

A man and a woman are smiling and working with seedling trays in a greenhouse. The man is on the left, wearing a blue and black plaid shirt. The woman is in the center, wearing a colorful patterned sweater and glasses. They are holding several black trays filled with small green seedlings. The background shows the white structure of the greenhouse and a bright sky.

SARE

Sustainable Agriculture
Research & Education Program

2002

practical new ideas in:
crop/livestock systems
smart sales
pest management
organic production
local marketing
continuing education

On the cover: Steve and Jean Moseley of Hudson, Iowa, sell onions and other vegetables directly to local restaurants, nursing homes and hospitals as part of a SARE-funded project at the University of Northern Iowa that links growers to area food-buying institutions. The project has raised farm profits and introduced thousands of eaters to fresh, Iowa-grown goods. (See summary on page 13.) Photo by Jerry DeWitt.

Inside front cover photo by USDA.

A man wearing a light blue baseball cap, glasses, a brown jacket, and blue jeans is kneeling on a grassy bank next to a body of water. He is holding a long, thin metal pole that extends into the water. At the end of the pole, there is a small, dark, cylindrical device. The water is calm, and the background shows a blurred landscape with trees and a building. The overall scene suggests a field research or agricultural activity.

How SARE works

The USDA's Sustainable Agriculture Research and Education program works primarily through competitive grants, which are offered through four regions under the direction of councils that include farmers and ranchers along with representatives from universities, government, agribusiness and nonprofit organizations. Since 1988, SARE has funded more than 2,000 projects, including:

- **Research and Education Grants**—Ranging from \$30,000 to \$200,000, these grants fund projects that usually involve scientists, producers and others in an interdisciplinary approach.
- **Professional Development Grants**—To spread the knowledge about sustainable concepts and practices, these projects educate Cooperative Extension Service staff and other ag professionals.
- **Producer Grants**—Producers apply for grants that typically run between \$500 and \$15,000 to conduct on-site experiments and share the results with other farmers and ranchers.
- **Other grant opportunities**—for graduate students, community development practitioners and educators conducting on-farm research—are available in some SARE regions. Go to www.sare.org and scroll down to "Other World Wide Web Sites."

For more information, visit www.sare.org or call (301) 504-5230.

from the director



In its brief history, USDA's SARE program, *your* SARE program, has made a lasting impact. Ten years ago, we awarded just 30 grants each year. Now, we invest in more than 200 projects per year led by forward-thinking university researchers, extension educators, nonprofit partners, farmers and ranchers, and many other organizations working to advance a more profitable, environmentally sound agriculture that is good for communities.

Today, we are working to expand our approach to funding research and education efforts and devising new ways to connect with producers. In short, SARE tries to do the work that really needs to be done to create more sustainable farming systems—and provide the local support and help so important for farmers, ranchers and communities. This 2002 SARE report tells you 12 of our stories and gives you a sense of what we are doing across the country.

SARE's ambitious communications program includes a variety of channels to get out the word about our best research findings: regional newsletters, web resources—see www.sare.org, which links to four regional sites—national informational bulletins and an on-line database of SARE projects. See www.sare.org/projects.

Last year, we produced *The New American Farmer*, a showcase of producers who put sustainable ideas into practice across the country. Driven by

economics, concerns about the environment or a yearning for a more satisfying lifestyle, the 50 farmers and ranchers profiled in the book and companion CD-ROM embraced new approaches to agriculture. (See full text on line at www.sare.org/newfarmer)

They rear beef cattle, dairy cows, hogs and poultry using pasture-based systems that reduce the cost of production in a more enjoyable work environment. They grow grain in rotations with other crops to break insect pest cycles and reduce pesticide use and costs. And they raise fruit and vegetables, employing earth-friendly techniques to build the soil, then sell their products at farm stands and markets for premium prices to an appreciative public.

This “new American farmer” does things differently—with measurable results. Our thanks to John Ikerd, professor emeritus of agricultural economics at the University of Missouri, who conceived of the project and has been its staunchest supporter.

