Best (2010)
- "High Tunnel Construction and Management for Farmers" Tennessee Agriculture Enhancement Program **Funded at \$189,110**, PD: Kim Stearman, Co PI: Michael J. Best (2010)
- An Economic Analysis and Educational Program to Identify Market Potential for Sustainable High Tunnel Vegetable Production USDA Agricultural Prosperity for Small and Medium-Sized Farm, Funding Requested \$399,905, **Funded as Bridge at \$100,000**, 2008, PD: Michael Best Co-PI: Kim Stearman.
- Managed Ecosystems Grant, "Compost and Drip Irrigation Effects on Soil And Water Quality, Disease Suppression, Earthworms And Crop Yield In Organic Vegetable Plots", **Funded at \$99,960**, December 2007, PD: Kim Stearman, Co-PD: Michael Best, et al.
- Tennessee Department of Agriculture Grant, "Waters Organic Farm Startup" **Funded at \$187,690**, August 2007, PD: Kim Stearman, Co-PI, Michael Best, et al.
- Tennessee Tech University Faculty Research Grant, "Economic Impact of Hyder- Burks Agricultural Pavilion", **Funded at \$4,000**, Jan 2007, PD: Michael Best.
- USDA Cooperative Development Grant -- Funded at \$300,000, University of Georgia Center for Agribusiness and Economic Development, PD: John McKissick, Co PIs: Michael Best, et al. (2005)
- USDA FSMIP "Market Analysis of Forage Finished Beef in the Southeast", **Funded at \$76,273**, PD: Kurt Lacy, Co PIs Michael Best, et al. (2005)
- "Marketing Value-Added Grass-Fed Dairy Products from the Farm", Funding requested \$15,000 total for Green Hill Dairy, **Funded at \$15,000** by the USDA Value Added Grants Program. (2004)
- "Agri-tourism, Heirloom Agriculture and Sustainable Agriculture in Tobacco Income Dependent Communities of Southern Appalachia",

Funding requested \$34,000 total, **Funded at \$10,000** by The Deep Ecology Foundation in California. (2001)

- "Small Woodlot Management, Adding Value Through Kiln Drying" Funding Requested \$10,000 total, **Funded at \$10,000** by Sustainable Agriculture Research and Education (SARE). (2000-2001)
- "Direct Marketing Hogs as an Alternative Strategy for Small Scale Swine Producers," A Research Proposal, Submitted to the Undergraduate Research And Creative Projects Program, Berea College, Funding Requested \$6,075 total, **Funded at \$6,075**. (Summer 1999)
- "Adding Value Utilizing Portable Sawmills for Owners of Small Wood Lots in Southern Appalachia," A Community Outreach Project Proposal, Submitted to the Commodity Growers Cooperative utilizing the Tobacco Reinvestment Fund. Funding Requested \$9,429 total, **Funded at \$9,429**. June 12, 1999. Submitted on behalf of the Sustainable Mountain Agriculture Center, Inc. as its president.
- "Adding Value Utilizing Portable Sawmills and Solar Kilns," A Community Outreach Project Proposal, Submitted to WoodMizer, Inc. through their Missions Program. Funding Requested, \$8,710 total, Funded at \$8,710. August 2, 1999. Submitted on behalf of the Sustainable Mountain Agriculture Center, Inc. as its president.
- "Collecting, Identifying, Saving, and Marketing Heirloom Seeds in Southern Appalachia," A Grant Proposal to develop a Research and Community Economic Development Program Dealing with Heirloom Vegetables for the Sustainable Mountain Agriculture Center, Inc., Submitted to The Steele Reese Foundation of New York City, NY, Funding Requested \$68,000 total, **Funded at \$68,000**. August 1999. Submitted on behalf of the Sustainable Mountain Agriculture Center, Inc. as its president.

## **RECENT SERVICE:**

- Advisor to the TTU Agribusiness Club, 2005-present
- Executive Director, Sustainable Mountain Agriculture Center, 2018 present. SMAC is a not-for-profit 501 c 3 agricultural organization.
- Reviewer, Reviewer: Reviewed "Growing, Harvesting and Preserving Appalachian Heirloom Beans" Lewis W. Jett, West Virginia Extension Service for publication through the Center for Crop Diversification at the University of Kentucky, 2020
- Onsite reviewer for the Agribusiness Program Self Study at Southern Arkansas University, 2019
- Member of the TTU Faculty Senate, 2019
- Member of the University Administrative Council, 2019

