

“Forecasting Rates of Economic Growth Across States: Are States with Agricultural-Based Economies Lagging?” *David L. Debentín and Angelos Pagoulatos, University of Kentucky.*

It is widely believed that states with agriculturally and energy dependent economies never fully recovered from the recession of the early 1980s. Data on the size of each major sector of a state's economy are readily available and can be used to place each state's economy into one of six categories—agriculturally based, energy based, government based, manufacturing based, finance and services based, or diversified. States in each category can then be compared with respect to growth in personal income during the 1980s. The extent to which agriculturally and energy dependent states have lagged should be readily apparent. Rates of growth in per capita income can provide evidence to support or contradict this hypothesis. This evidence is displayed in a series of maps and graphs.

“AQUADEC: An Aquacultural Financial Analysis and Decision Aid Software Package.” *Charles M. Adams, University of Florida.*

AQUADEC is a compilation of budgeting and financial decision support tools for the start-up or on-going commercial aquacultural business. The software package allows the business manager to develop a wide variety of financial statements and supportive information to aid in the decision-making process of the firm. Financial statements which can be generated using AQUADEC include: cost recovery schedules, loan amortization schedules, income statements, monthly cash flows, balance sheets, operating budgets and financial ratio estimates. Utilizing these tools, the user is able to describe a baseline operational year, vary key parameters, and ask “what if” questions of an economic and financial nature.

“A Computer Worksheet for Determining the Cost of Greenhouse Plants.” *Larry A. Johnson and Brian E. Corr, University of Tennessee.*

This poster outlines the features of a computer spreadsheet that estimates the cost of growing plants in a greenhouse. The program is a stand-alone compiled Lotus 123™ Spreadsheet which is menu-driven and user friendly. Through the what-if features of the spreadsheet, the program can also be used to approximate the most profitable crop-mix, the most efficient utilization of greenhouse space and financial planning. The program provides a model greenhouse as a guide for the user, with examples for four different types of greenhouse plants. The program can be used by greenhouse growers, researchers, students, and extension personnel. In addition to the poster, the computer program itself on a laptop computer was available for interested users. Both the poster and the computer were a part of the display.

“Measuring Agricultural Literacy Among Students in Agricultural Economics.” *David B. Schweikhardt and Lynn L. Reinschmiedt, Mississippi State University.*

Departments of agricultural economics are revising undergraduate programs in response to changing student interests, student backgrounds, and employer needs. This research employs the concept of “cultural literacy” to test the agricultural knowledge of freshmen and senior students in a southern department of agricultural economics. Statistical tests are then used to examine the level of agricultural literacy among incoming freshman students, the experiences that contributed to their literacy, and the improvement of their literacy level during their college years. The results could be used to better gauge the teaching methods used by agricultural economists.

ORGANIZED SYMPOSIA

Annual Meeting, SAEA, Fort Worth, Texas, February, 1991

SUSTAINABLE AGRICULTURE: IMPLICATIONS FOR EXTENSION FARM MANAGEMENT IN THE SOUTH (Moderator: *John Ikerd, University of Missouri.*)

Organizer: *John Ikerd, University of Missouri.*

Presenters: *Chuck Laughlin, University of Georgia; Tim Hewitt, University of Florida; Dana Hoag, North Carolina State University; Jerry Crews, Auburn University.*

The impact of conventional farming systems on the environment has become a major public issue. The concept of sustainable agriculture has arisen from efforts to identify farming systems that are environmentally sound and resource conserving but are also productive and profitable. Development of sustainable farming systems requires that ecologic and economic variables be balanced in developing systems that can maintain their productivity and usefulness to society indefinitely. Meeting the challenge of sustainability is particularly critical in the

South. Southern agriculture is heavily reliant on the commercial pesticides and fertilizers which are raising most of the current environmental questions. A primary challenge for extension farm management specialists is to develop educational programs that will help farmers balance the multiple objectives of sustainability as they compare alternative whole-farm systems. Meeting this challenge will require that farm management specialists play key roles as leaders of interdisciplinary teams in developing total resource management strategies.

THE IMPLICATIONS OF A MEXICAN-UNITED STATES FREE TRADE AGREEMENT (Moderator: *Gene Mathia, USDA ERS*).

Organizers: *Suchada Langley, USDA ERS; Gene Mathia, USDA ERS.*

Presenters: *Eduardo Segarra, Texas Tech and Suchada Langley, USDA ERS; Teofilo Ozuna, Texas A&M, and Mary Burfisher, USDA ERS; Barry Krissoff, Peter Liapis, and John Link, USDA ERS; Parr Rosson, Texas A&M, and Steve Haley, Louisiana State University; and Micki Paggi, American Farm Bureau, and Jim Zellner, Lyles Pasco-Florida Gold.*

The "Initiative for the Americas" presented by President Bush proposes a new partnership for trade, investment, and growth with Mexico. Also, President Salinas of Mexico has requested negotiations for a free trade agreement with the United States. The common goal of a free trade agreement would be to enhance a freer flow of resources, goods, and services among nations and encourage long-term growth in the region. Benefits are expected to accrue to both countries.