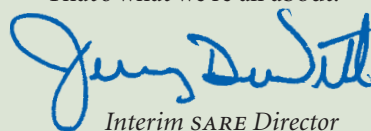
American agriculture is taking notice. *The New American Farmer* has been mentioned in *Farm Journal*, *Sierra* magazine, the Farm Progress publishing group, and dozens of newspapers and newsletters. We're proud to help raise public consciousness about such stellar producers. Many farmers are indeed living up to the expectations the public places upon them as stewards of the land. SARE has funded more

than 1,000 of their ideas through our producer grant program; thousands of others have collaborated on SARE Research & Education or Professional Development grants.

The SARE program continues to listen to the local needs and thoughts of farmers and ranchers. SARE's competitive grants are open to all and are evaluated by teams of producers, researchers, educators, farm consultants, and people from government and nonprofit organizations in four regions. By reviewing grants at the regional level, SARE ensures that priorities are set by people who live near the project sites.

Last, it is extremely important for us to deliver the information to you when you need it and where you need it. SARE's national outreach arm, the Sustainable Agriculture Network (SAN), combines the results of SARE-funded research with other valuable information to produce practical publications. Recent SAN releases include bulletins that spell out ideas for farmers who want to successfully produce pork and poultry on a small or medium scale. In designing systems that work on their farms, producers have been able to save on fixed costs, find greater flexibility, identify unique marketing channels and enjoy a better quality of life.

That's what we're all about!


Interim SARE Director



Well-Managed Rotation of Cotton, Cattle and Grass Renews Profits

In north Texas, where water availability limits farming and ranching enterprises, operations featuring drought-tolerant crops and perennial ground covers can survive during withering dry spells. By contrast, traditional cotton operations in the Texas panhandle, which produce one-quarter of the nation's cotton, pump water from wells drilled ever deeper into the Ogallala aquifer. Conventional cotton farmers who let fields lie fallow after harvest also exacerbate soil erosion propelled by Texas' legendary high winds. Growers seeking more profitable, less environmentally damaging alternatives have turned to SARE-funded research at Texas Tech University that shows how integrated cotton and cattle systems can excel within the state's harsh climate. A rotation that includes stocker steers grazing on grass pastures and paddocks of small grains in rotation with cotton demonstrates some real advantages. Compared to growing continuous cotton, the integrated crop/livestock system requires

20 percent less irrigation, 40 percent less purchased nitrogen and fewer pesticides. Moreover, profits range from \$32.70 to \$45.59 more per acre for the integrated system, depending on how much water pumping is required. The pastures rotate like a well-oiled machine: A perennial warm-season grass called old world bluestem provides grazing for steers from January to July, when steers go to a feedlot. The small grains, rye and wheat, grown in rotation with cotton, provide additional grazing. "The sequence works like a Swiss watch," said Vivien Allen, the lead researcher of the crop/livestock system project, who has received a steady increase in calls from producers wanting to know more. Much of the net revenue gain comes from harvesting seed from old world bluestem, which requires little water and provides a palatable forage. "Some acreage is not acclimated for row crop production," said Rick Kellison, who runs a 100-head cow/calf operation in Lockney, Texas. Kellison



Above: In what Texas Tech researcher Vivien Allen dubs a "multi-level" alternative to intensive cotton production in an erodible, drought-prone region, a complex rotation of cotton, steers, small grains and native grasses requires fewer inputs, uses less water and taps into at least one profitable new market. Photos by C. Philip Brown.

has worked with Allen on the project and now grows bluestem for grazing and seed harvest. "If we can take our marginal land and put it into a drought-resistant crop that's good for the land and ecology, and will generate income, that's a win-win situation." [For more information, go to www.sare.org/projects/ and search for LS97-082]

