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The Leopold Center for Sustainable Agriculture: An Overview

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THE LEOPOLD CENTER FOR SUSTAINABLE AGRICULTURE
AN OVERVIEW

Dr. Dennis R. Keeney
Director, Leopold Center,
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Origin and Funding

The Leopold Center for Sustainable Agriculture was established in the 1987 Groundwater Protection Act, CH. 225, Sec. 230. The legislation defines sustainable agriculture as "the appropriate use of crop and livestock systems and agricultural inputs supporting those activities which maintain economic and social viability while preserving the high productivity and quality of Iowa's land."

The Center is in the Iowa Agricultural and Home Economics Experiment Station located at Iowa State University. Its charge is to develop agricultural systems that combine responsible stewardship of natural resources with farm profitability. Specifically, the founding statutes say that the Center shall

- Conduct and sponsor research to identify and reduce adverse environmental and socioeconomic impacts of agricultural practices;
- Research and assist in developing emerging alternative practices that are consistent with a sustainable agriculture; and
- Develop an educational framework in association with the Iowa Cooperative Extension Service in Agriculture and Home Economics to inform the agricultural community and the general public of its findings.

Advisory Board

An advisory board consisting of representatives from Iowa three state universities, the private colleges in Iowa, the Departments of Natural Resources and Agriculture and Land Stewardship, and the farming community advises and works with the Director and the Center staff on policy matters.

Funding

Financial support for the initial year was provided by the state legislature from oil-overcharge funds. Funding currently comes from two state sources: the Agricultural Management Account and General-Purpose Revenues. The Agricultural Management Account receives money from the sale of nitrogen fertilizers and from registration and user fees on pesticides. The Center receives 35 percent of those funds. In 1989-90, state support to the Center will be about $1.3 million.
Personnel
The Center professional staff consists of Director Dr. Dennis R. Keeney, Assistant to the Director Mr. Bruce Brown, Associate Director Professor Jim Swan, and Information Specialist Ms. Eileen Gannon Williams. Support staff include a secretary and a bookkeeper.

Research Program

Competitive Grants
The Center has always sponsored a competitive grant program. In FY1988, the entire program was funded by oil-overcharge funds ($800,000). In FY1989, the program issued a Request for Proposals on November 1, 1988 with a due date for proposals of January 15 the following year. Awards were announced on April 15, 1989. This timetable will be followed in the foreseeable future.

The competitive grant program serves several purposes. It permits direct entry of nontraditional research and education groups into the Center's programs, allows the Center to fund new and innovative approaches to sustainable agriculture, and permits funding of proposals that have little chance of financial support from more traditional agricultural research funding sources.

The projects funded in 1989-90 are listed in the Center's summer newsletter. Awards range from $4,700 to $62,790, with an average of about $22,000. Topics and approaches are varied but they all relate to sustainable agriculture. Investigators are located at Iowa State University, University of Iowa, Dordt College, and the Desoto Bend Wildlife Refuge.

Interdisciplinary Issue Teams
The Center believes that solving the issues facing Iowa agriculture requires interdisciplinary approaches to research and education in the state. The Center has established a structure of issue teams that permit a long-term working relationship between scientists, farmers, and conservationists. Each issue team consists of a group of scientists from various academic disciplines with a common focus, at least two farmers, and one professional conservationist.

Each team has a leader with a part-time appointment in the Center. They work with the Director to establish a project that will be the focus of their research ideas. The project is assured long-term funding if it makes satisfactory progress. The teams are also positioned to apply for external grants and are expected to develop an information transfer program of their own, consisting of seminars, newsletters, fact sheets, and other educational materials. The farmers and conservationist actively participate in research direction of the team and of the Center and cooperate in the Center's outreach programs. They will participate in the Center's Researcher-Farmer-Conservationist Forum series.

To date, six issue teams have been established but only one is funded. The remainder are working on proposals to the Center. The teams are as follows:

Human Systems
Human systems are headed by Dr. Gordon Bultena, a sociologist at Iowa State, will be looking at factors affecting the adoption and transfer of alternative technologies. It will largely be staffed by sociologists and economists.
Cropping Systems

Cropping systems are headed by Iowa State agronomist Dr. Rick Cruse and Dr. Douglas Karlen, U.S. Department of Agriculture Soil Tilth Laboratory. This team of agronomists, economists, sociologists, animal ecologists, entomologists, plant pathologists, and weed scientists will evaluate the advantages and disadvantages of strip intercropping.

Forage Utilization and Management

Forage utilization and management systems, led by Dr. Jim Russell, an animal scientist at Iowa State, will look at ways to integrate forage utilization and grazing into Iowa agricultural systems.

Insect and Pathogen Management Systems

Insect and pathogen management systems are headed by Iowa State entomologist Dr. John Obrycki, and will evaluate pest management strategies in forage systems, primarily alfalfa.

Weed Management Systems

This team, led by Dr. Brent Pearce, an Iowa State agronomist, will look at ways to utilize ecological and plant physiology principles to minimize, and where possible eliminate, herbicide use.

Waste Management

A Waste Management issue team is in the development stage.

Planning Grants

The Center is open to limited applications for planning grants aimed at assembling an interdisciplinary group to write proposals for external funding. Anyone interested in a planning grant must first talk to the Director.

Outreach and Educational Programs

One significant program is a satellite/video tape course on sustainable agriculture (worth two college credits). Information on this course can be obtained from the Center office. Plans are now underway to establish at least one major demonstration/education farm in the Des Moines metropolitan area and to develop a joint educational program with 4-H.

We will continue to develop the educational program with great care, realizing that there is little direct information to transfer at this point. Many low-input technologies are available but they await testing at the farm level.

The Future

The Leopold Center has been given a mission that at first seems almost impossible to achieve. Yet we feel that with the cooperation of research scientists, educators, and extension personnel, and with the direct input of Iowa’s exceptionally talented farmers and public citizens, this mission is reachable. We do not strive to be a tall edifice, a large group of faculty, or a bureaucracy unreachable by the public. We want to be idea generators, facilitators, and bridge builders. The future of Iowa’s agriculture demands nothing less.