

On-Farm Research:

Lessons from the USDA-Sustainable Agriculture Research and Education Program (SARE)

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The Sustainable Agriculture Research and Education (SARE) program is a 12-year-old program of USDA's Cooperative State Research, Education, and Extension Service that is designed to increase knowledge about - and help farmers and ranchers adopt - practices that are profitable, environmentally sound, and socially responsible. To advance such knowledge nationwide, SARE administers competitive grants, first funded by Congress in 1988, through four regional programs hosted by land-grant universities. Involvement of farmers, ranchers, and other stakeholders - in funded projects, and in the administrative councils that guide and oversee the regional grants programs - is integral to the SARE approach.

From 12 years of experience, there are two major conclusions to be drawn. First, doing research "on-farm" is not enough. We know that projects that take place on-farm, with farm-scale equipment and management, are often considered more relevant and believable by farmers than are projects that take place in small plots at experiment stations or in laboratories. But a project that takes place on-farm with a farmer in the typical "cooperator" role - where he or she provides the land for the experiment but is not very involved in the project design or analysis - is missing much of the benefit of a more participatory approach to on-farm research.

Participatory on-farm research - with farmer involvement in every step of the process from problem identification, to experiment lay-out, to data collection and interpretation - improves the research dramatically, since the farmer can influence it to be a more realistic test and more likely to fit into the farming system.

The farmer can also serve as the best communicator of findings to other farmers. Many surveys have shown that farmers prefer to get information from other farmers. For these and other reasons, SARE has moved from simply requiring farmer participation in researcher-led projects to also funding farmers directly to conduct their own on-farm research and share the results with

their neighbors.

The second major lesson we have learned is that doing farmer-led, on-farm research is not always easy. The extra time involved in conducting research is in addition to the heavy time demands of operating the farm. And farmers (with many notable exceptions) are often not well versed in topics such as experimental design and data collection and analysis. Thus, the best on-farm research is generally conducted by farmer/researcher teams, or by farmers with access to technical assistance from university, government, or private consultants. Private non-governmental organizations, such as Practical Farmers of Iowa and AERO in Montana, often play a key role in facilitating such partnerships and in fostering farmer-to-farmer networking.

Two resources are available from SARE to assist with on-farm research. First, we have a free 12-page bulletin, "How to Conduct Research on Your Farm or Ranch," produced by SARE's national outreach arm, the Sustainable Agriculture Network. The bulletin describes key considerations and gives examples of research with crops and animals, and with other topics such as marketing. It also lists books, bulletins, and organizations to consult for more information. It is available on the World Wide Web at <http://www.sare.org/san/htdocs/pubs/> or by contacting the SARE office at 202-720-5203.

The other resource from SARE is our grants, which are available through a competitive process in each of our four regions:

- Our research and education grants target holistic, interdisciplinary, collaborative research and education involving farmers and ranchers as integral members of the team.
- Our professional development program grants - for projects that offer educational opportunities to Extension, Natural Resources Conservation Service, and other agricultural professionals - encourage involvement of farmers as teachers, and co-learning between farmers and other professionals.