Wheat Farmers Create, Package Unique Snack to Add Value to Commodity

Adding value to a traditional crop like wheat can augment producer revenues, helping to pump up farm profits. Wes and Jean Roundy of Cache Junction, Utah, received a SARE marketing grant to buffer the risks of taking their product, popped wheat snacks, from idea to consumer. They borrowed pans and kitchen space from a helpful local restaurateur, dubbed their popcorn alternative “C.R.O.P.S. Wheat Snacks” and launched the new venture to weather low-price cycles and continue an 80-year family tradition. In their first year, the Roundys sold 900 pounds of labeled popped wheat snacks—plain, flavored and combined into bars with ingredients like peanuts, chocolate, fruit and honey—through stores. As a commodity, the 900 pounds of wheat at \$3.50 a bushel would have grossed \$52.50. Sold as shelf-ready snacks, the 900 pounds generated \$5,040, nearly a 100-fold increase. To help expand their market outlets and product lines, the Roundys team with technical adviser Penny Trinca, Utah Association of Conservation Districts, to brainstorm and execute new sales ideas. As part of their entrepreneurial venture, they’ve learned that the main key to success is assessing snack buyers and how to reach them. They also continue to refine ways of shepherding a product to market, where and how to make and package their snacks, how to protect their assets from catastrophe and how to prove to regulators popped wheat is safe. The project has stimulated a local, grant-funded



incubator kitchen where others can test products, and a local association devoted to promoting wise resource use and sharing information on farm entrepreneurship. The new association already has more than 60 members. “It seemed overwhelming at first, but we found a lot of people willing to help,” says Wes Roundy, who also grows barley, safflower and alfalfa on 3,300 acres with help from son, Shad. “It’s a chal-

Above: In a Utah version of “All in the Family,” Wes and Jean Roundy enlisted their two daughters to help develop, cook, package and market their popped wheat snacks, which evolved from a recipe created by Wes’s father, Brooke. Photo by Ron Daines.

lenge to generate incomes for more than one family—farm entrepreneurship may solve that problem.” [For more information, go to www.sare.org/projects/ and search for SW00-117]

Strawberry Growers Extend Traditional Harvest to Gain Market Edge

6

North Florida strawberry growers seeking an advantage in a competitive market worked with researchers at the University of Florida to test ways to start strawberry plants in late summer, a time when production usually shuts down due to intense heat and pest pressure. Extending the season means the growers can harvest in November and December, before California-produced strawberries flood the winter market and drive the price down. With a SARE producer grant, Lawtey, Fla., grower Larry Gillard teamed with UF researchers to artificially chill strawberry plant plugs in a refrigerated trailer. Gillard,

an electrician, wired the trailer for grow lights, built wooden frames and ran drip irrigation throughout the trailer. He maintained the temperature at between 50 and 70 degrees, ran powerful fans and daily watered the 7,000 plugs, half obtained from a North Carolina farmer, half from a UF research center. The hard work paid off. After about three weeks, Gillard planted the seedlings outside and was able to pick strawberries on Halloween, a north Florida first. “It worked—the plants loaded up with berries,” said David Dinkins, Bradford County, Fla., extension director, who worked closely with Gillard



and four other growers. “We found that we can artificially chill the berries, keep them healthy, plant them in the field and watch them produce.” The bottom line: Gillard and others sold strawberries for \$30 and \$35 a flat, twice the price Florida-grown strawberries bring when matched against the California competition. Gillard held a field day to promote the successful results under the proud sign, “Home of Larry’s Berries—Doing it up Ripe.” Some of the project findings indicated ways to fine-tune the system to cut both costs and labor. The plugs obtained from North Carolina did not need the extra chilling because the state’s lower temperatures stimulate plant growth by mid-September. Moreover, buying a trailer outright rather than renting it would prove a more economical option, especially for a team of farmers. [For more information, go to www.sare.org/projects/ and search for FS00-127]



Left: Chilling strawberry plant plugs translates into new profits for Florida growers like Larry Gillard (left) who, with help from Bradford County Extension Director David Dinkins (right) and others, was able to sell fruit in late fall for a premium. Photo by Thomas Wright; strawberry photo by USDA.