PUBLIC POLICIES AND THE ECONOMICALLY DISADVANTAGED IN THE RURAL SOUTH (Moderator: *Magid Dagher, University of Arkansas-Pine Bluff*).

Organizer: *Joyce Allen, Joint Center for Political and Economic Studies, Washington, D.C.*

Presenters: *Kevin N. Smith, USDA FAS; Hezekiah Jones, Alabama A&M University; Carlton G. Davis, University of Florida; Alton Thompson, North Carolina State University; Lionel Williamson, University of Kentucky.*

In 1987, 9.1 million nonmetro persons (or 16.9 percent of the nonmetro population) were in poverty. Past studies indicate that the persistent rural poor are heavily concentrated in the South. Development and implementation of effective public policies could help improve the plight of the rural poor. This organ-

ized symposium session is designed to analyze the impact of selected food and agricultural policies on the rural poor and to examine policy options.

POLICY CONSEQUENCES OF FOOD SAFETY FOR FRUIT AND VEGETABLE TRADE AND MARKET STRUCTURES (Moderator: *Gary Fairchild, University of Florida*).

Organizers: *Gary Fairchild, University of Florida; Shannon Reid Hamm, USDA ERS; Roberta Cook, University of California-Davis.*

Presenters: *Roberta Cook, University of California-Davis; Timothy Taylor and James Seale, Jr., University of Florida; Shannon Reid Hamm, USDA ERS and Ed Estes, North Carolina State University.*

The food safety issue is impacting the production and marketing of fruits and vegetables. To date, attention has been focused primarily on the consumer side of the food safety issue. The symposium focuses on the implications of increased food safety legislation and regulation for the fruit and vegetable industry including: regional shifts in production; substitution of imports for domestic production; creation of nontariff trade barriers; changes in the competitive position of firms; changes in industry structure; and potential negative net benefits to consumers. As legislative/regulatory bodies consider food safety/chemical usage options, there is an urgent need for timely research-based information on the consequences of these policies. Specific information needs include: identification of consumer buying behavior; improved estimation of costs and benefits; delineation of trade impacts and policy options; assessment of competitive impacts on production regions and firms; and investigation of current and potential changes in industry structure.

DEVELOPING COUNTRIES AND INTERNATIONAL TRADE: EXPANDED MARKETS OR INCREASED COMPETITION FOR SOUTHERN AGRICULTURE (Moderator: *Fred J. Ruppel, Texas A&M University*).

Organizers: *Fred J. Ruppel and C. Parr Rosson, III, Texas A&M University.*

Presenters: *Mary Marchant, University of Kentucky; C. Parr Rosson, III, Texas A&M University and Gary Fairchild, University of Florida; Mary Burfisher, Margaret Missiaen, and Gene Mathia, USDA ERS; David Henneberry, Oklahoma State University.*

In recent years less developed countries (LDCs) have become increasingly important as purchasers

of U.S. agricultural commodities and products and as competing producers of supplementary agricultural commodities and products, leaving southern agricultural interests somewhat divided. A number of LDCs also face serious macroeconomic problems, casting doubt on their future production levels and buying power and engendering possibilities of greater competition for southern producers as these LDCs attempt to use international trade as a balancing mechanism for internal problems. This symposium provides an overview of Southern Region imports to and exports from LDCs, with a particular emphasis on the role LDCs play as competitors with Southern producers. The long-term possibilities for continued trade with LDCs and policy options available for southern producers and food manufacturers in the face of LDC competition will also be discussed.

NEW DIRECTIONS AND CHALLENGES FOR SOLID WASTE MANAGEMENT IN RURAL COMMUNITIES: THE ROLE OF THE AGRICULTURAL ECONOMIST (Moderator: *John M. Halstead, University of New Hampshire*).

Organizers: *John M. Halstead, University of New Hampshire; William M. Park, University of Tennessee.*

Presenters: *William Knoop, Texas A&M Cooperative Extension; Charles Fiedler, Waste Management, Inc; William McDonald, City of Dallas Street and Sanitation Services; William M. Park, University of Tennessee.*

Municipal solid waste management in the United States has become a problem of major proportions. The increased cost of the traditional disposal option of landfilling has led to closer scrutiny of alternative disposal methods such as recycling, source reduction and incineration. Local governments are in need of assistance in formulating comprehensive waste management plans which combine environmentally sound management procedures with financially plausible solutions; these solutions will require a coordinated public and private sector effort. This symposium brought together research, extension, private sector and local government personnel to address issues such as market development for recycled goods, composting and facility siting. Noneconomist participants helped focus attention on issues of community concern such as worker safety and development of reliable cost estimates.

ECONOMIC PERSPECTIVES ON THE AFRICAN AMERICAN IN AGRICULTURE AND RURAL SOCIETY (Moderator: *Handy Williamson, Jr., University of Tennessee*).

Organizer: *Adell Brown, Jr., Southern University.*

Presenters: *Adell Brown, Jr., Southern University; Magid Dagher, University of Arkansas-Pine Bluff, and Donald R. McDowell, North Carolina A&T University; Joyce E. Allen, Joint Center for Political Studies, Washington, D.C.*

The symposium's purpose is to identify and evaluate those economic forces which influence the economic well-being of the African American rural resident, draw linkages between market forces and opportunities available to minority farmers, and assess the impacts of public policies directed toward the farm and rural sectors of the United States.

