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Agricultural Economics Research

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Grain price linkages

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Agricultural Economics Research

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Editors	Clark Edwards Raymond Bridge	Editorial Board	Charles Caudill Stan Daberkow William Kost Katherine Reichelderfer Lyle Schertz
Associate Editor	Judith Latham		
Graphic Designer	Susan DeGeorge		

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In This Issue

A research problem can usually be approached successfully in several different ways. There may be many wrong ways to try to solve a problem, but there is usually more than one right way.

Did you ever wonder how astronomers know how many asteroids orbit the sun? No one has ever been out there to count them, yet we think we have a pretty good idea how many there are. There are many ways to set about estimating the number of asteroids and most of them have been tried. As it happens, several of the methods, each done independently of the others and based on different assumptions, have converged on approximately the same result. Of course, this agreement does not prove any of the estimates correct, but it does increase the likelihood of their being closer to the true number of asteroids than some of the outlying, larger and smaller estimates.

In the early days of ERS, a director of one of the divisions was confronted by what appeared to an observer to be an inefficiency, he was told that people in two different sections of his division were working on the same problem. The director looked at his confronter for a moment and then replied, "Yes, I know. I think that problem is important enough to justify two different people working on it." Unless the two colluded, they were likely to take two different approaches to the problem and, as a result, might together come up with more insights than either could alone.

As a final example, I remember, in the early days of linear programming, how much comfort the modelers of farm management problems took in finding that a computer printout indicated approximately the same solution as one obtained by traditional farm management specialists who used their personal experience, a pencil stub, the back of an envelope, and a bit of artistic skill to solve the same problem.

The articles in this issue find alternative ways to study traditional problems. Grant and others, in the first article, take a new look at the linkages

among grain prices in the United States. They use an analytical framework, Granger causality, that has proven useful in situations where statistical tests of causality are wanted. The problem is old and the method is becoming well known. What is new is the application of the method to this problem. The answers aren't surprising. But they are interesting. It is not surprising that a change in corn prices tends to induce subsequent changes in grain sorghum prices. It is interesting to learn that a 1-cent change in the price of corn causes a 0.76-cent change in the price of grain sorghum some 10 weeks later.

Plato and Gordon explain the logic underlying several different algorithms used to analyze the optimality of alternative levels of carryover stocks of grain. They show that some alternatives are equivalent because, although they incorporate slightly different assumptions, they give precisely the same answers. The authors show that some algorithms model the problem more realistically than others, and they recommend that certain features be incorporated in analyses of alternative levels of carryover stocks of grain.

Salathe and others take a fresh look at the demand and price structure for poultry and eggs. They apply standard econometric techniques to a longstanding problem. What is unusual about their approach is that the model of the poultry and egg sector is a subset of a larger model which analyzes the prices and quantities of several other farm commodities. Hence, the authors can study the poultry and egg sector in isolation and can also examine the effects that feedback loops through various crops and livestock sectors have on the prices and quantities of poultry and eggs. This is the third in a series of articles in *Agricultural Economics Research* on FAPSIM, a food and agricultural policy simulation model used extensively in situation and outlook analysis in ERS.

Starting with the April issue, Lorna Aldrich will be the editor of *Agricultural Economics Research*. Lorna brings to the task considerable experience.

and skill in economics, mathematics, statistics, and editing. My thanks go to the many authors, reviewers, information editors, editorial board members, graphics designers, and staff assistants, each

of whose contributions and help added to my pleasure in serving as your editor these 7 years.

Clark Edwards

Best Article Award

The ERS Administrator's Award for the best article in *Agricultural Economics Research* for the publication year ending April 1982 went to Richard L. Farnsworth and L. Joe Moffitt of the Natural Resource Economics Division. They were honored at a ceremony on December 9, 1982, for their excellence in creative economic analysis and communication in their article, "Biometric Analysis of Pesticide Demand," published in October 1981.

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