Selected Paper Abstracts

Annual Meetings

TITLE: Agribusiness Finance (Moderator: Arbindra Rimal, Missouri State University)

Cost/Benefit Analysis of Abscission Registration for Citrus Mechanical Harvesting *German Blanco and Fritz Roka, University of Florida*

The net present value of a citrus abscission agent to mechanically harvest 25,000 acres is between $60.8 and $79.9 million over a 10-year planning horizon. For the production and price scenarios considered, abscission benefits fully pays for the costs of USEPA registration and development within 4 years.

Labor Cost and Value of Citrus Operations with Alternative Technology: Enterprise DCF Approach *Nobuyuki Iwai, Robert D. Emerson, and Fritz M. Roka, University of Florida*

The prospect of immigration policy reform has renewed growers' concerns of serious labor shortages and cost increases, which may require immediate mechanization of operations. We study the citrus industry case and estimate the value for two operational modes (hand and mechanical harvesting) using the enterprise discounted cash flow (DCF) approach.

Will Higher Shipping Costs Drive the U.S. to Source More Localized Produce? *Timothy Woods, Sayed Saghaian, and Lucia Ona, University of Kentucky*

A component pricing model is used to examine the impact of fuel prices on farm gate and retail produce prices for strawberries, lettuce, and potatoes. The study finds that distribution costs, while significantly increasing in absolute value, have surprisingly little contribution to changes in retail prices even in markets distant to the primary production regions.

Economic Feasibility of Ethanol Production from Sweet Sorghum Juice in Texas *Brittany Morris, Brian Frosch, James Richardson, and Joe Outlaw, Texas A&M University*

The economic feasibility of producing ethanol from sweet sorghum juice is projected using Monte Carlo simulation models to estimate the price ethanol plants will likely have to pay for sweet sorghum and the uncertain returns for ethanol plants. Ethanol plants in high yielding regions will likely generate returns on assets of 11–12% and in low yield areas the returns on assets will be less than 10%.

TITLE: Food Consumption, Safety, and Policy (Moderator: Michael Best, Tennessee Tech University)

An Assessment of Dynamic Behavior in the U.S. Catfish Market: An Application of the Generalized Dynamic Rotterdam Model *Andrew Muhammad, Mississippi State University, and Keithly G. Jones, USDA-Economic Research Service*

This paper provides an empirical application of the generalized dynamic Rotterdam model to the demand for processed catfish products in the United States. Estimates suggest that buyers adjust short-run inventories such that the past sales negatively affect current

sales. Given inventory adjustment behavior, demand was relatively more inelastic in the long-run.

Modelling Reference-Dependent and Labelling Effects in Consumers' Functional Food Choices *Ningning Zou and Jill Hobbs, University of Saskatchewan*

This paper examines the reference-dependent and labelling effects when consumers make choices about functional foods, and explores how changes in reference points could alter individuals' preferences. Functional food (Omega 3 milk) and regular food (regular milk) are used as examples to explore the potential reference-dependent effects and labelling effects. A consumer utility model with reference point effects is developed. The paper also explores how to model the effects of different labelling (health claim) policies.

How Much are Consumers Paying for Organic Baby Food? *Travis A. Smith and Biing-Hwan Lin, Economic Research Service-USDA and Chung L. Huang, University of Georgia*

Using retail purchase data, estimated organic premiums range from 12 to 49% in 2004 and from 30 to 52% in 2006. Significant changes relative to product attributes show that while the price of conventional baby food has stayed relatively the same, the premium for organic baby food has increased.

Do Consumers Really Care about Biotech Food Label? What Do We Know? What Else Should We Know? *Xi Chen, Cornell University and Nanjing Agricultural University, Funing Zhong, Nanjing Agricultural University and Shanghai University of Finance and Economics, and Bin Zhou, Cornell University*

This paper employs household survey data to examine whether biotech food labeling influenced consumers' purchasing decisions, addressing endogeneity issues. In the short run, the market share of biotech oil decreased significantly. To capture a comprehensive picture of label effect and the market trend in the long run, major concerns and needs for the future are raised.

Potential Impacts of Food Borne Ill Incidence on Market Movements and Prices of Fresh Produce in the United States *Marco A. Palma, Luis Ribera, David Bessler, Mechel Paggi, and Ron Knutson, Texas A&M University and California State University*

Food safety has become a major concern for fruit and vegetable consumers. This paper used historical decomposition analysis to study contemporaneous and longer term lagged effects of food borne illness on shipments, prices, and imports of the fresh produce industry using three case studies: spinach, cantaloupes, and tomatoes.

TITLE: Research Methods and Quantitative (Moderator: Scott Parrott, University of Tennessee at Martin)

Forecasting Demand for a Rural Electric Cooperative Call Center *Taeyoon Kim, Philip Kenkel, and B. Wade Brorsen, Oklahoma State University*

This research forecasts peak call volume to allow a centralized call center to minimize staffing costs. A Gaussian copula is used to capture the dependence among nonnormal distributions. Peak call volume can be accurately predicted using the density function with the copula. The modeling approach allows simulating adding another cooperative.

TITLE: International Agriculture and Trade (Moderator: Lanier Nally, University of Arkansas)

Analysis of U.S. Demand for Fresh Tropical Fruits and Vegetables Imports *Kilungu Nzaku and Jack E. Houston, The University of Georgia at Athens*

U.S. demand for tropical fresh fruit and vegetable imports were estimated and most fresh fruit and vegetable imports were found to

be luxury goods. Pineapples and papayas are substitutes as are asparagus and mangoes. NAFTA origin and seasonality also significantly influence fresh fruit and vegetable imports.

Remittances and Economic Growth in Latin America and the Caribbean: The Impact of Human Capital Development *Pablo A. Garcia-Fuentes and P. Lynn Kennedy, Louisiana State University Agricultural Center*

The impact of remittances on economic growth through human capital was evaluated for 14 Latin American and Caribbean countries for the period 1975–2000. We find a significant and complementary effect between remittances and human capital. Thus, the contribution to growth from remittances depends upon the level of human capital stock.

From Coffee Beans to Microchips: Export Diversification and Economic Growth in Costa Rica *Gustavo Ferreira, Louisiana State University Agricultural Center*

Costa Rica has diversified its economic activity, moved away from its dependence on agricultural exports, and gained new competitive advantages in the manufacturing sector. This study tested the hypothesis that export diversification influenced economic growth in Costa Rica via externalities of learning-by-exporting and learning-by-doing. No long-run causality between export diversification and economic growth was found.

Impact of Expanded United States Sugar Imports from CAFTA Countries on the Ethanol Market *Osei-Agyeman Yeboah and S. Janine Parker, North Carolina Agricultural and Technical University*

Corn prices have risen drastically giving way to sugarcane ethanol production. CAFTA-DR allows sugarcane into the United States from Latin American countries. This paper uses econometric modeling to establish the relationships between domestic ethanol production, gasoline, corn, and imported sugarcane prices. To estimate this relationship, an OLS regression model was developed.

TITLE: Production Economics (Moderator: Lal Almas, West Texas A&M University)

Supply Response of Crops in the Southeast *Rachel Smith, Patricia Duffy, James Novak, and Norbert Wilson, Auburn University*

Supply response of crops in the Southeastern United States was estimated using state-level data, taking into account the effect of wealth, revenue risk, and farm program provisions. Acreage of these crops did not appear likely to respond quickly to changes in profitability; however, the model did not fit the data well.

Adoption of Technology and Its Impact on Profitability of Young and Beginning Farmers: A Quantile Regression Approach *Arun Adhikari, Ashok K. Mishra, and Sachin Chintawar, Louisiana State University Agricultural Center*

Adoption of Genetically Modified (GM) crops has resulted in increased production and cropping efficiency gains. Using ARMS data (2004–2006), we explore the factors that affect adoption of GM crops and its impact on farm profitability of young and beginning farmers (YBFR). Results indicate the adoption of GM crops have important impact on financial performance of farms operated by YBFR.

