

OCTOBER 20-22, 2024
Resilient AgriFood Systems

65TH FOOD DISTRIBUTION RESEARCH SOCIETY CONFERENCE



FROM THE LEADERSHIP TEAM

We are excited you are attending our 65th conference, themed **Resilient AgriFood Systems**.

FDRS's overall goal is to facilitate the development of leading-edge information and education about food distribution through applied research by serving as a forum for exchanging ideas and information and acting as a clearing house for food distribution research and education. We strive to help with food industry education and training, as well as the implementation of new ideas and concepts.

We developed a program that showcases current research and outreach activities in food systems, fosters collaboration, and supports networking.

We hope you will enjoy the symposia and the research sessions and attend our awards luncheon and award ceremony. Not least, take advantage of the opportunity to meet new people and share your projects.

Wishing you a great conference!

FDRS 2023-2024 Officers

President: Alba J. Collart
President Elect: Esendugue Greg Fonsah
Past President: Margarita Velandia
Secretary-Treasurer: Kimberly Morgan
VP Communication: Shuoli Zhao
VP Education: Andrew Muhammad
VP Logistics & Outreach: Rodney Holcomb
VP Membership: Jacob Manlove
VP Research: Maria Bampasidou
VP Student Programs: Ariana Torres
VP Industry Relations: Gary Matteson
VP Government Relations: Danielle Ufer
VP Richardson-Applebaum Funds:
Kimberly Morgan

Directors: Linlin Fan, Courtney Long,
Arbindra Rimal, and Swagata "Ban"
Banerjee.

Editors: Ben Campbell, Carlos O. Trejo-
Pech, and Richard J. Volpe

SUNDAY, OCTOBER 20

CONFERENCE AGENDA

PRE- SESSIONS

- 8:00 AM-11:00 AM** **S-1088 Meeting**
Room: Flamboyant A/B (Mirador level)
- 1:00 PM-5:00 PM** **Registration Opens**
Room: Gardenia (Mirador level)
- 2:00 PM-4:00 PM** **FDRS Student Marketing Challenge**
Room: Flamboyant A/B (Mirador level)

GENERAL SESSIONS

- 6:00 PM-7:00 PM** **Welcome Reception**
Location: Trellises (Outdoor space)
Hors d'oeuvres included

MONDAY, OCTOBER 21

- 7:00 AM-8:15 AM** **Registration**
Room: Gardenia (Mirador level)
- 8:30 AM-10:00 AM** **Symposium I**
Room: Flamboyant A
- 10:15 AM-11:45 AM** **Research Sessions I**
Breakout Rooms (Mirador level)*
- 12:00 PM-1:30 PM** **Richardson- Applebaum Awards Luncheon**
Location: Pablo Casals Ballroom (Mirador level)
Lunch Included

- 1:45 PM-3:15 PM** **Symposium II**
Room: Flamboyant A
- 3:30 PM-5:00 PM** **Research Sessions II**
Breakout Rooms (Mirador level)*
- 6:30 PM-8:30 PM** **Award Ceremony & Banquet**
Location: Pablo Casals Ballroom (Mirador level)
Dinner Included

***Breakout Rooms:** Flamboyant A/B, Orquidea, and Violeta

TUESDAY, OCTOBER 22

- 7:00 AM-8:45 AM** **FDRS Breakfast & Business Meeting**
Location: Pablo Casals Ballroom (Mirador level)
Breakfast Included
Business Meeting starts at 7:45am
- 9:00 AM-10:30 AM** **Research Sessions III**
Breakout Rooms (Mirador level)*

***Breakout Rooms:** Flamboyant A/B, Orquidea, and Violeta



FDRS SESSIONS

ORGANIZED SYMPOSIUM

These sessions offer the opportunity for presentations and discussions on a single theme or problem related to the food distribution field. Organized symposia proposals are allowed 1 hour and 30 minutes and time for discussion.

RESEARCH REPORTS

These sessions are scholarly papers focusing on the results of research efforts. Presentations of research reports are limited to 15 minutes each, with 5 minutes for Q&A.

RESEARCH UPDATES

These sessions are synopses of research or educational work either (1) recently completed, (2) in progress, or (3) to be undertaken within the next year. Presentations of updates are limited to 10 minutes each, with 3 minutes for Q&A.

OUTREACH WRITING

These sessions comprise technical communication of food industry issues that are key to Extension/Industry Outreach. These may include 'industry outlook', food supply chain, and marketing articles or content similar to AAEEA's Choices Magazine, for example, geared toward non-academic audiences. Authors will have 15 minutes to present a summary of the article's key points and how it was used in outreach/extension efforts, with 5 minutes for Q&A.

TEACHING CASE STUDIES

These sessions comprise technical communication of food industry issues that are key to Extension/Industry Outreach. These may include 'industry outlook', food supply chain, and marketing articles or content similar to AAEEA's Choices Magazine, for example, geared toward non-academic audiences. Authors will have 15 minutes to present a summary of the article's key points and how it was used in outreach/extension efforts, with 5 minutes for Q&A.

ORGANIZED SYMPOSIUM I

Monday, October 21 | 8:30 AM - 10:00AM

CREATING RESILIENT FOOD SYSTEMS THROUGH THE NON-CONTIGUOUS REGIONAL FOOD BUSINESS CENTER: A REVIEW OF THE FINDINGS FROM THE ASSESSMENT IN THE VIRGIN ISLANDS

ROOM : FLAMBOYAN A

Abstract

This presentation will provide a review of the methods and findings from the Virgin Islands Regional Food Business Center (RFBC) assessment, including a review of financial credit access, food aggregation and distribution, and food processing needs across the territory. Since 2017, Iowa State University Extension and Outreach and the Virgin Islands Good Food Coalition have worked cooperatively to understand needs for farmers and food businesses to increase their market potential and create a thriving food system across the Virgin Islands Territory. This has led to the creation of a food system assessment, a resilient food system report, funded projects for a virtual farmers market and mapping of the farm and food businesses across the territory. The team also received funding through Extension Risk Management to assess the risk and potential curricula for farmers in the areas of finance, marketing, and production risk. This presentation will review this history and then explore a current project within the non- contiguous Regional Food Business Center. The presentation will share the context of the non- contiguous RFBC and showcase the Caribbean sub-region that incorporates both Puerto Rico and Virgin Islands. As part of the process, Virgin Islands conducted an assessment that reviewed three priority areas based on previous research: financial capital, food aggregation and distribution, and food processing. This symposium will highlight the findings from interviews and discussions with farmers, food businesses and organizations and share next steps associated. Following the presentation, the symposium will offer space for dialogue regarding potential next steps for research and implementation.

Panelists:

Courtney Long

Iowa State University
Extension and Outreach
court7@iastate.edu

Sommer Sibilly-Brown

Virgin Islands Good Food
Coalition
sommer@goodfoodvi.org

RESEARCH SESSIONS I

Monday, October 21 | 10:15 AM - 11:45 AM

PRODUCTION, ENVIRONMENTAL ISSUES AND CONSUMER PREFERENCES

ROOM:
FLAMBOYAN A

MODERATOR:
JANE KOLODINSKY

RESEARCH UPDATE

Risk Efficient Crop Combinations for North Carolina Farms

Presenter: EJIMAKOR, GODFREY, North Carolina A&T State University; ejimakor@ncat.edu

RESEARCH UPDATE

A Cost-benefit Analysis of Climate-smart Interventions in the Agricultural and Livestock Landscape of Saint Kitts and Nevis

Presenter: PEGUERO, FELIPE -Texas A&M University; felipe.peguero@ag.tamu.edu

RESEARCH REPORT

Consumer Trust in Information Sources about Hemp Foods and CBD Products

Presenter: KOLODINSKY, JANE - Arrowleaf Group; jane@arrowleafgroup.com

RESEARCH REPORT

Weather, Wine and Prices

Presenter: OKHUNJANOV, BOTIR - Denison University; okhunjanovb@denison.edu

RESEARCH UPDATE

Two Decades of Change: Evolving Costs of Regulatory Compliance in the Produce Industry

Presenter: HAMILTON, LYNN - California Polytechnic State University; mpmccull@calpoly.edu

AGRICULTURAL OUTLOOK & PRICES

ROOM:
FLAMBOYAN B

MODERATOR:
**MARGARITA
VELANDIA**

OUTREACH

Price Trends at Tennessee Farmers Markets 2018-2023

Presenter: VELANDIA, MARGARITA- University of Tennessee ; mvelandi@utk.edu

RESEARCH REPORT

The Accuracy, Bias, and Dispersion in Financial Analysts' Earnings Per Share Forecasts of Sugar-Using Firms

Presenter: TREJO-PECH, CARLOS O. - University of Tennessee; ctrejope@utk.edu

RESEARCH UPDATE

Investigating the Lucrativeness of Onion Production in Georgia, USA

Presenter: FONSAH, ESENDUGUE GREG - University of Georgia; gfonсах@uga.edu

RESEARCH REPORT

Comparing Food Price Inflation Experiences across the States

Presenter: GOETZ, STEPHAN J. - Pennsylvania State University; sgoetz@psu.edu

RESEARCH SESSIONS I

Monday, October 21 | 10:15 AM - 11:45 AM

TRAINING AND WORKFORCE DEVELOPMENT IN FOOD INDUSTRY

ROOM:
ORQUIDEA

MODERATOR:
NATHAN KEMPER

RESEARCH REPORT

Consumer Willingness to Pay for U.S. Fair Wages in Agriculture: Experimental Evidence on Labels and Empathy

Presenter: SAHA, SRABONE - University of Delaware; srabone@udel.edu

RESEARCH UPDATE

Participant Perceptions and Economic Benefits from a USDA- Funded Meat Industry Workforce Training Program

Presenter: HOLCOMB, BAILEY- Oklahoma State University; bailey.holcomb@okstate.edu

RESEARCH UPDATE

Agricultural Financial, Tax and Asset Protection (AgFTAP)

Presenter: VETTER L. ALLISON - University of Arkansas; avetter@uada.edu

RESEARCH UPDATE

Experimental Hands-On Food Safety Training for Socially Disadvantaged Farmers in Alabama: Red Flag Demonstration

Presenter: CHAVEREST, E'LICIA L. - University of Arkansas
echaverest@uada.edu

RESEARCH UPDATE

Enhancing Rural Economic Growth through Targeted Workforce Development in Food and Agricultural Industries.

