

ORGANIZED SYMPOSIA

Annual Meeting, SAEA, Lexington, Kentucky, February 3-5, 1992

GEOGRAPHIC INFORMATION SYSTEMS FOR AGRICULTURAL ECONOMICS (Moderator: E. Jane Luzar, Louisiana State University).

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

Presenters: *E. Jane Luzar, Louisiana State University; Thomas G. Johnson, VPI and State University; Patricia E. Norris, Oklahoma State University; Tony Pareto, University of Missouri.*

As agricultural research has broadened to address issues beyond the farm gate, data needs have become increasingly specialized. For example, research in the areas of environmental economics, rural development, international trade, agribusiness, and consumer economics all can require combinations of highly specialized primary and secondary data. Contemporary agricultural research issues can, however, also require an integrated approach, resulting in unprecedented data demands. Recently, a new research tool, the Geographic Information System (GIS), has become more widely available to assist in the management and analysis of these diverse agricultural data sets. For those agricultural economists considering the benefits and costs of developing, maintaining, and using this new technology, an organized information base on experiences with GIS is often difficult to identify. This symposium will identify some relevant technological information, review potential contributions and applications of spatial economic analysis, discuss current GIS applications in a southern region, and indicate potential areas of GIS growth.

ANIMAL WASTE: ECONOMIC MODELS AND PUBLIC POLICY (Moderator: Ashley Lovell, Texas A&M University).

Organizers: *Greg Allen and Ashley Lovell, Texas A&M University.*

Presenters: *Joe Taraba, University of Kentucky; Greg Allen, Texas A&M University; Greg Clary, Texas A&M University.*

Animal waste management has come under greater scrutiny by national and state regulatory agencies during the last few years. Expansion and concentration of the dairy and poultry industries have led to increased public opposition. This opposition has forced state agencies to adopt regulations specifi-

cally for managing animal waste. The issue of utilizing animal waste is now considered a major problem in the United States and in other parts of the world.

Computer simulation models are being used to simulate the long-term environmental impacts of alternative waste handling practices. Simulation models also provide a means for evaluating the impacts of economics and public policy on waste management decisions.

THE RURAL HEALTH CRISIS: RESEARCH AND EXTENSION ISSUES (Moderator: Jeff Alwang, VPI and State University).

Organizer: *Southern Rural Development Center Health Task Force.*

Presenters: *Ira Muscovice, University of Minnesota; Susan Jenkins, University of Georgia; Gerald Doeksen, Oklahoma State University.*

Data indicate that 600 rural hospitals will face the prospect of closing in the next few years. (States with the highest number of distressed hospitals in 1990 were Florida, Texas, and Oklahoma.) These rural areas may find themselves without access to critical health care if this occurs. Health services also have an impact on the economic viability of the community. Without health care, many communities will face additional economic decline. The objective of this symposium is to bring together top professionals to discuss topics which researchers might address and to identify extension programs which might aid rural decision makers as they attempt to provide access to health care for their residents.

ETHICS AND VALUES IN THE AGRICULTURAL CURRICULUM (Moderator: Jeffrey Burkhardt, University of Florida).

Organizer: *Jeffrey Burkhardt, University of Florida.*

Presenters: *Jeffrey Burkhardt, University of Florida; Evan Drummond, University of Florida; Paul Thompson and Donald Vietor, Texas A&M University.*

Agricultural and resource economists, as well as many other agricultural and resource scientists, have long been concerned with values and philosophical

orientations underlying agricultural policy and practice. Recently, however, attention has turned toward more explicit consideration of ethical frameworks and perspectives, especially in the undergraduate curriculum. National efforts such as the Social Science Agricultural Agenda Project (SSAAP) and the National Agriculture and Natural Resource Curriculum Project have targeted and spotlighted "agricultural ethics" as an area of high priority in rethinking and redesigning curricula in agricultural economics and the other agricultural sciences. This symposium will explore the reasons behind and strategies for implementing plans to incorporate deliberate consideration of ethical issues and perspectives in our undergraduate (and graduate) teaching activities.

THE CURRENT STATUS AND FUTURE PROSPECTS OF DOCTORAL PROGRAMS IN AGRICULTURAL ECONOMICS IN THE SOUTHERN REGION (Moderator: *Lynn Reinschmiedt, Mississippi State University*).

