

# SUSTAINABLE AGRICULTURE

## Local food systems conference to address farmer-consumer links

Lyra Halprin, ASI/SAREP

Local food systems are the focus of a symposium at UC Davis Dec. 2-3, 2008. Designed to help consumers, farmers, researchers and government agencies establish and strengthen community food systems, “Local Food Econo-

mies: Meeting the needs of producers and consumers” is sponsored by the statewide UC Sustainable Agriculture Research and Education Program (SAREP).

SAREP is an affiliate of the UC Davis Agricultural Sustainability Institute (ASI), a conference co-sponsor.

“Our goal is to help farmers and consumers make connections and strengthen their efforts to build strong local food systems,” said **Gail Feenstra**, food systems analyst at ASI and SAREP. “Local food systems include farmers markets, farm-to-institution and farm-to-school initiatives, agricultural marketing organizations, community supported agriculture projects, regional processing facilities, and other efforts that connect consumers, distributors and retailers with the people who produce their food.”

**David Campbell**, director of the UC Davis-based California Communities Program, a symposium co-sponsor, notes that conference

participants will share what they have learned in local food systems projects and offer specific tools to overcome challenges.

“We’re expecting participants to share ideas on how to

increase the effectiveness or expand some of these local food system initiatives,” Campbell said. “We hope they will also let us know how university competitive grant programs can better serve local food systems.”

The symposium will feature local food systems projects funded by SAREP. The projects demonstrate how partnerships and marketing opportunities can be created in new ways, linking consumers, distributors and producers in rural and urban areas, according to Feenstra. The conference will include panel presentations, smaller break-out groups and open time for networking.

Opening new markets for producers and consumers is the focus of one conference panel, which will feature farmers market op-

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# New sustainable ag classes set, major on the way

By Lyra Halprin, ASI/SAREP



Limor Geisler drives a cultivator in sweet corn at UC Davis Student Farm. (photo by Pat Vellines)

A growing student interest in sustainable food and farming systems that are good for people and the environment has led to new classes and development of a new major at UC Davis.

Sustainable food and agricultural systems that integrate environmental health, economic profitability, and social and economic fairness are becoming universally recognized as the direction society must go, according to UC Davis Agricultural Sustainability Institute (ASI) affiliated faculty, staff and students implementing the new major.

Starting in the fall of 2008, new freshman-level courses in food systems and sustainable agriculture and an upper division course in agroecology, the study of the ecology of the entire food system, are being offered.

The new major is expected to be approved by the end of 2009. It is a collaborative effort, and will provide students with a broad background in sustainable agricultural and food systems, according to institute director **Tom Tomich**.

“The skills and knowledge gained through this broad, interdisciplinary curriculum will prepare graduating students to become leaders in sustainable agriculture in California and throughout the nation,” said Tomich.

The new undergraduate course, “Food Systems,” is being offered fall quarter 2008 through the Department of Human and Community Development. It focuses on contemporary food and farming systems, agricultural sustainability and economic equity, according to course instructor **Ryan Galt**, assistant professor in the department.

“Students are seeing how production, processing, distribution and consumption affect food price, nutritional content and access,” said Galt. “We are also examining the social context of food systems and the often contradictory goals of nourishment, profit, power and impact on the environment, producers’ livelihoods, citizens and communities.”

Field trips to meet with stakeholders are part of the course, designed to complement “Introduction to Sustainable Agriculture,” which will be offered for the first time in spring 2009 through the plant sciences department. That course will be taught by **Mark Van Horn**, director of the UC Davis Student Farm.

“Students will examine production practices and systems, including resource use and unintended consequences,” said Van Horn. “Field work will help students understand the connection between agricultural and environmental sciences and farming.”

Internships will be a required part of the curriculum. Students will be encouraged to work on farms and ranches, at farmers markets, with agricultural processors and handlers, with policy makers at the state capital, with non-profit organizations like Valley Vision, Community Alliance with Family Farmers or with government agencies including the Natural Resources Conservation Service.

