

**SAEA 2012 Annual Meeting  
Selected Paper Abstracts**

**Determining the Variation in Certified Preconditioning Premiums for Heifers and Steers**  
Stephanie Schumacher and Derrell Peel , Oklahoma State University

This study applies separate hedonic models to Oklahoma Quality Beef Network data to determine differences in the value of preconditioning premiums for steers versus heifers. Results indicate that preconditioning values are generally lower for heifers but exceed steer premiums at higher weights. Separate treatment of steers and heifers is validated.

**Developing Cross Disciplinary Skills Through an Undergraduate Research Project**  
Joey E. Mehlhorn, Jason Roberts, Amanda Cain, and Scott Parrott  
University of Tennessee at Martin

Undergraduate students can benefit from a research experience with a faculty mentor. Students and faculty perceived the research project experience as beneficial. Mentoring is key to enhancing undergraduate research experiences, but the impact on time requirements for faculty should be considered. Linkages between coursework and application should also be considered.

**The Impact of Ethanol Production on the U.S. Gasoline Market**  
Hassan Marzoughi and P. Lynn Kennedy, Louisiana State University

This paper uses a simultaneous equation system to determine the impact of ethanol fuel production on the U.S. motor gasoline market, especially gasoline prices. Based on estimation results, every billion gallon increase in ethanol production decreases gasoline prices by as much as 6 cents.

**Production Profitability of Ethanol from Alternative Feedstocks in the Texas Panhandle**  
Lal Almas, David Lust, Kate Brooks, and J. Girase; West Texas A&M University

The potential of three feedstocks grain sorghum, sweet sorghum, and switchgrass for ethanol production in the Texas Panhandle is analyzed using yield, production/processing costs, final demand for ethanol, farm to wholesale marketing margin, and the derived demand price of feedstock. The estimated economic returns per acre are -\$45.37, -\$410.19, and -\$150.17 under irrigated and -\$38.25, -\$145.09, and -\$29.04, respectively under dryland condition.

**Water use efficiency and maximizing profitability of grain sorghum production in the Texas Panhandle**

Aly Ahamadou, Mamadou Dembélé, Lal Almas, and Kate Brooks, West Texas A&M University

Management decision variables, total water available, optimal irrigation and water to meet crop ET requirement are evaluated. Grain sorghum yield, irrigation, and other production data

collected from commercial producers are used to estimate the response functions. Results indicate that the optimum level of irrigation increases as the price of sorghum increases and decreases as the price of natural gas increases.

### **Exchange Rate Volatility in BRICS Countries**

David L. Maradiage, Hector O. Zapata and Aude L. Pugula, Louisiana State University

This paper measures the impact of bilateral exchange rates, the world agricultural GDP and third-country exchange rate volatilities (Yen/USD and Euro/USD) on the BRICS agricultural exports using a vector autoregressive (VAR) model. Measures of volatility used: standard deviation and coefficient of variation of rates of change of real exchange rates.

### **An Economic Valuation of Pollination Services in Georgia**

Ashley Barfield, John Bergstrom, and Susana Ferreira, University of Georgia

The production of many crops depends on biotic pollination. As pollinator populations decline, assessments of the potential consequential loss of economic value are critical. We estimate the economic value of pollination services (\$608 million), crop vulnerability ratio (21%), and pollination's contribution to agricultural production value (5%) for Georgia

### **Student Perceptions of Simulation Games and Training Software on Improving Course Learning Objectives and Career Preparedness**

Scott Parrott, Joey Mehlhorn and Kelly Davidson, University of Tennessee at Martin

Business simulation and training exercises were introduced to two undergraduate agricultural economics courses. Students were surveyed concerning their perceptions of the exercises. Results indicate student perceptions of the simulation and training games were overwhelmingly positive and they felt the supplemental material added interesting discussion and reinforced the course objectives.

### **Food Expenditures in Rural Households in the Northern Region of Ghana**

Ting Meng and Wojciech J. Florkowski, The University of Georgia, Shashi Kolavalli, IFPRI, Mohammed Ibrahim, Fort Valley State University

The objective of the paper is to identify farmer and farm characteristics that determine the food expenditure in rural households in the northern region of Ghana. The results indicate income, implicit wealth, age, family structure, cultivation staple or cash crop, and buying dry goods in bulks are the major determinants.

### **Factors Affecting Quality Grade Discounts for Fed Cattle**

Robert Hogan, Jr., Texas A&M University, Jared G. Carlberg, University of Manitoba, Clement E. Ward, and Derrell S. Peel, Oklahoma State University

Prices for Choice and Select grade fed cattle are derived from wholesale and retail beef markets. Choice-Select price discounts are a key component of fed cattle pricing, whether packers purchase fed cattle on a live weight, dressed weight, or grid. This study identifies supply, demand, and other factors affecting the Choice-Select discount series using an adaptive expectations model. It is found that the

lagged value of the discount as well as the percentage grading Choice exert statistically significant influences on the discount, while neither the boxed beef price nor seasonality affect the discount.

