

Selected Papers

SAEA 2013 Annual Meeting

1) Agribusiness and Finance

An Empirical Investigation of the Ownership of Large Grain Hauling Vehicles by Farmers: A Case Study of Iowa

Edward Yu, Chad E. Hart and Xiaodong Du, Iowa State University

This paper applied a negative Binomial model to investigate the factors influencing the number of semi-trucks owned by grain producers in Iowa. Results suggest that crop sales, distance to market, utilized road types, ethanol plants, and farmers' perceptions on various marketing hindrances affected their ownership of semi-trucks.

An Empirical Analysis of Coffee Price Transmission in Vietnam

Xile Li and Sayed Saghaian, University of Kentucky

This paper examines the price link between the world price of Robusta and the producer price in Vietnam. A vector error correction model is employed to measure the price transmission between producer and world prices. The empirical results show that a long-run relationship exists between the producer and the world prices in Vietnam.

Analysis of Financial Performance of U.S. Hog Farms Using a DuPont Expansion: Is there a Future for Independent Hog Producers?

Richard Nehring, USDA/ERS, Jeffrey Gillespie, Louisiana State University, Johannes Sauer, University of Kiel, Kenneth Erickson, USDA/ERS, Michael Harris, USDA/ERS, Charlie Hallahan, USDA/ERS, David Marquardt, USDA/ERS

US swine production has undergone significant structural change in the last two decades, reflecting increasing size and specialization. We use the DuPont financial model to estimate assets/debt (inverse solvency), profitability, and asset turnover (efficiency) to calculate the return on owner's equity (ROE) by organizational structure and by region in the hog sector.

Applying Input Distance Function to Measure Bank Efficiency during Late 2000s Financial Crisis

Xiaofei Li, Yingzhuo Yu, Cesar L. Escalante, James E. Epperson and Xiaohui Deng, University of Georgia

A stochastic frontier analysis is used to evaluate the technical and allocative efficiencies for banks classified based on industry specialization (agricultural and non-agricultural banks) and solvency condition (non-critical and critical banks). The analytical framework allows for

comparisons of input utilization decisions that could translate to cost savings and enhanced operating efficiencies.

Assessing the Impact of Internet Access on Household Income and Financial Performance of Small Farm

Aditya R. Khanal and Ashok K. Mishra, Louisiana State University

With increased focus on survival strategies for small farm businesses, we investigate the impact of Internet access on income and farm expenses of small farm business and households. Using a nation-wide farm-level data in the U.S. and non-parametric matching estimators, the study finds a significant positive impact of Internet access on total household and off-farm income.

Determining the Nature of Dependency between Agribusiness and Non-Agribusiness Stocks

Jeremy D'Antoni, University of Tennessee at Martin, Joshua Detre, Louisiana State University

Investigates the diversification benefits of agribusiness stocks relative to the S&P 500. Using copulas, from 1970 through 2008 agribusinesses moved in lockstep with U.S. stocks in downturns and more independently in large upswings.

Economic Performance of U.S. Multinational Manufacturing Firms: Foreign Direct Investment and Firm Strategy

Pablo Garcia-Fuentes, Louisiana State University, Gustavo Ferreira, Virginia Tech, P. Lynn Kennedy, LSU Ag Center

This study assesses the sequential relationship between firm strategic factors, foreign direct investment (FDI), and financial performance for a sample of U.S. multinational manufacturers. After using hierarchical regressions and path analysis, this study finds a positive direct effect of FDI on performance, and a complementary effect between FDI and firm strategy on performance.

Essentials for Producer Participation in Biomass Markets When Choices are Correlated

Mohammad Mainul Hoque, Georgeanne M. Artz, Bobby J. Martens and Darren H. Jarboe, Iowa State University

Using data from a survey of Iowa farmers we examine the producers' willingness to supply corn stover, corn cobs and energy grasses for biomass markets. We identify factors that affect the producers' interest in growing biomass crops as well critical barriers to participation. Choices among biomass types are found to be correlated.

Grain Transport on the Mississippi River and Spatial Corn Basis

Shu Li and Walter Thurman, North Carolina State University

This paper analyzes the effect of barge transportation costs along the Mississippi River on the spatial distribution of corn prices at U.S. grain markets. We develop theory-based predictions of the effects. We test the predictions and measure the associated effect with a mixture of parametric and nonparametric methods.

Household Level Demand for Ornamental Plants with Stated Preference Data

Hee-Jung Choi and Hayk Khachatryan, University of Florida

The article analyzes the demand for sixteen individual ornamental plants at the household level using stated preference data. In order to accommodate a large demand system, we employ the multistage demand system approach. Data are collected using a hypothetical Open-Ended Choice Experiment method through an online survey.

How Much Financial Information is in the Historical Cost and Market Valued Balance Sheets?

Jaclyn D. Kropp and Charles B. Moss, University of Florida

We compare the probability of insolvency computed using market value to the probability of insolvency computed using historical costs. We find the historical based computation has the potential to both understand and overstate the true probability of insolvency. The disparity depends on the degree of leverage and the assets age.

Integrating Cotton and Beef Production in the Texas Southern High Plains: A Simulation Approach

Donna Mitchell, Texas Tech University, Phillip Johnson, Texas Tech University, , Vivien Allen, Texas Tech University, Cody Zilverberg, South Dakota State University

This study uses a simulation approach to determine the economic viability of two different production systems in the Texas Southern High Plains. The results show that a traditional cotton monoculture system is more profitable, although integrated cotton/forage/livestock systems require less water.

NPV of Precision Fungicide Management for Strawberry Production in Florida Using Stochastic Simulation Framework

Ekaterina Vorotnikova, John J VanSickle and Tatiana Borisova, University of Florida

Using the Net Present Value (NPV) framework this study investigates the effect of the precision fungicide application system on the ten-year profitability of a Florida strawberry farm. The results indicate that the precision fungicide management system outperforms the traditional, calendar-based system. The NPV of the new technology is \$1.1 Million.

Oligopolistic Structure in the Japanese Pistachio Import Market

Mahdi Asgari and Sayed Saghalian, University of Kentucky

Iran dominated the pistachio export market until 1982. Currently, Iran and the U.S. are major exporters to Japan. The empirical question of this study is which form of game best characterizes this market. Using normalized likelihood ratio statistics, the Stackelberg model with US quantity leadership best fits the data.