The Impact of Adoption of Genetically Modified Corn on the Off-Farm Labor Supply in the United States *Sachin Chintawar, Ashok Mishra, and Jeffrey Gillespie, Louisiana State University Agricultural Center*

With the production and cropping efficiency gains from adoption of Genetically Modified (GM) corn, the number of acres planted has increased steadily over the past decade. A two-stage left-censored simultaneous Tobit model was estimated. Results indicate that the adoption of GM corn has had a negative and significant impact on the off-farm labor supply.

Crop Producer Perceptions of Corn, Soybean, and Cotton Price Risk *John Michael Riley and John D. Anderson, Mississippi State University*

This study used the subjective price expectations and price distributions of survey participants to determine how producer's expectations compare with that of the market. Participants largely over-estimated their expected price as compared to that day's futures settlement price for both near and long-term forecasts. Individual price volatilities resulting from each fitted distribution were lower than that implied by the market.

TITLE: Marketing and Industrial Organization (Moderator: Whitney Peake, Murray State University)

On the Extent of the Market: A Monte Carlo Study and an Application to the United States Egg Market *Aklesso Egbendewe-Mondzozo, Texas A&M University at College Station*

This paper investigates the extent of the market, using a switching regimes model. The model is applied to the United States egg market, and we found that the market-pairs analyzed are integrated. That is, the markets studied belong to the same economic market in the sense of Alfred Marshall.

Attributes Preferred and Premiums Offered for Naturally Produced Beef Cattle *Job D. Springer, Jon T. Biermacher, M.D. Childs, and Deke O. Alkire, Samuel Roberts Noble Foundation, Brandon Grooms, Ag Texas Credit Service*

Cattle producers in the United States are raising natural beef with limited information. Thirty-two natural beef marketing companies were surveyed to determine attributes preferred and premiums offered for naturally produced cattle. Twenty-five marketing companies reported paying a premium of $5.95/cwt for cattle that have never received antibiotics, hormones, or animal by-products.

Carcass Quality Volume and Grid Pricing: An Investigation of Cause and Effect *Scott W. Fausti, Bashir A. Qasmi, and Jing Li, South Dakota State University*

The spatial linkage between publicly reported weekly grid prices and beef carcass quality volume is investigated. Empirical evidence indicates that there is little evidence to suggest that grid prices are providing efficient price signals to buyers and sellers with respect to market valuation of desirable and undesirable beef carcass characteristics.

Predicting the Corn Basis in the Texas Triangle Area *Vardan Mkrtchyan, J. Mark Welch, and Gabriel J. Power, Texas A&M University*

This study develops a straightforward model of corn basis forecasting that relies on publicly available economic data. Using monthly data for the corn basis in the Texas Triangle Area for the period 1997–2008 inclusive, we find that it outperforms the frequently used 3-year moving average model.

Consumer Preferences in Purchasing Beef and the Values They Attribute to Branded Beef Products *Roger D. Hanagriff, Ryan Rhoades, and Doug Wilmeth, Texas A&M University*

Differences in the strength of the decision values, such as always important, moderately important to seldom important were found with gender, purchasing frequency product differences. Results provide a better understanding of consumer decisions to buy branded beef and may assist producers with advertising decisions.

TITLE: Teaching (Moderator: Kim Jensen, University of Tennessee)

Factors Influencing Salaries of Agricultural Economics Professionals in Federal Employment-Part I *Doris Newton, USDA-Economic Research Service, Jennie Popp, Arby Abdula, Dianne Pittman, and Diana Danforth, University of Arkansas*

A recent survey found that significant salary differences do exist between men and women agricultural economists in USDA employment.

However, preliminary analysis suggests that these differences are likely attributed to both job performance and job preferences, and not to gender.

Factors Influencing Salaries of Agricultural Economics Professionals at Land Grant Institutions *Jennie Popp and Arby Abdula, University of Arkansas, Doris Newton, USDA-Economic Research Service, and Dianne Pittman and Diana Danforth, University of Arkansas*

Results of an ordered probit model suggest that salaries of academic agricultural economists are explained by: tenure, 1862 institution employment, grant dollars, journal articles, academic rank and administrative appointment (positive influences), and importance of family time (negative influence). Gender, ethnicity, and other preferences were not found to influence salary.

Case Studies of Successful Small Scale Farming in North Carolina *Anthony Yeboah, John Paul Owens, Jarvetta Bynum, and Daniel Boisson, North Carolina A&T State University*

This study focuses on determining factors that contribute to a successful small farm. The case study farmers used was a combination of marketing strategies including the Internet and minimized risk through enterprise diversity, contractual sales, and insurance. The overall "love of farming" seemed to be the biggest driving force for success.

The Professor's Dilemma: Teaching Game Theory in Principles of Agricultural Economics *Justin G. Gardner, Middle Tennessee State University*

Typically, students in undergraduate agricultural programs are required to take an introduction or principles class in Agricultural Economics. These courses usually include a section on oligopoly markets, which may lead to a lecture on game theory. This presents a problem as game theory can be a very difficult topic. Herein, I present an easy and fun method that can be used to present static and repeated games in a classroom setting and describe the results of using an experimental Prisoner's Dilemma game as a teaching tool. Any instructor can replicate this in any classroom as a computer is not required.

TITLE: Resource Economics (Moderator: Olga Murova, Texas Tech University)

An Analysis of the EQIP Program for Lesser Prairie Chickens in the Northern Texas Panhandle *DeDe Jones, Nicole Gueck, and Patrick Warminski, Texas A&M University*

The Environmental Quality Incentives Program (EQIP) for Lesser Prairie Chickens provides monetary compensation to agricultural producers for species habitat development. The advantages and disadvantages of program enrollment, as well as an overall economic impact are evaluated for a typical ranch operation in the Northern Texas Panhandle from 2009–2013.

Effects of Environmental Regulation on Economic Activity and Pollution in Commercial Agriculture *Stacy Sneeringer, Wellesley College*

Changes in North Carolina's environmental regulation of livestock agriculture are used to study how these affect the location of economic activity, the externality costs of legislation aimed at economic growth, and the effects of swine on air pollution. The laws led to significant increases in the state's relative hog production and ambient air pollution.

Estimating Demand for Recreational Fishing in Alabama Using Travel Cost Model *Oluwagbemiga Ojumu, Deacue Fields, and Diane Hite, Auburn University*

This paper employs a full economic analysis based on recreation demand models—a.k.a. Travel Cost models. The travel costs' Negative Binomial regression reveals that the average number of fishing days demanded is 33.17 days, while other demographic and site characteristics have varying effects on the number of fishing days demanded.

TITLE: Extension (Moderator: John Michael Riley, Mississippi State University)

Price Variability and the Marketing of Goat Classifications *Mack C. Nelson, Xuanli Liu, and Erika Styles, Fort Valley State University*

Data for goat sales were taken from the USDA Agricultural Marketing Service to determine price variability, predominant, classification, and marketing period. The kid classifications with weights 20–40 lbs and 40–60 lbs had the lowest price variability and were most frequently marketed. Marketing took place most often during the spring.

Role of Extension in a Research University *Cole R. Gustafson, North Dakota State University*

Universities are placing greater emphasis on research and extramural funding in an effort to raise stature among peer institutions. While extension could feel threatened, they could fulfill a void in the land grant mission, assuming greater involvement in applied research and teaching would strengthen extension and provide new opportunities for growth.

Assessing the Impacts of Soil Carbon Credits and Risk on No-Till Rice Profitability *K. Bradley Watkins, Jeffrey A. Hignight, and Merle M. Anders, University of Arkansas*

Most rice in Arkansas is intensively cultivated and grown on rented land. No-till economic incentives exist in the form of carbon credits. This analysis evaluates the profitability and risk efficiency of no-till and carbon credits in rice from the landlord's prospective using simulation and stochastic efficiency with respect to a function (SERF).

