

## Economic Outlook for Agriculture

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1. Nature and Uses

Agricultural outlook brings together basic data, economic theory and statistical analysis to provide intelligence for decision making in farming and other industries. Thus, an outlook program provides an agricultural compass to guide production adjustments, marketing plans, and program development. Outlook begins where fact collecting leaves off. Facts to be meaningful must be related and interpreted in a meaningful economic framework in order to explain the "what and why" of current economic trends. Such interpretation and analysis also provides a basis for predicting probable future trends in the economy. Accordingly, outlook information and analyses can be invaluable as a basis for private and public decision making for agriculture and other sectors of the economy.

Farm production plans, business investment decisions, and government program plans must be made day-by-day and month-by-month. Such decisions are based on judgments about the future which may be based on formal analysis and a weighing of probable alternatives or, at the other extreme, they may be based simply on "hunch or seat-of-the-pants judgments." In this sense, the economic outlook function necessarily goes on day-by-day in every country and under all institutional settings. The question is: can an outlook program help farmers, other businessmen

and government administrators to make better decisions? I think such a program is essential for an agriculture made up of many relatively small commercial farm units and perhaps is even more essential for an agriculture of large highly integrated agribusiness industries.

In the U.S., collection of basic statistical data on farm production, farm supplies, prices and related statistics dates back around a century. USDA's outlook program was begun about 50 years ago to give the many relatively small farmers a reliable source of objective facts and economic analyses. Dissemination of market data and outlook analyses to these small farmers not only improved their bargaining position in the market, but it helped them to adjust their farming operations to changing market conditions.

Every management decision, whether it be a farmer's decision to increase his cattle herd or an administrator's decision to modify a Government program, involves an interpretation of the future. Prediction and planning are integral parts of rational actions to influence the kind of future we want. They are the essence of our basic intelligence.

With the rapid change in every facet of life today, the manager feels less comfortable about decisions based on intuition and conventional wisdom. His need for facts about the present and insights into the future greatly expand his demand for economic intelligence. Big business maintains a staff to appraise the outlook and what it means for their company. Modern governments rely on outlook appraisals in budget development and program appraisal. And many governments assume considerable responsibility

for providing basic statistics and analyses for their farmers and other small businessmen. Demands for data, rapid computers, and outlook tools grow like weeds. Hopefully, this growth can be directed toward, and can be kept relevant to, the needs for decision making.

## 2. Limitations And Techniques

We perhaps can agree on the need for and uses of economic intelligence in decision making. But who can foresee the future? Some of you will assert quite correctly that the economist really cannot walk on water. No, nor can he or anyone else foresee the future with accuracy. None of us need apologize for this happy situation. Accurate prediction of the future is a contradiction implying a superhuman role for the forecaster. Nevertheless, a staff well-trained in economics and statistics can explain what is happening and why as well as provide a basis for exploring probable developments in the future. Actually the informed decision maker knows that an appraisal of the future is necessarily a weighing of the more probable alternatives under different sets of conditions.

Our agricultural outlook programs and similar work in many countries are already behind the times. Computers, remote sensing devices, and rapid communication widen greatly the possibilities in data collection and give a tremendous boost to analytical work for forecasting and longer-run appraisals for agriculture. There is no question in my mind but that use of formal analytical techniques can:

- (1) Greatly extend the insights and power of a capable economist,
- (2) Develop a good outlook analyst in a shorter period of time,

- (3) Enable an evaluation of the accuracy of forecasts,
- (4) Mechanize much that should be done by machine and allow the economist time to function as an analyst, and
- (5) Enable the economist to explore and approximate the impacts of alternative courses of action in a manner otherwise impossible.

Formal models or analytical techniques are essential tools rather than a replacement for the economist. The economist should be able to do more and a better job with better tools. He must be aware that the model does not grind out "the answer." Every forecast of the future is essentially a judgment. But formal analytical techniques usually force the economist to think through and formulate a logical framework, give greater insight into important relationships, help to assure greater objectivity, and permit a broad appraisal of alternative situations. In many countries we now have computer facilities as well as the theory and statistical data to make analyses we dared not even dream of 10 to 15 years ago. Such analytical tools will not enable us to foretell the future, but they can greatly increase the quantity and quality of economic intelligence we can provide to decision makers in agriculture.

