## Agricultural and Food

## and Food Chemistry

## **Agriculture and Agribusiness**

AGRICULTURE will be the darling of the politicians during the next 11 months. There will be viewing with alarm, beating of breasts, whipping of whipping boys and a very bare minimum of pointing with pride. The situation, politically, is difficult or juicy, depending on whether one takes the view of the ins or the would-be-ins: In the midst of high prosperity, the total income of an important basic group is on a definite downward trend.

In the face of falling prices and dropping total farm income, not all is black. According to Nation's Business, the per capita income of farm persons is rising faster than that of nonfarm persons. That included last year, in which the farmer scored a 2% gain. The rise in the cost of farm land, which also continued last year, testifies to the attraction of agricultural profit possibilities. It is an important, related fact that a large part of the farm land that changed hands at these increasing prices was added to existing farms to increase their size.

What is the significance of these developments? How do they add up and what do they mean relative to the solution of the "farm problem"? They are related to the fact that agriculture is changing, changing so rapidly that the status is much different from the general public's picture. An extremely interesting concept of the direction of change was expressed a few weeks ago by John H. Davis. Mr. Davis formerly was Assistant Secretary of Agriculture, under Benson, and now is director of Harvard Business School's new program of agriculture and business. Mr. Davis suggested the word "agribusiness," which he defines as the sum total of all operations involved in the production and distribution of food and fiber. This, he contends, places the farm problem into the context of the whole U. S. economy—where it belongs. Pointing out that 30 years ago agriculture produced 75 to 80%of its supplies for production and bought the rest from business, he noted that today it buys about half from business.

While one person on the farm feeds 18 of our citizens, Davis figures that agribusiness accounts for 40% of the national work force and 40% of the national product. Already U. S. agriculture is a part of business and industry, but the concept is not yet absorbed into public thinking.

Recognition of agriculture as a segment of business is visible in the tone of articles in leading

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business magazines. The Nov. 16 issue of Merrill Lynch, Pierce, Fenner, and Beane's *Investor's Reader* was devoted entirely to the farm. Yet the text was heavily interspersed with the names of major industrial companies: food processors, fertilizer and pesticide manufacturers. machinery companies, and others.

Dealing with the problems of agriculture must be done within this frame of reference, not in an isolated atmosphere. If such is true, then agriculture, too, must look at its day to day techniques of operation as an industrial operation. If it is to hold its place it cannot be run on a rule of thumb basis.

From the very recent meeting of the Entomological Society of America came recognition of the trend. George Decker, ESA president, predicted that the entomologist of the future will hang out his shingle as a professional specialist, diagnosing and prescribing much as the veterinarian does today. He predicted further that scientific specialists would be the pesticide dealers of tomorrow, capable of giving expert professional advice on the materials they sell.

Such developments, we believe, are nearer in the future than is generally thought. They should be pushed. In industrial corporations, the link between research and production is within the company. In agriculture, where about 2 million farms of a total 5 million produce about 85% of the gross sales, the individual units cannot support their own research programs. The USDA carries out the governmental function of work that would not otherwise be done—broad, fundamental research. Industries also do research in their specific areas. But the bridge from laboratory to farm needs more attention, although both government and industry work at it. Specialists in agricultural science are needed in direct connection with the farms. They may be members of the farm crew, consultants, or advisers, but the farmer needs them for best use of today's highly developed science.

If agriculture is to hold its place in the "agribusiness" picture most effectively, farming must be guided by technical specialists.