Estimating Cotton Harvest Cost per Acre When Harvest Days are Stochastic *Gregory Ibendahl, John Anderson, and Matthew Farrell, Mississippi State University*

The results show that the maximum benefits of new machines are realized with larger farms when a larger number of acres need to be harvested in the harvest period. Results should help farmers plan both their cotton acre estimates as well as their purchase decisions for new cotton pickers.

TITLE: Farm Management (Moderator: Scott Fausti, North Dakota State University)

A Long-Term Analysis of Changes in Farm Size and Financial Performance *Lindsey Snider and Michael Langemeier, Kansas State University*

This paper examined the changing structure of farms in Kansas using data from 1973 to 2007. Results suggested that the differences in farm size and financial performance between small and large farms have widened.

The Effects of Sex-Sorted Semen on Southern Dairy Farms *Brian K. Herbst, Texas AgriLife Research, David P. Anderson, Joe L. Outlaw, Texas AgriLife Extension Service, James W. Richardson, Texas AgriLife Research, and Todd Bilby, Texas AgriLife Extension Service*

This paper examines the impact of sex-sorted semen adoption on dairy farms. Key economic, financial, and herd dynamics will be compared among dairies. All seven of the representative dairies sold surplus replacement heifers using sex-sorted semen. The increase use of sex-sorted semen can have positive financial impacts on dairies.

Management Production Systems and Timing Strategies for Cull Cows *Zakou Amadou, Clement E. Ward, Kellie Curry Raper, Oklahoma State University, and Billy Cook, Samuel Roberts Noble Foundation*

Economic and animal performance was compared for cull cows on a dry lot versus grass from October to April. Average daily gain declined after 42 days and cost of gain increased for longer feeding periods. Net returns for cows on grass exceeded those in dry lot for each period at and beyond 111 days.

Effect of Corn Price on Profitability of Control Versus Phytase Enhanced Diet of Hogs *Ajita Atreya, Jeffrey Vitale, Arthur Stoecker, and S.D. Carter, Oklahoma State University*

An economic simulation model was used to investigate the effect of future corn price on the profitability of control and phytase enhanced hog diets. Results showed that as the market price of corn increased, the control diet became more profitable than the phytase enhanced diet under constant feed prices for both the diets.

TITLE: Production Economics (Moderator: Fritz Roka, University of Florida)

Simulation of Golden Kiwifruit Yield and Size Distributions under Historical Temperature Regimes in Alabama *D. Alan Burnie, Robert G. Nelson, and William Dozier, Auburn University*

STELLA® and Simetar® simulations were used to evaluate eight potential sites for golden kiwifruit orchards in Alabama. Tradeoffs between sufficient chilling hours and acceptable freeze risk were incorporated into estimates of the probability of a given IRR. Latitudes south of Montgomery and north of Dothan are recommended.

Farm-Level Nonparametric Analysis of Profit Maximization Behavior with Measurement Error *Yacob A. Zereyesus, Allen M. Featherstone, and Michael R. Langemeier, Kansas State University*

Farm level profit maximization using a nonparametric production analysis approach allowing for measurement error in variables was examined. All farms violated Varian's deterministic Weak Axiom of Profit Maximization. The minimum standard errors required for consistency with profit maximization was smaller after allowing technological change. Results indicate support for the presence of technological change during the sample period.

Economics of Tillage, Row Pattern, and Cultivar for Peanut *Amanda Smith, Nathan Smith, Scott Tubbs, John Beasley, Jr., and John Paulk, III, The University of Georgia*

Fourteen cultivars of peanut under center pivot, produced by conventional or strip tillage and single or twin row pattern, were analyzed to determine differences in net returns from 2005–2008 in Tifton, GA. New cultivars resulted in higher net returns. Conventional was higher than strip tillage in 2005, 2007, and 2008. There was no difference between single and twin rows.

The Impact of Labor Constraints on the Farm Performance *Florence Ivy Santos, Timothy Park, and Cesar Escalante, University of Georgia*

Among the strategies, adjustment of wage and nonwage benefits were found to be the most effective but a combination of strategies is the most preferred approach to deal with labor shortages. Furthermore, we found a productivity difference between farmers with and without labor shortage adjustment strategies.

TITLE: Rural and Community Development (Moderator: Ken Hood, Mississippi State University)

Short-Run Birth and Death of U.S. Manufacturing Firms: 2000–2005 *Jason P. Brown, Purdue University and Dayton M. Lambert, University of Tennessee at Knoxville*

A conceptual model of county-level investment in the U.S. manufacturing sector is developed from location theory and subsequent literature. We test the relative importance of location factors influencing the spatial distribution of firm births and deaths by using a regional adjustment framework. Results reveal the importance of agglomeration and infrastructure.

Energy Consumption and Economic Growth: Evidence from COMESA Countries *Chali Nondo and Mulugeta Kahsai, West Virginia University*

This study applies panel data techniques to investigate the long-run relationship between

energy consumption and GDP for a panel of 19 African countries based on annual data for the period 1980–2005. Results indicate that long-run and short-run causality is unidirectional, running from energy consumption to GDP.

Can a State Funded Rural Economic Development Program Positively Impact the State's Economy? A Case Study Application Using Texas Department of Agriculture's Rural Tourism Economic Development Program *Roger Hanagriff, Texas A&M University and Michael Lau, Sam Houston State University*

Results revealed state support represented 14% of the total event investment and total event value from visitor spending was $7.8 million for 31 events. The state percent share in value represents $1.1 million and considering the program-expended funds of $147,276 there is a $7.50 return for every $1 of state funding.

Input-Output Analysis, Linear Programming, and Modified Multipliers *Erqian Zhu, Man-Keun Kim, and Thomas Harris, University of Nevada*

Modified multipliers should be considered when researchers and policy makers attempt to analyze the compensation of impact, especially recovery of loss using government expenditure. We suggest that linear programming is a useful and efficient tool to derive modified multipliers and estimate correct regional impacts from the policy changes.

TITLE: Farm Management (Moderator: Bob Stark, University of Arkansas Monticello)

Evaluating Dryland Crop/Livestock System Alternatives for Risk Management Under Declining Irrigation in the Texas Panhandle *David G. Lust, Lal K. Almas, Bob A. Stewart, and W. Arden Colette, West Texas A&M University*

Production budgets for dryland crop and crop/livestock systems are developed to estimate yields, costs, and returns for dryland wheat and sorghum and for alternative dryland crop/livestock systems. A crop simulation model aids yield estimation. The yield and return distributions are used to estimate risk and relative risk for included alternatives.

Evaluation of Risk Management Methods for Satsuma Mandarin *Jeanne K. Lindsey, USDA, Patricia A. Duffy and Robert G. Nelson, Auburn University, Robert C. Ebel, University of Florida, and William A. Dozier, Auburn University*

Satsuma Mandarins are a type of citrus that is grown in the United States in the northern Gulf Coast area, from Texas to Florida, and in Arizona and California. The Gulf Coast area of the United States is desirable for production because the warm temperate-zone growing conditions allow for good tree growth and the relatively cool fall temperatures allow for good fruit quality development.

Optimal Cash Purchase Strategies to Reduce Fertilizer Price Risk *Phil Kenkel and Taeyoon Kim, Oklahoma State University*

Fertilizer price volatility has increased dramatically. This research examines cash purchase and warehouse strategies. Seventeen years of Oklahoma fertilizer prices are examined. The results indicate that mechanical cash purchase strategies can be used to reduce the average cost or variance for fertilizer. Optimal purchase dates are also identified.

A Risk Analysis of Converting CRP Acres to a Wheat-Sorghum-Fallow Rotation *Jeffrey Williams and Richard Llewelyn, Kansas State University, Dustin Pendell, Colorado State University, and Alan Schlege and Troy Dumler, Kansas State University*

Yields, input rates, and field operations from an experimental field in western Kansas are used to calculate net returns for each tillage strategy. Although current net returns to crop production using reduced tillage and no-tillage strategies are higher than CRP, risk analysis indicates CRP would be the preferred strategy for some risk-averse managers.

