



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

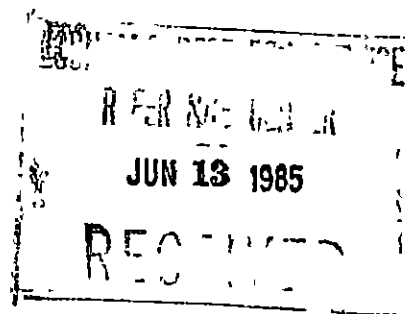
Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# Agricultural Economics Research

Spring 1985 Vol 37, No 2



A Journal  
of the  
United States  
Department of  
Agriculture

Economic  
Research  
Service

**1** Valuing American Options on  
Commodity Futures Contracts

**15** Dynamic Relationships and  
Efficiency of Rice Byproduct  
Prices

**27** Agricultural Options and  
Price Supports: Competitive  
or Compatible?

**30** Risk Management in  
Agriculture

# Agricultural Economics Research

A Journal of the U.S. Department of Agriculture • Economic Research Service

---

## Editors

Judith Latham  
Gerald Schluter

## Assistant Editor

Lindsay Mann

## Graphic Designer

Susan DeGeorge

## Editorial Board

Terry Crawford  
Clark Edwards  
Roger Hexem  
William Kost  
Mindy Petrulis  
J. Michael Price  
Margaret Weidenhamer

The Secretary of Agriculture has determined that the publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director, Office of Management and Budget, through March 31, 1987.

This periodical is published quarterly. Subscription rates are \$11.00 domestic, \$13.75 foreign. Send check or money order to (payable to Superintendent of Documents):

Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402

Microfiche copies are available from two different sources:

Infodata International, Inc.  
Suite 4602  
175 East Delaware Place  
Chicago, IL 60611

Issues from 1974 on are available at \$4.95 per year or per issue.

Congressional Information Service, Inc.  
P.O. Box 30056  
Washington, DC 20014

Issues for 1973 are available at \$5.00 (for 2 fiche). Issues for 1974 on are available at \$3.75 for the first fiche and \$1.25 for each remaining fiche; they average 3 fiche per year.

---

# In This Issue

---

"The price at which the market demand curve and market supply curve intersect is a market clearing price at which buyers and sellers are satisfied such that no economic forces are engaged to change the price." In their economics classes, multitudes of economics students have heard this explanation of price determination. Although this explanation is correct and it generically describes the interaction of market forces in determining prices, a student who tries to apply it to predict a price in a particular market quickly recognizes its limits. Where are the market demand curve and the market supply curve the instructor so easily sketched? Where is the market where these forces interact?

The gap between the theoretically sound explanation of price determination on textbook supply and demand schedules and the explanation of price determination as actual markets that represent not only different products but also the same product with differing time, space, and form attributes has always been imperfectly bridged. Both articles in this issue address the issue of price determination in a particular market.

In the lead article, Plato addresses the pricing of American options on commodity futures contracts. Recognizing that questions will inevitably arise about whether the market price of these recently permitted instruments lies above or below their real economic value, Plato describes a numerical procedure which provides unbiased estimates of the premiums for these contracts by accounting for the value of early option exercise.

In the following article, Brorsen, Grant, and Chavas investigate price discovery for rice byproducts and conclude rice byproduct prices may be more influenced by shifts in their demand than shifts in their supply.

In the Research Review, Schertz returns us to commodity options contracts and explores the relationship between the role of agricultural commodity options and Government price supports in transferring price risks from producers to a broader group in society, and Trechter reviews a set of writings, *Risk Management in Agriculture*.

GERALD SCHLUTER

---

## Best Article Award

The ERS Administrator's Award for the best article in *Agricultural Economics Research* for the publication year ending April 1984 went to Laura A. Blanciforti, formerly of the National Economics Division. She was honored at a ceremony on February 12, 1985, for her excellence in creative economic analysis and communication in her article, "The Almost Ideal Demand System: A Comparison and Application to Food Groups."

---

# Contents

---

- 1 Valuing American Options on Commodity  
Futures Contracts  
*Gerald Plato*
- 15 Dynamic Relationships and Efficiency of Rice  
Byproduct Prices  
*B Wade Brorsen, Warren R Grant, and  
Jean-Paul Chavas*

## Research Review

- 27 Agricultural Options and Price Supports  
Competitive or Compatible?  
*Lyle P Schertz*
- 30 Risk Management in Agriculture  
*Reviewed by David Trechter*