Proposed Farm Bill Impact on the Optimal Hedge Ratios for Crops

Trang Tran, Keith Coble, Ardian Harri, Barry Barnett, John Riley, Mississippi State University

Revenue insurance with shallow loss protection for farmers has been introduced recently. The impact on optimal hedge ratios of combining these insurance proposals with deep loss insurance is examined. The results reveal STAX and ARC tend to slightly increase optimal hedge ratios.

Risk Management in Agricultural Banks: An Application of Endogenous Switching Model

Xuan (Shelly) Shen and Valentina Hartarska, Auburn University

Based on the results from endogenous switching regression, this paper shows that derivatives activities partially mitigate the negative effects of credit risks and interest risks during and after 2008 crisis and improve agricultural banks' profitability. In particular, without the use of derivatives, user banks would have had a 12% lower profitability.

The Expansion of Food Retail in Developing Countries and Its Effects on the Hunger Index

Patricia Wells, William Osborne and Sayed Saghalian, University of Kentucky

This paper presents an empirical analysis of the relationship between the expansion of food retailing in developing countries and hunger index. Our analysis found mixed results between the expansion of food retailing and hunger index for four different countries. These results demonstrate possibilities for food retail expansion in developing countries.

The Impact of Credit Constraints on Housing Demand: Assessed with Endogenous Price and Expenditure

David Leatham, Yarui Li, Texas A&M University

This article assesses the impact of credit constraints on housing demands with price and expenditures treated as endogenous variables. Using AIDS model, we find the model without controlling for endogeneities tends to underestimate the impact of credit constraint on the budget shares and the estimates are less significant.

The Impact of Integrated Pest Management Practices on U.S. National Nursery Industry Annual Sales Revenue: An Application of Smooth Transition Spatial Autoregressive Models

Wan Xu and Hayk Khachatryan, University of Florida

The relationship between U.S. nursery industry sales revenue and seven major Integrated Pest Management practices was investigated by controlling for selected production, management, and marketing practices. The results show that the differential effect of IPM groups on sales revenue vary across geography, which has implications for strategic business planning.

The Potential for Greenhouse Tomato Production Expansion in Florida

Serhat Asci, John J. VanSickle and Dan Cantliffe, University of Florida

The competition with Mexican greenhouse pushes winter tomato producers in Florida to search for new investment opportunities. This paper utilizes NPV and ROA to investigate whether it is beneficial for Florida tomato producers to invest in greenhouse production methods to stay competitive in the tomato market during the winter season.

The Reaction of Corn and Soybean Futures Markets to USDA Crop Progress and Condition Information

George Lehecka, University of Nat. Res. and Life Science

The objective of this study is to investigate the reactions of corn and soybean futures markets to crop progress and condition information of USDA's Crop Progress reports, 1986 through 2012. The results show significant announcement effects and market impacts. This indicates that valuable information is contained in Crop Progress reports.

2) Agricultural Policy

Analysis of Shallow Loss Safety Net Programs in the Proposed 2012 Farm Bill for Arkansas Rice Farms and the U.S. Rice Sector

Eric J. Wailes, K. Bradley Watkins and Vuko Karov, University of Arkansas

This study examines the impact of shallow loss safety net programs proposed in S. 3240 and H.R. 6083 for 2013-2017 with focus on Arkansas rice and the U.S. rice sector. The results suggest that the Price Loss Coverage program provides a relatively strong safety net for long-grain rice producers.

EnVesting in an Agricultural Legacy: Design and Implementation of a Targeted Young and Beginning Farmer Loan Program in Arkansas

L. Paul Goeringer, H.L. Goodwin, Bruce Dixon and Michael Popp, University of Arkansas

U.S. agriculture has seen a decrease in producers under the age of 35 entering agriculture for the past thirty years. This paper will explore the design and possible implementation of an innovative loan program designed to give qualifying young and beginning producer's concessionary interest rates and loan fees for implementing the practice designed to improve on-farm profitability.

Crop Insurance Challenges and Prospects for Southern Irrigated Farms: the case of Arkansas

Vuko Karov, Eric J. Wailes and K. Bradley Watkins, University of Arkansas

Participation rates by southern irrigated crop producers in most important crop insurance programs have been relatively low. This paper empirically examines why this may be the case in Arkansas, and proposes a novel gross margin product specifically targeted at meeting the needs of these farmers.

Motivations and Challenges in Farm to School Participation: Nutrition versus Food Hardship Considerations

Marissa Watson, Wolfe, University of Georgia

This paper explores the potential for the Georgia schools to participate in the Farm to School program. Primary and secondary data were used to establish a correlation between Farm to School, obesity, and food hardship. The results indicate that schools are more influenced by food hardship considerations than nutritional issues.

Small Area Estimation of Insurance Premiums and Basis Risk

Sebastain Awondo, Greg Fonsah, Octavio Ramirez, University of Georgia

The magnitude of basis risk between Actual Production History (APH) and Group Risk Plan (GRP) contracts across corn farms in Illinois counties is estimated using pseudo-simulated yields with farm specific geospatial climate data. We found a wide variation in expected basis risk across farms within and between counties.

3) Extension

Factors Contributing to Effective U.S. Cooperative Member-owner Communications

Lisa Brown, Rodney Holcomb, Phil Kenkel and Traci Naile, Oklahoma State University

In 2011, communicating the cooperative value package to member-owners was identified as the most critical challenge among U.S. agricultural cooperatives. Rural cooperatives in three states

were surveyed to identify current communication methods and to elicit the effectiveness of communicating key messages through those efforts by conducting a simple regression analysis.

Measuring the Effect of Green Space on Property Value: An Application of the Hedonic Spatial Quantile Regression

Sezhu Liu and Diane Hite, Auburn University

This research used the hedonic price analysis, after incorporating a spatial-lag term and extending the model by quantile regression, we got the influence of different green space characteristics on housing price change across the conditional distribution of housing prices.