TITLE: International Agriculture and Trade (Moderator: Jose Lopez, Texas Tech University)

Analyzing the Impact of Changes in Trade and Domestic Policies: The Case of the Soybean Complex *Rafael Costa, Dwi Susanto, Parr Rosson, Flynn J. Adcock, Texas A&M University, Yan Xia, Analysis Group*

This study analyzes the impacts of domestic and trade policy changes on the soybean complex. Changes in direct subsidies, transportation costs, and export taxes are considered. The results indicate Brazil becomes more competitive. The United States loses competitiveness with fewer subsidies. An Argentine export tax reduction increases its soybean exports.

Effects of Food Safety Standards on Seafood Exports to United States, E.U., and Japan *Anh Van Thi Nguyen and Norbert L. W. Wilson, Auburn University*

Estimating a theoretically-consistent, gravity model of seafood trade, food safety regulations (U.S. HACCP, the E.U. Minimum Required Performance Level and the Japanese Food Safety Law) have differential effects across seafood products. In our estimations U.S. HACCP has the least negative effect while the Japanese Law is the most negative.

A Foot and Mouth Disease Induced Model of U.S. Excess Supply of Beef *Osei-Agyeman Yeboah, Victor Ofori-Boadu, and Samaila Salifou, North Carolina Agricultural and Technical University*

Foot and Mouth Disease (FMD) is often referred to as an economic disease. The economic impact of an incident of FMD in the United States is simulated based on three different scenarios of FMD occurrences. Excess supply of beef in the worst scenario will increase by 43%, valued at $2.7 billion.

International Worghum Trade: United States Beyond the Mexican Dependency? *Teresa Duch-Carvallo and Jaime Malaga, Texas Tech University*

This research proposes the estimation of a partial equilibrium econometric and simulation international trade model for sorghum: United States and Mexico component. Sixteen equations were simultaneously estimated and validated as a system using seemingly unrelated regression. Results on parameter estimates agree with economic theory and a working model for simulation and forecast was obtained. Forecast scenarios suggest that the dependency of sorghum trade between United States and Mexico will continue.

TITLE: Agricultural Policy (Moderator: John Westra, Louisiana State University)

Potential Economic Impacts of the CRP Managed Haying and Grazing Provision *Amanda Dickson and Michael R. Dicks, Oklahoma State University*

This paper examines how Conservation Reserve Program land-use changes impact state economic activity. An assessment of impact on local, state, and national hay and beef markets was based upon estimated percent increase in hay/beef production. Economy-wide impacts of potential changes in hay or beef production were estimated using IMPLAN.

Measuring the Potential Economic Impact of a Regional Agricultural Promotion Campaign: The Case of South Carolina *Carlos E. Carpio and Olga Isengildina-Massa, Clemson University*

We evaluated the impact of the South Carolina agricultural promotion campaign. Analysis of survey data revealed that consumer demand for state grown produce has increased by 3.4%, which could result in an increase in producer surplus of $2.9 million. Since the SC Department of Agriculture invested $500,000 in the program in 2007, this figure indicates a 5.8 benefit-cost ratio.

The Impact of the Average Crop Revenue Election Program on the Effectiveness of Crop Insurance *Sung Wook Hong, Gabriel J. Power, and Dmitry V. Vedenov, Texas A&M University*

We compare the risk-reducing effectiveness of CRC and APH insurance under the 2002 and 2007 Farm Bill Average Crop Revenue Election (ACRE) provisions. We find that CRC generally dominates APH, and also that the effectiveness of insurance under ACRE varies more across crops and regions than it does under the 2002 Farm Bill.

Impacts of Federal Government Programs and Specific Farm Variables on Technical Efficiency of Dairy Farms *Olga Murova and Benaissa Chidmi, Texas Tech University*

Initially Data Envelopment Analysis (DEA) was used to estimate technical efficiency scores for all dairy farms in the ARMS USDA survey sample for the year 2005. The outcome showed the impact of variables on the probability of dairy farms to be technically efficient.

A Government Decision Model for Invasive Species: Choosing the Most Efficient Government Program for the Management of Livestock Diseases *Yichen Zhang, Andrew Muhammad, and Keith Coble, Mississippi State University*

Analysis of advantages and disadvantages of current government compensation measures for invasive species. The conceptual models are built to describe the relationship between producers' utility and the effect of adoption of different measures under different observability conditions. As a case study, a survey is designed to analyze producer behavior in mitigating AI & END outbreaks.

TITLE: Resource Economics (Moderator: Krishna Paudel, Louisiana State University)

Economic Growth and Environmental Degradation *J. Wesley Burnett and John C. Bergstrom, University of Georgia*

This study examines the relationship between economic growth and air pollution emissions in the United States. A statistically significant U-shaped relationship is found for some pollutants; however, the evidence is tenuous except for ground level ozone. Thus, the results provide limited support for the traditional Environmental Kuznets Curve inverted U-shaped relationship.

Determinants of Household Hurricane Evacuation Choice in Florida *Daniel Solís, Michael Thomas, and David Letson, University of Miami and Florida A&M University*

We analyze the determinants of household hurricane evacuation choice for 1,355 households located in two geographical areas in Florida. We found that households in risky environments, with children, and with previous hurricane experience are more likely to evacuate. Homeowners and households with pets are less likely to evacuate. Regional differences are also documented.

Health Risk Analysis of Heating Fuel Choice: Case Study in Kentucky *Zheng Liu, University of Kentucky*

Health risk associated with heating fuel choice was evaluated. The results show that using polluting heating (especially coal) may increase the odds of suffering from respiratory disease. People having asthma or allergy are less likely to choose polluting heating and some demographic and lifestyle characteristics do have significant effects on the prevalence of these three diseases.

Study of Evacuation Behavior of Coastal Gulf of Mexico Residents *Sanjoy Bhattacharjee and Daniel Petrolia, Mississippi State University, Terrill Hanson, Auburn University, and Michael Thomas, Florida A&M University*

We investigate the link between hurricane characteristics, demographics of Coastal Gulf of Mexico residents, including their household location, and their respective evacuation behavior. The study addresses and includes response heterogeneity while analyzing sample behavior, an issue which has not been addressed in previous research on hurricane evacuation behavior in spite of its importance.

Measuring the Effects of a Land Value Tax on Land Development *Seong-Hoon Cho,*

Seung-Gyu Kim, and Roland Roberts, University of Tennessee

The objective of this research is to evaluate a land value tax as a potential policy tool to moderate sprawling development in Nashville, TN, the nation's most sprawling metropolitan community with a population of one million or more. Findings suggest that land value taxation could be used to design compact development strategies that address sprawling development.

TITLE: Rural and Community Development (Moderator: Albert Myles, Mississippi State University)

Community Level Economic Impacts and Outlook for Cotton Ginning from Structural Change in the Cotton Industry *J. Matthew Fannin, Kenneth W. Paxton, Louisiana State University Agricultural Center, and Thomas Valco, Agricultural Research Service*

This study estimates economic impact of ginning in Mid-South states, applying input-output analysis to gin cost data. Results indicate that cotton ginning activity in the Mid-South generated over $258 million in direct output effects during 2007 and $438 million in total effects with a multiplier of 2.39.

Evaluating the Impact of Changing Mississippi's Tobacco Tax *Albert E. Myles and Albert J. Allen, Mississippi State University*

A study was conducted to evaluate the fiscal and economic impacts of raising the cigarette tax by $.24 per pack in Mississippi in 2009. A multiple regression was used to determine the impact of this policy on cigarette sales in Mississippi. Results revealed no major impact on cigarette sales in Mississippi.

Employment Growth in the Rural South: Do Sectors Matter? *James O. Bukenya, Alabama A&M University*

The paper contributes to the understanding of the role of economic sectors in employment growth in the rural southeastern United States over the period 1970 through 2007. The results suggest that, although the share and the social role of agriculture are shrinking in almost all rural areas, agriculture is still an important sector in rural employment growth.

Public Expenditure and Poverty Reduction in the Southern United States *Suhyun Jung, Seong-Hoon Cho, and Roland Roberts, University of Tennessee*

The objective of this research was to analyze the effects of education, health and hospitals, parks and recreation, and public welfare expenditures on poverty, focusing particularly on how these relationships change over space and time. Government expenditure on parks and recreation has been the single most effective government expenditure category over time.