### 3. Accuracy in Forecasting

It is important to continuously evaluate the accuracy of your forecasts as a check on analytical techniques. But measuring the accuracy of a forecast at best can be very involved. A simple comparison of the forecast with actual data as measured a year or two later is not adequate. The forecast may set in motion forces which

will make it incorrect. Producers may modify reported breeding plans, intended marketings or plantings in response to a forecast and thus make the prediction wrong. Governments may take counteractions as a result of forecast results considered undesirable. Thus, forecasts that prove to be wrong may have been quite accurate appraisals of likely future developments under expected conditions. But by causing changes in management decisions, the forecast probably served its purpose well.

Often events in the international sphere or perhaps nationally may fall outside the range of variables usually considered by the forecaster, for example, the Suez crisis, the Pakistan flood, the corn blight. Although we can hardly expect the outlook analyst to anticipate such events, the day will come when we may be able to allow for such contingencies. Inaccurate data also may introduce error which leads to poor forecasts. Despite problems of measurement, an effective outlook program requires a systematic appraisal of the accuracy of a forecast. Such appraisals not only help to correct mistakes, they often lead to changes in analytical techniques, in basic data and in outlook analyses.

#### 4. Statistical Data Needs

An agricultural outlook program requires accurate and timely basic statistics, but data frameworks usually have a modest beginning. Initially, the analyst may exercise considerable ingenuity just to assemble data on crop acreage and yield, livestock production, stocks, domestic use and exports for major commodities. Such supply-utilization data along with commodity prices and measures of economic activity,

employment and consumer income permit specification of some meaningful demand and production relationships for major commodities. Such statistical data may be available only from census reports, special surveys, business records and reports of central banks. Although the government is regularly collecting such statistics, similar data from private sources help to provide some verification of available statistics.

Countries with more advanced statistical programs attempt estimates of grower intentions to plant, condition of crops, eggs set for hatching, chicks placed for broilers or laying flocks, cattle on feed and related data which provide a basis for short-run supply forecasts. The growing commercialization of agriculture rapidly expands the demand for data on producer plans as well as monthly and quarterly data for outlook analyses, program appraisal and development of short-run outlook tools.

#### 5. Staff, Organization and Procedures

The outlook function will continue to influence decision making even if it is based only on hunch or conventional wisdom. But commercial farmers and modern governments demands more. An effective outlook staff need not be large, but the outlook analysts must be well trained in economic and statistical theory and have access to computer facilities. They must be able to develop the theory and tools which help to interpret the present and the past. These tools also provide a basis on which to anticipate the future and explore likely developments under alternative assumptions.

The organization of the staff and its agency attachment might vary widely in different institutional settings. The outlook staff should be located in an agency or semi-private institute where it can serve and have the confidence of those responsible for administering farm and food programs. It must have ready access to available current statistical data and be privy to as much inside information as is possible on programs and administrative decisions affecting these programs. However, above all, the organization should insulate the analyst from outside pressure that may influence his objectivity. Accordingly, he should not be responsible for program operations or subject to political pressure. The analysts and the experts who review the analyses should have autonomy in deciding the outlook and the content of reports whether for internal confidential use or publication.

Most outlook appraisals may consist of objective confidential reports to administrators. Their decision making requires unbiased analyses even though they may be unhappy with the conclusion and may take action which could make the appraisal wrong. At the same time, government has a responsibility to provide basic statistics and outlook information to the many small farmers and other small businessmen. These reports may consist of regularly scheduled "Situation Reports" as well as national conferences and closed outlook work shops for agents working with farmers and other agricultural industries. Although outlook work may begin as an annual program, the function is a year-round activity.

## 6. Government or Private Outlook Service

I think an outlook program should analyze and interpret basic facts and report them objectively to farmers, other businessmen and farm leaders. They should not attempt to advise the farmer as to exactly what decisions he should make. This function is the ultimate responsibility of the private manager in a free economy. Many large corporations and trade organizations recognize the growing need for outlook appraisals and have begun to provide their own data and appraisals. This raises a question about general availability of such information as well as its objectivity. I should think the interests of all farmers (small and large) are usually best served by full and open discussion of available statistical data and analyses relating to price and income prospects for agriculture. Government will likely always play a major role in providing basic statistical data and outlook appraisals.