Organizers: *David Schweikhardt and Lynn Reinschmiedt, Mississippi State University.*

Presenters: *David Schweikhardt, Mississippi State University; Robert Shulstad, University of Georgia; Joseph Havlicek, Jr., Ohio State University; Roland Robinson, USDA/CSRS.*

While the agricultural economics profession has re-examined its teaching mission at the undergraduate level and in the area of agribusiness, relatively little attention has been paid to the future of doctoral programs in agricultural economics. This symposium examines emerging trends and issues in doctoral education in departments of agricultural economics in the southern region. Results of a survey of departments of agricultural economics in the southern region will serve as a focal point for a discussion of the status of graduate education. Discussants will respond to the survey results and will examine: the competitive position of doctoral programs in the southern region relative to those in other regions; structural changes in departments of agricultural economics that could affect the demand for doctoral graduates; the possible impacts of changes in doctoral programs on the teaching, research, and extension functions of departments of agricultural economics; and barriers to adjustment in doctoral programs.

POTENTIAL INSTITUTIONAL RESPONSES TO A NORTH AMERICAN FREE TRADE

AGREEMENT (Moderator: *Larry Sanders, Oklahoma State University*).

Organizers: *Gary Fairchild, University of Florida; C. Parr Rosson III, Texas A&M University; Larry Sanders, Oklahoma State University.*

Presenters: *Eduardo Segarra, Texas Tech University; Stanley Fletcher, University of Georgia; C. Parr Rosson III, Texas A&M University; Emily McClain, Clemson University; Mary Marchant and Michael Reed, University of Kentucky; Lee Swenson, National Farmers Union.*

The continuing GATT negotiations suggest the possibility of freer trade among nations. However, if the GATT negotiations fail to produce a more open trading environment, then the prospect of large consolidated trading blocs with higher barriers to external trade but freer internal trade is likely to emerge. One such proposed trading bloc is a North American Free Trade Agreement (NAFTA) composed of the United States, Canada, and Mexico. Thus, the implications of NAFTA for U.S. and southern agriculture is a topic of current concern. Potential impacts may vary by commodity subsector, stage in the production/marketing channel, and geographic location. Institutions associated with southern agriculture, including research, extension, and international trade center components of the land-grant system, and agricultural commodity organizations, will be asked to provide input during both the negotiation and implementation phases of an agreement. Potential responses of these institutions need to be identified, examined, and discussed.

AVOIDING ECONOMIC LIABILITY FOR CONTAMINATED REAL ESTATE: SEEKING BETTER ALTERNATIVES (Moderator: *Fred Boadu, Texas A&M University*).

Organizer: *Terence J. Centner, University of Georgia.*

Presenters: *Marcia L. Tilley, Oklahoma State University; Leon Geyer, VPI and State University; Michael Olexa, University of Florida; Terence J. Centner, University of Georgia.*

The recent surge of public environmental awareness has led to Superfund liability provisions and state environmental disclosure regulations that assign liability for cleanup costs to persons associated with contaminated land or hazardous substances. The issue is not contamination control or culpability but rather financial responsibility. This symposium

will identify the legislative provisions and delineate planning and management techniques that agricultural landowners and lenders might use to deflect contamination costs. The enumeration of alternative methods to control pollution and liability costs will lead to a discussion of questions involving the environmental liability research agenda: innovative institutional methods to clean up contamination, property rights options, alternative liability provisions, and research objectives.

EDUCATION, OFF-FARM EMPLOYMENT, AND RURAL ECONOMIC DEVELOPMENT: PERSPECTIVES FROM STATES IN THE SOUTHEAST (Moderator: *David L. Debertin, University of Kentucky*).

Organizer: *David L. Debertin, University of Kentucky.*

Presenters: *Judith I. Stallman, VPI and State University; David S. Kraybill and Lewell Gunter, University of Georgia; Stephan J. Goetz, University of Kentucky; Rodney L. Clouser, University of Florida; Thomas G. Johnson, VPI and State University.*

Rural development specialists have long stressed the importance of off-farm employment in supplementing farm income. The purpose of this symposium is to explore perspectives from various states dealing with the role of education, community infrastructure, and other factors in improving opportunities for part-time off-farm employment. Stallmann provides an analysis of the influence of education and labor demand on off-farm work by farm operators and spouses. Kraybill and Gunter stress the role that off-farm income plays in raising and stabilizing farm household incomes. Goetz reviews alternative approaches to modelling off-farm supply decisions of farm households, arguing that they need to be considered jointly with the decision to hire labor. Clouser highlights the importance of an adequate social and physical infrastructure within the rural community as a necessary prerequisite in providing off-farm employment opportunities. Johnson's research is designed to gain a greater understanding of the process by which individuals make decisions regarding education and its role in occupational decisions.