TITLE: Agricultural Policy (Moderator: Joey Mehlhorn, University of Tennessee at Martin)

State Funded Marketing and Promotional Activities to Support a State's Winery Business; Are There Economic Returns? A Case Study Using Texas Senate Bill 1370's Support of the Texas Wine Industry *Roger Hanagriff, Texas A&M University and Michael Lau, Sam Houston State University*

Texas wineries responded to a survey regarding their participation in wine marketing activities, annual changes in gross sales and level of sales growth they attribute to TDA's support and if these funds create positive economic impacts to their winery. The response rate was 53 of the 93 registered wineries or a 57% response rate.

How Much Did Speculation Contribute to Recent Food Price Inflation? *Jacob Zereyesus and Vincent Amanor-Boadu, Kansas State University*

Based on the assumption that speculative activities are a major source of the volatility in markets, many have called for controlling these activities through regulations. This paper calls

for careful consideration of market conditions that require interventions and counsels that such interventions be undertaken with caution if unintended consequences are to be avoided.

Farm Operators Attitudes Toward Farm Policy: A National Prospective *Tyler Mark, Ashok Mishra, and Joshua Detre, Louisiana State University Agricultural Center*

Using 2001 ARMS data, factors that influence farmers' perception of farm policy and government payments are examined. Valuable insights into the relationship between farm policy expectations, off-farm income, and management strategies used by operators are found. Operator experience also plays significant role in the expectations of government support.

Impacts of the Fair and Equitable Tobacco Reform Act of 2004 on Shareholders' Wealth in the Tobacco Industry *Kelly J. Tiller, Shiferaw T. Feleke, and Brian C. Carver, University of Tennessee, Knoxville*

This study examines the impact and efficiency of the design of the Fair and Equitable Tobacco Reform Act of 2004 in deregulating the tobacco production industry. Results offer a number of policy implications of which deregulation of an economically challenged industry can be achieved without the use of taxpayer funds.

TITLE: Farm Management (Moderator: Ban Banerjee, Alabama A&M University)

Canola-Wheat Rotation Versus Continuous Wheat for the Southern Plains *Jason C. Duke, Francis M. Epplin, Jeffrey D. Vitale, and Thomas F. Peeper, Oklahoma State University*

Crop rotations are not common in the wheat belt of the Southern Plains. After years of continuous wheat, weeds have become increasingly difficult and expensive to manage. Yield data were elicited from farmers and used to determine if canola-wheat-wheat rotations are economically competitive with continuous wheat in the region.

Conventional Tillage versus No-Till: Characteristics of Producers and Farms *Abdoulaye Ibrahim Djido, Jeffrey D. Vitale, and Francis M. Epplin, Oklahoma State University*

A survey of Oklahoma farmers was conducted to determine characteristics of farms across three tillage categories: conventional tillage exclusively; no-till exclusively; and other (combination of systems). The seven percent that use no-till exclusively crop more acres, rent more acres, and use more crop rotations than farms that use conventional tillage exclusively.

Examining Share Lease Arrangements for Grain Operations in the Texas Panhandle Under Changing Market Conditions *Nicole Gueck, DeDe Jones, Jay Yates, and Steven Klose, Texas AgriLife Extension Service, Texas A&M University System*

The profit maximizing share arrangement for both landlords and tenants producing grain in the Texas High Plains was determined for two different market environments. Results indicate that tenants and landlords prefer different arrangements in all scenarios. Additionally, a tenant would prefer a different lease arrangement in 2008 than in 2005, while the landlord's preference would remain unchanged.

The Influences of Land Tenancy and Rotation Selection on Crawfish Farmers' Adoption of Best Management Practices *Narayan Nyaupane and Jeffrey Gillespie, Louisiana State University Agricultural Center*

This study investigates factors influencing the adoption of best management practices in Louisiana crawfish production. Probit results show acreage, years farming, portion of income from farming, technology adoption tendencies, hunting leases, and a stream running through the farm to influence adoption. The most frequently used BMP was irrigation water management.

Best Management Practices: How Economical Is It in Southern Agricultural Systems?

Augustus Matekole and John Westra, Louisiana State University Agricultural Center, and Timothy Appelboom, USDA-ARS

Simulation results showed that agricultural producers generally preferred no tillage to conventional tillage in reducing nutrient runoffs from fields because of higher net revenue per acre. Finally, given nitrogen runoff restrictions, farmers reduced crop acreage and nitrogen fertilizer application rates to help minimize losses.

TITLE: International Agriculture and Trade (Moderator: Daniel Mooney, University of Tennessee)

The Trade Effects of MERCOSUR and the Andean Community on U.S. Cotton Exports to CBI Countries *Osei-Agyeman Yeboah, Saleem Shaik, and Seon Batson, North Carolina Agricultural and Technical University*

A CBI import demand model was developed to estimate the effects of macroeconomic factors on U.S. cotton exports to the top eight CBI importing countries. Results indicate that exports are positively influenced by GDP and negatively influenced by the imported price of cotton, exchange rate, and tariffs. Trade creation exceeds trade diversion, indicating that MERCOSUR and the ANDEAN Community pose an insignificant treat to U.S. cotton exports to the eight countries.

Impacts of China's Food Consumption on U.S. Soybean Exports *Wei Chen and Mary A. Marchant, Virginia Tech University, and Baohui Song, California State University, Chico*

A model examines how international and China's market prices impact China's soybean imports from the United States and South America. Based on soybean crushing ratios and a market clearing assumption, an equation of China's soybean oil import prices is designed to achieve the goal.

TITLE: Production Economics (Moderator: Mohammed Ibrahim, Fort Valley State University)

Economic Effects of Bovine Respiratory Disease on Feedlot Cattle During Backgrounding and Finishing Phases *Kathleen Brooks, Kellie Curry Raper, and Clement E. Ward, Ben P. Holland, and Clint Krehbiel, Oklahoma State University*

Research estimated the economic effects of bovine respiratory disease (BRD) in cattle backgrounding and finishing. Special focus was on using serum haptoglobin (Hp) concentration to predict BRD risk and the impact from multiple treatments for BRD. Net returns decreased in backgrounding and combined backgrounding-finishing as the number of BRD treatments increased.

Stochastic Dominance Analysis of Bioenergy Crops as a Production Alternative on an East Tennessee Beef and Crop Farm *Andrew P. Griffith, James A. Larson, Burton C. English, and Dan McLemore, University of Tennessee at Knoxville*

This study evaluated prices and incentives for switchgrass stated in a biorefinery's contract terms that induce switchgrass production on an East Tennessee representative farm when compared with traditional enterprises. The alternate contract terms imitated current subsidies/incentives offered as well as incentives and cost share terms not in the BCAP.

Cow-Calf Farm Management: Farm Survey Evidence from 2007 *Richard F. Nehring, USDA-ERS, Derrell Peel, Oklahoma State University, and Dave Nulph, USDA-ERS*

This study compares cow-calf operations and assesses their relative competitiveness, developing performance measures for a sample of U.S. farms. We find that larger operations tend to be significantly more scale and technically efficient than smaller operations, and have lower variable costs per cow, but off-farm income makes smaller operations competitive.

Enhancing Farm Profitability Through Portfolio Analysis: The Case of Spatial Rice Variety Selection *Lanier Nalley, University of Arkansas, Andrew Barkley, Kansas State*

University, Brad Watkins and Jeffrey Hignight, University of Arkansas

This research applies portfolio theory to rice varietal selection for six Arkansas Delta counties for 1999–2006. Results suggest that combining available varieties could have increased profits 3 to 26%. There are large potential gains from combining varieties with different responses to drought, pest infestation, or disease.

