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#### AGRICULTURAL ECONOMICS RESEARCH, 1978 APRIL; VOL.30, NO.2. Washington, DC; Economic USDA/AE RESEARCH Research Service. V30 N2 APR 78 (NAL Call No. 1Ec7Agr)

## AGRICULTURAL ECONOMICS RESEARCH

APRIL 1978 VOL. 30 NO. 2

A greater harvest )<// from more land could mean less yield per acre. Page 10

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### **Agricultural Economics Research**

A Journal of the U.S. Department of Agriculture • Economics, Statistics, and Cooperatives Service

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"Pure economics has a remarkable way of pulling rabbits out of a hat," according to John R. Hicks, in his *Value and Capital*. Later, in *Capital and Growth*, Hicks carefully distinguished between pure and applied economics. Pure economics examines theoretical questions which can never be answered by an appeal to facts: applied economics incorporates strategic factors in models, while neglecting unimportant factors, and tests hypotheses by an appeal to facts.

Agricultural economists have always considered their discipline to be an applied one. They are deeply concerned with data problems and statistical inference. They tend to follow Hicks' maxim in *Value and Capital*: "The place of economic theory is to be the servant of applied economics."

The first article in this issue addresses an applied problem. It explains how USDA economists filled a data gap suddenly created in 1972, when the Farm Credit Administration stopped collecting interest rate and loan data from farm mortgages recorded on county records.

Strategic factors in forecasting cotton production response are tested by an appeal to facts in the second article. Cotton acreage and yield each tend to increase in response to higher prices received by farmers, other things being equal. But the increase in acreage may include poorer land, which has a tendency to reduce yield. These strategic, opposing interactions between acreage and yield need to be recognized in models which forecast production response.

A mathematical model used to project world trade in grain, oilseeds, and livestock is the subject of the third article. The author focuses on how demand by the livestock sector for feed grain is modeled. An appeal to facts shows that the interaction between the livestock and grain sectors affects longrun trends in an interesting way. The author finds, for example, that the livestock sector expands considerably when grain is plentiful, but contracts when it is scarce. The result is a relatively steady trend in world grain trade, with the livestock sector functioning as an informal grain reserve.

The fourth article makes no appeal to facts. The rabbit pulled from this hat is that gambling and insuring do not necessarily reflect different values and psychological preference patterns; each may reflect a rational adaptation to different environments. Hicks was concerned that we discover how the rabbits got in. In this theoretical article, they do so by assumptions concerning the rate of returns associated with a random variable. When a random variable enters an entrepreneur's production function with diminishing returns, profit maximization behavior is conservative and can be likened to insuring. And when a random variable enters with increasing returns, behavior is liberal and can be likened to gambling.

CLARK EDWARDS

On January 1, 1978, three USDA agencies—the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service—merged into a new organization, the Economics, Statistics, and Cooperatives Service.

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The Secretary of Agriculture has determined that the publication of this periodical is necessary in the transaction of the 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 February 28, 1980.

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