Veterinary Medicine Industry in Texas: An Analysis of Economic Contribution

Jenna Beyer, Dean McCorkle and Daniel Hanselka, Texas A&M AgriLife Extension Service

Several data sets were utilized to estimate the direct effect of the veterinary medicine industry. Preliminary results indicate the total economic contribution of the veterinary medicine industry in Texas was 3.85 billion in 2011. Over 44,000 Texas employees and \$1.67 billion in annual wages can be linked to the industry.

4) Farm Management

Barriers to Entry for Young and Beginning Cattle Producers in Oklahoma

Seth Menefee and Damona Doye, Oklahoma State University

This research examines the challenges for a young and beginning cow-calf producer in Oklahoma. Scenarios were developed for native and introduced forage bases with different terms for financing the operation. The returns generated from a cow-calf operation in Oklahoma make purchasing land difficult, particularly for a young and beginning producer.

Comparison of Cow-Calf Producer Net Returns and Greenhouse Gas Emissions from Changes in Calving Distributions in the Southeast

Aaron Smith, Michael Popp, and D. Keeton, University of Arkansas

A spreadsheet-based tool that tracks cow-calf producer net returns (*NR*) and greenhouse gas (*GHG*) emissions was used to determine the impact of calving season for three typical farm sizes and four fertilization strategies in Arkansas. Economic and environmental changes were examined for spring, fall, year-round, and profit-maximizing monthly calving distributions.

Cost Effectiveness of On-Farm Semi-confinement Systems for Cow-Calf Production

Kelly J. Jones, David G. Lust, Kathleen R. Brooks and Mallory K. Vestal, West Texas A&M University

During extreme drought, grazing is unavailable and hay is expensive. Feed and labor costs in confinement cow-calf systems using concentrate diets are not well established. Cows were wintered in semi-confinement and costs determined. The results indicate that high concentrate confinement systems diets may provide an alternative to forage based cow-calf systems.

Cost Efficiency and Feed Grain Production

Michael R. Langemeier, Elizabeth A. Yeager and Dan O'Brien, Purdue University

This paper examines the relationship between cost efficiency and feed grain production in Kansas. Using data from 2002 to 2011, corn production was significant and positively related to cost efficiency in eastern and western Kansas, while grain sorghum production was significant and positively related to cost efficiency in central Kansas.

Economic Analysis of Crop Insurance Alternatives under Surface Water Curtailment Uncertainty

Lawrence L. Falconer, Mississippi State University Extension Service and James W. Richardson, Texas A&M University

Abstract: This paper reports SERF analysis to help rice landlords in the Upper Coastal Bend of Texas evaluate alternative crop insurance combinations of yield loss and prevented planting coverage levels given uncertainty related to surface irrigation water curtailment. For baseline and high curtailment probability scenarios, prevented planting buy up is preferred.

Economic Difference among Beef Production Systems of the Nebraska Sandhills

Sunil P. Dhoubhadel and Mathew C. Stockton, University of Nebraska Lincoln

This paper addresses the issue of the profitability of beef production from a systems perspective. The model uses information from biological and economic systems to identify factors affecting profitability of nine beef production systems in the Nebraska Sandhills. The results are further used in ranking the profitability of 37 unique subsystems.

Environmentally Responsible versus Profit Oriented Farmers: Evidence from Precision Technologies in Cotton Production

Sofia Kotsiri, Roderick Rejesus, Sherry Larkin, Michele Marra, North Carolina State University

We investigate what differentiates environmentally responsible farmers from those who make decisions based solely on profit. A proportional odds model is proposed to estimate the factors affecting the degree of social responsibility on the technology adoption. Our results suggest,

perceived importance of precision farming, and the perceived improvement in environmental quality are important.

Intergenerational Management Transfers in Family Farm Businesses

Kelly Lange, Virginia Tech, Jeff Johnson, Phillip Johnson, Darren Hudson, Chenggang Wang, and Bill Gustafson, Texas Tech University

Family farm management is often transferred separately from farm ownership. This article determines the impact of variables affecting management transfer decisions. Agricultural Resource Management Survey data are used to investigate variable impacts. The results indicate operator demographics, business planning practices, and value of farm and non-farm assets impact management transfer decisions.

Irrigation water sources and irrigation application methods used by U.S. nursery producers

Mahesh Pandit, Krishna Paudel, and Roger Hinson, Louisiana State University

We examined the irrigation water sources and irrigation methods used by U.S. nursery plant producers using a nested multivariate fractional regression model. Results indicated that the use of computer, annual sales, regions, and number of IPMs adopted play an important role in the choice of irrigation methods used.

Measuring Technical, Allocative, and Economic Efficiency of Rice Production in Arkansas using Data Envelopment Analysis

K. Bradley Watkins, Tatjana Hristovska, Ralph Mazzanti and Charles E. Wilson, Jr., University of Arkansas

Data envelopment analysis (DEA) is used to calculate technical, allocative, and economic efficiency of rice production in Arkansas using data from 137 fields enrolled in the University of Arkansas, Rice Research Verification Program (RRVP). Resulting mean technical, allocative, and economic efficiency scores were 0.899, 0.696, and 0.625, respectively.

Nitrate Toxicity in Bermuda grass Hay and Its Effect on Net Returns

Christopher N. Boyer, Andrew P. Griffith, Roland K. Roberts, Hubert J. Savoy, and Brian G. Leib, University of Tennessee

When choosing a nitrogen rate, optimal nitrogen rates were determined for a Bermuda grass hay producer who considers nitrate toxicity and one who does not. A price premium of \$6.02/ton for low-nitrate hay is needed to breakeven for a hay producer who does not consider nitrate toxicity.

5) **Food Consumption, Safety and Policy**

Assessing Consumer Willingness to Pay for Ground Bison Given Nutrition Information

Shang-Ho Yang and Timothy A. Woods, University of Kentucky

Bison nutritional benefits are higher than many commercial meats, but merchandising impacts are relatively unknown. This study investigates willingness-to-pay determinants for fresh ground bison. Results show that most consumers don't know about the nutritional benefits and enhancing consumers' nutrition knowledge of bison products would significantly increase the market value.