Cost Analysis of Alternative Harvest, Storage, and Transportation Methods for Delivering Switchgrass to a Biorefinery from the Farmers' Perspective *Wang Chenguang, James A. Larson, Burton C. English, and Kim Jensen, The University of Tennessee, Knoxville*

Switchgrass for bioenergy production will require substantial storage. This study evaluated costs of alternative baling and on-farm storage systems. Rectangular bales minimize cost if switchgrass is processed immediately after harvest. However, round bales minimize cost if switchgrass is stored under cover for 200 days before transporting to the biorefinery.

TITLE: Resource Economics (Moderator: Patricia Duffy, Auburn University)

Biological Control of Giant Reed (*Arundo donax*): Economic Aspects *Emily K. Seawright, M. Edward Rister, Ronald D. Lacewell, Allen W. Sturdivant, Texas A&M University, John A. Goolsby, USDA-ARS, and Dean A. McCorkle, Texas A&M University*

Arundo donax is a large, invasive weed consuming large quantities of water in the riparian area of the Texas Rio Grande Basin. With water availability a concern to the area, the USDA-ARS is investigating biological control agents to increase available water, creating a benefit to both the region's economy and society in general.

Land Use Change, Benefit Transfer, and Ecosystem Valuation in North Georgia *Daniel Ngugi, North Dakota Department of Human Services, and Jeff Mullen and John Bergstrom, University of Georgia*

This study entails forecasting land use change in a North Georgia ecosystem, and estimating the economic value using benefit transfer. A structural time series and a simple growth rate model are applied. The study suggests willingness to pay value of about USD 16,000 per year to achieve water quality standards.

An Evaluation of Nutrient Trading Options in Virginia: A Role for Aquaculture? *Kurt Stephenson, Virginia Tech University, Stephen Aultman, University of Minnesota, Todd Metcalfe, Virginia Tech University, and Alex Miller, Gulf States Marine Fisheries Commission*

Virginia requires regulated point sources to offset new nutrient discharges. Nutrient offsets generated by agricultural nonpoint sources reductions are compared against urban nonpoint source and nutrient assimilation offsets. Evidence suggests that agricultural nonpoint source offsets may not be a technically feasible or cost effective compliance option for regulated point sources.

Amenity Benefits and Public Policy: An Application to the Georgia Pecan Industry *Doris Sande, Nzaku Kilungu, and Jeff Mullen, University of Georgia*

Most amenities do not have a market value associated with them so that their value cannot be captured by landowners and therefore are subject to market failure. This failure leads to government intervention in an effort to encourage and support agriculture with programs for farmers through various public policies. Failure to include amenity benefits results in under-allocation of resources like land towards pecan production.

An Energy Cost Estimation of Sugar-Ethanol: A Comparative Analysis with Corn Ethanol Production in the United States *Sachin Chintawar and John Westra, Louisiana State University Agricultural Center*

We estimate the net energy value realized from conversion of sugarcane to ethanol and

compare it to similar studies for corn-ethanol calorific energy values. Results discussed in this paper show that higher energy benefits are generated from using sugarcane for ethanol production compared to corn.

TITLE: Rural and Community Development (Moderator: James Bukenya, Alabama A&M University)

Income Convergence and Growth in Alabama: Evidence from Sub-county Level Data *Buddhi Gyawali, Rory Fraser, Swgata "Ban" Banerjee, and James O. Bukenya, Alabama A&M University*

1980 and 2000 Census Block Group (CBG) data were used to examine income convergence in all Alabama counties vis-à-vis Alabama's Black Belt and Northwest regions. Though all three models demonstrated conditional income convergence, CBGs with smaller initial populations and smaller changes in African-American or dependent age populations had higher income changes.

Measuring the Economic Impact of Tourism and Special Events: Lessons from Mississippi *Albert E. Myles and Rachael Carter, Mississippi State University*

This paper used a dynamic spreadsheet model to help tourism managers estimate the economic impact of tourism in Mississippi counties. The model used a three-step process and multipliers from the IMPLAN Pro 2.0 input-output model to estimate the economic impact of tourism and special events in an area.

An Empirical Analysis of the Link Between Entrepreneurship and Economic Growth in West Virginia *Maribel N. Mojica, Tesfa G. Gebremedhin, and Peter V. Schaeffer, West Virginia University*

Entrepreneurship variables constructed from proprietorship and firm birth data were included in an endogenous growth model to determine the relationship between entrepreneurship and economic growth. The results using weighted least squares and 2-stage least squares regressions generally show empirical evidence regarding the positive contribution of entrepreneurial activity to economic growth.

Is Income Inequality Endogenous in Regional Growth? *Yohannes Hailu, Michigan State University, Mulugeta Kahsai, Tesfa Gebremedhin, and Radall Jackson, West Virginia University*

Results have numerous policy implications: (1) to the extent that income inequality is endogenous, its equilibrium level can be internally determined within a regional growth process; (2) to the extent that traditional income inequality mitigating policies have indirect effect on overall regional growth, they may have unintended indirect effects on income inequality; and (3) to the extent that regional growth adjustment also equilibrates income inequality, such forces can be utilized as policy instruments to mitigate income inequality, and its growth dampening effects henceforth.

TITLE: Food Consumption, Safety, and Policy (Moderator: Carlos Carpio, Clemson University)

The Role of Media in Shaping the Consumers' Food Risk Perception and Behavior: A Case Study of Spinach Recall *Arbindra Rimal and Benjamin Onyango, Missouri State University, and Dragan Miljkovic and William Hallman, North Dakota State University*

This study developed food risk perception-avoidance profiles of U.S. consumers. The role of media usage in shaping the risk profile was examined. The results suggest that media usage influenced the risk profiles significantly. While the "accountables" were likely to search internet or read newspapers, the "concerned" usually watched news on local TV for food safety related news.

Self Efficacy as a Mediator of the Relationship between Dietary Knowledge and Behavior *Arbindra Rimal, Missouri State University, and Wanki Moon, Korea University*

This study examines the causal relationship between dietary knowledge and behavior by including self-efficacy in the models. Regression results show that self-efficacy mediates effects of dietary knowledge on dietary behavior. Self-efficacy accounted for variance in dietary behavior not explained by knowledge or demographic variables. Health campaigns should directly address factors influencing diet related self-efficacy.

An Analysis of U.S. "At-Home" Yogurt Demand Elasticities *Christopher Davis and Donald Blayney, ERS-USDA*

Over the last 50 years, the demand for yogurt has grown more than any processed or manufactured dairy product marketed in the U.S. Results show that own-price elasticities for yogurt products are all greater than unity, cross-price elasticities are all inelastic, and expenditure elasticities for yogurt are all close to unity.

Nutritional Contributions of Nonalcoholic Beverages to the U.S. Diet: 1998–2003 *Senarath Dharmasena and Oral Capps, Jr., Texas A&M University and Annette Clauson, USDA-Economic Research Service*

Using data from U.S. households over the period 1998 to 2003, we examine economic and demographic factors affecting per capita daily intake of calories, calcium, caffeine, and vitamin C derived from the consumption of nonalcoholic beverages. Our study demonstrates the effectiveness of the USDA 2000 Dietary Guidelines in reducing such caloric and nutrient intake.

TITLE: Resource Economics (Moderator: Kurt Stephenson, Virginia Tech University)

Optimal Allocation of Reservoir Water *Deepayan Debnath, Art Stoecker, Tracy Boyer, and Larry Sanders, Oklahoma State University*

This paper determines the optimal allocation of Lake Tenkiller water among consumptive and non-consumptive uses and examines the effect of water management on lake resources when recreational values are and are not included as control variables in the optimization process. Results show that maintaining lake level near 'normal lake level' of 632 feet during the summer months and shifting releases for hydropower generation to other months increased overall benefits including recreational benefits with only a slight reduction in hydropower generation values.

Water Conservation Policy Alternatives for the Ogallala Aquifer in the Texas Panhandle *Robert H. Taylor, Lal K. Almas, and David G. Lust, West Texas A&M University*

The continued decline in the availability of water from the Ogallala Aquifer has led to an increased interest in conservation policies designed to extend the life of the aquifer to sustain rural economies in the Texas Panhandle. This study evaluates the effectiveness of five policies in terms of changes in the saturated thickness of the aquifer as well as the impact each policy has on crop mix, water use per acre, and the net present value of farm profits over a 60-year planning horizon for the region.