- Served as chair of the Lecturer position for the Lawrenceburg agribusiness position Spring 2019.
- Member of the Animal Science assistant professor position.
- Served as chair of the Lecturer position (round 2) for the Lawrenceburg agribusiness position Fall 2019.
- Member of the University Patents and Copyright Committee
- Member of the Faculty of the Environmental and Sustainability Studies Program, 2019
- Lead and Worked on Departmental Self Study, Curriculum Section, 2018
- Served as chair for the ag-business lecturer position in Lawrenceburg, 2018
- Mentor for Dr. Brian Leckie, 2018
- Development of a High Tunnel Tomato Cooperative for the Upper Cumberland and Serve as Treasurer and advisor to the cooperative, 2018
- Workgroup Lead for the Tennessee Department of Education's Tennessee Statewide Industry Certification (TSIC) for Horticulture, August 2017 – present.
- Mechatronics and Horticulture Workgroup Member, July August 2017
- CTE Statewide Dual Credit Agricultural Business Facilitator Summer, July 2017
- Development of a High Tunnel Tomato Cooperative for the Upper Cumberland and Serve as Treasurer and advisor to the cooperative.
- Consultant for a Memphis, TN a non-profit organization to help them with the Specialty Crop Block Grant on high tunnel production of cherry tomatoes.
- Past Chair and Member of Undergraduate Committee of the Southern Agricultural Economic Association 2017
- Past Chair and Member of the Quiz Bowl Committee, Southern Agricultural Economics Association, 2017
- Member of the Intellectual Property Advisory Committee, 2017
- Member of the Buildings and Grounds Committee 2017
- Member of the Study Abroad Committee, 2017
- Chair, Tenure and Promotion Committee for the School of Environmental Studies, 2017.
- Mentor for Dr. Brian Leckie, Assistant Professor of Agronomy, 2017.
- Chair and Member of Undergraduate Committee of the Southern Agricultural Economic Association 2016
- Chair and Member of the Quiz Bowl Committee, Southern Agricultural

Economics 2016 Association

- Educational Policy and Curriculum Committee, School of Agriculture Representative in the College of Agricultural and Human Ecology
- Chair of the Tenure and promotion committee for the School of Environmental Studies, College of Interdisciplinary Studies, 2016
- National Reviewer for 2016 USDA Value Added Producer Grant
- Information Technology Committee, School of Agriculture, 2016
- Search Committee Member for Agricultural Tourism Position, 2016
- Coordinator of the Agribusiness Economics Concentration, 2016
- Flight Plan Committee Member, the University Strategic Plan Finance and Development Committee Member, 2016
- SACSCOC Reaffirmation of Accreditation Facilities Committee, 2016
- Member of the University Patents and Copyrights Committee, Past Chair, 2016
- Member of the Buildings and Grounds Committee, 2016
- University Committee on Environmental and Sustainable Studies Program, 2016
- University Committee on PSM- Environmental Informatics Program, 2016
- Reviewer for the Journal of Business and Economic Research, 2015
- Value Added Producer Grants Reviewer, USDA-Rural Development Washington, D.C., 2015
- Quiz Bowl/ Undergraduate Committee Chair, Southern Agricultural Economics Association 2009-2012.
- Reviewer, USDA SBIR Grants Program 2009
- Reviewer, Journal of Food Distribution Research 2007-2010
- Moderator Agricultural Policy/Food Safety, Southern Agricultural Economics Association (SAEA) Annual Meeting February 2009.

# **RECENT CONSULTING:**

Over the past 10 years I have helped rural businesspeople, farmers and fishermen write over 130 business plans, authored over 75 feasibility studies and grants for clients in Florida, Georgia, North Carolina, Mississippi, Tennessee and Oklahoma. To date, this work has allowed my clients to obtain over \$75 million dollars in loans and grants to expand their rural businesses through the USDA. This includes farm stores, restaurants, hotels, apartment complexes, ethanol plants, slaughter facilities, value-added agricultural businesses and bio and solar energy production facilities. The most recent ones are listed below.