Estimating the Indirect Economic Costs to Shrimp Consumers from the 2010 Deep-water Horizon Gulf Coast Oil Spill

Addison Ellis, Clemson University, Jaclyn Kropp, University of Florida, Michael Norton, Columbia University

Using national fisheries market data and the results of an experimental auction, we estimate the loss to U.S. shrimp consumers from the 2010 oil spill in the Gulf of Mexico. The source of the losses are (1) higher prices, (2) lower utility from consuming imperfect substitutes, and (3) stigma.

Farm Market Patron Behavioral Response to Food Sampling

Shang-Ho Yang and Timothy A. Woods, University of Kentucky

Farm market patron responses to food sampling indicate that this experience created significant purchasing impacts at the point of sale. After food sampling, over half of the respondents made a purchase that hadn't been planned that day. Sampling response is further examined by market setting and within various consumer segments.

Household Consumption Characteristics of Cookies: The Case of Uganda

Shengfei Fu, Wojciech J. Florkowski, Padmanand Madhavan Nambiar, Anna V.A. Resurreccion, and Manjeet S. Chinnan, University of Georgia

Household cookie consumption and purchase characteristics were investigated in six cities in Uganda. A Logit model analyzed the decision to eat cookies. A Double-Hurdle process modeled the purchase decision and quantities. The presence of children and regional difference, along with other demographic features, were found to significantly affect the decisions.

The Effect of Income on Health Choices: Alcohol Use

Xiaowen Hu and C.Jill Stowe, University of Kentucky

This paper investigates the relation between household income level and individual alcohol consumption behavior. Data from Behavioral Risk Factor Surveillance System (BRFSS) are tested utilizing a multinomial Logit method. The results show that alcohol consumption frequency positively correlates to income, but excessive alcohol use mostly occurs among lower income population.

Peanut Paste/ Butter Consumption Frequency in the Republic of Uganda: Count Data Model Approach

Padmanand Madhavan-Nambiar and Wojciech J. Florkowski, University of Georgia

Peanut paste/butter consumption frequency in the Republic of Uganda is analyzed using household survey data. Estimation results from Zero-inflated Binomial regression conclude that education, household location, color of peanut paste, etc. are important. The ordinal logistic results conclude that peanut paste/butter consumption with vegetables is the most preferred option.

The Determinants of Food Expenditures in the Urban Households of Ghana: A Quantile Regression Approach

Ting Meng, University of Georgia, Wojciech Florkowski, University of Georgia, Daniel Sarpong, University of Ghana-Legon, Anna Resurreccion, University of Georgia, Manjeet Chinnan, University of Georgia

The study applies quantile regression to identify determinants of the entire distribution of food expenditure, and quantify their effects among Ghana's urban household subgroups. The results indicate that among the significant factors the largest effect in descending order have location, marital status, education, household composition, age, and income.

The effect of refrigerator use on meat consumption in rural China

Jing Zhao and Wyatt Thompson, University of Missouri

Refrigerator ownership in rural China increased from 14% to 45% over the period 2001-2010. We tested the impact on demand for food, particularly meat, using fixed-effect and demand system approaches based on provincial data. The results suggest that rising refrigerator ownership had a negative effect on rural at-home meat demand.

Welfare impacts of increasing food prices in Mexico: an application of unrestricted Engel curves and LA/EASI demand system

David Magana and Ariun Ishdorj, Texas A&M University, Parr Rosson, Texas AgriLife Extension Service

This paper examines the impact of rising food prices on the welfare of Mexican households by using LA/EASI demand system. Estimated welfare effects from food price increases differ

considerably for two reference households. The rural average-income reference household's welfare loss, from a tortilla price increase, is twice as much the urban high-income reference household's welfare effect.

Farmers' Perceptions of Biopharming: Insights from a Tobacco Biopharming Survey

Michelle Hayes, Genti Kostandini, Jeffrey L. Jordan, University of Georgia

The objective of this study is to provide empirical data from a survey about tobacco producers' knowledge on biopharming, their attitudes, and conditions under which they would be involved in biopharming. We find that farmers have limited knowledge on biopharming and they are willing to grow crops for pharmaceutical use given the right economic incentives.

6) International Agriculture and Trade

Cost of Trade Impacts on Transition Country Exports

Jalal Gaytaranov, Lewell F. Gunter and Forrest E. Steglin, University of Georgia

This paper reports the results from the estimation of an export determination model for transition countries for 2005-2011. We found that higher internal export fees had a small negative impact on exports from countries not adjacent to the EU and that FDI had larger impacts on exports of resource rich countries.

Gender Impacts on Adoption of New Technologies: Evidence from Uganda

Eftila Tanellari, Genti Kostandini and Jackie Bonabana, University of Georgia

This paper examines the effects of gender on the adoption of new technologies of peanut production in Eastern Uganda. The findings suggest that females adopt improved varieties at a lower rate compared to males. In addition, females in female-headed households are less likely to adopt.

Impact of Agricultural Productivity Changes on Poverty Reduction in Developing Countries

Rebati Mendali, Glenn Ames and Lewell Gunter, University of Georgia

We use multiple measures of agricultural total factor productivity (TFP) change by grouping countries and then by pooling them altogether and examine the relationship between agricultural productivity and poverty in developing countries. Preliminary results show that TFP change obtained from the pooled model has a significant impact on poverty reduction.

Macroeconomic Aspects of Ghana's Export Performance

Aude L. Pujula and Hector O. Zapata, Louisiana State University

This study explored the role of exchange rates, inflation and foreign activity in Ghana's export performance. It used an augmented VAR model with modified Wald tests, and found significant causal relationships between REER and export volumes. A VAR-MGARCH-in-mean model shed light on the negative impact of third-country exchange rates volatility.

Short- and long-run relationships between Ukrainian barley and world feed grain export prices

Kateryna Goychuk and William H. Meyers, University of Missouri

This research provides a comprehensive analysis of the short- and long-run price dynamics among the largest world barley exporters - Ukraine, Australia, European Union and Canada - between 2004 and 2010. Tests of market price cointegration (Johansen ML test and residual-based tests) and error correction techniques were performed for this purpose.

Title: The Impact of the Melamine Scandal and other Factors Influencing China's Dairy Imports

Xiaojin.Wang, University of Kentucky

A single equation demand and a sourced differentiated Almost Ideal Demand System (AIDS) model are employed to investigate factors influencing the dairy import demand in China and competition among different exporters from 2002 to 2012. The results from both models are compared and own-price, cross-price, and income elasticities are calculated.

