

stearic acid has no effect on blood cholesterol. The soybean oil-supplemented diet did result in the desired decrease of palmitic acid relative to stearic acid in all muscles when compared with both the control diet and with USDA data.

In a related human study directed by Murray Kaplan of ISU's Department of Food Science and Human Nutrition, pork and lard from pigs fed a fat-supplemented diet with 40 percent of calories as soy oil caused significantly lower plasma cholesterol in college students than did typical pork and lard. This evidence supports the possibility of modifying the fat in pork products to achieve desirable health effects in humans.

The fat-supplemented diets associated with the new technology did have higher feed costs compared with the baseline industry standards diet because they used higher proportions of relatively more expensive feed ingredients such as soybean meal and soy oil. Moreover, the fat-supplemented rations had lower feed efficiency (on a weight-to-weight basis) compared with the model baseline ration. For individual hog producers and the pork industry as a whole to benefit from the new technology, consumers would need to be willing to pay a premium of at least 37 percent of the current price. By using reasonable assumptions on

adoption rates and with the 37 percent premium, the pork industry would experience increasing supply, consumption, and market share of meats after about five years.

The feasibility of generating a remunerative premium depends in large part on whether the new pork products can be differentiated clearly and whether consumers can be adequately informed and convinced (e.g., through advertising) about the health merits of the fat-modified pork product. Mandatory nutrition labeling, which specifies total and saturated fat percentages, has recently been introduced for fresh and processed meats. The fat modification feeding program is likely to be most successful if consumers are won over by significant improvements in attributes linked to the healthfulness of the product, and if taste and other qualities are not affected. Some recent results from experiments evaluating consumers' willingness to pay for leaner pork products conducted at Iowa State University indicate a willingness to pay a premium of over 50 percent for leaner pork products. This response suggests that the experimental product may be economically feasible. Such experimental work holds the promise of redesigning traditional animal products into foods with improved health related characteristics.

How Technology Impacts Agriculture — The Focus for the 1996 National Forum for Agriculture

New and evolving technology has a significant effect on how agricultural producers, processors, manufacturers, and retailers do business. It also impacts rural American communities and institutions.

Is all this technology good or bad? Who owns the fruits of research and development efforts? Why has the impetus for technology development shifted from public academic institutions to private corporations, and how does that sea change alter the face of agriculture?

These are some of the questions and issues facing presenters and participants at the 1996 National Forum for Agriculture to be held March 4 and 5, 1996, at the Marriott Hotel in Des Moines, Iowa. Concurrent sessions will examine the links between technology and capital, social change, politics, and global environment. Other sessions look at cutting

edge technologies such as gene splicing, irradiation, and global positioning. Speakers will explore how all these miraculous changes will shape the industry of agriculture and transform consumption patterns and trends.

The 1996 National Forum for Agriculture, now in its seventh year, is organized cooperatively by the Center for Agricultural and Rural Development (CARD) and the Food and Agriculture Committee of the Greater Des Moines Chamber of Commerce Federation. The 1996 Agricultural Vision Award will be presented at the Forum's March 5 luncheon.

For more information about the program and registration for the 1996 National Forum for Agriculture, contact Judith Pim at CARD, 515/294-6257.