

# The (Other) Energy Crisis



J. B. KENDRICK JR.  
Vice President  
Agricultural Sciences  
Director, Agricultural  
Experiment Station  
University of  
California

**W**HEN THE ENERGY CRISIS is mentioned, we immediately think of short supplies of gasoline, natural gas, coal, or electricity. Contemplating an existence with limited supplies of these power-producing elements stirs various states of agitation. Curtail automobile travel? Unthinkable! Return to a household without appliances? Never! Shut down the air conditioner? Impossible!

The development and exploitation of energy sources have liberated most people in the U. S. from drudgery and discomfort. When the lights go out, the car runs out of gasoline, the air conditioner stops, or the heating system shuts down, the effect is noted immediately and the unhappy reaction is almost instantaneous. The cry is, "Do something about it!"

I would like to direct this discussion to another kind of energy crisis which is upon us. Food is the basic energy source for man and animal. The sun generates the energy we use, and green plants capture and convert this energy to consumable units. The livestock we raise for meat are energy converters too, but they are "fueled" on plant products. But almost everyone is now aware of certain basic food shortages—of another "energy crisis" that is perhaps of more fundamental concern to mankind.

This is a world-wide energy crisis, and one that we did not expect to surface in this country so dramatically or so soon. The present accelerating rate of change often tends to render our plans and predictions meaningless. Population growth, unfavorable weather, new foreign trade opportunities, and unstable economic conditions all converged to eliminate our food surpluses and produce this new energy crisis.

We see grim reports that half the world's people go to bed hungry every night, and that vast populations exist on protein-deficient diets. We see new reports of famine in widespread areas. Suddenly the nation with the highest level of food productivity the world has ever seen is faced with empty meat shelves and a mounting domestic and export demand for food that is outrunning supplies.

What can be done to solve this food energy crisis? In the short run, existing

technology can be utilized to produce more food, and land taken out of production when our granaries were overflowing and prices depressed could be brought back into cultivation. This is, in fact, the present policy goal of the U. S. Department of Agriculture. As the organization in the University of California concerned with food and agriculture, what can we do about this problem? Our action on this matter needs to be based on a long view. This is where the "goal-setting" exercise I discussed last month takes on meaning. We need to place top priority on research that will prepare us for the next round of human energy deficiencies.

## Protein sources

We need new sources of protein; animals and fish alone cannot supply the world's present and predicted needs. We need to develop plants to supplement the protein supply. We need to improve the efficiency of producing the meat we all crave. We need to reduce the losses that diminish food supplies already produced. We need major discoveries to boost the productive capacity of our prime food sources because current increases in efficiency, and resulting economies in production, come largely from the consolidation of smaller units into larger ones.

Solutions to these problems will not be achieved easily or quickly. They require an understanding of the basic processes of growth and reproduction. To solve these problems will be unmistakably in the public interest, and the research required to achieve them should be supported by public funds. It is essential that the agricultural research capability developed in this state and this nation be maintained and sustained as a public resource available to solve these kinds of food and fiber limiting problems.

This year's dramatic "food crisis" is a jolting reminder that the abundant food supply we have enjoyed is *not guaranteed*, *not permanent*, and *not possible* without constant and vigilant attention to the processes of our food production and delivery systems. Our human resources program could have no higher goal than alleviation of human hunger world-wide.