Presenter: KEMPER, NATHAN - University of Arkansas; nkemper@uark.edu

EMERGING CHALLENGES AND OPPORTUNITIES IN FOOD ECONOMICS

ROOM:
VIOLETA

MODERATOR:
CLINTON NEIL

RESEARCH REPORT

Telemedicine Usage and Barrier in Rural Veterinary Medicine

Presenter: NEILL, CLINTON L. - Cornell University; cln64@cornell.edu

RESEARCH REPORT

Which Came First: Policy or Preference? Preference Stability and Impacts of State Policy Passage in Specialty U.S. Table Eggs

Presenter: UFER, DANIELLE J. - USDA; danielle.ufere@usda.gov

RESEARCH REPORT

The Instrumental Value of Calorie Information and its Effect on Food Choices

Presenter: MICHELLE SEGOVIA - University of Delaware; segoviam@udel.edu

RESEARCH UPDATE

A Taste for Change: Understanding Current New York City Food Procurement to Inform a Shift to Values-Based Public Procurement

Presenter: WASSERMAN-OLIN, REBECCA - Colorado State University ;
rebecca.Wasserman-Olin@colostate.edu

ORGANIZED SYMPOSIUM II

Monday, October 21 | 1:45 PM - 3:15 PM

ASKING BETTER QUESTIONS ABOUT SCALING TECHNOLOGY IN FOOD AND AGRICULTURE INDUSTRIES

ROOM : FLAMBOYAN A

Abstract:

Advances in technology for agricultural use often focus on increasing efficiency and lowering cost, which in turn aims to increase profit. Yet, the research and development of such technologies often fail to consider the deeper social and economic issues related to implementation. Managing the risk of implementation goes beyond simple cost-benefit calculations, but rather should focus on asking broader, core questions about the purpose of the specific technology. Such questions are not about whether we can develop a new technology or refine an existing one, but rather should we? Moreover, what role should economists play in such discussions and when should they be involved in such discussions? These more normative economic type questions are essential to advancing resilient agrifood systems and need to be discussed to better position the profession for future involvement.

This symposium aims to bring together different perspectives from extension, research, and industry to develop conversation around different technologies and approaches to asking more pertinent and engaging questions. Discussion will include the audience with a goal to develop and encourage a method for formulating such questions. Presentations will cover issues such as the science of scaling, advancing information technology, finance and marketing technology advancements, along with policy and labor considerations. Panel participants will provide different perspectives on the issue through interactive presentations and then an audience led discussion, through submitted questions, will be the main focus of the symposium. The outcomes of the symposium are intended to spur attendees to better engage with inter/transdisciplinary research teams and provide a flexible framework to ask more pertinent economic questions.

Panelists:

Martha Montoya
AgTools Inc

Kim Morgan
University of Florida
kimorgan@ufl.edu

Clint Neill
Cornell University
cln64@cornell.edu

Suzanne Thornsby
University of Florida

RESEARCH SESSIONS II

Monday, October 21 | 3:30 PM - 5:00 PM

CONSUMER ATTITUDES AND FACTORS AFFECTING PURCHASES

ROOM:
FLAMBOYAN A

MODERATOR:
SHUOLI ZHAO

RESEARCH REPORT

The Possible Effects of GLP-1 Adoption on Caloric Demand and Food Substitution.

Presenter: DILLEY, ANDREW - University of Arkansas; mcfadden@uark.edu

RESEARCH REPORT

Does Origin of Meat Import Matter? Consumer Preferences for Goat Meat: Analysis of a 2024 USA National Goat Consumption Survey.

Presenter: ONYANGO, BENJAMIN - Missouri State University;
benjaminOnyango@missouristate.edu

RESEARCH REPORT

Impacts of Purchase Motivations on Southeastern U.S. Consumers' Farmstead Cheddar Cheese Willingness-to-pay.

Presenter: ZARING, CAITLIN - University of Tennessee; eeckelka@utk.edu

RESEARCH REPORT

From Convenience to Conscience: A Field Experiment on Influencing Local and Ecofriendly Milk Purchases Through Habit Formation.

Presenter: ZHAO, SHUOLI - University of Kentucky; szhao@uky.edu

SPECIALITY CROP PRODUCTION AND MARKETING

ROOM:
FLAMBOYAN B

MODERATOR:
YEFAN NIAN

RESEARCH REPORT

US Consumers' Preferences for Heritage Crops.

Presenter: NIAN, YEFAN - Clemson University ; ynian@clemson.edu

RESEARCH REPORT

Information Nudges and Preferences for Fresh From Florida Blueberries.

Presenter: KHACHATRYAN, HAYK - University of Florida; hayk@ufl.edu

RESEARCH UPDATE

A Sensory and Wellness Framework for Choosing Watermelons for Local Growers in Local Markets.

Presenter: WOODS, TIMOTHY - University of Kentucky; tim.woods@uky.edu

RESEARCH UPDATE

Wholesale Produce Markets: On-Site Infrastructure Assessment.

Presenter: PARK, KRISTEN S. - Cornell University; ksp3@cornell.edu

RESEARCH SESSIONS II

Monday, October 21 | 3:30 PM - 5:00 PM

AGRICULTURAL SUPPLY CHAINS: ECONOMIC AND SOCIAL IMPLICATIONS

ROOM:
ORQUIDEA

MODERATOR:
STEPHAN GOETZ

RESEARCH REPORT

Values Based Supply Chains can be More than Agriculture in the Middle: The Case of Small Grains in the Pacific Northwest.

Presenter: KOLODINSKY, JANE - Arrowleaf Group; jane@arrowleafgroup.com

RESEARCH REPORT

Decomposition of the U.S. Dairy Supply Chain: Implications for Sustainability and Resilience in the Post-COVID Era.

Presenter: TIAN, ZHENG - Pennsylvania State University; zzt36@psu.edu

RESEARCH REPORT

Foodborne Outbreaks, Product Recalls, and Firm Learning.

Presenter: AKHUNDJANOV, SHERZOD B. - Utah State University;
sherzod.akhundjanov@usu.edu

RESEARCH REPORT

Alcoholic Beverage Manufacturing Resilience during The Great Recession and the Covid-19 Pandemic.

Presenter: GOETZ, STEPHAN J. - Pennsylvania State University; sgoetz@psu.edu

FOOD SYSTEMS TRANSFORMING INITIATIVES

ROOM:
VIOLETA

MODERATOR:
HANNAH SHEAR

CASE STUDY

Developing and Expanding a University Student Farm

Presenter: SHEAR, HANNAH E. - Oklahoma State University; hshear@okstate.edu

RESEARCH REPORT

Lessons Learned from a Pilot Farm to Senior Services Program in North Carolina

Presenter: BLOOM, J. DARA - North Carolina State University; jdbloom@ncsu.edu

RESEARCH REPORT

Getting to Scale with Farm to ECE: Strategies to Grow the Market

Presenter: BLOOM, J. DARA - North Carolina State University; jdbloom@ncsu.edu

RESEARCH REPORT

Fruits and Vegetables in Farmers Market in Different Counties of Ohio: Educating community value of holistic nutrition and health benefits.

Presenter: GUPTA, PRATIBHA - Central State University; pgupta@centralstate.edu

RESEARCH SESSIONS III

TUESDAY, October 22 | 9:00 AM - 10:30 AM

LOCAL FOOD MARKETING & DIGITAL RETAILING

ROOM:
FLAMBOYAN A

MODERATOR:
KENKEL PHIL

RESEARCH REPORT

The Rise and Fall of the Oklahoma Food Cooperative

Presenter: KENKEL, PHIL - Oklahoma State University; phil.kenkel@okstate.edu

RESEARCH UPDATE

Waiting for Convenience: The influence of online grocery shopping delivery speed on food choice.

Presenter: YENERALL, JACKIE - University of Tennessee; jyeneral@utk.edu

RESEARCH UPDATE

Online Media Listening: Analysis of User Posts on Salmon and Shrimp.

Presenter: QUAGRAINIE, KWAMENA K. - Purdue University; kquagrai@purdue.edu

OUTREACH

From Academic Circles to Public Squares: Transforming Research into National News.

Presenter: DEVLIN, KRISTEN - Pennsylvania State University; krd111@psu.edu

SUPPLY CHAIN DIMENSIONS OF ANIMAL PRODUCTS

ROOM:
FLAMBOYAN B

MODERATOR:
KELLIE RAPER

RESEARCH REPORT

Consumer Preferences and Willingness to Buy Value-added Goat Meat Products

Presenter: IBRAHIM, MOHAMMED - Fort Valley State University; ibrahimm@fvsu.edu

RESEARCH UPDATE

Analysis of Downstream Buyer Volume and Wagyu-Angus Feedlot Price Distribution

Presenter: RAPER, KELLIE CURRY - Oklahoma State University; kellie.raper@okstate.edu

RESEARCH UPDATE

Backyard Grower-Consumer Perceptions of Rabbit Meat Consumption in Rural [State]

Presenter: MURPHREE, MILLIE - Auburn University; mem0355@auburn.edu

RESEARCH REPORT

Economics of Adding Value to Dark Cutting Beef Using High Pressure Processing Technology

Presenter: RODNEY HOLCOMB - Oklahoma State University; rodney.holcomb@okstate.edu

OUTREACH

Kentucky Dairy Product Shoppers: Perceptions of Local Sourcing

Presenter: WOODS, TIMOTHY - University of Kentucky; tim.woods@uky.edu

RESEARCH SESSIONS III

TUESDAY, October 22 | 9:00 AM - 10:30 AM

COMMUNITY, FOOD AND AGRICULTURAL SYSTEMS LINKAGES

ROOM:
ORQUIDEA

MODERATOR:
DARA BLOOM

RESEARCH REPORT

A Framework to Analyze Resilience of Local and Regional Food Systems in the Midwest of the United States

Presenter: BONILLA, ANDREA RAMOS - Michigan State University; ramosan6@msu.edu

RESEARCH REPORT

Market trends for Orphan crops in Benin: Implications for food security

Presenter: FABININ, AKEM NINA - University of Kiel, Germany; fabininakem@yahoo.com

RESEARCH REPORT

Resilient Food Systems: A case study review of five place-based

Presenter: LONG, COURTNEY - Iowa State University; court7@iastate.edu

RESEARCH UPDATE

A Coordinated Farm to Institution Supply Chain Approach to Increase Market Access and Community Food Security

Presenter: BLOOM, J. DARA - North Carolina State University; jdbloom@ncsu.edu

ADVANCEMENTS IN PRODUCTION

ROOM:
VIOLETA

MODERATOR:
ARBINDRA RIMAL

RESEARCH UPDATE

Redefining Citrus Greening Management: A Quest for Optimal Treatment

Presenter: ANDERSON, XICAY - Texas A&M University; anderson.xicayxico@ag.tamu.edu

RESEARCH UPDATE

Adoption of Artificial Intelligence in Agriculture: Economic Divergence or Convergence