An upper division course in agroecology will be offered spring quarter 2009 by **Johan Six**, assistant professor in the Department of Plant Sciences.

**Will Horwath**, professor of soil science, is chair of the sustainable agriculture major implementation committee.

“The major will draw from both traditional and nontraditional teaching concepts and methods and place a strong emphasis on experiential learning,” said Horwath. Students will choose to focus on a natural-science track or a social-science track, but all students will take courses in both areas.

“A wide range of skills will be emphasized in the new major, including critical thinking, problem solving, communication and group process management,” said Horwath.

While a formal major in sustainable agriculture and food systems is a new initiative for UC Davis, both field-based and classroom-based interdisciplinary sustainable agriculture learning opportunities have been available to students at the Student Farm for more than three decades, said Van Horn.

“Student Farm staff and students have played key leadership roles in the development of the new major,” he said.

The Columbia Foundation made a grant of \$100,000 for the development of the major, while the Clarence E. Heller Charitable Foundation contributed \$100,000 to support the experiential learning activities within the new major. The UC Davis Undergraduate Instructional Improvement Program contributed \$14,000 for course development and training.

For more information on the major and the classes, please see the Student Farm Web site at <http://studentfarm.ucdavis.edu/>, or the ASI Web site at [asi.ucdavis.edu](http://asi.ucdavis.edu).

## We can all be learners ...and leaders

[Editor's Note: Mark Van Horn is sitting in for Tom Tomich, ASI director]

Students in **Ryan Galt's** new Food Systems course recently visited us at the Student Farm for part of a class exercise exploring the campus food system. Watching the students walking and talking in our fields reminded me that *Education and Leadership* is one of ASI's three thematic areas. That got me thinking about how students, faculty and staff have learned from one another here at the Student Farm over the past 31 years, and how we could best continue and strengthen our "learning community" tradition as we develop a new major in sustainable agriculture and food systems.

Ryan is an assistant professor in human and community development and one of the first faculty members hired within the ASI. His freshman level course (see "New sustainable ag classes set, major on the way," page 2) is designed so students will learn not only from him and the teaching assistants, but also from members of the community and from one another. It will help provide a foundation of both knowledge and practice for subsequent courses in the major.

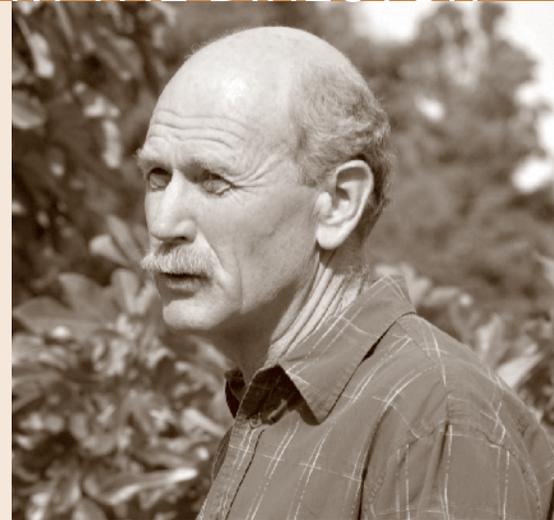
Ryan is one of many faculty and student collaborators working to ensure that the new major will produce graduates with broad interdisciplinary knowledge and diverse skills in areas including problem solving, communication and leadership. His work in developing the Food Systems course has been supported by a fellowship and grant from the UC Davis Teaching Resource Center that allowed him to hire **Damian Parr**, a doctoral candidate in the School of Education and one of the students who has made important contributions to the development of the major.

The ASI also recently received generous grants from the Clarence E. Heller

Charitable Foundation and the Columbia Foundation to support the creation of the new major through the development of additional courses, experiential learning opportunities, an internship program for students and professional development for teaching faculty (see "FUNDING", page 13).