Total Factor Productivity in Brazil's and Argentina's Agriculture: A Comparative Analysis

Rebati Mendali, Glenn Ames and Lewell Gunter, University of Georgia

We measure total factor productivity (TFP) changes in Brazil and Argentina's agriculture during 1971-2002 and compare them. Results show that agricultural TFP growth accelerated in Brazil, whereas Argentina experienced a negative trend in TFP growth. This difference is explained by different policy reforms in Brazil and Argentina during the period.

Trade Liberalization effects on Agricultural Production Growth: The Case of Sri Lanka

Nirodha De Silva and Jaime Malaga, Texas Tech University

This paper examines the trade policy impact on agricultural productivity in Sri Lanka based on the national data from 1960 to 2010. The empirical results suggest that trade liberalization improved agricultural productivity and confirms that Free Trade Agreement is not a significant determinant on agricultural productivity in Sri Lanka.

U.S. Drought Impacts on the U.S. and International Rice Economy

Eddie C. Chavez and Eric J. Wailes, University of Arkansas

Impact of the U.S. drought on the global rice economy is limited because major exporters hold large stocks, but food deficit nations face food security challenges. Relative prices of corn, soybeans, and wheat to rice, result in rice consumption, trade, and supply responses notably in China, U.S., and Indonesia.

U.S. Foreign Direct Investment in Latin America and the Caribbean: Remittances and Market Size

Pablo Garcia-Fuentes, Louisiana State University, P. Lynn Kennedy, LSU Ag Center, Gustavo Ferreira, Virginia Tech

This study is about remittances and U.S. foreign direct investment flows to Latin America and the Caribbean (LAC) over the period 1983-2010. It finds a positive impact of remittances on U.S. FDI flows to LAC conditional on per capita GDP. Also, Per capita GDP is positive on U.S. FDI.

Poverty Outreach in Southern and Northern Ghana

Ganna Sheremenko, University of Georgia, Wojciech Florkowski, University of Georgia, Anna Klepacka, Wasraw University of Life Sciences

This paper examines financial sustainability and social outreach determinants of microfinance institutions' (MFIs) performance in the Southern and Northern parts of Ghana using the Seemingly Unrelated Regression (SUR) as the estimation technique. The results suggest that although MFIs in both parts of Ghana are profit-driven, they are expected to improve poverty outreach as they expand their clientele.

7) Marketing and Industrial Organization

Chinese Consumer Knowledge, Perception and Willingness to Pay (WTP) for Orange Juice Products: Any Opportunities for the U.S. Juice Producers

Xuqi Chen, and Zhifeng Gao, University of Florida

Surveys were conducted in four cities in China to study Chinese consumers' knowledge, perception and willingness to pay for different types of orange juice products. The results show that consumers were willing to pay for healthier orange juice produce with a high percentage of juice contents.

End User Preferences for USDA Market Information

J. Pruitt, Louisiana State University, Glynn Tonsor, Kansas State University, Kathleen Brooks, West Texas A&M University and Rachel Johnson, USDA

Buyers and sellers of agricultural commodities benefit from public provision of information in decision-making processes. The purpose of this study is to improve the understanding of current preferences for public agricultural information. Results indicate a preference for farm level reports by Extension agents and leading economic indicators by agribusiness or market analysts.

Fresh Vegetable Growers' Risk Perception, Risk Preference and Choice of Marketing Contracts: A Choice Experiment

Michael Vassalos, Wuyang Hu, Tim Woods, Jack Schieffer and Carl Dillon, University of Kentucky

The importance of wholesale tomato marketing contract attributes, growers' risk perception and risk preferences on contract choice was examined with the use of a discrete choice experiment. The findings validate the transaction cost hypothesis and indicate heterogeneity in preferences. Risk perception and risk preferences had limited impact on contract choice.

How local is local? Consumer Preference for Steaks with Different Food Mile Implications

Kar H. Lim, Wuyang Hu, University of Kentucky

Results from a choice experiment reveal consumers were indifferent between product labeled as Local and Local: from within 160 km ; Despite the more strict regulation in place for local food, results suggest that a transition from 50km limit to 160km limit equally satisfy consumers while increasing access to local food market.

The Comparison of three Non-hypothetical Valuation Methods: Choice Experiments, Contingent Valuation, and Experimental Auction

Jing Xie and Zhifeng Gao, University of Florida

Preferences revealed by three non-hypothetical experiments are compared. The WTP estimates from the choice experiment are the highest, followed by that of contingent valuation methods, and experimental auctions. Results suggest that the discrepancies among estimates from the valuation methods can come from the heterogeneity of respondents' price bargaining aggressiveness.

The Effect of Carcass Quality on the Grid versus Dressed Weight Carcass Revenue Differential*

Scott W. Fausti, Bashir Qasmi, Matthew Diersen, Matthew Stockton and Bill Adamson, South Dakota State University

We investigate the fed cattle grid pricing system and its premium and discount incentive mechanism over time. The evidence, gleaned from a fixed effects modeling approach, suggests that carcass quality attributes, prime, select, and heavy weight have been gaining influence with respect to market valuation of individual animal's carcass characteristics.

The Value of Price Stabilization Policy for Cotton Producers in Burkina Faso

Amadou Gouzaye, Jeffrey Vitale, Francis M. Epplin, Brian D. Adam, and Arthur Stoecker

Economic returns to Burkina Faso cotton producers from selling to the government parastatal are compared to those that could be obtained by selling on the international spot market. Based on historical prices for certain levels of risk aversion, the parastatal price would be preferred to the international spot price.

Websites and Web-based Marketing Tools of Virginia Wineries

Gustavo Ferreira, Virginia Tech and Joao Paulo Ferreira, Bridge consulting

This paper used evaluation criteria to evaluate the effectiveness of 182 Virginia wineries websites in four different dimensions (general features, wine tourism, marketing, and educational). The results reveal that the potential of a website has not been fully exploited by many Virginia wineries, even those located in wine clusters.

What Influences a Student to Attend a Regionally Isolated University?