1990 FARM BILL—A PROSPECTIVE ON LIKELY CONSEQUENCES AND DIRECTION (Moderator: *Edward Smith, Texas A&M University*).

Organizer: *Abner Womack, University of Missouri.*

Presenters: *Abner Womack, University of Missouri; James Richardson, Texas A&M University; Andrew Morton, Congressional Budget Office, Washington, D.C.*

The 1990 Farm Bill charts the direction for U.S. agriculture over the next five years. The 1985 Farm Bill had the good fortune of a reasonably strong economy with moderate rates of inflation. It also set U.S. agriculture in the direction of reduced government support with more market oriented signals. Although these forces were set in place by 1985 legislation, record levels of government costs were also a surprising characteristic. The 1990 legislation moves in a similar direction; however, this charted course begins on a more serious set of circumstances associated with the general economy and the budget environment.

FRESH VEGETABLE RESEARCH: DOES OUR SYSTEM DELIVER THE RIGHT PACKAGE? (Moderator: *Roger A. Hinson, Louisiana State University*).

Organizers: *Roger A. Hinson and John G. Lee, Louisiana State University.*

Presenters: *John G. Lee, Louisiana State University; Forrest Steglin, University of Kentucky; Edmund Estes, North Carolina State University; Paul W. Teague, Arkansas State University and Delta Fresh.*

Pressure for diversified agriculture continues, with horticultural crops a popular suggestion. Researchers have been asked to provide "answers" regarding project feasibility. Single answers can be incomplete and perhaps misleading if distributions associated with parameters are ignored. These topics regarding components of total risk are discussed from research, extension and industry perspectives.

SUSTAINABILITY: LIMITS TO GROWTH FOR SOUTHERN AGRICULTURE? (Moderator: *Quentin Jenkins, Louisiana State University*).

Organizer: *E. Jane Luzar, Louisiana State University*.

Presenters: *E. Jane Luzar, Louisiana State University; Ron Wimberly, North Carolina State University; Ntamulayango Baharanyi, Tuskegee Institute; John Thomas, Texas A&M University*.

The concept of sustainability has evolved from a narrow definition applied to the class of biological, renewable resources measured in terms of physical limits to exploitation to a more current definition that suggests a departure from strict physical measurement. The current, broader usage of sustainability denotes a sustained increase in individual as well as societal welfare. The role of agriculture in sustained, social welfare is often simplified to imply low input use in agricultural production processes. However, broader issues raised by sustainability suggest the need for rethinking some key economic and social concepts, including externality, intergenerational equity, steady state economies and the compatibility of economic development and environmental integrity. Sustainability can be interpreted to imply a socially and politically determined set of limits or boundaries with potential significance for agricultural and rural development in the South. If sustainability is interpreted to imply limits to growth and development, current social, political and economic inequities may be institutionalized. The potential for conservative reinforcement of the status quo as a result of sustainability is especially relevant subject matter for agricultural economists and rural sociologists in the South today.

ECONOMIC CONDITIONS WITHIN THE USSR: ON-SITE OBSERVATIONS (Moderator: *Kim B. Anderson, Oklahoma State University*).

Organizer: *T. Fred Schmedt, Noble Foundation, Inc.*

Presenters: *Kim B. Anderson, Oklahoma State University; T. Fred Schmedt, Noble Foundation, Inc.; Richard Smetana, Continental Grain Company*.

Massive changes are taking place in the Soviet Union. These changes are impacting and will continue to impact U.S. agriculture. American farmers will need to adjust production and marketing practices. The three agricultural economists making this presentation have been to different areas of the USSR, visited with different government officials, toured different farms and have somewhat different views about the situation within the Soviet Union.

CRITICAL ISSUES FOR EXTENSION PROGRAMMING IN THE 1990s: VIEWS FROM GOVERNMENT AND INDUSTRY (Moderator: *Johnny W. Jordan, Clemson University*).

Organizers: *C. Parr Rosson, III, Johnny W. Jordan, and DuBoise White, Texas A&M University*.

Presenters: *DuBoise White, Texas A&M University; Legislative Representative; James McAdams, McAdams Rach, Huntsville, Texas; Allen Morris, Tropicana Products, Bradenton, Florida; Robert Wells, North Carolina State University*.

Agriculture and rural communities will face unprecedented change during the decade of the 1990s. In the adjustment process, extension economists will be required to deal with crucial issues and will become more important to the overall extension program effort. Issues such as international competition, the environment, food safety, water quality, and sustainable agricultural systems will require additional emphasis. These emerging issues, coupled with a changing traditional clientele base and the evolving bimodal farm structure, will pose major challenges for extension. While these issues have been discussed in extension for some time, no conclusions have been reached regarding effective ways to manage change and the development of human capital. The purpose of this symposium is to address these and other critical issues from the perspective of important clientele groups such as farming, agribusiness and government. Each speaker will identify key program areas for the 1990s and major constraints to effective program development.