Learning from one another and strengthening leadership was also one of the goals of a meeting on farm education programs at the Student Farm on November 7 and 8 (see "California educational farms meeting at UC Davis Nov. 7-8," page 11). Sponsored by ASI, UC Hansen Agricultural Trust, the Center for Youth Development and Campbell Soup Company, this event was the first ever statewide gathering for agricultural learning centers and included representatives from for-profit, non-profit, government and university run programs. These diverse programs provide the public with a wide range of inspiring hands-on opportunities to learn about farming, food, and human and environmental health. The meeting format emphasized opportunities for participant to interact, build relationships and consider how they might work together.

On December 2 and 3, UC SAREP, ASI, California Communities Program and ANR North Coast and Mountain Region are hosting a "Local Food Systems Symposium" (see "Local food systems conference to address farmer-consumer links," page 1). This is yet another opportunity for farmers, community organizations, UC Cooperative Extension, campus faculty and others to share their experiences and research results about community-based food systems in California. The highlighted projects will demonstrate new partnerships and marketing opportunities, linking consumers, distributors and producers in rural and urban areas. From a feasibility study for



Mark Van Horn (photo by Karen Higgins)

a regional processing facility for local meat to farm-to-school projects and collaborative CSAs, project leaders will discuss struggles and successes with symposium participants. Inspiring keynote speakers include **Paul Muller** of Full Belly Farm and **Michael Dimock**, president of Roots of Change. Meals featuring local food and a reception at Rominger West Winery will allow participants to network and enjoy the bounty of Yolo County and produce from the Student Farm.

I've always been grateful for, and inspired by, the students I've known in my two decades of work at the Student Farm. Students explore agriculture and the world in fascinating ways and acquire their knowledge and skills from many sources, including one another. These students grow and develop together, learning and leading at the same time. Facilitating students' leading, as well as learning, is uncommon in modern college curricula. Thankfully, however, there are some undergraduate and graduate programs that provide good models for us. As others have pointed out, focusing on learning and leading is particularly well suited to enhancing the sustainability of not only agriculture, but of all human endeavors.

— Mark Van Horn, director,  
UC Davis Student Farm (ASI affiliate)

## ASI/SAREP notable events

Compiled by Lyra Halprin, ASI/SAREP

### New ASI staff

**Julia Gordon** is the new ASI executive assistant. Gordon, a native of Marysville, Calif., is working in the ASI office in 143 Robbins Hall. She has done administrative work for 10 years, and has an associate degree in business administration from Falkirk College, Scotland (UK), where she lived for four years.

**Noelle Beegle** has joined ASI as the new financial manager. Beegle, a native of Long Beach, Calif., is working out of the SAREP office in the DANR Building on the UC Davis campus. She has a bachelor's degree in economics and art history from UC Davis, and a certification in accounting from CSU Dominguez Hills. Previously she worked in construction, where she did job cost and project accounting.

**Emma Torbert** is the new ASI post-graduate fellow assisting **Kate Scow**, ASI deputy director. Torbert is helping Scow manage the long-term agricultural research at the UC Davis College of Agricultural and Environmental Sciences' Russell Ranch Sustainable Agriculture Facility. She will graduate from UC Davis with a master's degree in horticulture and agronomy in December, and has an undergraduate degree in physics from Princeton University.

### Honors

**Pierre Mérel**, agricultural and resource economics assistant professor and ASI affiliate, received an award for the best paper by a young economist (less than 35 years old) at the 12th Congress of the European Association of Agricultural Economists for "Is there market power in the French Comte cheese market?" His specialty is the economics of agricultural sustainability.

### Student Farm/Children's Garden Program fall events

The UC Davis Children's Garden Program was the first stop on the "Slow Journey to Yolo" tour that was part of the San Francisco *Slow Food Nation Conference* in August. **Carol Hillhouse**, Children's Garden Program director, reports that more than 30 people toured the Student Farm to gain a better understanding of the role that an educational farm and garden plays in a local food system.

Hillhouse chaired a day-long session of seven talks at the annual statewide Master Gardener Conference, "Sustaining our Future: Garden-based Learning in California Schools," in September. The session was well-attended and well-received. School Gardens Project coordinator **Jeri Ohmart** (also of SAREP) presented an "Overview of Garden-based Learning in California Schools" during the session.