Presenter: HENNEBERRY, SHIDA - USDA; Shida.Henneberry@usda.gov

RESEARCH UPDATE

Resilient Agricultural Decision-Making in South Texas Amid Water Scarcity

Presenter: XAVIER VILLAVICENCIO - Texas A&M University;
xavier.villavicencio@ag.tamu.edu

RESEARCH UPDATE

Analyzing Biodynamic Agriculture in California Using Porter's Five Forces

Presenter: PHILLIPS, JON C. - California State Polytechnic University; jcphillips@cpp.edu

RESEARCH REPORT

Purchase of Locally Produced Climate Smartfood: Institutional vs. intermediated buyers

Presenter: RIMAL, ARBINDRA - Missouri State University;
arbindrarimal@missouristate.edu

ABSTRACTS

RESEARCH SESSIONS I

Monday, October 21 | 10:15 AM - 11:45 AM

RISK EFFICIENT CROP COMBINATIONS FOR NORTH CAROLINA FARMS

Farm income risk could make farmers less resilient. This is especially so for farms without crop insurance. The resilience of such farmers could be threatened further by climate change. Farmers without crop insurance could increase their resilience by adopting alternative risk management strategies. Crop diversification is one of the strategies that could be used to manage risk. Diversification may result in lower levels of farm income and risk. Awareness of the risk-return tradeoff is necessary for such decision making. We will use data from Robeson County in North Carolina to identify the risk-efficient combinations of crops for a typical farmer in the county. Our estimated returns for each crop will be the mean revenue. The risk associated with each crop will be estimated as the standard deviation of the return. Our results will help farmers in the county to identify the potential risk-return tradeoffs associated with managing risk through diversification.

AUTHORS:

Godfrey Ejimakor

North Carolina A&T State
University

Omowunmi Odeyomi

North Carolina A&T State
University

Uchenna Okefi

North Carolina A&T State
University

A COST-BENEFIT ANALYSIS OF CLIMATE-SMART INTERVENTIONS IN THE AGRICULTURAL AND LIVESTOCK LANDSCAPE OF SAINT KITTS AND NEVIS

After the closure of the sugar cane industry, Saint Kitts and Nevis (SKN) faced significant agricultural changes, leading to a reliance on imported food and a deficit in staples, fruits, and vegetables. To address this, the SKN government is implementing climate-smart agricultural (CSA) practices to transform degraded landscapes into sustainable food production systems. This research identifies viable food production systems, areas for CSA intervention, investment needs, and economic and social benefits. Four production systems were selected with input from farmers and local authorities, covering 3,631 acres (14% of the country). CSA interventions include various practices and electric fencing to protect crops from green vervet monkeys. The investment required ranges from 678 to 25,000 XCD per acre, totaling XCD 57 million over ten years. The cost-benefit analysis shows a return of XCD 1.5 to 4.5 per dollar invested. Socially, the interventions could create 928 full-time jobs and significantly improve food security.

AUTHORS:

Felipe Peguero

Texas A&M University

Laura Banegas

Tropical Agricultural
Research and Higher
Education (CATIE)

Tony Nello

International Union for
Conservation of Nature (IUCN),
United Nations Environmental
Program

CONSUMER TRUST IN INFORMATION SOURCES ABOUT HEMP FOODS AND CBD PRODUCTS

Natural and more environmentally friendly foods medicines are being sought by consumers. As a sustainably grown crop and natural ingredient, hemp foods and cannabidiol (CBD) products have the potential to contribute to these preferences. Yet, there is evidence that consumers equate hemp products with psychotropic cannabis, and that information about hemp products ranges from legal claims to marketing ploys which may be considered deceptive. To investigate consumer trust in hemp information, we utilize a representative sample of U.S. consumers (n=2,000) and Latent Class Analysis (LCA) and specifically the Delta method to answer three research questions: 1) What is the trust in sources of information that originate from the hemp value chain (producers, processors, sellers); from advocacy and industry groups, friends and family; from the news media, social media and the internet, from government sources and from academic research?; 2)-Does trust in information differ by whether a respondent is aware of hemp foods or hemp CBD?; and 3) What are the implications of answers to 1) and 2) for the hemp food industry?

AUTHORS:

Jane Kolodinsky	Hannah Lacasse	Jeff Buzas
University of Vermont	University of Vermont	University of Vermont
Tyler Mark	Rebecca Hill	Will Snell
University of Kentucky	Colorado State University	University of Kentucky
Heather Darby	Jonathan Shepherd	Yuqing Zheng
University of Vermont	University of Kentucky	University of Kentucky

WEATHER, WINE, AND PRICES

We examine how weather variables affect markets for U.S. high-end wines, both luxury wines and wines from the same region that are not in the very limited highest category. Specifically, we compare so-called “cult wines” with “non-cult wines” from Napa, Sonoma and Walla Walla that are known for their high-quality wines. We investigate associations between weather conditions and prices, price gaps (the difference between the secondary market price and release price), the number of cases produced, and wine scores assigned for both cult and non-cult wines. We further examine whether associations with weather differ across wine regions. The analysis suggests that weather is associated with various characteristics of wine markets, including prices, price gaps for cult wines, wine scores, and cases produced. The nature of the associations depends on the type of wine and timing of weather conditions throughout the year and growing region.

AUTHORS:

Botir B. Okhunjanov	Jill J. McCluskey	Ron C. Mittelhammer
Denison University	Washington State University	Washington State University

TWO DECADES OF CHANGE: EVOLVING COSTS OF REGULATORY COMPLIANCE IN THE PRODUCE INDUSTRY

California is not only the most productive agricultural state in the U.S., but also the most regulated. We follow up on a 2018 study of fresh produce that showed while production costs had increased by about 25% from 2006 to 2018, regulatory costs skyrocketed by almost 900%. Since 2018, groundwater quantity, air and water quality regulations, as well as new overtime and minimum wage requirements pose additional costs to growers. This study details changes in production and regulatory costs for the same lettuce grower from the initial 2006 and 2018 studies. Changes in the local, state or federal regulatory environment for lettuce production are detailed and an analysis of regulatory cost categories on a pre-tax cash/per-acre basis are provided. Findings illustrate the increase in marginal cost and therefore overall decrease in market competitiveness for California producers.

AUTHORS:

Lynn Hamilton

California Polytechnic State University

Michael McCullough

California Polytechnic State University

PRICE TRENDS AT TENNESSEE FARMERS MARKETS 2018-2023

A common question we receive from aspiring and beginner farmers is: How much should I charge for my tomatoes, squash, blueberries, or other products? When setting prices for products, farmers should consider three factors. They should consider the cost of producing and marketing a product, the buyers' willingness to pay, and the price of competing products. In this publication, we summarize trends in farmers markets' prices between 2018 and 2023 for selected products in various markets across Tennessee, using information from the Tennessee Farmers Markets Price Reports. We report prices of fruits, vegetables, cut flowers, and mushrooms every other week throughout the season, from May to October, since 2013 for an average of five to six markets across Tennessee. Farmers could use this information to set their prices. Specifically, this information could help them assess consumer willingness to pay for a product and competitor prices, which are two very important factors to consider when setting prices for a product. In this publication, we emphasize that this information could be used as a reference to set prices, but farmers should always make sure they are covering their variable and fixed costs.

AUTHORS:

Margarita Velandia

University of Tennessee

Mannie Bedwell

University of Tennessee

Heather Lambert,

University of Tennessee

Hasibul Hasan

Beth Bergeron

University of Tennessee

Lee Sammons

University of Tennessee

Steve Rickman

University of Tennessee

Shanto

University of
Tennessee

Emily Lamb

Jonesborough Locally
Grown

Beth Bergeron

Jonesborough Locally
Grown

Alicia Rihn

University of Tennessee

THE ACCURACY, BIAS, AND DISPERSION IN FINANCIAL ANALYSTS' EARNINGS PER SHARE FORECASTS OF SUGAR-USING FIRMS

This study argues that the U.S. sugar policy provides valuable business information to this industry, facilitating financial analysts' forecasts of publicly traded sugar-using firms (SUFs). To test our hypothesis, we evaluate relevant forecast properties (bias, accuracy, and dispersion) for SUFs and their agribusinesses (AGBs) peers. The analysis covers the 1976-2023 period, comparing results before and after 1994 when the USDA started implementing the World Agriculture Supply and Demand Estimates forecasts for volumes of sugar produced and consumed in the U.S. Consistent with our hypotheses, the results show that financial analysts' earnings forecasts for SUFs (particularly after 1994) are systematically (1) less biased, (2) more accurate, and (3) less dispersed than those for AGBs. Our results add to a series of studies showing that SUFs are companies with a solid and stable economic performance, which can partly be explained by the benefits SUFs indirectly receive from the US sugar policy.

AUTHORS:

Carlos O. Trejo-Pech
University of Tennessee

Karen L. DeLong
University of Tennessee

Robert Johansson
Alexandria, Virginia

INVESTIGATING THE LUCRATIVENESS OF ONION PRODUCTION IN GEORGIA USA

Onions (*Allium cepa*) is one of the 35 important commercial specialty crops in the state of Georgia. It was ranked 2nd top ten vegetables after sweet corn generating \$174 million, equivalent to 13.32% of the total Georgia vegetable farm gate value of \$1.3 billion in 2022. Onion was 19th in the Georgia Agricultural Commodity ranking by contributing 0.95% of the state's \$18 billion total farm gate value. In 2019, onion farm gate value was \$133 million, i.e., 11% decrease from 2018 report of \$150 million. Our objective is to determine the profitability levels of Georgia onion farmers and the viability of the Georgia Onion Industry in general using a traditional enterprise budget model. We collected both primary and secondary data and our results depicted that the industry is profitable. Our study will be important for the industry operators in their day-to-day and planting decisions including extension agents and agricultural financial institutions respectively.

AUTHORS:

Esendugue Greg Fonsah
University of Georgia

Ajay Kiran Nemali
University of Georgia

Guy Hancock
University of Georgia

COMPARING FOOD PRICE INFLATION EXPERIENCES ACROSS THE STATES

This study examines state-level variations in food price inflation following the Covid-19 pandemic, using data from multiple sources including the Bureau of Labor Statistics, Google Trends, and the U.S. Census Bureau's Household Pulse Survey. We analyze the disparate experiences of states, noting significant differences such as Pennsylvania's 8.7% year-over-year high compared to Colorado's 2.9%. The research explores the critical role of the food distribution system, which accounts for about 45% of the consumer "food dollar" in 2022. We investigate the relationship between reported inflation data and household experiences of food insecurity and cost. Additionally, we conduct preliminary regressions to identify state-level factors contributing to varying degrees of food price inflation, including population density, incomes, grocery store density, and state-wide sales taxes. This study aims to provide insights relevant to FDRS members and contribute to understanding the complex dynamics of food price inflation across states.