• Feasibility of Mulberry Springs Winery in northern Georgia, M. Best, K. Wolfe and S. Best, April 19, 2021

- Feasibility of Cloudland Winery in northern Georgia, M. Best, K. Wolfe and S. Best, March 15, 2021
- Solar PV System Feasibility Study, Leggett Poultry Farms, M. Best, June 29, 2021
- Hawthorne Creek Creamery Feasibility of Value Added Cheese, M. Best, K. Wolfe and S. Best, April 14, 2021
- Solar PV System Feasibility Study, Corn Solar Feasibility, M. Best, March 25, 2021
- Solar PV System Feasibility Study, Blueberry Solar Feasibility, M. Best, March 25, 2021
- Renewable Biomass Energy Chipping Project Feasibility Study, M. Best, March 19, 2021
- Goodson Pecans Feasibility Study, Best, K. Wolfe and S. Best, March 19, 2021
- Rocking Chair Ranch Cattle Jerky Feasibility Study, M. Best, K. Wolfe and S. Best, February 27, 2021
- Feasibility of Grade A Fluid Milk Production as a Value-Added Product, M. Best, K. Wolfe and S. Best, April 10, 2021
- Feasibility of Selling Premium Value-Added Lamb Through a Store Front and Shipping Direct to Consumer, M. Best, K. Wolfe and S. Best, April 23, 2021
- Living Water Winery & Vineyard Feasibility Study, M. Best, K. Wolfe and S. Best, April 11, 2021
- Feasibility of a Mixed Species Slaughter Facility in West End, Colorado, M. Best, Wolfe, S. Best, December 11, 2020
- Coastal Growers, LLC Peanut Shelling Facility Feasibility Analysis, S. Best, M. Best, Wolfe, July 9, 2020
- Feasibility of an Albany Georgia Food Hub, M. Best, Wolfe, S. Best, September 18, 2020
- Park of East Texas Feasibility Study, M. Best, Wolfe, S. Best, March 9, 2020
- Moon River Oyster Company Feasibility Study, M. Best, S. Best, February 28, 2020
- Southern Drawl Cotton Feasibility Study, M. Best February 28, 2020
- Feasibility Study for the Introduction of a Carbonated Wine Product by the Chautauqua Vineyards and Winery, M. Best, February 24, 2020
- Choctaw Farms Value-Added Pecan Production Feasibility Study, September 22, 2018
- Solar PV System Feasibility Study for Bainbridge, GA Data Processing Facility, April 29, 2018
- The Feasibility of Adding Value to Sheep for a Biscoe, NC Farming Operation, December 31, 2017
- The Feasibility of a Mixed-Use Development in Commerce, GA, December 15, 2017

- Aqua-rock Pure Feasibility Study, December 6, 2017
- Paulk Winery Feasibility Study, December 5, 2017
- The Feasibility of an IHG AVID Hotel in Byron, GA, November 30, 2017
- Tifford Muscadine Feasibility Study, October 25, 2017
- Sam Gray Blueberry Packing Feasibility Study, July 7, 2017
- Feasibility Study for a Southwest Georgia Food Hub, April 24, 2017
- Cornucopia Feasibility Study, Avera, GA, March 23, 2017
- Feasibility of the Trawick1 Solar Power Generation System in Colquitt, GA March 18, 2017
- Tennessee Solar Solutions Original Footwear Feasibility Study, January, 21 2017
- Feasibility of a Solar Power Generation System in Glenville, Georgia, Dr. Michael Best, April 21, 2016
- Feasibility of a MSW Gasification Boiler System for Steam Production, Dr. Kent Wolfe and Dr. Michael Best, University of Georgia CAED, CAES, April 30, 2016
- The Feasibility of a Hampton Inn Hotel in MacClenny FL, Dr. Michael Best, November 6, 2016
- Provided the financial and impact analysis for UGA CAED feasibility studies for the 2016 USDA Value added producer grant program for the following studies:

Southern Press Blueberries Hillside Orchard Brandy White Pastures Non-GMO Chicken Ranch Feed Verdant Kitchen Wehner Dairy Yonah Mountain Vineyards

# **RECENT PAPERS, PUBLICATIONS AND ABSTRACTS:**

- Leckie, BM and M. Best (2020) Characterization of Southern Appalachian Heirloom Snap Beans using Genotyping by Sequencing. Supplement to HortScience 55(9) Supplement p426
- Publication: Feasibility of a Carbonated Wine Product FR 20-05 Wolfe, M. Best, S. Best, and Sharon Kane, University of Georgia, 2020
- Publication: Feasibility of 50 New Poultry, Beef, and Vegetable Value-Added Prodcuts Processed at On-site Commissary FR 20-03, 2020
- Shonkwiler, V., Wolfe, K. and Best, M., Analysis of the Peanut Value Chain in Ivory Cost: Recommendations for Local Sourcing, University of Georgia CR# FR-18-09, September 29, 2018.
- Butcher, K., Conner, N.W., Best, M., Tomas, S., & Stripling,

C. T. (2014, February). *Study abroad through an agricultural education perspective*. Poster presentation. Southern Region meeting of the American Association for Agricultural Education, Dallas, TX.

