

Invited Papers

WAEA Presidential Address

"Agricultural Economics and Multidisciplinary Research." Douglas L. Young (Washington State University).

A survey of agricultural economists who had published multidisciplinary research with natural scientists revealed that they considered this research to be more socially valuable and equally professionally rewarding as their unidisciplinary research. A balanced portfolio of multidisciplinary and unidisciplinary research is recommended for agricultural economists.

Session: Harmonization of Domestic Agricultural and Trade Policies. Moderator: Alex F. McCalla (University of California, Davis).

"Harmonization of Domestic Agricultural and Trade Policies in LDCs: The Liberalization Dilemma in Morocco." Philip C. Abbott (Purdue University).

The structural adjustment program in Morocco illustrates the need for trade and domestic policy coordination for both economy-wide and cereals market reforms. While symptoms leading to these programs in LDCs appear in trade accounts, and remedies initially focused on devaluation and trade policy, causes include domestic distortions, and cures must involve domestic policy and institutional reforms. The removal of consumer subsidies on wheat and flour is examined in detail, showing that piecemeal dismantling of this domestic policy without consideration of trade consequences under alternative regimes can lead to unexpected results. Redistribution of benefits among public and private institutions, and a deliberate stepwise approach to reform, are leading to this domestic change before anticipated changes in the trade regime, however.

"Effects of Farm Programs on Gains from Canada-U.S. Wheat Trade." Julian M. Alston and Colin A. Carter (University of California, Davis).

This paper explores the implications of domestic distortions arising from farm programs for the size and distribution of gains from bilateral trade liberalization and illustrates the ideas using the case of Canada-U.S. trade in durum wheat following the 1989 Canadian-U.S. Free Trade Agreement (CUSTA). CUSTA resulted in increased sales of Canadian grain to the United States and the escalating trade resulted in a legal trade dispute, centering on the trade effects of domestic farm policy, because Canada and the U.S. have significantly different farm programs for major field crops. We argue that while the existence of farm programs will modify the size and distribution of the gains from trade, dissimilar farm programs may still permit increased trade volume and mutual benefits from freer trade. While disparate programs make implementing a free trade agreement difficult, we demonstrate that in the presence of existing farm programs, both countries can still gain from freer trade.

"Cooperatives in a Less Regulated Trade Environment: What Changes Are Necessary?" Mary Bohman and James Vercammen (University of British Columbia).

Existing Canadian marketing regulations that reduce competition allow cooperatives to provide additional services to members not available in competitive markets. Changes by Western dairy cooperatives in anticipation of deregulation include mergers and new rules for retained earnings. Changes in transportation policy have altered the rate of rationalization of primary elevators by prairie wheat pools. A model and data characterize the relationship between data and cooperative services.

Session: Economics and the Environment. Moderator: Jeffrey T. LaFrance (University of Arizona).

"Econometric Production Models with Endogenous Input Timing: Theory and Applications to Environmental Analysis." John M. Antle, Susan M. Capalbo (Montana

State University), and Charles C. Crissman (International Potato Center).

The timing of input decisions is often more important than the quantity used, particularly when production analyses are integrated with environmental analyses. Yet most production analyses take timing as exogenously determined. This paper considers the sequential production model when the number and timing of production decisions are endogenous. It is demonstrated that the endogenous timing of input decisions can be formulated theoretically as the endogenous duration of time between production decisions. The paper addresses the econometric issues that arise in models with endogenous timing, and the model is applied to the quantity and timing of fungicide applications in Ecuadorian potato production. The paper concludes with observations about the implications of the endogenous timing model for production economics research design.

"Regulating Automobile Pollution." Robert Innes (University of Arizona).

This paper studies an integrated model of automobile emissions production, incorporating fuel content, automobile features, and consumer mileage choices. Optimal automobile and fuel regulations are characterized when auto-specific fuel taxes are alternately possible and prohibitively costly.

"Institutional Change and Environmental Degradation: The Case of Tropical Deforestation in Latin America." Ramón López and Vinod Ahuya (University of Maryland). Most episodes of environmental degradation in developing countries have been preceded by a partial or complete erosion of traditional institutions. This paper reviews major theories of institutional change and contrasts them with the available empirical evidence. The main conclusion is that new institutions have not properly developed to replace the traditional ones. In most cases, this institutional vacuum has been the main factor responsible for environmental destruction.