The Children's Garden Program has

presented five fall school garden educator workshops, hosting 87 educators from 31 schools and organizations over the course of the season.

The fall quarter is off to a good start at the Student Farm with students from various fields of study interning, volunteering and participating in classes. Students hosted a potluck and grill in early October and another gathering during Local Foods Week coordinated by the Students for Sustainable Agriculture. The Student Farm staff also hosted several groups of Japanese agriculture students in the summer and fall as part of their study of California agriculture through UC Davis Extension.

### ASI/SAREP presentations

**Gail Feenstra**, food systems analyst for ASI and the statewide Sustainable Agriculture Research and Education Program (SAREP), gave a series of presentations in the summer and fall. She participated in two panel pre-

sentations, "Bringing students, farmers and food service to the table: Integrated findings from farm-to-institution research," and "Developing a research agenda for local/regional food systems: Lessons from NE-1012, local food systems in a globalizing environment," at the Agriculture, Food and Human Values Society meeting in New Orleans. **Jeri Ohmart**, ASI/SAREP Student Farm school gardens project coordinator, also participated in the conference.

Feenstra also gave a talk on future trends in California farmers markets at the California Department of Food and Agriculture Farmers Market Advisory Board in Sacramento, and participated in a panel presentation on "Fossil food: The energy used to grow and move the food we eat," at the Sustainable Agriculture and Food Systems Funders Sixth Annual Forum in Portland, Ore. She gave a talk on farm-to-hospital programs in California to medical students at Mt. Sinai Hospital in New York City, and presented a review of research on farm-to-institutions at the *Western Region Assembly: Making Positive Changes in the School Food Environment* conference in Portland, Ore. **Jeri Ohmart** presented a review of garden-based learning research at the same conference. Feenstra talked about rebuilding local and community based food systems in California at the Leadership Institute for Ecology and Economy in Glen Ellen, Calif. She presented a short course in scaling up distribution efforts for farm-to-institution programs at the Community Food Security Coalition conference in Philadelphia, Pa. and Cherry Hill, N.J., where she was also part of a panel presentation on "Assessing the Impacts of Farm-to-Institution Programs: On-going Research and Implications for Action." She also talked about climate change and using food carbon footprints to reduce greenhouse gases and energy use at the American Public Health Association conference in San Diego.

**Robert L. Bugg**, ASI/SAREP agricultural ecology analyst, gave several presentations related to vineyard plantings in the summer and fall. He delivered a talk on "Biodiversity in and Around the Vineyard" to Napa Valley Winegrape Growers orga-

nized by **Jennifer Kopp** and colleagues, and to graduate students in the Department of Entomology at the University of Florida, Gainesville organized by **Corraine Scott** and colleagues. Bugg co-lead a day-long field tour of the Native Pollinators in Agriculture Project in Yolo and Solano counties with **Mace Vaughan** of the Xerces Society, and made a presentation on agricultural ecology to the

Homeless Garden Project in Santa Cruz. He discussed farmscaping to enhance biological control and biodiversity in the vineyard at the Pesticide Applicators Professional Association in Petaluma, and presented “Everybody’s Gone Syrphid” with **Ramy Colfer** at the Entomological Society of America’s annual conference in Reno.

## California Small Farm Conference scholarships available

Farmers, students, and farmers market managers are invited to apply for scholarships to the March 1-3, 2009 California Small Farm Conference in Sacramento. The deadline for scholarship applications is Dec. 31, 2008. The UC Small Farm Program is an organizing sponsor of the conference.

The conference theme this year is “Farming for the Future” and includes workshops focused on farm transitions, farmers markets, production strategies, marketing techniques and other topics. Short courses and tours will highlight small-scale livestock, cherry production, urban agriculture, adding value to agriculture, making the transition to organic production, and innovations in farmers markets. Featured speakers include **Thaddeus and Moyra Barsotti**, Capay Valley farmers; **Ann Evans**, Davis food and agriculture writer/community leader; **AG Kawamura**, secretary of the California Department of Food.