Dean Monroe, Sierra Howry, Angelo State University

Prospective college students use a small set of socioeconomic factors in deciding on an institution to attend. These factors are further narrowed when their regional context is sparsely populated and substitution choice is low. This study found that proximity and scholarships influence a student choice of university in geographically isolated areas.

8) Production Economics

An Analysis of the Potential Economic Impact of Huanglongbing on the California Citrus Industry

Samantha L. Durborow and Jose A. Lopez, Texas A&M University-Commerce

Two alternative management practices are examined to estimate the potential total loss in production value due to Huanglongbing on the California citrus industry over a 20 year period. The total loss is estimated to be \$2.7 billion under a do-nothing approach and \$2.2 billion under an aggressive action approach.

Drought Tolerance of Soybean Crops in Missouri

Jewelwayne Cain and Joseph L. Parcell, University of Missouri

Constant efforts have been taken to create and adopt soybean varieties and farming practices that lead to more drought-tolerant crops. In this study, we analyze three soybean distinct relative maturity zones in the state of Missouri to determine if there are any improvements in drought-tolerance of soybean crops over time.

Technical Efficiency of Ukrainian Crop Sector

Olga Murova, Texas Tech University

This study investigates the impact of land policy on the technical efficiency (TE) of the Ukrainian crop sector. Our analysis shows that the overall lease of land by all agricultural enterprises has a positive impact on the technical efficiency, while the impact of land lease by farming enterprises on the technical efficiency is negative.

Economic Feasibility of Table Grape Production in Kentucky

Stephen King, Todd Willian, Martin Stone and Nathan Howell, Western Kentucky University

The objective of this research was to determine the expected profitability for a small scale table grape vineyard. Data came from the Western Kentucky University demonstration vineyard, published enterprise budgets, and market observations. The results of a NPV analysis indicate that small-scale table grape production in Kentucky may be economically viable.

Estimation of the Value of Old World Bluestem and Optimum Grazing Season under Alternative Stocking Rates

Lal K. Almas, David G. Lust and Kathleen R. Brooks, West Texas A&M University

The production potential of OWB forage is evaluated under commercial rotational grazing management. The economic value of the forage is determined by the replacement value of the CP and TDN content. The optimal grazing period is determined where the MVP of grazing an additional day is equal to the MFC.

Economics of Lignocellulosic Ethanol Production from Energy Cane

Juan J. Monge, Luis A. Ribera, John L. Jifon and Jorge A. da Silva, Texas A&M AgriLife Research and Extension Center

A probabilistic financial model was developed to assess the economic feasibility of energy-cane-based hydrolysis-ethanol production. At an expected price of \$1.97/gallon and no tax credit, the chances of a positive NPV were 70%. By slightly increasing feedstock and ethanol yields by 5 units, the chances rose to 95%.

Effect of Late Season Precipitation on Cotton Yield Distributions

Sandra E Amonoo and Jesse Tack, Mississippi State University

The recent changing climate causes a reduction in yield. We estimate the impact of drought and wet climate on mean, variance, upside and downside risk of Mississippi county level cotton yield data. The results suggest that mean effects are rather small, but there is a considerable reallocation of risk across the tails of the distribution.

Identifying the structure of Risk Aversion from Production Data

Feng Wu and Zhengfei Guan, University of Florida

Lence (2009) concluded that producers' risk preferences parameters are unlikely to be recovered from production data. We conduct Monte Carlo simulations to investigate issues in the recovery of risk preference parameters and find that the parameters can be consistently estimated, though at a slower convergence rate in some cases.

Factors Affecting Feeder Cattle Prices in the Southeast

Kenny Burdine, Leigh Maynard, and Greg Halich, University of Kentucky

This study finds smaller negative corn and feeder cattle price relationship than previous work. It also finds premiums of \$11 per head and \$17 per head for age and source verification and certified natural. Also, found market conditions may have shifted such that the incentive to underestimate weight in video auctions may no longer exist.

Management of HLB Infected Citrus Groves in Florida: Some Empirical Results

Abdul Wahab-Salifu, Thomas H. Spreen, Kelly A. Grogan and Fritz Roka, University of Florida

Huanglongbing (HLB) is a bacterial disease that affects all varieties of citrus. It is endemic in both Florida and Sao Paulo, Brazil, the largest suppliers of orange juice in the world. In this study, the economics of three strategies that have evolved to deal with the disease are analyzed.

Non-Adoption of Best Management Practices: Demographics and Adoption Constraints of Oklahoma Cattle Producers

Stephanie Schumacher, Derrell Peel, and Kellie Curry Raper, Oklahoma State University

Using survey data from Oklahoma cow-calf producers, a binomial logit model is employed to estimate the probability of non-adoption of specific management or marketing practices based on producers' demographics. Thirteen individual management and marketing practices are used to examine relationships between non-adopters' characteristics and reasons given for non-adoption.

Productivity and Efficiency of Small Scale Agriculture in Ethiopia

Dawit K. Mekonnen, Jeffrey H. Dorfman, and Esendugue Greg Fonsah, University of Georgia

We estimated a distance function of grain production using GMM and find that the most important factors determining farmers' efficiency in Ethiopia are having access to extension, participation in off-farm activities, labor sharing arrangements, gender of the household head, and the fertility and slope of the farmers' plots.

Profit Gap Analysis on the Small Scale Production of Shallot: A Case Study in a Small Village in East Java Province of Indonesia

Fnu Sujarwo and Sayed Saghaian, University of Kentucky

This study addresses the allocative inefficiency problem and profit gap of the farmer's shallot production. Three simulations for efficient inputs allocation and profit gap analysis are calculated. The result shows that profit gaps are 4.72 percent, 13.96 percent and 17.92 percent for low, middle and high levels of cost, respectively.

Testing Market Power with Profit Functions: a Dual Approach with Normalized Quadratic Functions

Zhifeng Gao and Charles Moss, University of Florida

The dual relationship between the parameters of normalized quadratic cost and profit functions is determined when firms can implement market power on the output market. An approach is developed to test the market power by comparing the profits of a firm with and without market power. Simulations demonstrate the efficiency of this approach.