Cattle Producers Convert Environmental Commitment to Price Premium

An effort to direct-market “young” beef raised on pasture in West Virginia to locals and Washington, D.C.-area residents has increased producer profits and helped prompt more environmentally sound finishing practices. With help from the Cacapon Institute and West Virginia University Extension, which obtained a SARE grant, eight cattle producers in the state’s eastern panhandle interested in cattle “pooling” and marketing formed a partnership, The Headwater Farms L.L.C., and began raising Petite Beef™. Slaughtered at 750 pounds, the mostly grass-fed calves produce mild-tasting, unmarbled meat raised without hormones or antibiotics. The new product appeals to customers partly because of the production methods Headwater Farms advertises on its order forms. Each grower raises the calves on pasture in managed systems that range from intensive grazing, where cattle are moved through fenced paddocks every few days

to keep vegetation lush and manure distributed, to more passive systems, where cattle move across fields on a schedule that prevents overgrazing. The systems eliminate the need for input-intensive feedlots and feature riparian-friendly techniques that limit cattle access to the Potomac River, which runs through 19 miles of the cooperating farms. “Farmers traditionally go to the auction market with their cattle and that’s the end of it,” said Bob Cheves, who spearheaded the co-op. “Eight families decided to work together and began to divvy up responsibilities and develop a customer base for their cattle.” Marketing strategies such as direct-mail appeals to targeted groups, holding tasting events and distributing a recipe book with orders have proved fruitful; the group has gained about 200 customers (40 of them repeat customers) willing to pay an average price of \$5 a pound, about 25 percent higher than typical market prices. “People worry about the

Above: A producer co-op in West Virginia explores environmentally sensitive ways to raise calves along the headwaters of the Potomac River and market those efforts to beef buyers. “They are traditional farmers who recognized they need to do things a bit differently,” said Neil Gillies of the nonprofit Cacapon Institute. Photo by Steve Ritz, USDA-NRCS.

influence of agriculture on rivers and streams and the quality of our water—this is a chance to make change happen with your dollars in a very direct way,” said Neil Gillies, Cacapon executive director. In a customer questionnaire, 91 percent indicated that the quality and environmental benefits of the product made the higher price acceptable and planned to buy more. Go to www.headwaterfarms.com/ for more information. [For more information about the SARE grant, go to http://www.sare.org/reporting/report_viewer.asp and search for LNE00-139]



Growers Take on Pear Pests with New Orchard Mowing Regimes

Tree fruit growers seeking alternatives to broad-spectrum pesticides are looking to manage orchard habitats to control insect pests, a more environmentally friendly approach that won't be banned by federal regulators. In Washington state, SARE-funded research testing mowing frequency in pear orchards has found that mowing once a month rather than two or three times a month creates alluring habitats that attract beneficial insects, setting them up to control pest populations. An ARS researcher partly funded by SARE ran trials at three orchards and varied mowing frequency (weekly, monthly and just once a season) to change the ground cover composition. The natural enemies moved into the ground cover in greater numbers, likely attracted to the pollen and nectar newly available from flowering plants as well as more abundant prey, such as aphids

and thrips. Researcher Dave Horton found more lacewing larvae, spiders, ladybug beetles, damsel bugs, parasitoids and minute pirate bugs. "If you mow a lot, you won't have much in the way of natural enemies on the ground," Horton said. "By reducing the frequency to once a month, you see a dramatic increase in natural enemies moving into the ground cover without a big increase in pests that feed on fruit." Questions remain whether the predators migrate from the ground cover into the pear trees to attack orchard pests, although evidence supports that some predators, especially spiders, appeared in higher numbers in pear trees in the less frequently mowed plots, good news for pear growers. One of Horton's farmer collaborators, who received a SARE farmer/rancher grant to study similar ways to manage orchard pests, is convinced that minimal mowing provides

Above: USDA-ARS researcher Dave Horton collects insects from pear blossoms to determine whether less frequent mowing in orchards will attract beneficial insects to prey upon pear psylla, leaf miners and other serious pests. Preliminary results show an increase in "natural enemies" when mowing frequency decreases. Photo by USDA-ARS.

control. "I'm practicing this, and I've never had to spray for mites," said George Ing of Hood River, Ore., who has a 13-year-old orchard. "Other orchards that are conventionally treated have more pests. I'm convinced it helped." At the behest of area growers, who provided a research grant through their pear and apple association, Horton will test how seeding cover crops such as white clover between tree rows affects populations of both pests and pest predators. [For more information, go to www.sare.org/projects/ and search for SW99-011 and FW97-041]