The Economic Value of Basin Protection to Improve the Quality and Reliability of Potable Water Supply: Some Evidence from Ecuador *Samuel D. Zapata, Clemson University, Holger M. Benavides, Universidad Técnica Particular de Loja, Carlos E. Carpio, and David B. Willis, Clemson University*

This study estimates the willingness to pay (WTP) of Loja's households to protect two micro-basins that supply over 40 percent of potable water to the city. Results indicate that households have an average WTP of $5.80 per month, which corresponds to a 25 percent increase in the self-reported monthly water bill, to preserve the basins.

Irrigation Restriction and Biomass Market Interactions: The Case of the Alluvial Aquifer *Michael Popp, Lanier Nalley, and Gina Vickery, University of Arkansas, Fayetteville*

Sustainable irrigation water use in Arkansas is estimated to reduce net returns to crop production by 28%. This paper examines how planting less water-intensive switchgrass and forage sorghum for eventual biofuel markets would help reduce negative economic consequences. Significant spatial income redistribution to crop production is inevitable, however.

TITLE: Farm Management (Moderator: Dwi Susanto, Texas A&M University)

Energy Cane Usage for Cellulosic Ethanol: Estimation of Feedstock Costs *Tyler Mark, Paul Darby, and Michael Salassi, Louisiana State University Agricultural Center*

Mandated ethanol levels, 36 billion gallons by 2022, will require additional feedstocks in conjunction with corn. For Louisiana, energy cane is a potential feedstock crop for cellulosic conversion. Producer prices per wet ton of biomass are estimated for alternative yield levels and crop cycles required to cover feedstock production costs.

Economics of the Variable Rate Technology Investment Decisions for Agricultural Sprayers *Daniel Mooney, James Larson, Roland Roberts, and Burton English, University of Tennessee*

Producers lack information about the profitability of variable rate technology (VRT) for agricultural sprayers. An economic framework was developed to evaluate the returns required to pay for VRT investments. Payback variables include input savings, yield gains, and reduced application costs. We illustrate the framework with two example investment scenarios.

Marginal Propensity to Consume for a Sample of Farms *Michael Langemeier and Lindsey Snider, Kansas State University*

This paper examined the marginal propensity to consume (MPC) for a sample of farms. Sensitivity of estimated MPCs to the use of accrual net farm income, net cash farm income, and the inclusion of off-farm income was also examined.

TITLE: International Agriculture and Trade (Moderator: Wei Chen, Virginia Tech University)

Determining the Feasibility of Yellow Corn Production in Mexico *Maria Mejia and Derrell Peel, Oklahoma State University*

Mexico produces large quantities of white corn for human consumption. Yellow corn production, mostly used for feed, has increased lately. Driving factors include higher domestic demand (growing livestock industry) and greater international demand (ethanol industry). This study uses enterprise budgeting to determine the feasibility of producing yellow corn in Mexico.

Partial Factor Productivity, Agronomic Efficiency, and Economic Analysis of Maize in Wheat-Maize Cropping System in Pakistan *Amanullah, NWFP Agricultural University and Lal K. Almas, West Texas A&M University*

The research was conducted on maize to investigate effects of nitrogen on partial factor productivity (PFP_N), agronomic efficiency (AE_N), and net returns (NR). Maize has higher PFP_N, AE_N, and NR, at high plant density. Findings suggest that growing maize at high plant density and nitrogen applied in four to five splits is more profitable in wheat-maize cropping system in NWFP of Pakistan.

A Nonparametric Efficiency Analysis of Bean Producers from North and South Kivu *Kara Ross, Timothy J. Dalton, and Allen M. Featherstone, Kansas State University*

A nonparametric approach was used to determine the technical efficiency scores of producers in North and South Kivu at producing bush and climbing beans. Factors influencing these scores were identified by a tobit model. Results indicate that North Kivu bean producers and climbing bean producers have, on average, a higher technical efficiency score than their counterparts.

Impact of Biofuel Production on Land Prices: An International Comparison Between

the United States and Brazil *Alexandre Vialou, University of Maryland, and Richard Nehring, USDA-ERS*

Anecdotal observations attest that farmland prices rose at a higher pace near ethanol plants. Understanding farmland prices is critical as increased land values may be putting additional pressure on small farms. After adjusting for the heterogeneity in land quality in the United States and in Brazil, we examine farmland values drivers.

TITLE: Marketing and Industrial Organization (Moderator: Ronald Rainey, University of Arkansas)

Impact of Biofuel Industry Expansion on Grain Utilization and Distribution: Preliminary Results of Iowa Grain and Biofuel Survey *Tun-Hsiang (Edward) Yu, University of Tennessee at Knoxville, Chad Hart, Iowa State University*

We evaluate the impact of ethanol expansion on corn utilization in Iowa. Results show that the ethanol industry drew a considerable amount of corn away from feeders or export markets. Corn supplies primarily came from in-state sources, while the sales of Iowa ethanol and DDG were dominated by out-of-state buyers.

Forecasting Price Relationships among U.S. Tree Nuts Prices *Mohammed Ibrahim, Fort Valley State University, and Wojciech Florkowski, University of Georgia*

This paper investigates a vector autoregression model, using the Johansen cointegration technique, and the autoregressive integrated moving average time series models to determine the better model for forecasting U.S. tree nut prices over the period 1992–2006. The Johansen cointegration test shows lack of long run relationship among pecan, walnut, and almond prices. As such, only autoregressive integrated moving average-type models were used in forecasting U.S. nut prices.

Structure and Conduct of the World Rice Market *Hyunsoo Kang, P. Lynn Kennedy, and Brian Hilbun, Louisiana State University*

The purpose of this paper is to analyze the world rice market through a Structure-Conduct-Performance framework utilizing annual data from 1970 to 2007. On the basis of these results, it is evident that market power exists in the international rice market with respect to supply elasticity and an exporting country's currency exchange rate greatly determines that country's competitiveness as a net rice exporter relative to other rice producers.

The Relationships of Trade, Economic Growth and Market Power: The Case of Rice Exporting Countries *Hyunsoo Kang, P. Lynn Kennedy, and Brian Hilbun, Louisiana State University*

This analysis also examines the impact of market power on economic growth. On the basis of these results, we examine the existence of market power in the international rice market with respect to rice supply, and moreover, propose that there is a bi-directional causality between the international rice trade and economic growth for major rice exporting countries.

TITLE: Agricultural Policy (Moderator: Andrew Muhammad, Mississippi State University)

Deforestation in Sub-Saharan Africa *Malick Diarrassouba and Inoussa Boubacar, Auburn University and University of Nebraska-Lincoln*

The causes of deforestation are investigated in 27 Sub-Saharan African countries. Using panel data from 1990 to 2004, we found strong evidence of the existence of the environmental Kuznets curve. Additionally, openness and urban population growth tend to increase deforestation rate. Finally, the type of exchange rate regime also plays a role in deforestation.

The Compensative Effects of Tobacco Leaf Price Changes on Tax Revenue in China *Hailong Cai, China Agricultural University, and Henry W. Kinnucan, Auburn University*

This study examines the increase in the procurement price needed to keep tax revenue constant in the face of a 50% reduction in the tax rate. Based on an equilibrium-displacement model of China's tobacco sector, results suggest the "Compensated Effect Elasticity" is between 1.0 and 2.5.

The Impacts of Ethanol on the U.S. Catfish Farm Sector *Hualu Zheng, Andrew Muhammad, and C.W. Herndon, Mississippi State University*

Impacts of the recent increase in ethanol production on the catfish farm sector were evaluated. If ethanol production increases by 100 percent, it is expected that corn prices will increase by 16%. Catfish feed prices would increase by 4.21% and farm prices would increase by 0.89%.