POTENTIAL NEW CROPS AND PRODUCTS FROM SOUTHERN AGRICULTURE (Moderator: *Melvin Blase, University of Missouri-Columbia*).

Organizer: *Melvin Blase, University of Missouri-Columbia*).

Presenters: *Donald Van Dyne, University of Missouri-Columbia; Mervin Yetley, Staff, House Agricultural Committee; Charles Taylor, Kenaf International; Melvin Blase, University of Missouri-Columbia; E. Richard Wheaton, MANCOMP Systems, Inc.*

New crops and products are receiving increasing attention in the South. Agronomic research has been done concerning such crops as kenaf, industrial rapeseed, canola, guayule, etc. New products being considered included such items as biodiesel fuel, polymers like Nylon 13-13, and biodegradable plastics. The Food, Agriculture, Conservation, and Trade Act of 1990 provides a number of incentives to foster new crop/product activities. These include the 0-92 provision for minor oilseeds, marketing loans for minor oilseeds, and the Alternative Agricultural Research and Commercial Center. Clearly, the disincentives in the 1985 Act have been reversed. Selected crops are experiencing substantial market growth. Canola is a case in point. Hence, both in the private and in the public subsectors, new crops/products are receiving attention.

This symposium will focus on economic research that has been done and that which remains to be done.

FARM HOUSEHOLD AND RURAL COMMUNITY LINKAGES IN ECONOMIC DEVELOPMENT (Moderator: *Handy Williamson, Jr., University of Tennessee*).

Organizers: *Tesfa G. Gebremedhin, West Virginia University; Kevin T. McNamara, Purdue University.*

Presenters: *Kevin T. McNamara, Purdue University; Tesfa G. Gebremedhin, West Virginia University; Jill L. Findeis, Pennsylvania State University; Mary Ahearn, USDA ERS; David Freshwater, University of Kentucky.*

While agriculture remains an important component of income and employment throughout rural America, farm households' dependence on nonfarm income for total family income continues to increase. Local economic structure and the distance to a metropolitan area as well as the size and type of farming operation impact an operator's decision to allocate household labor to off-farm employment activities. As the importance of agriculture as a source of income and employment declines, policy

makers should examine rural development policy that focuses on creating employment growth that will stabilize rural income and employment as well as provide employment opportunity for households making a transition out of agriculture. These policies should focus on diversification and expansion of the nonagricultural industries and on human capital development which would enable members of farm households to compete for off-farm employment opportunities.

AGRICULTURAL CHEMICALS AND GROUND WATER QUALITY: ECONOMIC IMPACTS OF POLICY OPTIONS (Moderator: *Stephen R. Crutchfield, Water Branch, RTD, Washington, D. C.*).

Organizer: *Stephen R. Crutchfield, Water Branch, RTD, Washington, D. C.*

Presenters: *Marc Ribaud, Environmental Quality Valuation Section, RTD; Stephen R. Crutchfield, Water Branch, RTD; Robert Kellogg, Environmental Regulatory Section, RTD; C. S. Kim and John Hostetler, Water Management and Technology Section, RTD.*

Breakthroughs in the production of synthetic fertilizer and other agricultural chemicals in the post-war era significantly improved the productivity of American farmers. However, the economic benefits of increased fertilizer, pesticide, and herbicide use by farmers have been accompanied by the environmental and economic cost associated with contamination of groundwater resources by pesticides and nitrates. Even though only a small portion of the nation's total groundwater resource is thought to be seriously contaminated by agrichemicals, public concern over the health effects of exposure to chemicals in drinking water has led to many federal and state initiatives to protect groundwater quality. The Economic Research Service has been engaged in research on key issues related to agrichemical use and groundwater quality, including: What is the extent of groundwater vulnerability to agrichemicals? What are the economically feasible solutions for protecting groundwater quality? What are the economic benefits and costs of implementing these policies? This symposium will address these issues with case studies reflecting water quality issues in the Texas High Plains, the Delmarva Peninsula, and the Central Nebraska Basin, and Southern and Western cotton farming.