

Selected Posters

SAEA 2013 Annual Meetings

An Economic Analysis of Reservoir Sediment Management: Cropland Management vs. Dredging

Craig M. Smith, Fort Hays State University, Jeffery R. Williams, Kansas State University, Amirpouyan Nejadhashemi, Michigan State University, Sean A. Woznicki, Michigan State University, John C. Leatherman, Kansas State University

Emphasis on finding the most cost-effective ways to reduce reservoir sedimentation is increasing. Biophysical and economic models for a large agricultural watershed are integrated to estimate the average and marginal costs of reducing sedimentation with an optimal combination of land management strategies compared to the cost of dredging.

The Dependence of Nitrogen Price, Nitrogen Demand, and Cotton Production in Texas on Fuel Prices

Blake K. Bennett, Texas AgriLife Extension Service, Texas A&M University and Jeanne M. Reeves, Cotton Incorporated

This study estimates interactions between fuel prices, fertilizer prices, demand for fertilizer, and cotton production. Results indicated a one percent increase in fuel prices resulted in an increase in nitrogen prices, a decrease in nitrogen demand, and a decrease in Texas cotton production by 0.36, 0.30, and 0.13 percent, respectively.

Do Cotton Lint Prices Affect the Decision to Use or By-Bass a Field Cleaner in Cotton Stripper Harvesting?

Blake K. Bennett, Texas AgriLife Extension Service, Jackie Smith, Texas AgriLife Extension Service, and Jeanne M. Reeves, Cotton Incorporated

This study addresses whether the cotton industry is signaling to use or by-pass field cleaners during harvest. Results suggest field cleaners should be used except with two-priced ginning and high lint prices and lint loss levels. However, the ginning sector does not appear to be benefiting from field cleaned cotton.

Evaluating Beef Cattle Best Management Practices: Conversion to Grass-Fed Beef

Mac Young, Joe Paschal, and Steven Klose, Texas A&M AgriLife Extension Service, Texas A&M University System

Commercial cow-calf producers in Texas have traditionally had three marketing options: livestock commission companies, private treaty sales, or retained ownership (stockers/feeders). Most calves are placed on wheat or other forage for conditioning with some sold as herd replacements. Grass-fed beef may be a viable, alternative management practice for improving profitability.

The Profitability of Irrigating Corn in Tennessee: Implications of Field Size and Energy Costs

Christopher N. Boyer, James A. Larson, Roland K. Roberts, Angela T. McClure, and Donald D. Tyler, University of Tennessee

Irrigation is expensive in Tennessee because of small, irregular fields. We calculated the breakeven corn prices for irrigated corn in Tennessee. Breakeven prices were \$4.02-\$7.94/bu. depending on field size, energy source, and energy price. At current prices, irrigated corn is profitable, but prices are much higher than the historic average.

Factors Affecting Freshmen Retention in the College of Agriculture

Jared Batte, Patricia Duffy, and Paul Patterson, Auburn University

Institutional data were used to examine retention in Auburn University's College of Agriculture. GPA had a significant effect on retention, as did residency status for tuition. Residency status and GPA interacted so that students with lower GPA were less likely to be retained if they were not in-state residents.

Developing and Delivering Course Content for Dual Enrollment Courses

Scott D. Parrott, Joseph E. Mehlhorn, Jeremy D'Antoni, Sandy A. Mehlhorn, and Kelly Davidson, University of Tennessee at Martin

Students and faculty involved in an online agribusiness dual enrollment course were surveyed regarding course effectiveness. Results indicate faculty must be flexible and willing to use various online teaching tools. Students indicated the course helps in their transition to college and provides a great recruiting opportunity for agribusiness programs.

Life Cycle Analysis on Cropping and Rangeland Systems in the Texas High Plains and Rolling Plains

Tong Wagn, Seong Park, Nithya Rajan, Stan Bevers, Stephen Amosson, Texas A&M AgriLife Extension, Texas A&M University

Life cycle analysis approach is adopted to track the carbon footprints of cropping and rangeland systems in Texas High and Rolling Plains. We found cow-calf production system generates much lower carbon emission than the cotton production system. For cotton production, results show drip irrigation produces the lowest carbon emission.

Economics of Turfgrass-Sod Production as Compared to Row Crops in Alabama

Jing Yi, Texas A&M University; Patricia Duffy, David Han, Deacue Fields, Elizabeth Guertal, Auburn University

In the South, turfgrass-sod has been a profitable alternative to row crops for many years. With depressed housing markets and higher crop prices, the current economic competitiveness of turfgrass-sod depends critically on the ability to harvest the crop as soon as it matures, and on input and output prices.

Risk Analysis for Agricultural Cooperatives

Phil Kenkel and Robert Parrish, Oklahoma State University

Grain/fertilizer volumes are major risks for grain/supply cooperatives followed by fertilizer and fuel margins. Operating losses force stock write downs (22% probability) and negative cashflow (15% probability). Decisions on cash and stock patronage, infrastructure investment, and equity retirement improve member returns but increase stock write downs and negative cashflow probability.

