Publicly funded agricultural research—an anachronism or a challenge?

A lawsuit filed recently against the University of California for its agricultural research practices may have ramifications for publicly supported agricultural research as well as technological research in other fields far beyond the state's borders.

The suit was filed by California Rural Legal Assistance on behalf of the California Agrarian Action Project, Inc., and a number of farm workers against the University and several of its officials. It seeks to prohibit the University from using public funds to do research in agricultural labor-saving technologies which may displace field labor and which are alleged to contribute directly to the economic benefit of persons with investments in agricultural ventures.

A fundamental assumption involved in this suit is that the users of innovations are the sole beneficiaries of those innovations and that private donors control these publicly funded research activities for their own benefit and profit. Another assumption is that farm mechanization technology is responsible for the demise of the small family farmer.

Let's examine these assumptions briefly.

First, to hold that the user of technology is the sole beneficiary of an innovation does not take into consideration that the user is involved in producing an item intended for sale to consumers in a competitive market place. Agricultural research innovations resulting from public expenditures are not, nor should they be, captured for exclusive use by single firms or individuals. These innovations are available to all who wish to adopt them—so any competitive advantage from the adoption of a new technology is soon lost. The gain by the public is that the price of the product to be consumed will not reflect an exclusive advantage one producer may possess, but rather will be governed by the supply and demand factors of that product at the market place and the degree of competition between suppliers of the product. It follows that the cost of adopting new technology may be excessive for some small farmers or small businesses, resulting in their decision to cease operations. This is one of the contentions of the suit.

To examine this allegation thoroughly, we must also ask “What is the cost of not adopting new technology?”

The consequences of not adopting technological advances could also be the demise of a farming enterprise due to the loss of a market for its products when some other source supplies the same products at less cost. This is clearly a dilemma for the producer—a dilemma which could be helped by more careful analyses of the consequences of technology than have been made in the past.

The best interests of the consumer are served by having competitive sources of the goods they wish to buy. Not only are family-owned farms desirable structures of our society, they provide the competition essential to our free market economy. There is much evidence to support the contention that agricultural mechanization and technological innovation has made it possible for the family farmer to remain competitive in the U.S. and world agricultural market place. On the other hand, it may well be time to recognize that certain consumer food items cannot remain competitive in the market place when produced by multiple small units unable to match the demand. To ignore the market in deciding whether technology is good or bad for the producer can lead to disaster.

The assumption that private donations to publicly funded research activities dictate or control research output deserves careful scrutiny. The policy of public disclosure of all research findings, and the freedom to publish results regardless of the consequences to special interest groups, are fundamental safeguards against external control. These policies are essential to publicly funded research endeavors.

Private donations largely augment existing research programs or partially support new programs which are of scientific interest to existing faculty members.

Although these assumptions appear to discredit the existing agricultural research system, I believe they arise not from a desire to destroy the agricultural productivity of the nation, but rather from a concern that it be strengthened and provide opportunities for employment.

There is clear evidence that the agricultural research community is being challenged more than ever before concerning its motives and its goals. Budget augmentations for agricultural research by legislative bodies are disallowed because there is lack of understanding of the complexities of the agricultural system. Agricultural research, education and extension have too long been a citadel of isolation on campuses and in society in general. We are now experiencing the consequences of that isolationism. The challenge is clear. It will require the efforts of all who understand the agricultural system and the problems it faces to meet it.