Early registration and meals is \$100-\$245 before Jan. 19, 2009. Scholarships cover registration, and may also include lodging and travel depending on the number of applicants. Separate scholarships and forms are available for:

- farmers, ranchers and farm/ranch employees, priority to small-scale producers with limited resources or an economic disadvantage;
- farmers market managers, priority to managers who work independently, for small organizations, or for farmers markets that primarily benefit small-scale farmers; and students (priority to students who intend to work with small-scale producers in California).

To apply for a scholarship or for more information about the conference, visit [californiafarmconference.com](http://californiafarmconference.com)

### Local food successes

ASI affiliate Students for Sustainable Agriculture (SSA), in partnership with the national “Real Food Challenge,” sponsored this year’s fall Local Food Week at UC Davis. Events included a tour of the campus’ Tri-CoOps gardens, live music at the Student Farm with the band *Sex, Funk, & Danger*, a discussion of Proposition 2 (standards for confining farm animals), a tabling event at the campus Coffee House featuring local produce and salad, and a special “Farm to College Night” at all four campus dining commons that featured locally produced produce and meat. Also in the spotlight was the campus’ East Quad Farmers Market, which was open every Wednesday through Thanksgiving. Local Food Week is part of

SSA’s efforts to engage the campus and community in an approach to agriculture that balances social justice and ecology, according to **Maggie Lickter**, one of the organizers.

With the help of **Mark Van Horn** and the Student Farm, SSA was the only student organization represented at the UC Davis College of Agricultural and Environmental Sciences’ (CA&ES) fall College Celebration. SSA’s Student Farm market garden display was strategically situated near the busy farmers market setup. **Katie Cooper**, **Ethan Grundberg**, and **Paige Culver** represented SSA at the event, and sold SSA cookbooks and distributed “Cool Eating Tips” assisted by **Carrie Cloud** of the Dean’s Office.



(Left to right) Jennifer Heinlein (corn), Maggie Lickter (kiwi) and Paige Culver (bean), SSA members at Local Food Week. (photo by Denise Jones)

(Below—Left to right) Mark Van Horn, Katie Cooper, Ethan Grundberg and Paige Culver at CA&ES College Celebration.



## Certification issues impact organic farmers' retention

By Luis Sierra, CIRS research associate; Karen Klonsky, UC Cooperative Extension agricultural economist; Sonja Brodt, UC Davis agricultural and resource economics department staff researcher; Richard Molinar, UC Cooperative Extension farm advisor, Fresno County; Ron Strohlic, CIRS executive director

**[Editor's Note: This article details one of the projects featured at the Dec. 2-3, 2008 local food systems conference at UC Davis.]**

With increasing consumer awareness of health, environmental, and social benefits of organic products, the U.S. organic sector has been growing by a vigorous 15 to 20 percent annually for over a decade. Nonetheless, organic food represents only two percent of total retail food sales in the United States.

Despite the fact that California is by far the leading producer of organic commodities in the United States, organic agriculture still plays a very small role in the state's overall agricultural landscape. There were only 1,795 registered organic farms in 2005, representing just over two percent of all farms. Similarly, California's 195,000 acres reporting organic sales represent a mere 0.63 percent of all farmland.

In spite of strong growth in U.S. organic sales, every year there are organic farmers who leave the organic sector. The California Organic Products Act of 2003 requires all producers, handlers, processors, and retailers of commodities sold as organic to register with the California Department of Food and Agriculture (CDFA) Organic Program. CDFA registration data indicate about a 20 percent turnover rate among registered organic producers each year. However, the num-

bers of new registrants and deregistrants have been similar, signifying little overall growth in the number of registered organic producers.

These trends raise important questions, with implications regarding California's capacity to transition to a more sustainable food system. Why do organic growers discontinue certification with the CDFA Organic Program? Do they leave farming altogether or do they revert to conventional production? What are the main challenges they faced as organic producers and what sort of assistance would allow them to continue farming organically?

