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# "Research on the Farm: Challenges for the 21st Century" Excerpts from Keynote Address: ISU Northeast Research Farm Silver Anniversary Field Day, June 26, 2001

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#### Disciplines

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## "Research on the Farm: Challenges for the 21st Century"

### Excerpts from Keynote Address: ISU Northeast Research Farm Silver Anniversary Field Day, June 26, 2001

Frederick Kirschenmann, Director Leopold Center for Sustainable Agriculture

As I reviewed this delightful history, two things in particular struck me about the farm and the people who developed and maintained it.

First, it became very clear to me that this research farm, from the beginning was a partnership consisting of farmers, researchers, and citizens. This was not a research facility that was dominated by scientists, with farmers serving as the passive recipients. This was a collaboration in which farmers were active participants, helping to identify and plan the research that was needed in the area.

Farmers living and working on farms almost always accumulate wisdom that is vital to any farm's successful operation—wisdom that is not only about farming, but about the particular place in which the farming is practiced. Research, of course, brings important additional information to the farm, information that can shed light on the farm's operations. It can suggest essential improvements, not only in short-term productivity, but also, and perhaps especially, in long-term sustainability.

Given this complementary relationship, research has always been the most effective when farmers and researchers formed a partnership to achieve the common objective of improving agriculture. In fact, farmers are never merely passive recipients of research information. They are active participants in identifying problems, in designing research to solve the problems, and in evaluating the research's ability to address the problems successfully, whether or not such active participation is formally acknowledged. The Northeast Iowa Experimental Farm, and the Carrington-Clyde Experimental Farm that preceded it, acknowledged the need for such cooperation and formalized their partnership from the outset. History makes it clear that both farmers and scientists at the Northeast Research Farm recognized that they needed to work together in order to most effectively solve agriculture's puzzles in northeast Iowa.

The second trait that struck me as I read the history of the Northeast Research Farm is that this was a grassroots effort. This farm was not conceived by a centralized bureaucracy which then designed grand plans to meet predetermined needs. It was a research farm that grew out of recognized local needs, and the research was designed with the help of those whose needs were being addressed.

This unique grassroots approach yielded a set of characteristics that defined the research farm throughout its 25-year history. Six qualities struck me as being especially pertinent, and, it seems to me, it is those features that give the farm its distinctive character.

First, it was farmers and other citizens who saw the need for the research farm, raised the money, and established the farm as a research center. This gives the farm a unique character, meaning those who saw the need for research took some ownership for that need and had a direct stake in the research farm and the outcome of its work, thus resulting in the success as a research center.

Second, it was the Agronomy Department at ISU that helped organize the local association, an indication of the university's active interest in the farm from the beginning and its willingness to put time and energy into the process of making it a reality by suggesting effective models for grassroots involvement.

Third, the history makes it clear that farmers were immediately and actively involved in identifying the research needs. This was an active partnership that emerged out of real perceived needs, not the creation of a few people interested in establishing institutions for their own sake.

Fourth, it is also apparent from the history that one of the primary needs the research farm was to fillthe need to simulate real farm conditions, including different soil types in local ecologies.

Fifth, it is obvious, furthermore, that all of the parties involved with the research farm operation recognized the value of cooperation. There seems to have been awareness that cooperation made each party in the venture more effective than they could be individually, and that this would best serve the common good. For example, the College of Agriculture developed the new cultivars, and the Association grew with the promise that they would make the new seed available to their neighbors. This was a venture in which all worked together for the good of all. This is the land grant university system at its best.

Finally, it is clear that the Northeast Research Farm was devoted to creative research. This farm not only did basic research in improving yield and controlling pests, but this unique farm also did research in soil conservation and water quality, and conducted some of the first organic crop research done in Iowa. In other words, they were not only interested in short-term results that would meet the farmers immediate needs, they were also interested in the long-term sustainability of their farms, and of future farmers, as wells as new alternatives to conventional practices.

A hearty congratulations to everyone involved in this venture. Your are to be commended for creating a model research farm, for doing important work that benefited the common good, and for doing it so imaginatively.

Perhaps one of the most important things we can do here today is reaffirm the fact that farming, research, and extension are not separate tasks, that they are parts of a seamless pattern that is essential to stimulate good farming, relevant research, and effective outreach.

But what are some of the research challenges that lie ahead? One thing is paramount, the research agenda needs to be even more creative than it has been in the past. I'd like to suggest that there are at least five overarching research questions that we will have to address as we enter the 21<sup>st</sup> century.

- 1. How can U.S. farms remain competitive in a global economy?
- 2. How do we increase productivity in the face of decreasing natural resources, increasing human population, and deteriorating environment?
- 3. How do we re-diversify agriculture?
- 4. How do we adapt to changes in nature?
- 5. How do we re-integrate agriculture and wilderness?