AUTHORS:

Zheng Tian
Pennsylvania State
University

Stephan J. Goetz
Pennsylvania State
University

Claudia Schmidt
Pennsylvania State
University

Yuxuan Pan
Pennsylvania State
University

CONSUMER WILLINGNESS TO PAY FOR U.S. FAIR WAGES IN AGRICULTURE: EXPERIMENTAL EVIDENCE ON LABELS AND EMPATHY

Harsh working conditions and low wages deter farmworkers, increasing the risk of labor shortages in the U.S. agricultural industry. While consumers' willingness to pay (WTP) premiums for Fairtrade imported goods is well-studied, little research exists on their WTP for domestically grown products supporting fair wages. This study investigated consumer WTP for the Fair Food Program (FFP) certified tomatoes, which ensures fair wages and working conditions for farmworkers. It also examined the impact of empathy on demand for FFP products, given its role in promoting pro-social behavior. Using a Becker-DeGroot-Marschak auction with 326 participants, we found that the FFP label increased WTP by 47 cents. Although the empathy nudge was statistically insignificant, a subgroup with extreme to moderate empathy for a farmworker showed higher WTP than those with neutral or no empathy. These findings inform that marketing efforts highlighting farmworker conditions could increase demand for ethically produced U.S. goods.

AUTHORS:

Srabone Saha
University of Delaware

Kelly Davidson
University of Delaware

Bachir Kassas
University of Florida

PARTICIPANT PERCEPTIONS AND ECONOMIC BENEFITS FROM A USDA-FUNDED MEAT INDUSTRY WORKFORCE TRAINING PROGRAM

To combat the critical shortage of meat industry workforce, Oklahoma State University's Food and Agricultural Products Center (FAPC) developed a hands-on program to train the meat industry workforce. This Meat Mastery Program, funded through a USDA-NIFA workforce training grant, was designed to educate participants on various aspects of multispecies meat harvesting and value-added meat product processing. FAPC focused on a solution-oriented approach to successfully develop and execute an intensive, five-week summer training program. The Meat Mastery Program participants assisted with daily operations such as harvest, fabrication, packaging and labeling. Participants received grant-funded housing at the OSU-Stillwater campus and a grant-sourced \$2,000 stipend at the end of the program. The execution of the summer training program prepared participants for a successful career in the meat industry as they received formal training and certificates in Hazard Analysis and Critical Control Points, Good Manufacturing Practices and Sanitation. This study, as a follow-up to two years of the Meat Mastery Program, examines participants' perceptions of the program and the meat industry, career implications, and economic opportunities recognized by completing the program. Results may be of interest to other FDRS members whose institutions are considering outreach programs to better support local/regional food industry workforce.

AUTHORS:

Bailey Holcomb
Oklahoma State
University

Ravi Jadeja
Oklahoma State
University

Joel Jackson
Oklahoma State
University

Rodney B. Holcomb
Oklahoma State
University

AGRICULTURAL FINANCIAL, TAX AND ASSET PROTECTION (AGFTAP)

The Agricultural Financial, Tax and Asset Protection (AgFTAP.org) is a national collaborative with partners from the academic and private sectors. It is funded through a USDA Farm Service Agency Cooperative Agreement. The program features an online portal that highlights educational trainings and resources for farmers, ranchers, educators and agricultural stakeholders to enhance farmer and rancher ability to understand and navigate farm business tax and asset protection decisions for their operations. Through partnerships with 1862, 1890, and Hispanic serving Land-Grant institutions a national network of trainings focusing on financial issues such as filing complete and accurate tax returns, business planning strategies, and asset management including managing tax liabilities with debt-financed construction more easily accessible. We are excited to announce the expansion of AgFTAP to include community-based organizations. The project expansion seeks to strategically encourage public/private collaborations and multi-state partnerships.

AUTHORS:

Allison L. Vetter
University of Arkansas

Celise L. Weems
University of Arkansas

Ronald Rainey
University of Arkansas

EXPERIMENTAL HANDS-ON FOOD SAFETY TRAINING FOR SOCIALLY DISADVANTAGED FARMERS IN ALABAMA : RED FLAG DEMONSTRATION

According to the Center for Disease Control and Prevention (April 2024), it is estimated 48 million people get sick from a foodborne illness annually. Over the years, food safety has become a global concern which requires everyone’s full understanding and participation to minimize risk. For many socially disadvantaged farmers and gardeners, and marginalized communities, more awareness and training of the Food Safety Modernization Safety Act- (FSMA) Produce Safety Rule (PSR) is needed. With the many challenges socially disadvantaged farmers face it is vital to bring awareness and provide food safety educational programs to an already marginalized community. This presentation will discuss preliminary results from three (3) educational programs on educating and empowering farmers on food safety. Additionally, the presentation will discuss the effectiveness of utilizing cautionary tales of red flags FSMA-PSA

AUTHORS:

E’licia L. Chaverest
University of Arkansas

Duncan M. Chembezi
Rural South Institute

ENHANCING RURAL ECONOMIC GROWTH THROUGH TARGETED WORKFORCE DEVELOPMENT IN FOOD AND AGRICULTURAL INDUSTRIES

This research focuses on aligning educational offerings with the workforce development needs of food, agriculture, and related industries in Arkansas. By systematically assessing stakeholder needs, we aim to ensure that our educational programming directly addresses these requirements, thereby enhancing rural economic development. The first phase involves conducting a comprehensive stakeholder needs assessment through surveys, interviews, and focus groups with farmers, agribusiness companies, industry associations, and community organizations. This is supplemented by analyzing labor market trends to identify emerging skills demands and economic forecasts specific to agriculture in Arkansas. Based on the insights gained, we will develop a portfolio of targeted online programs, such as stackable microcertificates, that cover critical skills and knowledge areas. This strategic approach aims to significantly contribute to workforce development in the agricultural sector while supporting broader economic development and community resilience in rural areas.

AUTHORS:

Nathan Kemper
University of Arkansas

Ryan Loy
University of Arkansas

Hunter Goodman
University of Arkansas

Ronald Rainey
University of Arkansas

Andrew McKenzie
University of Arkansas

TELEMEDICINE USAGE AND BARRIERS IN RURAL VETERINARY MEDICINE

Telehealth has been emerging in both human and veterinary medicine for several decades, yet adoption of associated technologies remains low among these fields. To better comprehend the usage and barriers inhibiting telehealth and telemedicine adoption among U.S. veterinarians, a survey was developed and distributed to a representative sample of veterinarians. This survey aimed to capture the broad usage of various technologies and communication modes employed in patient care. The survey identified how different telehealth/telemedicine technologies are used and the types of patients each technology serves. For veterinarians not utilizing these technologies, the survey sought to uncover reasons and barriers to their usage, which may include structural, policy, or business-related challenges. The goal of this study was to provide a comprehensive understanding of telehealth use in veterinary medicine and identify barriers across the rural/urban divide. This research informs future policy initiatives within veterinary medicine and has significant implications at the intersection of the food system and public health.

AUTHORS:

Clinton L. Neill

Cornell University

WHICH CAME FIRST: POLICY OR PREFERENCE? PREFERENCE STABILITY AND IMPACTS OF STATE POLICY PASSAGE IN SPECIALTY U.S. TABLE EGGS

In the U.S. egg industry, several States have passed policies restricting confinement practices, prohibiting cages or banning the retail sale of eggs produced under such prohibited conditions. One question raised when these policies pass is whether shifts in consumer preferences and purchasing behavior over products similar to, but not directly covered by a policy, might occur following passage. We examine this question in the context of U.S. table eggs under changing State animal welfare policy regimes. Using household scanner data merged with a proprietary database of packaging and label claims, we estimate monthly probit models to investigate preference stability and dynamics. We then examine impacts of policy passage on aggregate consumer behavior within State borders, employing the Callaway-Sant'Anna staggered difference-in-differences estimator. This study contributes to a better understanding of the repercussions of animal welfare policies on consumer preferences and purchasing behavior over animal products across the spectrum of specialty claims.

AUTHORS:

Danielle J. Ufer

USDA

THE INSTRUMENTAL VALUE OF CALORIE INFORMATION AND ITS EFFECTS ON FOOD CHOICES

We introduce a novel theoretical framework, which we refer to as the Expectation-Realization (ER) framework, to characterize the mechanism driving the instrumentality of information in the decision-making process. The simple framework proposes that information has instrumental value only when there is a difference between the decision-maker's expectations of an attribute and its realized value. This framework sheds light on the channels determining when information is useful and can potentially change outcomes in the decision-making process. We apply the ER framework to the realm of nutrition by testing its predictions in an incentivized experiment implemented with 130 regular consumers from the Southwest region of the United States. We partnered with a nutrition expert from a national restaurant chain to create four customized meals: a 600-calorie reference sandwich, a 300-calorie wrap, a 600-calorie wrap, and a 900-calorie wrap. Our results suggest that the instrumental value that calorie information provides to decision-makers depends on the realized caloric content of the meal in question.

AUTHORS:

Brian Toney
Texas A&M University

Marco A. Palma
Texas A&M University

Michelle S. Segovia
University of Delaware

Grace Melo
Texas A&M University

A TASTE FOR CHANGE: UNDERSTANDING CURRENT NEW YORK CITY FOOD PROCUREMENT TO INFORM A SHIFT TO VALUES-BASED PUBLIC PROCUREMENT

Government procurement practices can drive significant social, economic, and environmental change. Traditionally constrained by lowest-cost bidding procurement systems, governments, including New York City, are exploring procurement that embraces values alongside cost-efficiency. Understanding the current bidding landscape is crucial to assessing the potential impact of a shift to values-based procurement. We use data from the New York City Mayor's Office of Food Policy on the procurement contracts combined with business attributes of wholesalers to analyze the factors influencing the decision to submit a bid and the submitted bid price determinants. This research identifies barriers within the current procurement system that hinder the achievement of values-based procurement goals. By analyzing these obstacles, we provide a foundation for modeling the impact of prospective policies under consideration by NYC. Our study also offers a framework applicable to other governments or institutions exploring similar procurement policy shifts.