Oligopolistic Structure in the Japanese Pistachio Import Market

Mahdi Asgari and Sayed Saghaian, University of Kentucky

Iran dominated the pistachio export markets 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.

Assessing the Cost of Supplying Alternative Dedicated Energy Crops for Biofuel Production in Tennessee

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

This study estimates the plant-gate cost and land use change of producing two feedstocks, switchgrass and energy sorghum, in east, middle and west Tennessee. Our results suggest that switchgrass is found to be more economic feasible as a feedstock when compared to energy sorghum for cellulosic biofuel production in Tennessee.

Geospatial Analysis of Income Convergence in Southeastern United States

Buddhi R. Gyawali, Kentucky State University and Swagata “Ban” Banerjee, University of Wisconsin-Platteville

Income convergence and both endogenous and exogenous factors causing income growth in the southeastern United States were examined by using county level census data between 1980 and 2010. The study found that spatial variations in education, employment, and industries concentrations were strongly related with income convergence in the region.

The Contribution of Agriculture to the Arkansas Economy

Katherine McGraw, Jennie Popp and Wayne Miller, University of Arkansas

Our analysis found that agriculture is responsible for approximately 17% of jobs, labor income and value added in the state. More than half of the contributions accrue in nonagricultural sectors. Continued strength of agriculture is of paramount importance to maintain the social and economic fabric of rural Arkansas communities.

Integrating a Life Cycle Costing Model into a GHG Emissions Model for Swine Production

German Rodriguez, Jennie Popp, Rick Ulrich, Gina Vickery-Niederman, University of Arkansas; and Michael Black, Cornell University

This poster describes the integration of life cycle costing capabilities into a life cycle assessment model of greenhouse gas emissions for US swine production. Combining both tools allows for a sustainable analysis of a process to identify potential production practices which are environmentally friendly and economically feasible.

Expectation and application of GPS guidance system in precision agriculture: A Bayesian approach

Aditya Khanal, Ashok Mishra, and Krishna Paudel, Louisiana State University

This study investigates expectations and application decisions of GPS guidance system in precision farming. Using farm level data and Bayesian approach, results suggest that perceived importance in 5 years, farm income, computer use, farm size, and potential cost savings are important factors influencing expectations.

Reasons for Dairy Production Decline in Arkansas

Hannah Conner, Molly Brant, and Alvin Williams, Arkansas Tech University

The research was proposed as a method in studying the decline in dairy production in hopes of shedding some light for the rest of the Arkansas agriculture industry. Finding the reasons why certain producers exited production will help aid the Arkansas government in determining future industry involvement.

Reasons for Dairy Production Continuation in Arkansas

L. Nicole McMinn, Molly Brant, and Alvin Williams, Arkansas Tech University

The research was proposed as a method in studying the continuation in dairy production in hopes of shedding some light for the rest of the Arkansas agriculture industry. Finding the reasons why certain producers were able to continue production will help aid the Arkansas government in determining future industry involvement.

The Small Meat Processing Plant Model: A Feasibility Template for Producers and Extension Specialists

Rodney Holcomb, Kyle Flynn, and Phil Kenkel, Oklahoma State University

Fewer small meat processing plants combined with increased demand for locally-grown and process-verified meat products in recent years have spurred interest in the construction of producer-owned processing facilities. To help producers and Extension specialists develop preliminary feasibility assessments of processing plant operations, the Small Meat Processing Plant Model was created.

How Truly Leveraged Are Local Governments? Redefining Solvency for Local Governments in the Gulf of Mexico States

Arun Adhikari, J. Matthew Fannin, and Joshua Detre, LSU AgCenter, Louisiana State University

Federal accounting standards for local governments require inclusion of capital assets with little marketable value on their balance sheets. We show the problem of interpreting financial ratios using these total assets. We define a marketable asset alternative and evaluate how vulnerable local governments are to bankruptcy using this alternative metric.

Do Students See the Big Picture: General Versus Discipline Specific Education?

Jason Roberts, Sandy Mehlhorn, and Joey Mehlhorn, University of Tennessee at Martin

Many students have difficulty connecting the concepts taught in general education courses to their career. Most see value in the discipline specific courses taken for the major. Students in the survey consistently rated discipline specific courses as more important than general courses, even if they were in the same area.

Have Farmers and Ranchers Lost Confidence in Futures Markets?

Steve Amosson, David Anerson, Stan Bevers, Robert Hogan, Dean McCorkle, John Robinson, Jackie Smith, Mark Waller, Mark Welch, and Emmy Williams, Texas A&M AgriLife Extension Service, Texas A&M University

Recent price and basis volatility along with the MF Global and Peregrine financial mishaps may have shaken growers' perceptions of hedging. To determine how these circumstances in the futures markets have impacted the risk management strategies of agricultural producers, we surveyed graduates of the Texas A&M AgriLife Master Marketer program.