Peanut Farmers Reduce Insecticides in Dynamic Research Group

About 25 years ago, the Morrises were among the first farmers in their North Carolina community to stop tilling their corn and soybeans. Today, farmer Hubert Morris, who raises cotton and peanuts, continues to stay in the forefront of change. Armed with two SARE producer grants and active in an on-farm research network run by the Rural Advancement Foundation International (RAFI), he runs trials to test how to reduce insecticide use on peanut pests. Morris has learned ways to reduce insecticide use—and costs totaling \$20 an acre—in his peanut plots and is experimenting with ways to increase cotton yields. Producing peanuts can be a chemically intensive enterprise, with annual pesticide bills reaching as high as 33 percent of peanut production costs. Morris and other farmers working with RAFI began using a foliar-applied pesticide to control thrips, small insects that burrow into peanut buds. Using the over-the-plant alternative rather than a preventative pesticide applied across their entire peanut fields means the farmers cut usage from seven pounds per acre to half a pound per acre on each farm. Moreover, “they only use it where they need it,” said Scott Marlow, RAFI’s peanut project director. The reduced-rate pesticide is also less toxic. More than 60 farmers have participated in RAFI-led field trials, testing and adapting new methods of peanut production since 1995. According to Marlow, when compared to 1994 numbers, those farmers



reduced their pesticide use by 250,000 pounds of active ingredient by the year 2000. Eight-five percent increased their profits, and most reported no yield reduction. With a second SARE grant, Morris evaluated ways to reduce vegetation and the height of cotton plants

with “alternative” products like corn syrup, thus leaving more energy for boll development. This time, he was less successful, but presses on with experiments such as composting cotton gin trash to improve soil quality. “If I was doing the same old thing all the time, it would get boring and I might retire,” he said, “but this is so interesting I don’t want to stop, and occasionally it does work out financially.” [For more information, go to www.sare.org/projects/ and search for FS96-044 and FS98-078]

Below: North Carolina farmer Hubert Morris (pictured) and other growers cut expenses by \$20 an acre by applying an over-the-row peanut pesticide only when they observe crop-damaging thrips. “We’re using a more environmentally friendly pesticide at an extremely reduced rate,” Morris says. Photo by Scott Marlow, RAFI; peanut photo by USDA.





“Natural” Pork from Sows in Deep Straw Captures Guaranteed Price

When he was still in high school, Dave Serfling began raising hogs differently from the conventional confinement system. The family’s herd had contracted gastroenteritis and a veterinarian had suggested farrowing the hogs outside. The sows finished the season in fine health, but Serfling no longer wanted to work indoors. The time-consuming crate system was a lot of work, with fewer rewards. Close to 30 years later, Serfling is perfecting an indoor deep-straw system—with the help of two SARE producer grants—to lower the cost of producing pork and earn a premium on the retail market. One grant helped him convert an old building into a pre-wean-to-finishing unit, where Serfling houses sows with three- and four-week-old piglets through wean-

ing and finishing. With two sow groups a year, Serfling has raised up to 180 pigs in a system that requires no supplemental heat because the straw, manure and heat from the animals keeps them warm—even on days when the Minnesota farm records 30 degrees below zero—and requires little manure management. In his other project, Serfling collaborates with three other hog producers to test farrowing in straw during the winter. Groups of 18 sows farrow every six weeks, including litters in the winter, a schedule that plays into Niman Ranch’s recent push for sustainably raised pork. The winter-raised piglets supply pork in the summer when the fresh pork market tends to run dry, prompting Niman, an upscale marketer of meat, to pay top dollar to Serfling

Above: With upscale food retailer Niman Ranch unwilling to buy pork from hogs raised in crates, Minnesota pork producer Dave Serfling and three other farmers perfected techniques to farrow pigs in deep straw, even in the winter. Photo by Ken Schneider; pig photo by USDA.

and other pork producers. Niman’s guaranteed price brings 40 cents per pound or six cents above market share, depending on the market. In return, the company requires quality, taste and good husbandry from producers. “We think a lot of the conventional pork from confinement barns is too lean and dry,” Serfling said. Niman “rewards juicy and flavorful product and offers it to the consumers who care about how we raise them.” The price guarantees provide Serfling with an average \$10,000 annual premium—and the peace of mind that his methods can feed his family and create a more humane environment for his hogs. [For more information, go to www.sare.org/projects/ and search for FNC98-208 and FNC02-379]