AUTHORS:

Rebecca Wasserman-Olin
Colorado State University

Becca B.R. Jablonski
Cornell University

RESEARCH SESSIONS II

Monday, October 21 | 3:30 PM - 5:00 PM

THE POSSIBLE EFFECTS OF GLP-1 ADOPTION ON CALORIC DEMAND AND FOOD SUBSTITUTION

Consumer excitement about glucagon-like peptide-1 (GLP-1) agonists has grown exponentially recently due to the potential for weight loss. Studies have shown that users of GLP-1 agonists significantly decrease calorie consumption and display a shift in taste and food preferences. The shifts in caloric intake and substitutions across food categories could substantially impact the food system in general. This study aimed to examine the effects of GLP-1 agonists on calories and food consumed. To complete the study objective, four groups of consumers were surveyed: 1) current GLP-1 users, 2) past GLP-1 users, 3) non-users who intend on using a GLP-1 in the future, and 4) non-users who do not intend on using a GLP-1. Data were collected from approximately 500 respondents in each group. Results show that while GLP-1 users consume fewer calories, they spend more at the grocery store, likely due to a shift in the types of foods purchased.

AUTHORS:

Andrew Dilley
University of Arkansas

Brandon R. McFadden
University of Arkansas

Jayson L. Lusk
Oklahoma State University

DOES ORIGIN OF MEAT IMPORT MATTER? CONSUMER PREFERENCES FOR GOAT MEAT: ANALYSIS OF A 2024 USA NATIONAL GOAT CONSUMPTION SURVEY

The USA's diverse consumer meat preferences, necessitates imports of substantial amounts of various meats. For example, goat meat is mainly imported given there is little production capacity to satisfy the ever-growing demand from immigrants from Africa, Asia, and South America (Ibrahim et, al., 2020). Beginning in 2001, traceability of agricultural imports became a major focus due to bioterrorism and food safety concerns. This gave rise to country of origin labeling (COOL) ensuring that consumers had additional information to make informed purchasing decisions (Juric and Worsley, 1998). This research using 2024 national survey data from the U.S., examines consumers' willingness to pay more for domestically produced goat compared to imports. Preliminary findings show value attributes (freshness and taste among others); consumers' food safety perceptions and socioeconomic characteristics drive preferences. The findings will inform policy on goat meat imports, strategies on marketing as well as policies to bolster domestic meat goat production.

AUTHORS:

Benjamin Onyango
Missouri State University

Mohammed Ibrahim
Fort Valley State University

Jung Hoon Lee
Fort Valley State University

Francine Hollis
Fort Valley State University

Nalini Pattanaik
Fort Valley State University

IMPACTS OF PURCHASE MOTIVATIONS ON SOUTHEASTERN U.S. CONSUMERS' FARMSTEAD CHEDDAR CHEESE WILLINGNESS-TO-PAY

Successful farmstead dairies processing their farm's raw milk into salable dairy products must understand how to price products and target customers effectively. A 2023 online survey estimated Tennessee, Kentucky, and North Carolina consumers' willingness-to-pay for 0.45 kg farmstead cheddar cheese blocks and the impact of purchase motivations (n=569) using discrete choice scenarios. Attributes included processor source, age, packaging, retailer, production method, and price. Perceived importance of health, convenience, product, social, environmental, and welfare impacts on at-home dairy product purchase decisions created three Ward's linkage clusters: high, moderate, and low importance. Results were filtered by cluster and analyzed with mixed logit models and non-linear combinations. Processor source and production method carried high price premiums, while packaging and age attributes required price discounts. Study results can help farmstead processors refine production, packaging, and marketing strategies to attract local customers, increase sales, and advance customer behavior, marketing, and agricultural economics research.

AUTHORS:

Caitlin Zaring
University of Tennessee

Alicia Rihn
University of Tennessee

Elizabeth Eckelkamp
University of Tennessee

FROM CONVENIENCE TO CONSCIENCE: A FIELD ON INFLUENCING LOCAL AND ECOFRIENDLY MILK PURCHASES THROUGH HABIT FORMATION

Despite the environmental benefits of glass-bottled milk, higher costs and inconvenience hinder its widespread adoption. This ongoing field experiment investigates consumer behavior towards glass-bottled milk and examines the effectiveness of monetary incentives in promoting its purchase and encouraging bottle returns, with a particular focus on habit formation. Consumers at a local co-op are randomly assigned to three groups: a control group, a group receiving coupons upon purchase, and a group receiving coupons upon return. Preliminary observations suggest that coupons may incentivize purchases, particularly for those receiving them at purchase, but may also lead to lower return rates compared to those incentivized upon return. The study anticipates high coupon usage due to perceived value and will examine the potential for these incentives to encourage habit formation towards glass-bottled milk consumption. A habit formation model will analyze how price reductions influence consumption after consistent inducement of monetary incentives. Findings will inform marketing strategies and deposit-refund systems, contributing to a more sustainable dairy industry by promoting glass-bottled milk and reducing reliance on disposable packaging.

AUTHORS:

Shuoli Zhao
University of Kentucky

Wyatt Lucas
University of Kentucky

Timothy A. Woods
University of Kentucky

US CONSUMER'S PREFERENCES FOR HERITAGE CROPS

The objective of this study is twofold. First, we examine US consumers' preferences for heritage crops using a discrete choice experiment (DCE). Second, we examine the consistency of consumers' preferences for heritage attributes across a selection of five crops (i.e., apple, cabbage, rice, squash, and tomato). Five attributes are used to describe crops in the DCE: price, the origin of the crop, whether the crop is a conventional, heirloom, or heritage crop, production practice (organic or not), and farm ownership (family owned farm or not). We distinguish heirloom and heritage crops because the concept of heirloom crops only demonstrates the time aspect of the crop, while the concept of heritage crops includes the history and cultural aspects of the crop. The findings of this study have important implications for US agricultural distribution research. Given that we find consumers tend to have limited knowledge of heirloom and heritage crops and their WTPs for these two types of crops are low, more effort needs to be made by the proponents of such products (e.g., Slow Food USA) to promote these crops.

AUTHORS:

Yefan Nian

Clemson University

Dave Lamie

Clemson University

Michael Vassalos

Clemson University

Daniel Tregeagle

Clemson University

Ben Boyles

Clemson University

Diana Vossbrinck

Clemson University

INFORMATION NUDGES AND PREFERENCES FOR FRESH FROM FLORIDA BLUEBERRIES.

Blueberry farmers in Florida gain additional advantages from participating in the state-branded agricultural marketing program and using the Fresh From Florida logo on their product packaging. However, the Florida blueberry market has recently faced challenges due to the influx of imported berries. To enhance the visibility of the promotional program and local blueberry consumption, it is essential to boost consumers' awareness and understanding of the benefits associated with locally grown fresh blueberries. The objective of this study is to provide a better understanding of consumers' preferences and underlying reasons for purchasing fresh blueberries with the state label, Fresh From Florida. In this paper, we first investigate whether, and the extent to which, consumers are willing to pay a price premium for the state-branded logo, Fresh From Florida. Second, we examine whether providing information impacts consumers' willingness to pay for fresh blueberries marketed with the state logo. We determine which type of information is most impactful in affecting consumers' choices. The outcomes of this study will offer useful perspectives for promoting locally grown products among local retailers, agricultural producers, and policy decision-makers.

AUTHORS:

Younghyeon Jeon

University of Florida

Hayk Khachatryan

University of Florida

Xuan Wei

University of Maryland

Bachir Kassas

University of Florida

Lisa House

University of Florida

Rodolfo Nayga

Texas A&M University

A SENSORY AND WELLNESS FRAMEWORK FOR CHOOSING WATERMELONS FOR LOCAL GROWERS IN LOCAL MARKETS

Many plant breeding programs have emphasized selecting varieties with characteristics relating to yield, pest or disease resistance, or other characteristics related to production resilience. The authors collaborate on a miniature seedless watermelon variety selection that emphasizes relative lycopene levels and integrates this with consumer choice and WTP in a sensory lab that adds traditional sensory comparisons for sweetness, color and texture. These varieties may not have especially great shipping or shelf life characteristics, but may be well-suited for fitting the portfolio of smaller direct market growers in the Ohio River Valley region. Seven watermelon varieties are explored for this study with paired trials at the Purdue research farm in Vincennes, IN and the University of Kentucky research farm in Lexington, KY. Lycopene and sensory testing are conducted at the UK Food Systems Innovation Center. The variety study approach is intended to be used as a pilot framework for integrating more explicit nutritional and sensory information into traditional variety selection studies with a view toward helping local producers emphasize unique and verifiable attributes of their products linked to health and wellness.

AUTHORS:

Timothy Woods
University of
Kentucky

Wenjing Guan
Purdue University

Rachel Rudolph
University of
Kentucky

Kendall Corbin
University of
Kentucky

WHOLESALE PRODUCE MARKETS: ON-SITE INFRASTRUCTURE ASSESSMENT

Despite their role in fresh produce supply chains, public investment in wholesale produce market infrastructure and transportation networks has slowed. This project used a survey and in-depth interviews to assess on-site market infrastructure needs and to identify areas needed for improvements. Findings show that infrastructure issues are creating highly inefficient product movement into, within, and around the markets. Many buildings are deteriorating while their original design does not meet current tractor-trailer design, product flows, and, particularly, food safety requirements. Increased cooler space, product handling areas, loading docks, and traffic lanes and parking areas are needed for several markets whose tenants are interested in expanding. Interviews indicate that markets are locked into the existing land and facilities, making expansion of buildings, truck lanes, and added facilities for waste control and disposal quite difficult. Some market and land ownership structures make it difficult for markets to find or access funding for improvements.

AUTHORS:

Kristen S. Park
Cornell University

Abigail B. Long
USDA

Miguel I. Gómez
Cornell University

VALUES BASED SUPPLY CHAINS CAN BE MORE THAN AGRICULTURE IN THE MIDDLE: THE CASE OF SMALL GRAINS IN THE PACIFIC NORTHWEST

We expand on the concept of hybrid values-based supply chains (VBSCs), where local and regional food production meet larger supply chains while maintaining or prioritizing social, environmental, economic, and quality benefits across the supply chain from producer to consumer. For the first time in half a century, there is alignment among the policy landscape, consumer demand, advancement of climate-smart production practices, and supply chain actors to expand hybrid VBSCs. Through five case studies of supply chains for small grains produced in the Pacific Northwest (PNW), we present evidence that several scales of agriculture, from small to large, can contribute to hybrid VBSCs. We specifically investigate the characteristics of supply chain actors that facilitate the inclusion of values-based production, processing, and distribution. Examples of supply chain networks are presented. Implications for building supply chains for grain with particular emphasis on climate-smart agriculture are discussed.