With funding from the statewide University of California Sustainable Agriculture Research and Education Program (SAREP), the California Institute for Rural Studies (CIRS) in collaboration with the above authors, sought answers to these questions via mail surveys and in-depth telephone interviews with deregistered organic producers.

The findings help paint a clearer picture about what's happening at the edges of the organic sector. The first finding was surprising: 27 out of 104 (26%) respondents documented by CDFA as producers who had discontinued organic registration were

Programs to help organic farmers should reduce regulatory burdens, explain recordkeeping requirements, higher certification costs and greater time requirements, and aid should target lower smaller acreage farms.



In spite of strong growth in U.S. organic sales, there has been little growth in the number of registered organic producers in California.



not truly deregistered growers. Fifteen of these respondents stated that they were never registered as producers (they were registered as handlers), while 12 were correctly listed as deregistered but expected to be registered again soon. Reasons for these temporary gaps in registration included late submissions, being previously included under another grower's registration, or the farm changed names. This result lowers the actual turnover rate to 15 percent from the observed rate of 20 percent.

What became of the other respondents that actually did deregister from the CDFA Organic Program? Did they stop farming, revert to conventional practices, or continue farming organically but choose to stop marketing their products as organic? The survey findings reveal the following:

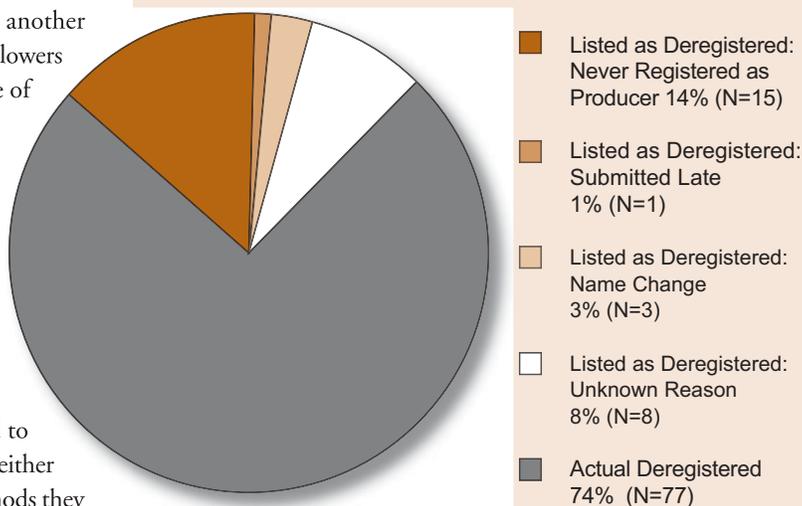
- Of the 77 “true” deregistrants, 27 (35%) had stopped farming altogether while 48 (63%) were still farming.
- Of the 48 respondents still farming, 29 (60%) reverted to conventional production practices, while 19 (40%) were either still using organic methods (n=12) or farming using methods they described as “beyond organic” (n=7).
- Of the respondents that stopped farming entirely, 78% did so for reasons not related to organic production or marketing, such as changes in land tenure, retirement, health or other personal issues.

The main reasons respondents offered for discontinuing organic registration or production had to do with organic regulatory issues (mentioned by 45% of respondents); issues unrelated to organic production (26%); production issues (16%); market issues (16%); management issues (8%); and price issues (8%). The main challenges they encountered while still farming organically included “too much paperwork” and “certification costs,” which were rated as “severe” or “serious” problems by 50% and 44% of respondents respectively. The high cost of organic inputs was the third most serious challenge, as cited by 38% of respondents.