"Zea-later!" Organic Corn Treatment Spells End to Wormy Ears

A widespread sweet corn pest, corn earworm moths seek the sweet odor of corn silk to lay their eggs, prompting producers nationwide to accept wormy corn or apply broad-spectrum pesticides three to 10 times per crop. Organic growers, in particular, are forced to offer one of their most profitable summer crops complete with extra, unwanted protein. "When the earworm hit, sales would drop considerably," said Steve Mong, a Stow, Mass., vegetable grower. "We would leave a knife on the table so anyone who didn't want to take a worm home with them could cut it out." Now, thanks to work headed by SARE-funded researcher Ruth Hazzard at the University of Massachusetts, Mong and other growers use new, effective biological controls to fight the earworm—corn oil and *Bacillus thuringiensis* (Bt). Hazzard's technique, a practice that evolved over a decade, calls for applying Bt and corn oil to the top of each ear during the formative stage, causing earworms that crawl into the ear to suffocate. In collaborative research at the University of Massachusetts, Anne Carter found that just one treatment will keep working until harvest. Eight farmers from Vermont to Connecticut found that the oil controlled ear damage in 83 percent of their trial plots in 2000. The idea came from a grower participating in a SARE-funded forum 10 years ago; his neighbor had applied mineral oil to control earworm in the 1940s. "We've taken the concept and brought in new, safer materials,"

Hazzard said. To cut down on labor costs, Hazzard worked with students from Hampshire College and her university to invent a hand-held oil applicator, patent it and find a manufacturer. The well-respected Johnny's Selected Seeds catalogue company offers the product and moved 50 off the shelves the first year. Dubbed the Zea-later, the device cuts the labor involved to about eight hours an acre, meaning a grower

with 10 acres of sweet corn could handle the job over a few days, then find himself worm-free for the entire season. [For more information, go to www.sare.org/projects/ and search for LNE99-118]

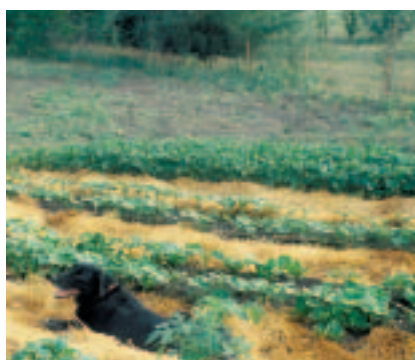
Below: Vegetable grower Steve Mong of Stow, Mass., uses a newly patented Zea-later to apply corn oil and *Bacillus thuringiensis* (Bt) to the top of an ear to control corn earworms. "Sweet corn is one of the top money-makers for the farm," he says. Photo by Ruth Hazzard.





Hunt for Ambassadors: Demonstrations Showcase Area Foods, Farms

With both healthful eating and farmer livelihoods in mind, nutritionist Nancy O'Connor brings a compelling message to hundreds about the benefits of consuming locally produced food. Armed with a SARE Professional Development grant, O'Connor forged partnerships with diverse groups, including Extension and the nonprofit Kansas Rural Center, to run cooking demonstrations that deliver an "eat local" credo to expand the market for Kansas foods. Her audiences include family and consumer science extension agents, support groups of mothers with limited resources, youth, and seniors living in assisted housing, among others. Part



of the Community Mercantile Education Foundation in Lawrence, Kan., O'Connor teamed with others to hold workshops and events that seem to really touch people. "My goal is that every person who comes to a class becomes a spokesperson for local foods," O'Connor said. "If I believe in it passionately, and I feed them and give them tools and information, they will go out and be different." An Extension annual meeting featured a dinner of locally grown products from appetizers to dessert and was attended by local and state political leaders. A "Local Food to Local People" field day co-sponsored by the Kansas Rural Center and the Community Mercantile Co-op drew hundreds to the cooperatively owned natural food grocery store and a nearby vegetable farm. And at a two-day conference for state ageducators, complete with pumpkin cake, salsa and chips made with Kansas ingredients, O'Connor received rave reviews—4.1 out of 5 average from participant evaluations, with '4' being

informed enough to implement the program in their counties. Before the end of the project, O'Connor and Extension specialist Susan Krumm will run a week-long camp for teenagers that will include visits to farms, food preparation and nutrition lessons, culminating in a meal of local foods cooked by kids for their parents. O'Connor hopes the camp idea will take off with extension educators who might replicate it in their areas to boost both awareness and sales of locally grown foods. "We want kids to be ambassadors," she said. "If you can change the way a 12- to 14-year-old thinks, you have the potential to change the world." [For more information, go to www.sare.org/projects/ and search for ENCOO-047]