AUTHORS:

Jane Kolodinsky
Arrowleaf Consulting

Hannah Smith
Arrowleaf Consulting

Darin Saul
Arrowleaf Consulting

Michelle Tynan
Arrowleaf Consulting

Soren Newman
Arrowleaf Consulting

DECOMPOSITION OF THE U.S. DAIRY SUPPLY CHAIN: IMPLICATIONS FOR SUSTAINABILITY AND RESILIENCE IN THE POST-COVID ERA

This study examines the U.S. dairy product manufacturing industry's sustainability and resilience during the COVID-19 pandemic, focusing on its inter-industry dependencies. Using the U.S. input-output matrix, we decompose the dairy supply chain, tracing key components from upstream sectors (dairy cattle and milk production, retail, wholesale, and transportation) to downstream sectors (personal consumption, restaurants, and accommodation). Our analysis reveals that most dairy products are sold directly to consumers through grocery stores, with significant flows to government services, exports, and food service establishments. The pandemic-induced closures of "non-essential" businesses led to demand shocks that propagated throughout the supply chain. We highlight the importance of diversifying market channels and increasing supply chain adaptability to enhance the industry's resilience to future shocks. Our findings suggest that the short-term impacts on the dairy supply chain were not as severe as widely reported in the media.

AUTHORS:

Zheng Tian
Pennsylvania State University

Stephan J. Goetz
Pennsylvania State University

FOODBORNE OUTBREAKS, PRODUCT RECALLS, AND FIRM LEARNING

Firms in the food industry may experience more than one contamination incidents over time. In the context of food safety, increasing the interval between foodborne outbreaks is a key objective for the food industry and public health officials. We demonstrate a systematic approach to analyzing repeated recalls, specifically to evaluate factors influencing the time until the next recall and, importantly, to identify the extent of firm learning. Analysis of meat/poultry recalls issued by publicly traded firms in the United States between 1994-2015 indicates that more diversified firms incur a lower risk of repeat recalls as firm size expands, compared to firms primarily producing meat/poultry products. The hazard of a recall incident decreases with the severity of the previous recall. Some evidence of firm learning is found, but there is no definitive evidence indicating that a firm's ability to prevent recalls improves with the number of foodborne outbreaks it has experienced.

AUTHORS:

Sherzod B. Akhundjanov
Utah State University

Veronica F. Pozo
Utah State University

Briana Thomas
Utah State University

ALCOHOLIC BEVERAGE MANUFACTURING RESILIENCE DURING THE GREAT RECESSION AND THE COVID-19 PANDEMIC

This study examines the resilience of alcoholic beverage manufacturers and drinking places during the Great Recession (2007-2008) and the COVID-19 pandemic (2020 onwards) using Quarterly Census of Employment and Wages data from 2005-2023. We analyze how beer, wine, and distilled product establishments fared compared to drinking places, which were severely impacted early in the pandemic. Despite economic shocks, alcoholic beverage manufacturers continued to expand nationally during the pandemic. We explore county-level variations in resilience, considering factors like federal stimulus funding. Preliminary regression analyses investigate county-level factors associated with establishment decline and rebound. Notably, drinking places experienced sharp declines during pandemic shutdowns but rebounded quickly, though unevenly across regions. By understanding these spatial processes, our work aims to help industry and community leaders better prepare for future economic shocks, recognizing the sector's importance in local recreational economies and tourism.

AUTHORS:

Stephan J. Goetz
Pennsylvania State
University

Zheng Tian
Pennsylvania State
University

Claudia Schmidt
Pennsylvania State
University

Yuxuan Pan
Pennsylvania State
University

DEVELOPING AND EXPANDING A UNIVERSITY STUDENT FARM

The Oklahoma State University (OSU) Student Farm is a pioneering initiative that revitalizes local land while providing fresh, sustainable produce to the community. This case study explores the farm's development, its strategic expansion, and its partnership with Our Daily Bread Food and Resource Center, emphasizing the importance of sustainable food distribution. The study highlights key challenges, including farm expansion, infrastructure renovation, and balancing sustainability with operational and financial constraints. For academia and industry, this research offers valuable insights into the logistics of farm-to-table initiatives, the impact of sustainable agriculture on food systems, and the strategic decision-making required in agricultural projects. Students will gain practical experience in sustainable farming, infrastructure development, and community engagement, preparing them to address real-world challenges in agriculture and food distribution.

AUTHORS:

Hannah E. Shear Oklahoma State University	F. Bailey Norwood Oklahoma State University	Justin Quetone Moss Oklahoma State University
--	--	--

LESSONS LEARNED FROM A PILOT FARM TO SENIOR SERVICES PROGRAM IN NORTH CAROLINA

Farm to Institution (F2I) programs address food insecurity while creating markets for regional farmers. Despite growing efforts to implement F2I across various institutions, little focus has been on integrating local food into systems serving older adults. To address this, the Center for Environmental Farming Systems (CEFS) conducted a pilot Farm to Senior Services (F2SS) program in three North Carolina counties from 2020-2024. Unlike the USDA Senior Farmers Market Nutrition program, which provides coupons for farmers markets, F2SS aimed to integrate local food directly into meal programs for seniors, including congregate meals, home-delivered meals, and produce box deliveries. Evaluations through interviews and Ripple Effect Mapping revealed benefits such as market diversification for local producers and improved partnerships. However, challenges like funding needs and staff capacity were identified, especially concerning the program's sustainability after COVID-19 emergency funds ended, highlighting areas for future research.

AUTHORS:

Robyn Stout NC State University	J. Dara Bloom NC State University	Abbey Piner NC State University	Yasmeen Lee Food Insight Group
Gini Knight USDA	Lindsey Carver Rooted in Change Consulting	Bevelyn Ukah NC State University	Hannah Dankbar NC State University

GETTING TO SCALE WITH FARM TO ECE: STRATEGIES TO GROW THE MARKET

Farm to Early Care and Education (ECE) connects young children with gardening, cooking, and local food in meals. However, ECEs face challenges in purchasing local food due to low order volumes and decentralized sites. This research addresses these challenges by designing, implementing, and evaluating three procurement strategies in North Carolina: aggregating orders across centers, selling local food to families, and partnering with a caterer. These strategies were piloted in four counties, with formative evaluations conducted annually. The findings offer guidance on establishing local food procurement systems that benefit both farmers and ECE providers. However, challenges remain, including increased labor demands for technical assistance providers and center staff, and further research is needed to address them and ensure the sustainability of these models.

AUTHORS:

J. Dara Bloom
NC State University

Caroline Hundley
NC State University

Shironda Brown
NC State University

FRUITS AND VEGETABLES IN FARMERS MARKET IN DIFFERENT COUNTIES OF OHIO: EDUCATING COMMUNITY VALUE OF HOLISTIC NUTRITION AND HEALTH BENEFITS.

The increasing prevalence of lifestyle-related diseases necessitates a focus on holistic nutrition and health education. Use of fruits and vegetables are essential in our daily life to maintain nutrient composition for a healthy body. The current project was designed to identify the availability of fruits and vegetables in 64 counties of Ohio which are included in 5 different regions. With this information we are keeping the record of the farmers' market who can sell their produce to local markets. This research is crucial in identifying areas where food distribution is inadequate or access to healthy and nutritious food is limited. By understanding these factors, organizations can work to improve food distribution systems and ensure that everyone has access to the food they need to live healthy and fulfilling lives.

AUTHORS:

Pratibha Gupta
Central State University

Anshiya Ramanitharan
Central State University

RESEARCH SESSIONS III

TUESDAY, October 22 | 9:00 AM - 10:30 AM

THE RISE AND FALL OF THE OKLAHOMA FOOD COOPERATIVE

The Oklahoma Food Cooperative (OFC) began in 2003 as a volunteer operation and expanded to have 5,000 members by 2013. Hailed as one of the first successful US food cooperatives, the OFC was referenced as a model for food hubs. The OFC was structured as a multiple stakeholder cooperative (MSC) with more than 5,000 customer-members and approximately 150 producer/supplier-members at its peak. Using volunteer labor and cash reserves generated from the modest investment of the large number of customer-members. Eventually challenges of leadership issues, distribution logistics, supply/demand leakages, competition, and the seasonality of product availability strained the OFC's resources and led to its demise. This research identifies factors that helped the OFC grow and contributed to its eventual failure. Specifically, the research focus on four areas: the OFC's value package, cooperative operational structure (connecting buyers and suppliers), distribution logistics, and responses to competitive forces.

AUTHORS:

Phil Kenkel

Oklahoma State University

Rodney Holcomb

Oklahoma State University

WAITING FOR CONVENIENCE: THE INFLUENCE OF ONLINE GROCERY SHOPPING DELIVERY SPEED ON FOOD CHOICE

This study proposes to investigate the influence and value of delivery timing using a basket-based choice experiment (BBCE). In BBCE participants can select multiple food items from a choice set, which vary by food items and price, to more realistically mimic the grocery shopping experience. Our choice sets will include both perishable and nonperishable items, and items that could be substitutes across perishability (ex. fresh and frozen spinach). Respondent's will also be randomized to one of several delivery timing treatments prior to completing the BBCE. These treatments will vary depending on the length of time households must wait for their groceries to be delivered. This includes a store-pick up treatment to differentiate the convenience from avoiding travel time to the store from the convenience of avoiding time spent shopping a grocery store. Data from the experiment will be analyzed to determine how the relationship between food items (i.e. strength of relationship, as well as substitute vs compliments) varies across the delivery timing treatments.

AUTHORS:

Jackie Yenerall

University of Tennessee

Ricky (Xuqi) Chen

University of Tennessee

Arfanul Ibna Mustafa Sakib

University of Tennessee

Aaron Staples

University of Tennessee

ONLINE MEDIA LISTENING: ANALYSIS OF USER POSTS ON SALMON AND SHRIMP

An increasing trend in assessing consumer preferences is the use of sentiment analysis of subjective texts from online posts expressing opinions. Online posts and reviews of seafood provide a comprehension information that can be used to determine the expressive direction of consumer sentiments. This study analyzed online opinions relating to salmon and shrimp in the US from January 2019 to December 2022. Twitter (now X) was the dominant information source across all categories (wild and farmed shrimp and salmon). The study results reveal that the occurrence of peak mentions does not necessarily coincide with the peak of net sentiment, and farmed seafood consistently exhibits lower net sentiments compared to wild seafood. On average, wild shrimp exhibits the highest weekly average net sentiment at approximately 62%, followed by wild salmon at 41%. In contrast, farmed shrimp has a mean net sentiment of 32%, while farmed salmon has the lowest at 12%.

AUTHORS:

Kwamena K. Quagraine
Purdue University

Jingjing (Tina) Tao
Purdue University

FROM ACADEMIC CIRCLES TO PUBLIC SQUARES: TRANSFORMING RESEARCH INTO NATIONAL NEWS

Publishing research in an academic journal facilitates knowledge exchange among academic peers. But how do you reach wider audiences and share food-systems analyses with the general public? In this presentation, we'll present a case study showing how research published in the Journal of Agricultural and Resource Economics (JARE) was translated for a general audience into two different formats, which in turn were viewed by more than 13,000 readers, republished by national news organizations, and used to help secure a "High-Impact Research Award." While this presentation will be based on a specific paper (Tian, Schmidt & Goetz, 2022), the overall goal will be to provide a framework for making any policy-relevant research more accessible to lay audiences.