Small Farmers in North Carolina - Successful Practices

Anthony K. Yeboah, John Paul Owens, Jarvetta Bynum, and Benjamin Gray, North Carolina A&T State University

Small farms account for 91 percent of all farms. Given the importance of small farmers this research focused on identifying successful practices of small farmers in North Carolina. The research indicated that successful farmers combined marketing strategies, a diverse mix of enterprises, specialty crops and the ability to manage risk.

Standing the Test of Time: Why Some Publicly Traded Agribusiness Firms Make It and Others Fail

Joshua Detre and Paul Darby, LSU Ag Center, Louisiana State University

Various trends in today's society have sparked interest in investment in the agricultural sector. This increased interest has provided a signal for the need in understanding the historical performance of the various components of the agricultural sector and what it might reveal about future performance.

Energy Cane Biofuel Feedstock Production Cost Estimates Under Alternative Yield and Crop Cycle Length Specifications

Kayla Brown, Michael Salassi, and Paul Darby, Louisiana State University

This study explores the economic feasibility of utilizing energy cane as a feedstock to supply a cellulosic ethanol industry in Louisiana. Variable production costs estimated through several years of harvest averaged approximately \$14.00 per ton, ranging between \$50 to \$65 per ton, on a dry fiber ton basis.

Comparing Results of Irrigation Water Demand Forecasting from Three Southern States

Swagata “Ban” Banerjee, University of Wisconsin-Platteville, Babatunde A. Obembe, formerly Alabama A&M University, and Buddhi R. Gyawali, University of Kentucky

Crops vary in amounts of water required for proper growth. Thus, the crop mix affects water demand in differing degrees. A forecasting model was developed combining acreage forecasts with water usage. Results from policy-induced simulations in Georgia, Mississippi, and Alabama indicate water savings of 19%-27% using the innovative method developed.

Perennial Biomass for Bioenergy: Interest Sensitivity of Supply Prices

Kimona Smith, Godfrey Ejimakor and Raphael Okafor, North Carolina A&T State University

Supply prices for perennial energy feedstocks, miscanthus and switchgrass, were estimated as the ratio of the discounted production costs to that of the yield. Estimated prices were positively and linearly related to interest rates. The estimated supply price for miscanthus ranged from \$56 to \$63 per ton.

Producer Willingness to Pay for the Services Provided by an Electronic Trade Platform: The Case of MarketMaker

Samuel D. Zapata, Carlos E. Carpio, Olga Isengildina-Massa, and R. Dave Lamie, Clemson University

This paper assesses the economic impact of the Electronic Trade Platform MarketMaker on agricultural producers. Results obtained using contingent valuation techniques indicate that producers are willing to pay \$47.02 annually for the services received from the platform. Producers' registration type and annual sales have significant effects on producers' willingness-to-pay.

Farm-Level Impacts of Producing Perennial Energy Crops

Kingsley Bonsu, Godfrey Ejimakor and Raphael Okafor, North Carolina A&T State University

An optimal farm plan from a programming model was compared to a plan that included switchgrass, a perennial crop. Switchgrass completely displaced wheat and partially displaced corn and tobacco in the plan. The values of inputs such as land, labor and capital increased when switchgrass is in the model.

Does Microfinance Alleviate the Financing Constraints of Ghanaian Small Businesses?

Frederick Quaye and Valentina Hartarska, Auburn University

The paper examines the impact of MFIs on microenterprises in Ghana. Employing the financing constraints approach and using 2007 BEEPS data, supported with a Propensity Score Matching method, results indicate that unconstrained microenterprises are less sensitive to internal funds and thus MFIs have alleviated financing constraints to an appreciable level.

Student Perception of the Healthiness and Experience of Food Products

Laura Stocking, Sierra Howry, A. Dean Monroe, and Loree Branham, Angelo State University

Do people select unhealthy foods because they do not know what is healthy or is it because they think that healthy food is just too expensive? Using a survey, this study found that college students can identify healthy foods, but do not perceive a difference in their cost.

Investing in Agribusiness Stocks: What Lies Ahead!

Tatsuya Hanabuchi, Louisiana State University

The relative price of various combinations of a stock index to a commodity-related index is filtered using a Christiano-Fitzgerald (CF) filter. We find that the market is still bull for commodity-related stocks as of June 2012. The business cycles obtained from the CF filters and the NBER do not coincide.

Investigating Long Run and Short Run Factors Affecting Renewable Energy Consumption in Louisiana

Krishna Koirala and Aditya Khanal, Louisiana State University

This study investigates the long and short-run factors influencing renewable energy consumption in Louisiana. A cointegration and error correction model is used to evaluate time series data. Results suggest that renewable energy consumption is positively associated with income, while negatively associated with prices of coal energy and petroleum products.