Effect of Relative Price Changes of Top Principle Crops on U.S. Farm Land Allocation

Ekaterina Vorotnikova, Serhat Asci, James L. Seale, Jr., University of Florida

Land-allocation dynamics among the top five crops are investigated and the 1996 Farm-Bill is assessed for the time period of 1960-2010. The effect of corn price change is associated with the increase of corn's acreage and no evidence is found that Farm-Bill introduces structural change to the land-allocation dynamics.

The Impact of *Huanglongbing* (HLB) on Citrus Tree Planting in Florida

Thomas H. Spreen and Jean-Paul Baldwin, University of Florida

Huanglongbing (HLB) is a bacterial disease of citrus that adversely affects the profitability of citrus production. In this study, new tree planting equations are estimated for sweet oranges in Florida accounting the possible effect of HLB. The estimated equation is used to assess the impact of HLB on future orange production.

Using Bayesian Estimation and Decision Theory to Determine the Optimal Level of Nitrogen in Cotton

B. Wade Brorsen, Oklahoma State University

Improved software now makes Bayesian estimation a strong alternative to nonlinear maximum likelihood. Bayesian methods were used to estimate a linear response stochastic plateau for cotton and were shown to provide estimates similar to maximum likelihood. Optimal levels of nitrogen were lower than recommended levels.

What is the use value of the High Plains Aquifer services to agriculture?

Subject areas: Production function, water, use value

Federico Garcia Suarez, University of Nebraska

The objective of the paper is to provide an estimate of the use value of the High Plains aquifer in agriculture. A region-wide production function for the crop sector is estimated. Using the production response to irrigation we estimate the value of groundwater for agriculture is \$231/acre at 2007 prices.

9) Research and Quantitative Methods

Climate Risk Adjusted Efficiency Measures of World and Regional Agricultural Sector

Saleem Shaik, North Dakota State University

The purpose of this paper is to estimate climate risk adjusted efficiency measures for 162 for the period 1961 to 2009 using graph distance function. Specifically compare the climate risk adjusted efficiency and traditional efficiency measures to quantify the importance of climate change on efficiency across regions of the world.

Market Channel Analysis of Ornamental Plants using Clustering Procedures

Mahesh Pandit, Krishna Paudel, and Roger Hinson, Louisiana State University

We studied the share of market channels (garden centers, landscapers, mass merchandisers and re-wholesalers) in each subpopulation identified by a mixture of expert models using multivariate fractional and nonparametric regression models. The effect of regions, sales of plant groups, contract sales types, and promotional expenses on share of market channels varies per subpopulation.

10) Resource and Environmental Economics

A Comprehensive Analysis of Adoption of Energy Crops, GM Crops and Conservation Practices

Haluk Gedikoglu, Lincoln University of Missouri

The future of US agriculture relies on sustainable resource use and income generation for farmers, and maintaining the environmental quality. Hence, farmers are expected to adopt various technologies. The results of the current study show that different policies will be needed to promote adoption of technologies with different objectives.

Agricultural Land Conversion in Lee County, Florida: Impacts of Economic and Natural Risk Factors in Coastal Area

Sheng Li and Denis Nadolnyak, Auburn University

Farmland in Florida has undergone extensive conversion into residential and commercial use. A censored survival model is applied to examine the timing of land use change using parcel-level data from Lee County, 1988-2008. Results suggest that flood and hurricane risks affect conversion timing while controlling for economic and demographic factors.

Climate Impacts on Farm Profits in the U.S.

Jaehyuk Lee, Denis Nadolnyak, Valentina Hartarska, Auburn University

This paper estimates climate change impacts on agricultural profit using pooled cross-section data from 2000-2009 in the 48 contiguous states. Results indicate that drought and crop moisture indexes have a positive impact on farm profits while controlling for other factors affecting farm profitability. The indexes outperform commonly used temperature and precipitation measures and can be linked to climate change models.

Comparison Analysis of Temperature Change between Georgia and California

Jeffrey Dorfman and Xuedong Wu, University of Georgia

Although it is shown that the average temperature of the U.S. has been increasing since 1901, the state level data indicates some contrary situations. This paper uses the SVAR model to analyze the different temperature trends of two representative states, Georgia and California, and identifies the possible factors and causes of this differences.

Crowding-out Effect or Institutions? The Resource Curse Revisited with an Investigation of U.S. States

Na Zuo and Jack Schieffer, University of Kentucky

Low economic growth in resource-rich regions is called the resource curse. This research empirically investigates the resource curse at the U.S. state level. Of two popular explanations

for the resource curse, our analysis supports a crowding-out effect rather than institutional quality. Investment and R&D are the two main crowded-out factors.

Economic Impact of Hunting Expenditures on Southern U.S

Jagdish Poudel, Ian A. Munn, and James E. Henderson, Mississippi State University

This research quantified economic impacts of hunting expenditures for the U.S. South. IMPLAN models were developed using the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation data. Result indicates that hunting-related output has greater economic impact than outputs of equal size by other forest-based industries.

Economic Impacts of the Forest Products Industry in the South (2009)

Ram P. Dahal, Ian A. Munn, and James E. Henderson, Mississippi State University

The 2009 regional economic contribution of the forest products industry in the South were derived using IMPLAN. Direct impacts and SAM multipliers were compared to pre-recession 2001 impacts. Although the industry has experienced significant decline, it is still an important source of employment and income in the South.

Economic Shocks and Civil Conflict: The Case of Large Floods

Ramesh Ghimire and Susana Ferreira, University of Georgia

We investigated the impact of large floods on civil conflict among 125 countries between 1985 and 2009. We controlled for endogeneity of floods and the potential spatial-temporal dependency of civil conflict. We found that floods increase the probability of conflict incidence through a negative impact on short-run GDP growth.

Effect of Climate Change on Supply Response of Florida Citrus Crops 1980-2010

Mohamad R. Traboulsi, University of Florida

A supply response model for the highest valued citrus commodities in Florida is specified to analyze the impact of climate change on acreage and yield responses. Preliminary results suggest that temperature has an impact on the acreage and yield responses whereas precipitation did not have an impact.

Empirical Testing of Strategic Voting and its Implications for Choice Experiment

Chang Xu, Matthew G. Interis, Daniel R. Petrolia and Kalyn T. Coatney, Mississippi State University

We examine strategic voting in a homegrown value experiment. Strategic voting occurred, but with low frequency. We solicit participant perceptions about the vote distribution and find that

these perceptions affect voting. Participants appear to consider the vote distribution regardless of whether they are prompted to do so before voting.