AUTHORS:

Kristen Devlin
Penn State

Zheng Tian
Penn State

Claudia Schmidt
Penn State

Stephan J. Goetz
Penn State

CONSUMER PREFERENCES AND WILLINGNESS TO BUY VALUE-ADDED GOAT MEAT PRODUCTS

The demand for goat meat in the U.S. has been increasing due to growing ethnic population and health-conscious consumers seeking lean red meats. Goat meat is rich in nutrients and have lower fat, cholesterol, high iron compared to beef, pork, and chicken. However, goat meat is not consumed by many Americans. Often value-added meats influence consumer's preference in meat consumption due to easy cooking, convenience, flavor, or new food experience. Hence, introducing various value-added goat meats may increase consumers' interest in goat meat and therefore may create greater market opportunities for producers. A national consumer survey was conducted to determine the potential drivers for the demand of value-added goat meat products such as goat meat jerky. Results from a logistic regression model found that factors such as participants' age, gender, race, primary shoppers, college education, and immigrant background influenced consumers' willingness to buy goat meat jerky.

AUTHORS:

Mohammed Ibrahim
Fort Valley State
University

Brou Kouakou
Fort Valley State
University

Nalini Pattanaik
Fort Valley State
University

Benjamin Onyango
Missouri State
University

ANALYSIS OF DOWNSTREAM BUYER VOLUME AND WAGYU-ANGUS FEEDLOT PRICE DISTRIBUTION

Wagyu beef is increasingly popular with consumers, despite its high price relative to traditional beef products. Many beef producers have utilized Angus genetics to produce American Wagyu beef (50% Wagyu) with similar characteristic but lower relative cost or combine lesser levels of Wagyu genetics with traditional breeds to improve specific carcass traits (e.g. USDA quality grades) that increase value without marketing the beef as Wagyu. The study will use data from an integrated cow-calf/feedlot operation that sells Wagyu crossbred cattle to various traditional and specialty beef buyers. The data notes 17 buyers that vary from large national meat companies to regional and local beef processor/marketers. Data includes detailed transaction data from 2015 to 2022, including purchase price, Wagyu percentages, buyers and other information. The project will assess buyer volume, purchasing choices, possible distribution channels, and related feedlot sale price distribution across time in order to identify persistent patterns.

AUTHORS:

Kellie Curry Raper
Oklahoma State University

BACKYARD GROWER-CONSUMER PERCEPTIONS OF RABBIT MEAT CONSUMPTION IN RURAL [STATE]

Every country in the world is affected by some form of malnutrition. Rabbit meat production and consumption is a possible solution to this problem, but the consumption of rabbit meat falls behind other protein sources. The purpose of this qualitative study was to understand the perceptions of backyard rabbit meat growers in Mississippi and to identify parallels of both relative advantages and potential barriers using Rogers' Theory of Planned Change and asking, "Why raise backyard meat rabbits?" Understanding backyard grower-consumers' perceptions of rabbit meat consumption could improve the support and adoption of backyard rabbit programs, leading to the generalization of consuming this healthy protein source worldwide. Taking the relative advantages from this study could provide a basis for a marketing campaign worldwide that would motivate others to not only consume rabbits but to raise them in their backyards or communities, creating easy access to a nutritious and sustainable protein source worldwide.

AUTHORS:

Millie Murphree

Alabama Cooperative Extension System

Kirk Swortzel

Mississippi State University

ECONOMICS OF ADDING VALUE TO DARK CUTTING BEEF USING HIGH PRESSURE PROCESSING TECHNOLOGY

Dark-cutting beef (DCB) represents beef that fails to have a characteristic bright red color. DCB is discounted during grading and routed into non-retail market channels due to its appearance and reduced shelf life. Although DCB prevalence has declined over the years, the US beef industry still loses an estimated \$202 million annually due to dark-cutting conditions. The objectives of this study were: 1. To determine the impact of HPP on middle meats such as ribeye, tenderloin, and top butt. 2. To conduct a survey of beef packer management and ascertain their willingness about the adoption of technology. 3. To perform a cost/benefit analysis of improved redness (i.e., recovered retail value) associated with HPP and determine the potential return on investment for incorporating HPP at a commercial-scale packing facility. 4. Conduct consumer recognition/preference studies comparing "normal" steaks with HPP steaks and see if consumers have different preferences for color, packaging, or any label statements regarding the use of HPP. Results represent a unique view of the value of technology to improve product appeal.

AUTHORS:

Ranjith Ramanathan

Oklahoma State University

Rodney B. Holcomb

Oklahoma State University

Gretchen Mafi

Oklahoma State University

Gary Sullivan

University of Nebraska-
Lincoln

Morgan Pfeiffer

Oklahoma State University

Mary-Grace Danao

University of Nebraska-
Lincoln

KENTUCKY DAIRY PRODUCT SHOPPERS: PERCEPTIONS OF LOCAL SOURCING

This article summarized local sourcing value for dairy products consumers in Kentucky together with beliefs and attitudes to the environment and agriculture. Local sourcing benefits were found to be substantially weighted toward “social” impacts in contrast to “Personal” impacts. The social impact benefits of local sourcing for dairy and other food products can be emphasized in the local food marketing narrative in branding and merchandising efforts pursuing opportunities for differentiation. Dairy and other food products have increasingly looked to climate smart branding as a strategy for differentiation. Animal products have especially been targeted in agriculture for their relatively high levels of greenhouse gas emissions. Environmental perceptions across several perceptions and behaviors were explored across age groups and urban vs rural residents. Perceptions on the environment varied across these groups with implications for climate smart brand viability and targeted messaging in prospective dairy product marketing efforts. The survey summarizes findings from 827 Kentucky residents that identify as dairy product consumers and was conducted in Spring 2023 as part of the Southern Dairy Business Innovation Initiative

AUTHORS:

Timothy Woods
University of
Kentucky

Shuoli Zhao
University of
Kentucky

Azita Varziri
University of
Kentucky

Camille Dant
University of
Kentucky

A FRAMEWORK TO ANALYZE RESILIENCE OF LOCAL AND REGIONAL FOOD SYSTEMS IN THE MIDWEST OF THE UNITED STATES.

The research aims to develop a conceptual framework to analyze the resilience of Local and Regional Food Systems (LRFS) to diverse external shocks in the Midwest of the United States. This involves addressing the following research questions: (1) What challenges did LRFS experience with the external shocks? (2) At what points in the supply chain were LRFS vulnerable to external shocks and how were these vulnerabilities different across food supply chains? (3) What types of mitigation strategies did stakeholders use to increase their resilience to external shocks and what outcomes did those strategies produce? Utilizing varied case studies, the research explores resilience mechanisms across different supply chains, offering insights into bolstering LRFS resilience to external pressures.

AUTHORS:

Andrea Ramos Bonilla
Michigan State University

Brent Ross
Michigan State University

MARKET TRENDS FOR ORPHAN CROPS IN BENIN: IMPLICATIONS FOR FOOD SECURITY

RESEARCH REPORT

PRESENTER: FABININ AKEM NINA

ABSTRACT

Understanding the market trends of orphan crops, which are underutilized yet vital for regional food security, is crucial. Insights into price patterns and market linkages can inform strategies for improving the commercialization of these crops, promoting local production, and reducing dependence on imports. This can lead to more resilient food systems and supply chains, particularly in regions vulnerable to food insecurity. The study contributes to the broader discourse on food system sustainability by highlighting challenges in food distribution such as regional segregation and market inefficiencies. The study provides an avenue for future work on improving market integration and policy reform, which could foster equitable food distribution and enhance the visibility and value of orphan crops in both local and global markets.

AUTHORS:

[Nina Akem Fabinin](#)

University of Kiel, Germany

RESILIENT FOOD SYSTEMS: A CASE STUDY REVIEW OF FIVE PLACE-BASED FOOD SYSTEMS

This presentation will review findings from five case studies involved in a mixed-methods study to understand indicators of resilient food systems. The study took place between 2020-2023 and involved five place-based communities: Kenai Peninsula, Alaska; Benton and Washington County, Arkansas; Marshall County, Iowa; Bastrop County, Texas; and the territory of the Virgin Islands. The study looked at three aspects: first, the key dimensions of a resilient community food system that arose in each area; second, the intersection that community identity and resident knowledge played in regards to the importance of supporting local and regional food systems; and third, the role of Land Grant University- Extension in supporting resilient community food systems. Each community participated in a series of interviews and foresight-process focus groups and then was compiled with secondary data to create a final report to the community. With the information, community partners prioritized next steps and received funding for implementation. This presentation will focus on the findings related to food distribution, and the key indicators of resilient food systems. It will highlight the necessary aspects of built infrastructure and logistics that were brought up in both the research and implementation phases of the project.

AUTHORS:

[Courtney Long](#)

Iowa State University

A COORDINATED FARM TO INSTITUTION SUPPLY CHAIN APPROACH TO INCREASE MARKET ACCESS AND COMMUNITY FOOD SECURITY

Researchers with the Center for Environmental Farming Systems at NC State University, in collaboration with A&T State University and the Lumbee Farmers Cooperative, have received an SSARE Research and Education grant to pilot a coordinated Farm to Institution (F2I) procurement program over three years. This project aims to enhance food system regionalization by integrating Farm to Early Care and Education, school, university, and senior service programs, addressing both community food security and market access for marginalized farmers. While previous F2I efforts in North Carolina have identified barriers related to product volume, type, availability, and distribution, this is the first attempt to coordinate procurement across multiple programs. The project will assess market readiness, facilitate institutional access, and promote climate-resilient practices, while conducting market assessments and evaluations to refine and disseminate best practices.

AUTHORS:

J. Dara Bloom	Dari Biswanath	Blackburn, Kirsten	Shironda Brown
NC State University	NC A&T State University	NC State University	NC State University
Lauren Davis	Robyn Stout	Bhavisha Gulabrai	Katie Sanders
NC State University	NC State University	NC State University	NC State University
Hannah Dankbar	Caroline Hundley	Remi Ham	
NC State University	NC State University	NC State University	

REDEFINING CITRUS GREENING MANAGEMENT: A QUEST FOR OPTIMAL TREATMENT

Huanglongbing (HLB), also known as Citrus Greening, is a devastating disease that has caused significant damage to the global citrus industry. Despite the implementation of various control strategies aimed at mitigating the effects of HLB, the disease continues to pose a significant challenge to citrus producers. Our study aims to improve the understanding of HLB management by identifying the necessary mitigation levels associated with cost-effective controls strategies. We use a stochastic bioeconomic model that integrates two key components: a biological module that simulates the spread of the disease under different management practices, and an economic module that evaluates the long-term economic viability of each strategy. We specifically focus on identifying the treatment interventions that directly influence the incidence (within a grove) and severity (within a tree) of HLB, which are critical factors affecting yield, fruit quality and management costs. By focusing on these two variables, our goal is to identify treatment combinations that offer the best cost-benefit ratio in the management of HLB. Our study contributes to the ongoing efforts to combat HLB by providing clear guidelines for developing cost-effective control strategies, more resilient citrus systems, and utilizing research resources more efficiently.