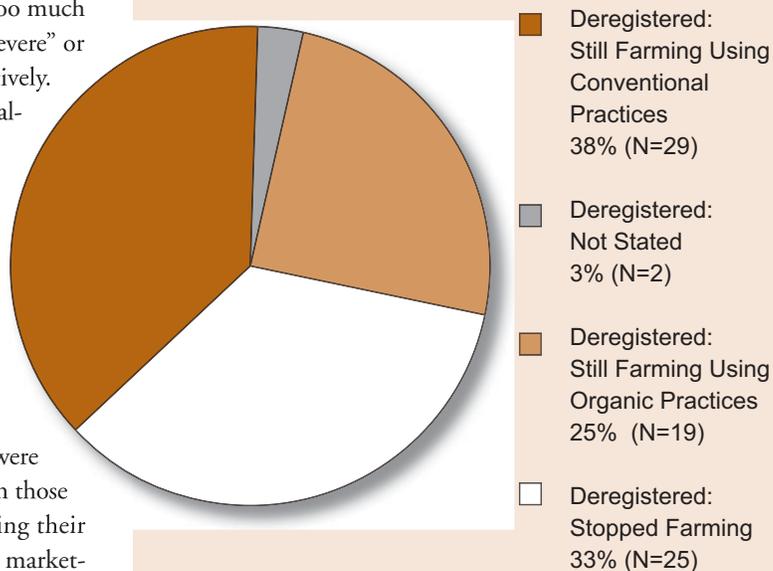
The majority (63%) of respondents still farming cited regulatory issues related to organic production as one of the main reasons for discontinuing organic registration. In contrast, of those no longer farming, only five (19%) cited reasons specifically related to organic production as a reason for leaving farming. This points to the possibility that there may be features of the regulatory framework that could be changed to retain organic growers.

Conversely, growers reverting to conventional farming were significantly more likely to cite market and price barriers than those still using organic farming methods but no longer marketing their products as organic. This finding points to a need for more marketing and price assistance so that organic growers can continue farming organically. It also implies that marketing and price issues are more likely to result in a producer moving to conventional production than leaving farming altogether.

**Figure 1:  
Registration Status for All Respondents (N=104)**



**Figure 2:  
Current Farming Status of Actual Deregistered Growers (N=77)**



The following recommendations are based on the research:

- Programs and policies to help organic farmers continue farming organically should include efforts to reduce the paperwork and regulatory burdens associated with organic farming, as well as efforts to help farmers deal with high certification costs. USDA cost-share programs are key to the maintenance and growth of organic agriculture, especially for small farmers. The California Organic Program (COP) should consider a state-run cost share program to assist farmers in paying COP registration fees. The COP should consider restructuring its fee schedule to assist low-income farmers.
- Technical assistance to farmers considering adopting organic methods should include explanations of paperwork and record-keeping requirements, certification costs, the higher cost of organic inputs, and greater time requirements associated with organic production.
- Technical and financial assistance for organic farmers should

target growers grossing under \$100,000 per year and farming less than 50 acres.

- Deregistration rates based on CDFA registration data should be adjusted to take into account deregistration that does not represent exit from the Organic Program.

*Post script:* While data used for this study was from 2003 to 2005, the data from California's major organic counties today show the same patterns we found in our research. Six of the eight counties posting organic registration data in their crop statistics reports for 2006 and 2007, (Tulare, Merced, Kern, Yolo, Santa Cruz, and San Diego) reported steady or decreased numbers of registered organic growers in 2007 compared to 2006. Only Fresno and Monterey showed modest increases in growers. However, most of these counties posted an increase in total acres registered organic.

The full report is available on the SAREP Web site at [http://www.sarep.ucdavis.edu/Organic/reports/2008\\_Deregistration\\_factors.pdf](http://www.sarep.ucdavis.edu/Organic/reports/2008_Deregistration_factors.pdf).

Table 1: Reasons for Discontinuing Organic Registration by Farming Status

Reasons for Discontinuing Registration	No Longer Farming		Continue to Farm						Total*	
	N=27		Organic Methods** N=19		Conventional Methods N=29		Subtotal N=48		N=75***	
	N	%	N	%	N	%	N	%	N	%
Organic regulatory issues	4	15%	14	74%	16	55%	30	63%	34	45%
Not related to organic	13	48%	4	21%	2	13%	6	13%	19	26%
Production issues	5	19%	1	5%	6	13%	7	15%	12	16%
Market issues	3	11%	1	5%	8	28%	9	15%	12	16%
Management issues	5	19%	0	0%	1	3%	1	4%	6	8%
Price issues	1	4%	1	5%	4	14%	5	10%	6	8%
No response	3	11%	2	11%	0	0%	2	4%	5	7%

\* Total percent is greater than 100 because respondents could provide multiple responses.

