Agricultural Groups Push Research Plan

A proposal for a $500-million competitive grants program at USDA will be unveiled next month with some powerful support

A POWERFUL COALITION of agricultural organizations is about to mount a massive lobbying effort to boost the Department of Agriculture's support for peer-reviewed basic research. Next month, the coalition, headed by the National Research Council's Board on Agriculture and its chairman, Ted Hullar, will unveil a proposal for a $500-million-a-year program. That would be more than ten times the amount USDA currently spends on competitive grants.

Attempts to increase the department's support for peer-reviewed grants have a long history, but proponents of the new proposal believe that the time may now be ripe. For one thing, the plan has the backing of virtually every agricultural organization that matters. And for another, it is supported by the man named by President Bush to head USDA's research programs, Charles E. Hess, dean of the College of Agriculture and Environmental Sciences at the University of California at Davis.

Supporters of the proposal contend that a big jump in research funding is essential to keep American agriculture competitive in world markets, to address growing public concerns about food safety, and to ensure that the productivity of the nation's farmlands can be sustained. Hullar, who also is the chancellor of the University of California at Davis, is worried about the buildup of pesticides in soils and ground water. "We know that we can't just keep applying chemicals and pesticides to the soil the way we have," he says.

The nation's ability to wean itself from these chemicals and still remain productive, observes Lawrence Bogorad, a professor of biology at Harvard University, often is limited by "a major shortage in basic information and a lack of research funds for young investigators." Rapid development of crops that emit their own toxins to control pests or that are more drought-resistant requires a broad basic research program that goes beyond current efforts in the federal, university, and industrial sectors, Hullar says.

"American farmers have to have new technology," asserts Neville Clarke, director of Texas A&M University's experiment station and a lead organizer of the research initiative. U.S. agriculture, he adds, has to move beyond its traditional preoccupation with crop yields. "We have to improve the quality of the product, lower production costs, address consumer concerns about nutrition, and deal with bigger issues such as global warming," he says.

Hullar and Clarke say the way to attack these problems is with a massive grant program for individual investigators and multidisciplinary teams. The aim is not only to boost research at agriculture schools and federal labs, but to tap expertise in areas such as molecular biology that exists outside traditional agricultural programs.

Jim West

Charles Hess *proposed similar plan 2 years ago. He has been nominated to head USDA research programs.*

In the past, it has been difficult to get the agricultural research community to unite behind efforts to increase USDA's support for peer-reviewed grants, in part because of fears that growth in this area would come at the expense of in-house research and block grants to land-grant colleges. USDA will spend about $1 billion this year on research, with $546 million going to scientists working at more than 120 Agricultural Research Service (ARS) field stations. Some $284 million is distributed to state land-grant colleges and universities. Only $40 million is allotted to competitive grants.

The National Association of State Universities and Land-Grant Colleges, major commodity groups, suppliers, and other university and professional organizations have backed this proposal on the understanding that it will be funded with new money, not by taking funds from other agricultural research. The NRC is expected to issue a report by June supporting the plan, which is called the "National Initiative for Agricultural Research." Representative George Brown (D–CA), chairman of the Subcommittee on Department Operations, Research, and Foreign Agriculture, also is behind the effort and has proposed that a separate National Institute of Agriculture be set up at USDA to administer the new program.

Despite these endorsements, at least one former leader in agricultural research questions whether so much money can be used well. In a 13 March letter to Hullar, the former director of the ARS, Terry Kinney, Jr., called the initiative a "money grab" . . . "nothing more than a continuation of the same old smoke, just a different color, 'give us a lot more money and we'll do something fantastic.' "

The idea of a $500-million R&D program for agriculture is not new. In 1987 an NRC committee chaired by Hess called for a half-billion-dollar program of competitive grants focused on biotechnology. Almost 2 years later, Hess finds himself chairing USDA's Joint Council on Agriculture and Food Safety, which as *Science* went to press was preparing to endorse the new research initiative framed by Hullar and Clarke.

The plan would entail $200 million in grants for single investigators and $150 million for multidisciplinary teams. Another $100 million would go for applied research and $50 million would be used to strengthen the research capabilities of some agriculture schools.

The fate of the initiative will hinge on getting the support of key congressional leaders such as Jamie Whitten (D–MS), the chairman of the House Appropriations Committee, and the Bush Administration. Agriculture Secretary Clayton Yeutter is aware of the initiative, says Hess, but has yet to endorse the package.

Hullar and his growing brigade of lobbyists say the Administration must be sold on the plan by this summer, if it is to be part of the President's 1991 budget proposal to Congress. Backers concede that in the past 5 years proposals brought before Congress to expand agricultural research have met with little success. But Hess is convinced that the research package has a chance, "This is a different point in time and there is a new set of players." ■ MARK CRAWFORD