Above and left: A Kansas coalition trying to teach the merits of buying and eating locally produced food brings ag educators, urbanites and youths to the Lawrence, Kan., farm of Dan Nagengast and Lynn Byczynski to see how they raise vegetables sustainably. Photos by Dan Nagengast.

local marketing

Sales from Growers to Public Food Outlets Bring Goodwill, Fresh Tastes



Left: Jean Moseley and husband, Jim, sell vegetables and herbs to local outlets in a SARE-sponsored project that brings them as much as 50 cents more per pound on items like tomatoes. The owner of Rudy's Tacos in Cedar Falls, Iowa, "pays us what we consider to be really fair," she says. Photo by Jerry DeWitt.

13

Universities, hospitals and restaurants have long been reluctant to purchase food outside food service contracts, most of which guarantee that what is dished up comes from faraway places. Trying to reverse the trend and hook Iowa growers to some of the biggest food purchasers in northern Iowa, Kamyar Enshayan received a SARE grant to make it easier for institutions to buy from their neighbors. Since then, he has assembled an impressive list of food buyers—from a Mexican-style restaurant to his institution, University of Northern Iowa—that buy meat, veg-

etables, beans and grains from area farmers. The biggest impact is at Rudy's Tacos of Waterloo, Iowa, which purchased close to \$143,000 worth of Iowa products in 2001, from beef to tortillas. "It's a lot fresher and the quality is better," said Barry Eastman, owner of Rudy's Tacos, who used to buy from a distributor until he tasted chicken from a local family-run farm. "It's nice to know where your food comes from." Key to Enshayan's success has been employing student interns to work for institutions to handle the details of the new local food-buying process. Even

huge food buyers like Allen Memorial Hospital spent \$60,000 on Iowa products once cafeteria managers saw how much their customers loved the alternative. Enshayan hopes the interest from food buyers will spearhead increased food production in areas where Iowa has been lacking, such as vegetables. "The sustainable ag movement 20 years ago focused on improving on-farm practices," said Enshayan, who said that most of the farmers he works with come from family farms and define themselves as sustainable growers. "Today, the focus on local food and strengthening local relationships is recirculating the financial capital that's been leaving our communities." For every grant dollar he received, the project funneled \$6.50 into the regional economy. The 15 to 20 farmers he works with report satisfaction with their involvement, even though at this point they have seen gross income increase by just 5 to 15 percent. His plans to create links with as many as 14 institutions should help. After about 50 invitations to speak about his project around the country, Enshayan hopes to spread his success beyond northern Iowa. [For more information, go to www.sare.org/projects/and_search for LNC00-166]



Youth Gardeners Aid Horticultural Research, Learn New Skills

Educators seeking innovative ways to prompt farmers, ranchers and other groups to adopt more sustainable production approaches might consider the participatory model, tested to great effect by SARE-funded Cornell researchers who worked with groups of gardeners in six Northeast communities. Their Garden Mosaics project engaged both adult gardeners and neighborhood youths, who worked together on Extension-led research projects with a truly local focus. Under the guidance of Cornell-trained extension educators, kids in Baltimore, Allentown, New York City, Rochester, Buffalo and Philadelphia paired with adult gardeners to document the history, makeup, planting practices and soil quality of gardens in their communities. They tested research techniques, but children born and raised in cities also learned more about gardening. And, in documenting garden histories and unusual plants,

they picked up successful interviewing and communication skills along with their green thumbs. Many of the youths—aged 9 to 16—blossomed themselves. “There were some uninterested kids who didn’t choose the project and, at the beginning, wouldn’t look anyone in the eye,” said Marianne Krasny, the Cornell project leader. “By the end, they acted like the expert at the county fair.” Krasny hopes to develop a deep well of community gardening practices that might be useful to city planners and scientists working in urban settings, as well as to identify unusual vegetables from other cultures. The project strengthened educators’ ties to community centers and gardens, often a gathering place for inner-city ethnic populations, and honed their youth training skills. Several gardeners formed long-term mentoring relationships with the youths. “For a lot of the children, their only knowledge of life is in an

