

System for Accurately Forecasting Prices and Other Attributes of Agricultural Commodities



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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method and system for forecasting agricultural commodity prices and levels of consumption, production and trade flows across regions.

OVERVIEW

Industries using, producing, or trading in agricultural commodities require accurate forecast information to aid their management and procurement decisions.

THE INVENTION

UW-Madison researchers have developed a method and system for forecasting agricultural commodity prices and amounts of consumption, production and trade flows across regions, under a variety of scenarios. The method involves use of a general-purpose computer and employs a multi-component spatial equilibrium function that approximates an inter-regional market in agricultural commodities. The method generally involves first creating an inputs database that contains definitions of the regions and forecast scenarios. The inputs database also contains several years of industry data, including commodity prices and amounts of consumption, production, and trade flow in the regions. The function is refined and solved by maximizing a consumer and producer surplus net of all transaction costs to generate the forecasts. To further refine the forecasts, the method may be solved for an optimal amount of intermediate commodities consumed in the making of the final processed commodities.

APPLICATIONS

- Provides accurate agricultural commodity forecast information

KEY BENEFITS

- Provides information that allows industries at any level of commodity production, use or trade to manage for minimal costs and maximal profits

THE WARF ADVANTAGE

Since its founding in 1925 as the patenting and licensing organization for the University of Wisconsin-Madison, WARF has been working with business and industry to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.



- Accurately approximates a multi-regional market in agricultural commodities by accounting for inter-regional variations
- Allows incorporation of intermediate commodities, in addition to primary and processed commodities, to account for effects of reconstitution technologies on forecasted values
- Enables the setting of trade and domestic policy instruments to allow forecasting under a variety of scenarios
- Accounts for costs of transporting and marketing primary, intermediate and processed commodities
- Delivers electronic system outputs in the forms of graphs, spreadsheets, maps or other formats

ADDITIONAL INFORMATION

Tech Fields

Agriculture - Mechanization

Information Technology - Software

CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842.

