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The Lengthening Road

MUCH has been said in recent years about the increasing spread between the prices farmers receive for their raw produce and the prices consumers pay for their finished food products. Slowly but surely the public is coming to understand the real reason for the increasing spread: processing costs have been shifted from the home to the food processing plant; to these have been added new costs for better packaging and more efficient distribution.

Because the foods consumers buy today are so different from those of a generation ago, and so changed from the raw agricultural commodities the farmer sells, it no longer seems appropriate even to compare retail food prices with farm produce prices. The "price spread" concept is no longer valid.

For the farmer has become a producer of raw materials. His economic success, like that of other businessmen, should be judged by his return on labor and investment, and not by a ratio between two figures that no longer bear a direct relationship. What percentage of the price of a new car goes to the producer of iron ore? We pay not merely for materials, but for the processing that yields finished, useful articles. Thus in the agricultural and food field, demand for—or at least ready acceptance of—changes that mean greater convenience in use has greatly lengthened the road between field and table.

As director Paul F. Sharp of California's agricultural experiment station said in San Francisco last month, as speaker at the luncheon of the ACS Division of Agricultural and Food Chemistry, the trend toward prepared and stored foods confronts the agricultural and food industries with a long series of problems that were nonexistent only a few years ago.

Years ago, said Sharp, agricultural research was directed toward problems of production, and toward the direct use of products of agriculture in the home. With the shift of many food preparation and processing operations from home to food plants, additional or different properties became desirable in agricultural products.

Wheat, for example, must now be adaptable to roller milling, to produce flour adaptable to commercial bread making. Peas, tomatoes, beans, other vegetables, and many fruits must be adaptable to commercial canning and freezing, or to preparation of pan-ready, frozen individual portions, frozen pies, or frozen complete meals.

A new variety of potatoes, to be acceptable, must pass a long series of hurdles not even visualized a generation back. And the grower must be supplied with results of research on soils, fertilizer, climate, irrigation, insect and disease control, plant breeding, food technology, and economics.

Traveling the modern agricultural research road thus obviously requires more time and more diverse skills, and costs a great deal more money than in the relatively recent past.

In agricultural chemicals, the research road has lengthened visibly within the past 10 years. The route between synthesis and commercial use of a new chemical has become more devious, and much more difficult and costly to traverse. Yet the need for new materials continues. New diseases are constantly appearing; insects become resistant to insecticides. Eating habits change, calling for different crop varieties, having different properties, and subject to different treatments in production or processing.

Examination of the agricultural research picture as a whole, according to Sharp, leads to at least three important conclusions:

1. Most of the easy, obvious things have been done.
2. Problems are becoming so complicated that a diversity of knowledge—beyond the capacity of any one man to acquire—must be brought to bear. The team approach is required.
3. The costs involved in solving problems is certain to increase, as is the time required for their solution.

It seems inevitable that the spread between farm prices and retail food prices will continue to increase. It is a tribute to research throughout the agricultural and food processing industries that the spread has not gone further, faster, than it has. For while research costs money, it pays dividends in increased efficiency, reduced losses, and lowered costs of production, processing, and marketing.