Above: As part of a unique education program in Allentown, Pa., Isis and Liz Soto document the practices of gardeners like Ligia delVillar (right) at the Casa Guadalupe community center. “It’s a great opportunity for children to interact with older people, who tell them how they grow crops for the different foods they cook,” said county horticulture agent Emelie Swackhamer. Photo by Emelie Swackhamer.

urban setting,” said Emelie Swackhamer, a Lehigh County, Pa., horticulture agent who ran the Garden Mosaics project in Allentown. “It was enlightening for them to realize how much gardening knowledge the adults have and they began to develop a sense of pride in themselves, too.” Their experiences are posted at www.dnr.cornell.edu/garden_mosaics and will continue with a generous research grant from the National Science Foundation. [For more information, go to http://www.sare.org/reporting/report_viewer.asp and search for ENE99-049]

Spud Producers Pick Up Cost-Cutting Production Methods

Idaho potato growers, facing an economic squeeze between low market prices and climbing production costs, flocked to venues to learn about new, economical growing methods and peer support systems in a SARE-funded project coordinated by the Northwest Coalition for Alternatives to Pesticides (NCAP). Close to 500 potato farmers attended workshops and farm tours to gain firsthand knowledge about such things as using compost and green manure to build healthy soils, ways to break up weeds, pests and diseases in cropping systems, and how to conduct

on-farm research. Eight “sustainable farming alternatives” workshops held at conferences in Idaho, Oregon and California drew interested growers, 90 percent of which ranked them as “good” or “excellent” in post-event evaluations. Tours of successful farms showcased living examples; at the Bryant Ranch in Shoshone, Idaho, growers saw the system-wide approach Fred and Judy Brossy use to raise organic potatoes, beef cattle and crops such as dry beans, wheat, alfalfa hay and vegetables. The whole-farm tour emphasized how the beef cattle operation works synergisti-

cally with the other crops in an intricate rotation. Throughout, the discussions the workshops and tours spawned proved valuable. Farmers excited about cooperative efforts to market potatoes and share production information formed an active grower network. “Many farmers are ripe for adopting more sustainable options,” said Jeff Rast, who coordinated the project for NCAP and estimates that at least a few of the growers have changed their growing practices to match what they saw. “Our conferences and workshops were set up to stimulate discussion, but each time I was surprised at the intensity and productivity of their discussions.” One of the farmer networks has teamed with the Idaho State Department of Agriculture and is close to securing an agency commitment to funnel more funds into local and regional potato promotions. Another key component of the project was to educate agricultural lenders about the importance of funding alternative growing systems. NCAP staff assembled informational packets and plans a training session at the state banking association’s annual meeting. [For more information, go to http://www.sare.org/reporting/report_viewer.asp and search for SW98-031]

Left: Nate Jones (pictured with son, Hollister) participated in the Magic Valley, Idaho, farmers network, which worked with the Northwest Coalition for Alternatives to Pesticides to plan educational tours and workshops about sustainable potato production. Photo by Karen Murphy.





Sustainable Agriculture Research and Education Program
Cooperative State Research Education and Extension Service
U.S. Department of Agriculture

SARE works to increase knowledge about—and help farmers and ranchers adopt—practices that are profitable, environmentally sound and good for communities.



Above: With help from a SARE producer grant, Theodore Nesmith of Nesmith, S.C., assembled a team of advisers to help him develop a whole-farm management plan for his fruit and vegetable farm. Nesmith, a leader in his farming community, is helping influence local attitudes about agriculture. Photo by John Mayne.

- SARE works in partnership with **Cooperative Extension and Experiment Stations** at land grant universities to deliver practical information to the agricultural community. Contact your local Extension office for more information.
- **The National Agroforestry Center**, a program of USDA's Forest Service and Natural Resources Conservation Service, co-funds SARE agroforestry grants.