Has the "Farm Problem" Disappeared? A Comparison of Household and Self-Employment Income Levels of the Farm and Nonfarm Self-Employed *Whitney Peake, Murray State University, and Maria Marshall, Purdue University*

This study tests the impact of household and demographic factors on the economic well-being of the farm and nonfarm self-employed using data from the Integrated Public Use Microdata Series. Results reveal that several household and demographic factors significantly impact self-employment income levels for the farm and nonfarm self-employed, with key differences in impacts.

TITLE: Resource Economics (Moderator: Mulugeta Kahsai, West Virginia University)

The Cost of Coexistence between Bt Maize and Open Pollinated Maize Varieties in Lowland Coastal Kenya *Emmanuel Tumusiim, Oklahoma State University, Hugo De Groote, CIMMYT, Jeffrey Vitale and Brian Adam, Oklahoma State University*

Regulatory strategies to ensure coexistence between Bt and conventional maize varieties at the farm level rely on spatial isolation measures—separation distances and buffer zones. We analyzed the technical and economical feasibility of the implementation of these in coastal Kenya. The study found that flexible separation distances are more feasible than buffer zones.

Production Termination as an Alternative to Mitigate Nutrient Pollution *Nirmala Devkota and Krishna Paudel, Louisiana State University Agricultural Center*

The willingness to accept value to terminate the broiler production is evaluated using a sample selection model. The result showed a positive relationship between the decision to participate and stated WTA value, indicating the producers are willing to terminate the production but at high cost.

Broiler Producers' Willingness to Pay to Manage Nutrient Pollution *Nirmala Devkota, Krishna Paudel, and Shanta Parajuli, Louisiana State University Agricultural Center*

Economic incentives or disincentives play a major role on encouraging producers to implement environmentally benign production practices. We evaluated producers' willingness to pay (WTP) value to represent the level of disincentives that motivate farmers to mitigate nutrient pollution. The result obtained by using an ordered response model showed that farm size, farm income, and land available to spread litter are major variables that determine the producers' WTP.

The Economics of Small Ownership and Logging by Small Woodlot Owners *Godfrey Ejmaker, John Owens, Raphael Okafor, and Harry Sutton, North Carolina A&T State University*

Results indicate that most small woodlot owners are motivated by economic considerations. Income was found to be positively correlated to the acres of woodlot owned. The results of this study will enhance the design and provision of outreach programs for small

woodlot owners. Such programs will help to increase the acreage of woodlots and the related environmental benefits.

TITLE: Rural and Community Development (Moderator: Roger Hanagriff, Texas A&M Kingsville)

A Cost Analysis of Rapid Land-Building Technologies for Coastal Restoration in Louisiana *Daniel R. Petrolia, Tae-Goun Kim, Ross G. Moore, Mississippi State University, and Rex H. Caffey, Louisiana State University Agricultural Center*

The objective was to analyze costs of rapid land building technologies for coastal restoration in Louisiana. Major findings are: sediment cost drives project cost; barrier-island project costs are approximately three times that of marsh-creation; benefit value required to justify projects were $2,500–$5,000 for marsh-creation and $15,000–$25,000 for barrier-island projects.

Distribution of Local Government Revenue Sources and Citizen Well-Being *Vincent Amanor-Boadu, Yacob A. Zereyesus, and Kara Ross*

The paper aims at examining how sources and distribution of revenue at the local government level influence the economic well-being of citizens. The analysis provides insights into how economic development policies may be conceived in local governments, especially small communities, to ensure sustained economic prosperity of its citizens.

TITLE: Agribusiness and Finance (Moderator: Nicole Gueck, Texas A&M University)

Precautionary Wealth among U.S. Farm Households *Cheikhna Dedah and Ashok K. Mishra, Louisiana State University Agricultural Center*

Using cross sectional farm-level data we find that farm households who face higher income uncertainty accumulate more wealth. At the mean level, precautionary savings represent about 6% of total farm household wealth. In additions, we find that age, education, occupation, and number of acres operated are very important determinants of the wealth holdings of U.S. farm households.

Enterprise-Level Risk Assessment of Geographically Diversified Commercial Farms: A Copula Approach *Ryan Larson, Dmitry Vedenov, David Leatherman, and James Mjelde, Texas A&M University*

As agriculture becomes more industrialized, the role of risk measures such as value-at-risk (VaR) will become more utilized. Based on the VaR and the CVaR, the portfolio was optimized based on minimizing the expected loss based on historical net revenues. The results showed that diversification could be reduced by producing in all three areas.

Cotton Price Risk Management Across Different Countries *Qizhi Wang and Benaissa Chidmi, Texas Tech University*

Cotton price relationships between major cotton producers and the New York cotton December futures price are investigated by the regression model, the VAR model, and the error-correction model; the error-correction model generates the hedge ratios that display the largest value in size in most of the cases except Australia. Results indicate that the price relationships between United States, China, and Australia and New York Futures market prices are much higher than the relationships between other cotton producers.

Predicting Financial Stress in Young and Beginning Farmers in the United States *Jeremy D'Antoni, Ashok Mishra, and Sachin Chintawar, Louisiana State University Agricultural Center*

Using a large sample of Agricultural Resource Management Survey (ARMS) data across 3 years, we estimate the factors that could affect the financial well being of these young and beginning farmers. We expect that hours worked off the farm, government subsidies, financial leverage index, and returns

to equity may have a positive significant effect on the well being of these farms.

Climate Effects on Rainfall Index Insurance Purchase Decisions *James Novak and Denis Nadolnyak, Auburn University*

Rainfall Index insurance is a pilot insurance product offered to producers of hay and pasture in nine states. This analysis examines the expected payoff of the RI insurance for bimonthly periods based on rainfall shortage probabilities in alternative climate phases. Differences in expected returns indicate that selection of ENSO-specific optimal intervals may result in higher returns than those based on pooled rainfall series.

TITLE: Food Consumption, Safety, and Policy (Moderator: Justin Gardner, Middle Tennessee State University)

Estimation of a Censored Demand System in Stratified Sampling: An Analysis of Mexican Meat Demand at the Table Cut Level *Jose Lopez and Jaime Malaga, Texas Tech University*

Evidence of meat trade in the form of table cuts suggests that consumer preferences and tastes vary across meat cuts. Unlike previous studies, this paper estimates demand elasticities at the table cut level from a Mexican survey of household incomes and expenditures, which is a stratified sample. The study uses the two-step estimation of a censored demand system proposed by Shonkwiler and Yen (1999) but incorporates stratification variables into the estimation procedure. Parameter estimates are reported and their standard errors are approximated by using the bootstrap procedure.

Obesity, BMI, and Diet Quality: How does the South Measure Up? *Patricia Duffy, Claire Zizza, and Henry Kinnucan, Auburn University*

Regional differences in obesity rates, BMI, and dietary quality were assessed, using data from the 1999–2002 National Health and Nutrition Examination Survey. For women, BMI and obesity prevalence are higher in the Deep South states, but the difference is explained by demographic characteristics. Diet quality was lower in the South.

Food Safety Risk Perceptions as a Tool for Market Segmentation: The U.S. Poultry Meat Market *Benjamin Onyango and Arbindra Rimal, Missouri State University, and Dragan Miljkovic and William Hallman, North Dakota State University*

Data from a 2006 U.S. national survey on avian influenza (AI) is used to explore risk perception as a market segmentation tool. Results suggest that poultry meat market could be categorized into: home cooked and familiar brands; technological/novel products; and organic/fast food products. Results further show differential public trust across institutional advice on AI.

An Examination of the Relationship between Food Prices and Government Monetary Policies in Iran *Naser Shahnoushi, Ferdowsi University of Mashhad, Shida Henneberry, Oklahoma State University, and Hooman Manssori, Ferdowsi University of Mashhad*

This study examines the relationship between food prices and monetary policy variables, using a Vector Error Correction Model approach applied to annual data from 1976 to 2006. Results indicate that food prices in Iran have a long-run and short-run equilibrium granger causality relationship with money supply. More specifically, monetary policy reforms are shown to have a significant impact on food prices and domestic agricultural production.