**Stochastic Frontier Analysis of Biological Agents (Microbial Inoculants) Input Usage in Apple Production.**

Holcer Chavez, Denis Nadolnyak and Joseph Kloepper, Auburn University

In this paper, we analyze the impact of the Microbial Inoculants (MI) Technology on apple yields and pesticide application using 2007 farm data. The results show that pesticide usage is not reduced by MI applications. However, there is a significant positive effect on the yields. Apple production efficiency is 37%.

**Financing Constraints and Access to Credit in Post Crisis Environment: Evidence from New Farmers in Alabama.**

Valentina Hartarska and Denis Nadolnyak, Auburn University

We use survey data to study the level of financing constraints faced by new farmers in Alabama post 2008, and identify who received loans. We find that new farmers are financially constrained but not impacted by the crisis. Lending was collateral driven, although lenders also considered profitability and cash flows.

**Impact of Climate Change on Agricultural Production in Asian Countries: Evidence From Panel Study**

Jaehyuk Lee, Denis Nadolnyak, and Valentina Hartarska, Auburn University

We analyze the impact of climate change on agricultural production in 13 Asian countries for 1998-2007 estimating country-level FE panel model using climate variables. Higher summer temperature and rainfall increase production, higher fall temperature decreases it in southeast Asia, and increase in annual temperature decreases agricultural production in Asian countries.

**The Implicit Prices of Finfish and Shellfish Attributes and Retail Promotion Strategies: Hedonic Analysis of Weekly Scanner Data in the U.S.**

Sherry Larkin and Glen Gold, University of Florida

Using AC Nielson retail scanner data on U.S. frozen finfish and shellfish sales from 2007-2010, hedonic models of each market estimated price discounts following the Deepwater Horizon oil spill and as a result of promotional activities, and premiums and discounts for select products labeled “wild” and “imported”, respectively.

## **The Road to Financial Sustainability: Comparative Analysis of Russia and the Caucasus Region**

Ganna Sheremenko, Cesar Escalante and Wojciech Florkowski, University of Georgia

This paper examines delinquency, profitability, and outreach determinants of microfinance institutions' (MFIs) performance in Russia and the Caucasus. The estimation is done using the Seemingly Unrelated Regression (SUR) technique. The estimation results suggest that Russian and Caucasian MFIs are profit-driven but are expected to improve outreach in the long-run

## **Impacts of the U.S.-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) on U.S. Fruit Exports – the Apple Case**

Shengfei Fu, James E. Epperson, and Glenn C. W. Ames, University of Georgia

Under CAFTA-DR, tariffs on U.S. apple exports declined from 15%-25% to zero. This research analyzes the impact of this tariff elimination on U.S. apple exports. Generalized Method of Moments is used for an excess-supply-excess-demand model with time-series data. Empirical results indicate that tariff elimination positively promotes U.S. apple exports.

## **Agricultural Banking and the Bank Failures of the Late 2000s Great Recession: Early Warning Model Analyses**

Xiaofei Li, Cesar Escalante, James Epperson, and Lewell Gunter, University of Georgia

This paper is designed to validate if the agricultural sector can once again be labeled as an instigator of the late-2000s Great Recession using the early warning models technique. The empirical results indicate that exposure to agribusiness operations does not necessarily enhance a bank's tendency to fail.

## **Coffee Differentiation: Demand Analysis at Retail Level in the U.S. Market**

Carmen Alamo and Jaime Malaga, Texas Tech University

Scanned data was used to estimate U.S. coffee demand using an AIDS model. The estimated elasticities have the expected signs and magnitude. Differentiated coffees are complements for regular and unclassified while regular and unclassified coffees are substitutes. These results could be useful in designing marketing strategies by coffee suppliers.

## **Pricing Fed Cattle on a Grid: An Analysis of the Incentive Mechanism over Time**

Scott W. Fausti, Zhiguang Wang, Matthew Diersen, and Bashir Qasmi, South Dakota State University

Empirical results suggest that the grid premium and discount structure is slowly adjusting carcass quality incentive/disincentive market signals to encourage marketing on a grid and discourage marketing by the pen. If this trend continues, grid market share of steer and heifer slaughter volume should increase in the future.

## **Exploring Variations in Income Growth in Southeastern United States**

Buddhi Gyawali, Kentucky State University; Swagata “Ban” Banerjee and James Bukenya, Alabama A&M University

This paper examined income convergence in 875 counties of the 11-state southeastern region using census data between 1980 and 2000. Logarithmic difference on average per capita income between two periods was regressed on socioeconomic variables. Changes in education, labor force, and employment were strong determinants of income growth.