AUTHORS :

Anderson Xicay

Texas A&M
University

Samuel D. Zapata

Texas A&M
University

Kranthi Mandadi

Texas A&M
University

Veronica Ancona

Texas A&M
University

ADOPTION OF ARTIFICIAL INTELLIGENCE IN AGRICULTURE: ECONOMIC DIVERGENCE OR CONVERGENCE?

The integration of artificial intelligence in agriculture is expected to enhance productivity through technologies like precision agriculture, robotics, and biotechnology. However, the disparity in technology adoption between growers in developed country and smallholder farmers in developing countries could widen economic inequalities, favoring wealthier farmers and exacerbating differences between regions and nations. The objective of this paper is to give an overview of the challenges that producers face in adopting AI-driven technologies as well as their positive and negative impacts on households, rural communities, and countries. The purpose is to better understand whether AI-driven technologies expand or contract the gap between poor and rich nations. Disclaimer: This research was supported [in part] by the U.S. Department of Agriculture, Economic Research Service. The findings and conclusions in this publication are those of the author and should not be construed to represent any official USDA or U.S. Government determination or policy

AUTHORS:

Shida Henneberry

USDA

RESILIENT AGRICULTURAL DECISION-MAKING IN SOUTH TEXAS AMID WATER SCARCITY

Farmers are now seeking more resilient crop options that can thrive under these new climatic conditions. To address these challenges, we are developing a decision model aimed at maximizing net returns for farmers. This model focuses on selecting the optimal crop allocation at the farm level, considering the constraints posed by limited water availability. By efficiently utilizing available resources, we aim to identify the best crop combination for representative farms. Our optimization model takes into account market variables, available resources, and projected water availability under different future climatic scenarios specific to the South Texas Region. We rely on market and climate data related to South Texas from USDA-NASS and IPCC, respectively. Additionally, we incorporate farm-level data to capture the inherent productive capabilities of different types of farms. Historical irrigation data from regional sources further complements our analysis.

AUTHORS:

Xavier Villavicencio
Texas A&M
University

Samuel D. Zapata
Texas A&M
University

Anderson Xicay
Texas A&M
University

ANALYZING BIODYNAMIC AGRICULTURE IN CALIFORNIA USING PORTER'S FIVE FORCES

Small farms are facing challenges due to their: 1) high input costs (land, pesticides, fertilizers, etc.), 2) low profit margins, 3) low yields, and 4) marketing disadvantages. Our objective is to analyze the potential of biodynamic farming as a solution for family farms in California. We will use Porter's five forces model to analyze the biodynamic agricultural industry in California. This model considers: threat of entry, threat of substitute products, power of buyers, power of suppliers, and degree of rivalry among existing firms. This study will explore the opportunities and challenges of biodynamic farming and strategies to implement it in family farms based on input from key industry informants. The study aims to address the lack of research in the field of biodynamic farming and potentially serve as a reference for converting family farms. This study also will add to strategic management literature related to biodynamic agriculture.

AUTHORS:

Jon C. Phillips
California State Polytechnic University

Fiona Zhang
Flintridge Sacred Heart Academy

PURCHASE OF LOCALLY PRODUCED CLIMATE SMART FOOD: INSTITUTIONAL VS. INTERMEDIATED BUYERS

The purpose of the study was to examine the differences between institutional and intermediated buyers of locally grown food products (LGPs) using climate smart practices including use of biochar. Buyers' perceived barriers, purchase requirements, and attitude toward LGPs were assessed. Findings of the study are expected to provide important guidelines to suppliers of climate smart LGPs and the policy makers in the local food industry. Survey data for the study was collected from owners, managers, or food service directors of food purchasing entities within Missouri. The project was supported through a grant from USDA. The survey instrument was distributed through Qualtrics. SPSS and LIMDEP econometric software were used to process data, conduct descriptive and factor analyses and estimate regression models. Data for the study was collected using a survey of 115 buyers from various food industry sectors including restaurants, school systems, hospitals, and educational institutions. The preliminary results from the study show that institutional buyers' demand for climate smart LGPs is significantly lower than that of intermediated buyers. Institutional buyers were 25% less likely to buy LGPs than intermediated buyers. The lower demand of locally produced climate smart food among institutional buyers could be attributed to more stringent food safety requirements (e.g., HACCP) and higher level of perceived barriers including lack of supply and "not knowing" where to source from.

AUTHORS:

Arbindra Rimal

Missouri State University

Jacob Brewer

Missouri State University

PRESENTERS INDEX

PRESENTERS	INSTITUTION	EMAIL ADDRESS
<ul style="list-style-type: none"> • AKHUNDJANOV, SHERZOD B. • ANDERSON, XICAY • BLOOM, J. DARA • BONILLA, ANDREA RAMOS • CHAVEREST, E'LICIA L. • DEVLIN, KRISTEN • DILLEY, ANDREW • EJIMAKOR, GODFREY • FABININ, AKEM NINA • FONSAH, ESENDUGUE GREG • GOETZ, STEPHAN J. • GUPTA, PRATIBHA • HAMILTON, LYNN • HENNEBERRY, SHIDA • HOLCOMB, BAILEY • HOLCOMB, RODNEY • IBRAHIM, MOHAMMED • KHACHATRYAN, HAYK • KENKEL, PHIL • KOLODINSKY, JANE • KEMPER, NATHAN • LONG, COURTNEY • MURPHREE, MILLIE • MONTOYA, MARTHA • MORGAN, KIMBERLY • NEILL, CLINTON L. • NIAN, YEFAN • OKHUNJANOV, BOTIR • ONYANGO, BENJAMIN • PHILLIPS, JON C. • PARK, KRISTEN S. • PEGUERO, FELIPE • QUAGRAINIE, KWAMENA K. • RAPER, KELLIE CURRY • RIMAL, ARBINDRA • SAHA, SRABONE • SEGOVIA, MICHELLE • SHEAR, HANNAH • SHUOLI, ZHAO • SIBILLI-BROWN, SOMMER • THORNSBURY, SUZANNE 	<ul style="list-style-type: none"> Utah State University Texas A&M University NC State University Michigan State University University of Arkansas Pennsylvania State University University of Arkansas North Carolina A&T State University University of Kiel, Germany University of Georgia Pennsylvania State University Central State University Cal Poly State University USDA Oklahoma State University Oklahoma State University Fort Valley State University University of Florida Oklahoma State University Arrowleaf Consulting University of Arkansas Iowa State University Auburn University AgTools Inc University of Florida Cornell University Clemson University Denison University Missouri State University California Poly Pomona Cornell University Texas A&M University Purdue University Oklahoma State University Missouri State University University of Delaware University of Delaware Oklahoma State University University of Kentucky Virgin Islands Good Food Coalition University of Florida 	<ul style="list-style-type: none"> sherzod.akhundjanov@usu.edu anderson.xicayxico@ag.tamu.edu jdbloom@ncsu.edu ramosan6@msu.edu echaverest@uada.edu krd111@psu.edu mcfadden@uark.edu ejimakor@ncat.edu fabininakem@yahoo.com gfonsah@uga.edu sgoetz@psu.edu pgupta@centralstate.edu lhamilto@calpoly.edu shida.henneberry@USDA.GOV bailey.holcomb@okstate.edu rodney.holcomb@okstate.edu ibrahimm@fvsu.edu hayk@ufl.edu phil.kenkel@okstate.edu jane@arrowleafgroup.com nkemper@uark.edu court7@iastate.edu mem0355@auburn.edu martha@ag.tools kimorgan@ufl.edu cln64@cornell.edu ynian@clemson.edu okhunjanovb@denison.edu benjaminonyango@missouristate.edu jcphillips@cpp.edu ksp3@cornell.edu felipe.peguero@ag.tamu.edu kquagrai@purdue.edu kellie.raper@okstate.edu arbindrarimal@missouristate.edu srabone@udel.edu segoviam@udel.edu hshear@okstate.edu szhao@uky.edu sommer@goodfoodvi.org thornsbs@ufl.edu

PRESENTERS INDEX

PRESENTERS	INSTITUTION	EMAIL ADDRESS
<ul style="list-style-type: none">• TREJO-PECH, CARLOS O.• TIAN, ZHENG• UFER, DANIELLE J.• VELANDIA, MARGARITA• VETTER, ALLISON• VILLAVICENCIO, XAVIER• WASSERMAN-OLIN, REBECCA• WOODS, TIM• YENERALL, JACKIE• KHACHATRYAN, HAYK• ZARING, CAITLIN	<p>University of Tennessee</p> <p>Pennsylvania State University</p> <p>USDA</p> <p>University of Arkansas</p> <p>University of Tennessee</p> <p>Texas A&M University</p> <p>Colorado State University</p> <p>University of Kentucky</p> <p>University of Tennessee</p> <p>University of Florida</p> <p>University of Tennessee</p>	<p>ctrejope@utk.edu</p> <p>zzt36@psu.edu</p> <p>danielle.ufer@usda.gov</p> <p>avetter@uada.edu</p> <p>mvelandi@utk.edu</p> <p>xavier.villavicencio@ag.tamu.edu</p> <p>rebecca.wasserman-olin@colostate.edu</p> <p>tim.woods@uky.edu</p> <p>jyeneral@utk.edu</p> <p>hayk@ufl.edu</p> <p>eeckekla@utk.edu</p>

2024 SPONSORS

A SPECIAL THANK YOU TO THE SOUTHERN EXTENSION RISK MANAGEMENT EDUCATION CENTER FOR THEIR GENEROUS SPONSORSHIP.



**SOUTHERN
EXTENSION
RISK
MANAGEMENT
EDUCATION**

WE WOULD LOVE TO HEAR
YOUR FEEDBACK!
AFTER THE CONFERENCE,
YOU WILL RECEIVE A SHORT
SURVEY BY EMAIL.
PLEASE TAKE A MOMENT TO
COMPLETE IT & SHARE YOUR
FEEDBACK.

**THANK YOU FOR ATTENDING THE
65TH FDRS CONFERENCE**