Greenhouse Gas Emission of an Economically Optimized Switchgrass Supply Chain for Biofuel Production: A Case Study in Tennessee

Zidong Wang, T. Edward Yu, James A. Larson, and Burton C. English, University of Tennessee

This study estimates the greenhouse gas (GHG) emissions of a switchgrass supply system for a potential biorefinery producing 50 million gallons of biofuel annually in Tennessee. Under the condition of minimizing the cost of feedstock, the estimated annual GHG emissions of the switchgrass supply system are 256 g CO₂e/m².

Impact of Environmental Values on the Breakeven Price of Switchgrass

Deepayan Debnath, Arthur L. Stoecker, and Francis M. Eppin, Oklahoma State University

The farm-gate breakeven price of switchgrass is estimated relative to wheat in Oklahoma. The breakeven price of switchgrass is determined considering with and without environmental consequences. The breakeven price of switchgrass with environmental consequences is lower than the price without environmental consequences.

Network Analysis of the Gulf of Mexico Commercial Red Snapper Fishery IFQ Program

Andrew Ropicki, University of Florida

This research examines quota trading in the Gulf of Mexico Red Snapper IFQ Program using network analysis techniques. The analysis includes the examination of trading network structure, market segmentation and its effects on market efficiency, and how IFQ management has changed participation in the fishery.

Subdivision Infrastructure affecting Stormwater Runoff and Residential Property Values

Jessica Boatwright, Kurt Stephenson, Kevin Boyle, and Sara Nienow, Virginia Tech University

This paper presents a hedonic property-value model of consumer preferences for properties in residential subdivisions that have differing infrastructure design features that affect stormwater runoff (street widths, cul-de-sacs, curb-and-gutters).

The Use of Nutrient Assimilation Services in Performance-based Water Quality Incentive Programs

Kurt Stephenson, Virginia Tech, Leonard Shabman, Resources for the Future

This paper reviews water quality investments that can increase the environment's capacity to remove nutrients. The nutrient removal effectiveness, uncertainty, and cost of removing

nutrients directly from ambient waters is compared to agricultural nonpoint source reductions in the context of water quality credit trading and payment for environmental services programs.

Turning Carbon into Cash: Economic Model of Payments for Carbon Sequestration in the Dry Tropical Forest of Coastal Ecuador

Trent Blare and Xavier Haro-Carrión, University of Florida

This paper examines the impact of carbon payments on reforestation in coastal Ecuador. The model estimates that landowners would need to be paid between 13.59 US dollars to 41.81 US dollars per metric ton of carbon in order to be no worse off from reforesting a hectare of her land.

What to Do with Prefer Not to Vote Responses from Contingent Valuation Surveys?

Joonghyun Hwang, Daniel R. Petrolia, Matthew G. Interis and Ardian Harri, Mississippi State University

This study identifies factors that affect the probability of a respondent to choose the prefer not to vote (PNV) option in a contingent valuation survey for coastal restoration in Louisiana. This study focuses especially on the effect of a offered bid and perceived consequentiality of the survey on PNV responses.

Will biodiesel production trigger another food crisis? An implication from a VEC model

Na Hao, Greg Colson, Berna Karali, Michael Wetzstein, University of Georgia.

The rapid growth of biodiesel has raised concerns about biodiesel's impact on the price level and volatility of agricultural commodities. To address these concerns this research investigates the short- and long-run relationships between agricultural commodity and fuel markets, and finds interdependencies between the two.

11) Rural and Community Development

A Non-Spatial Analysis of the Role of Residential Real Estate Investment in the Economic Development of the Northeast Region of the United States

Praveena Jayaraman and Tesfa Gebremedhin, West Virginia University

Residential real estate investment is a major economic activity with large multiplier effects. By using county level data, this paper estimates the impacts of residential real estate investment on the economic development in the Northeast region. A four equation SEM is estimated in STATA using 3SLS.

A Theoretical and Empirical Investigation of Poverty in Rural Georgia Counties

Adenola Osinubi, University of Georgia

This paper investigates poverty in rural Georgia Counties for the years 2000 and 2009. Analysis from 2000 concluded unexpected results from the female head of household and percent black variables. The 2009 results were more consistent with expectations but the percent white and out migration variables produced unexpected results.

An Empirical Analysis of Agriculture in Economic Growth of North Carolina

Saman Herath Bandara, Mount Olive College, Saima Bashir, Indiana University of Pennsylvania, Tesfa Gebremedhin, West Virginia University

Agriculture employs over 20 percent of the work force and contributes to 19 percent of North Carolina's income. This study examines the potential use of agriculture in economic growth using county level data with 3SLS analysis. The results highlight the potential impact of population, income, and other socioeconomic factors on agricultural growth.

Migration to Rural Counties: An Example from the North-Eastern Poland

Anna M. Klepacka, Warsaw University of Life Sciences, Steven T. Yen, University of Tennessee, and Wojciech J. Florkowski, University of Georgia

The paper examines factors influencing migration to rural counties in Poland's underdeveloped regions using county data level and linear regression equation with exponential heteroscedastic errors. Quality of life factors, including the availability of various utility services positively influence the number of migrants, while real estate taxes have a negative effect.

12) Teaching

Can We Do More With Less? Examining Factors Influencing Student Ratings of Instruction

Kristin A. Kovar, Anna L. Henry and Michael J. Monson, University of Missouri

This study examined the variance in student ratings of instruction that can be explained by room capacity and enrollment capacity when controlling for class size. Enrollment capacity, room capacity, and class size contributed to the statistical variance in student ratings of teaching effectiveness and of the course as a whole.

Teaching the Importance of the Global Economy through Travel Study Courses

*Joey E. Mehlhorn, Sandy Mehlhorn, Scott Parrott, and Jeremy D'Antoni
University of Tennessee at Martin*

Travel study courses can be used to enhance student understanding of international and cultural differences in agribusiness. The use of language immersion, industry tours, and service learning methods are affective ways to connect classroom teaching to real world application. Students become more culturally aware and prepared for industry.