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THE JOURNAL OF
**Agricultural
Economics
Research**

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Service

Articles

**Agrichemical Reduction Policy: Its Effect on Income
and Income Distribution**

**Canada's Broiler Supply Management Program:
A Shield From U.S. Price Volatility?**

**Farmer Response to Changes in Climate: The Case
of Corn Production**

Book Reviews

The History of Econometric Ideas

Introductory Readings in Geographic Information Systems

The Farm Debt Crisis of the 1980's

**Agricultural Price Policy: A Practitioner's Guide to
Partial-Equilibrium Analysis**

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In This Issue

Why this Journal? The historical reason is the initiative of O V Wells, Chief of the Bureau of Agricultural Economics, who felt that "such a journal should prove as useful to agricultural economists and statisticians as similar journals have proved in other fields."

In 1949, as now, a substantial fraction of agricultural economists and their social scientist allies were employees of, or cooperators with, the U S Department of Agriculture. A technical periodical should be the tool of the researchers to share ideas, challenges, successes, and failures with members of the profession and others intimately concerned with research results and reliability. This journal is such a tool for USDA's social scientists and the readers of their reports.

Books, bulletins, and brochures convey research information. But, journals provide continuity and connections. They provide a continuity of knowledge in an area of inquiry, journals are the profession's diary. They provide connections to other people, other fields, and other ways. If journals do their job right, readers will discover a concise map and itinerary of their profession's intellectual travels. In this issue, JAER places seven new destinations on its map, three articles and four book reviews.

Matt Rendleman's article on the economic impact of agrichemical reduction is the first stop on the itinerary. With a computable general equilibrium model, Rendleman analyzes the effect of an overall reduction (as against a specific chemical or crop) in agricultural chemicals. Beginning with an economy presumed to be in equilibrium, he identified an economywide loss in efficiency from the shock of chemical restriction. That loss in efficiency grew as chemical restrictions expanded. Small restrictions caused virtually no losses. When restrictions increased, so did losses in efficiency. Distributional effects depend upon the form of restriction (tax, production, or use) and market conditions (the relative power of manufacturers and farm producers). Over time, measures aimed at controlling chemicals increase the variability of farm prices, and, at modest levels of control, increase environmentally protective practices.

Ronald Babula and Robert Romain examine another type of restriction, on output rather than input. Their article asks whether the Canadian broiler market, which has strict supply and trans-border controls, can be influenced by the United States. They conclude that changes in the U S broiler industry are felt in Canada despite import restrictions. In general, however, the Canadian supply management program, perhaps with the help of some production consolidation, has insulated the Canadian market from U S price

movements. The authors comment briefly on the use of vector autoregression for policy analysis.

LeRoy Hansen explores the effects of climate change on agricultural practices by posing the question: Do farmers respond to long-term changes in weather patterns? Hansen sought to determine whether the adjustments in management practices and input use, which are not normally included in plant growth models, affected yields. Cross-sectional data from 10 corn-producing areas substituted for longitudinal climate responses, which eliminated fortuitous technology changes. His conclusion: small modifications in farming practices accommodate climate differences and therefore do affect yields. The findings show that crop growth models could be improved by adding proxies for minor adaptations in farm practices.

A review of Mary Morgan's *History of Econometric Ideas* by Clark Edwards contains fascinating observations on the evolution of our economic analysis from Jevons's sunspots, through the "probability revolution" of the 1940's, to the collapse of the founding ideal of econometrics in the 1950's. That's right, collapse. Read Edwards to see how the story ends.

Geographic information systems are additional tools for economic analyses. GIS is still in its formative stages for economic analysis. David Moyer reviews a set of *Introductory Readings in Geographic Information Systems*, edited by Dona Peuquet and Duane Marble. This work contains background on the history and development of GIS that is particularly useful for beginners, but obsolescence is a problem because of the rapidly changing technology.

Neil Harl's *The Farm Debt Crisis of the 1980's* was printed by Iowa State Press in its historical memoirs series. The mixture of analysis and personal commentary troubles reviewers Douglas Duncan and Steven Koenig. Not satisfied with the book's inadequacies, they plump for continuing and much-needed empirical work in agricultural, and presumably financial, policy.

Only a special few of the Journal's readers will rush out for Isabelle Tsakok's *Agricultural Price Policy: A Practitioner's Guide to Partial-Equilibrium Analysis* upon reading Milton Ericksen's review. Those inquisitive few, however, may find her book a helpful shop manual for price analysis. You know who you are and what you must do, so read Ericksen's review and decide.

This issue is my last as economics editor. The editorship has been an interesting, satisfying experience, largely because of the many contacts with authors,

reviewers, and staff of the Journal. I want to express special appreciation to my two co-editors, Judith Latham and Jim Carlin, and to the editorial board members and staff assistants. Also, praise should go to those anonymous reviewers who have spurred the nonanonymous authors to produce better, sharper articles. Thank you.

I am pleased to introduce the new economics editors, James Blaylock and David Smallwood, who together bring many years of research experience to their new assignment. We are privileged to have them assume the responsibility for guiding the Journal. Welcome, Dave and Jim.

Gene Wunderlich