- Barefield, Alan, Best, Michael J., et al. editors, <u>Home Based and Micro</u> <u>Businesses, Cashing In On Business Opportunities</u> Published by the Southern Rural Development Center, 2009.
- Best, Michael J. and Kent L. Wolfe "A profile of Local Dairy consumers in the Southeast and the Potential for Dairies to Market Value-Added Products Locally" *Journal of Food Distribution Research*, March 2009.
- Best, Michael J., "Ginseng Dreams The Secret World of America's Most Valuable Plant" -- Book Review, Journal of Appalachian Studies, Spring 2009
- Stearman, K. Dodson, R., Branson, J., Best, M., Baier, J. Young, J., and Greene, B. 2008. "Organic Tomato, Pepper, and Squash Production as Affected by Compost Rate," American Society of Agronomy, Annual Meetings, Abstract (CD-ROM, Madison, WI.)

## **RECENT INVITED PRESENTATIONS AND POSTERS:**

- Leckie, BM and M. Best (2020) Characterization of Southern Appalachian Heirloom Snap Beans using Genotyping by Sequencing. Southern Region of the American Horticultural Society 2020 Annual Meeting. Louisville, KY.
- "Proposed Agricultural Programs Offered at TTU", Tech Campus, Cookeville, TN August 6, 2015
- "Specialty Crop Block Grant Program Success Stories", Michael J. Best, Tennessee Department of Agriculture, Nashville, TN, April 14, 2015.
- "Sustainable Agriculture Initiatives at TTU", UCCEA, Leslie Towne Center, Cookeville, TN
- "High Tunnel Tomato Production and Cooperative Marketing," Van Buren County Extension Office, October 21, 2015
- "Growing Income Opportunities Using High Tunnels and Cooperative Marketing Techniques, Putnam County Extension Office, Cookeville, TN
- "Building a Successful Family Farming Business," Michael J. Best, Building Agribusiness Alliances, an Agribusiness Workshop, Athens, Georgia, September 14-15, 2010
- "Considerations for Agritourism in Tennessee," Agritourism Professional Symposium, Michael J. Best and Billy Foster, Workshop, 2010, Savannah, GA, April 22-23
- "Value-Added Agriculture," Michael J. Best, Invited presentation at the Cookeville Farm City Breakfast in Cookeville, TN, November 24th, 2009.
- "An Analysis of the Vine to Wine Industry Including Marketing to Estimate the Potential for Small Independent Wineries in the Southeast" Kent L. Wolfe, Michael J. Best, and Kyle Watts, Food Distribution Research Society Annual Meetings in Denver, CO, November 4, 2009.

- "Integrating Organic Agriculture into the High School Agricultural Education Curriculum," Michael J. Best and Randy Dodson, Agricultural Education Inservice Workshop, in Cookeville, TN, June 15, 2009.
- "Innovative Production Technology for Local Organic Markets Using Structures and Covers," Michael J. Best and Randy Dodson, Agricultural Education Inservice Workshop, in Cookeville, TN, June 15, 2009.
- "Writing Proposals to Secure Grants for Innovative Programs," Michael J. Best, Agricultural Education In-service Workshop, in Cookeville, TN, June 15, 2009.
- "Budgeting for Agritourism Enterprises", Michael Best, Invited presentation at the Conference on Agritourism, West Point, GA, December 2-3, 2009
- "Financial Considerations for Agritourism Endeavors", Michael Best, Invited presentation at the Business Side of Agritourism Workshop, Asheville, NC April 27-29, 2009
- "Value-Added Environment", Michael Best, Invited presentation to the Agri-Leadership 20/20 in Pall Mall, TN, February 5, 2009.
- "A Profile of Local Dairy Consumers in the Southeast and the Potential for Dairies to Market Value-Added Products Locally", Food Distribution Research Society Annual Meetings, October 2008
- Organic Tomato, Pepper, and Squash Production as Affected by Compost Rate, Stearman, K. Dodson, R., Branson, J., Best, M., Baier, J. Young, J., and Greene, B. 2008. American Society of Agronomy, Annual Meetings, October 7, 2008, Houston, TX.
- Establish a New Agricultural Enterprise" Middle Tennessee Agricultural Education Workshop, in Cookeville, TN, June 13, 2007.