

## Farm Technology and Management

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THE MAJOR PROBLEM facing the American farmer today is one of tying management and technology together. It is this application of technology which is resulting in the great variety and quantity of food and other farm products we all take for granted.

The farmer is putting many complicated sciences to work. Research of the Department of Agriculture, state experiment stations, and industry and the experience of leading farmers has shown the way. Cooperative federal-state-county extension educational system, with agricultural agents in practically every county, has helped farmers simplify, localize, and put research results to work.

Spurred by the demands of the war and postwar period, total farm production has almost doubled during the last 25 years. The number of farm workers has decreased nearly 50%. Output per man-hour has more than doubled. Yield per acre and production per animal have greatly increased.

This progress has come from mechanization, new varieties, more and better fertilization, exacting pest and disease controls, soil conservation and improvement, and many other applications from every realm of science. It has also made farming a far more complicated business venture with investment per worker four times what it was in 1940 and much more than the investment per worker in many industries. Necessary adjustments due to changing demands and shifting exports are far more difficult.

Each new adjustment, investment, and research result has to be applied locally on each farm. It has to be considered in line with the markets, climate, soil, and total farm needs.

High production is not enough. Neither is soil

management, good livestock, or the best crop variety alone. They must all fit together. Heavy fertilization may simply feed the weeds, insects, and plant diseases unless other sciences are put to work controlling them. The livestock farmer may suffer from high feed bills unless he uses the latest in grassland and crop farming. Also, production in line with market demands and more efficient marketing must be fitted into the picture. We can and must make further progress in speeding up the application of research results to these problems.

We must continue our search for new knowledge and methods to increase efficiency further and reduce heavy weed, pest, harvesting, and transit losses.

Yes, technology has come to the farm. Management progress that fits it together for most efficient use on each farm cannot lag far behind. In a free economy, each segment of our population is dependent on the other. With an ever-increasing population and improved living standards we look to the farmer for continued plentiful food and other farm products. We all have a tremendous stake in the complicated management problem modern technology has brought him. The researcher, the educator, the industry that serves him, the banker who lends him money, the salesman who wants his business, the consumer who must depend on his food and other products, are all part of the team that must keep America strong at its agricultural base.

A particularly important member of that team is the county agent. For it is he who is in direct contact with both the research and experiment stations and the farmer. His is a special opportunity and responsibility in the prompt conversion of research results into profitable practice.