Session: Analyzing Economic Policy for Agriculture. Moderator: Rulon D. Pope (Brigham Young University).

"Public Regulation versus Civil Law Suits: What is the Socially Optimal Mix of Safety?" Gary V. Johnson (University of Manitoba).

In the last decade, economists have shown interest in the role of civil suits in assuring public safety. One area of economists' research has focused on the optimal mix of public regulation and civil suits. This study analyzes recent work in the area, indicates policy applications of the results, and points to needs for further research.

"Internal Supports and Trade Negotiations." Daniel A. Sumner (University of California, Davis).

GATT negotiations include direct disciplines of internal agricultural subsidies. However, internal subsidies: account for relatively minor trade distortion; are even more ineffective and self-limiting with lowered border measures; are so complex that discipline loopholes cause added distortions; and, when in an agreement, weaken nullification and impairment and other GATT rights.

"Conducting a Price Band: Some Discordant Notes." Brian D. Wright (University of California, Berkeley) and Jeffrey C. Williams (Stanford University).

Structural shifts or long-run trends in prices pose a formidable challenge to the operation of a symmetric price band buffer stock scheme. These problems aside, a scheme's effects on stocks, producers, and the public budget are counter-intuitive and not generally recognized, while the "stabilizing" effect on price is relatively modest.

Session: Economics of Wetlands Preservation. Moderator: G. C. van Kooten (University of British Columbia).

"Wetlands Preservation on the Canadian Prairies: The Problem of the Public Duck." Richard M. Porter and G. C. van Kooten (University of British Columbia).

The wetlands of the Canadian Prairies have been the focus of preservation efforts to restore waterfowl populations. We argue that American preservation of Canadian wetlands arises from a sense of loss and a sense of duty to maintain a portion of the social

endowment as wilderness, and that such behavior has operated within the existing property rights structure in the Prairies. Considerable attenuation of access to waterfowl has occurred, but little attenuation of real property rights has left waterfowl habitat vulnerable to agricultural development in Canada. A Saskatchewan pilot project of the North American Waterfowl Management Plan is evaluated. We conclude that as long as the nonuse values of wetlands and waterfowl remain unclear, the net benefits of habitat acquisition and securement programs (as they are currently administered) are indeterminate, and further claim that the existence of distortionary agricultural policies alters the intent and purpose of habitat acquisition programs.

"An Economic Analysis of Wildlife Habitat Preservation in Alberta." W. E. Phillips (University of Alberta), T. J. Haney (Canada Beef Export Federation), and W. L. Adamowicz (University of Alberta).

This paper provides a twofold focus on wildlife habitat enhancement and development in Alberta: (a) from the user perspective based on measures of willingness to pay for an incremental increase in wildlife habitat; and (b) from the perspective of a private landowner, who possesses certain attitudes and characteristics conducive to providing an incremental increase in habitat under specified conditions that benefit the user.

"The Local Economic Impacts of the North American Waterfowl Management Plan in Saskatchewan." Julia S. Taylor, Richard S. Gray, and Ken A. Rosaasen (University of Saskatchewan).

The North American Waterfowl Management Plan (NAWMP) seeks to improve wildlife habitat and increase waterfowl numbers through voluntary transactions with farmers to modify their land management practices. The impacts of modified land use practices on the incomes of participating farmers and the regional economy are estimated. The compensation offered under the Plan for modification of land use is determined to adequately offset any loss in participants' income. Income losses to the community due to reduced farm input sales were more than offset by the increase in NAWMP direct expenditures (excluding compensation payments). Distributional effects and externalities must be recognized and monitored to ensure success of the program.

"Economics of Agricultural Encroachment on Wildlife Habitat in Southwest Manitoba." Rea M. Josephson (University of Manitoba).

An economic study of land use modification was conducted during the summer of 1992 in the NAWMP target area of Manitoba. Eighty farmers were surveyed to determine production costs and returns, both before and after adopting conservative practice. An average additional net income of \$13.27 per acre was realized on 47,042 surveyed acres. Benefits come from the combination of average revenue increase of \$5.14 per acre as well as \$8.13 per acre reduction in costs. These results indicate potential to improve wildlife habitat across an extensive area as farmers realize economic gains from tillage modification, forage production, and intensified grazing systems.