\*\* self-reported as farming organic, but no longer registered with the CDFA Organic Program.

\*\*\*The current farming status of two respondents could not be determined from their responses.



SAFS field day grower panel: (Left to right) Scott Park, moderator Gene Miyao, Russell Lester, Ben Carter and Thaddeus Barsotti. (photo by Lyra Halprin)

## Grower panel: How local farmers cope with soaring energy costs

by Lyra Halprin, ASI/SAREP

**[Editor's note: A version of this article originally appeared in the Russell Ranch SAFS Project newsletter Vol. 9, No. 1.]**

In January, the year 2008 was “looking rosy,” according to Colusa County farmer **Ben Carter**. And then the hammer of rising costs hit California farmers.

Carter pointed to soaring energy costs as the main culprit in the year's shift to a less optimistic outlook for farmers, a sentiment echoed by three others on the grower panel at the UC Davis Russell Ranch Sustainable Agriculture Facility's June 2008 field day. The panel is a key feature of the annual Sustainable Agriculture Farming Systems (SAFS) project event, which showcases sustainable research and management practices.

For the last two years, rising energy costs have been the panel's center of attention. Farmers have had to work hard to stay economically sustainable in spite of on-farm energy cost increases. (Although energy prices have softened in the wake of the economy's downturn this fall, no one can predict how long the respite might last.) They are experi-

menting with creative solutions ranging from doing their own marketing to using crop residue as an energy source.

Carter is a third generation grower who farms 3,000 acres with his family at BenDen Farms in Colusa County. Their diversified operation includes 25 crops—field crops, row crops, orchards, and livestock—with two-thirds farmed conventionally and one-third farmed organically.

Last year he told the field day audience that he was investigating the use of solar energy to power a 50 horsepower well, but the capital cost was too high. Instead, he saved money by doing pump tests to make sure they were efficient and used off-peak electricity for irrigation. He has three water recirculation systems that are very energy efficient.

**Thaddeus Barsotti** of Capay Valley manages his farming business with his three brothers. The farm, Capay Organic, was started by his parents, **Kathleen Barsotti**

and **Martin Barnes**. Their Community Supported Agriculture (CSA) project is called Farm Fresh to You (the Web site for both is farmfreshtoyou.com) and delivers to 3,000 customers in the Sacramento, San Francisco, East Bay, and San Jose areas. The Barsotti brothers offset increased energy costs by doing all their own marketing, according to Thaddeus.

“My parents were 1970s farmers on 20 acres,” he said. “We now have 350 organic acres with 60 crops. We put our energy into marketing. We make 100 percent of our own sales, and of that, 40 percent is sold to the end-user. We have a lot of control over how much we charge.”

Barsotti and his three brothers are involved in some way with the farming operation. **Thaddeus** is in charge of production, packing and shipping. **Noah** handles all sales and decides what goes in the CSA boxes each week. **Freeman** manages the office and CSA deliveries. **Che** is an advisor, and not involved in day-to-day operations. **Moyra**, Thaddeus' wife, is in charge of public relations and marketing for the farm and CSA, and sales to retail stores. **Carol**, Freeman's wife, manages the farm's store in San Francisco's Ferry Building.

“The energy use on our farm has not changed, nor has it drastically changed on any other farms,” he said. “What has changed

are the dynamics of how a product's value is measured."

Barsotti doesn't think the science of sustainable farming practices has changed, but "the value of these practices is increasing at the same rate as the price of imported energy."

"The economic advantage of a local product compared to a non-local product is also increasing," he said. "The increasing price of imported energy stings today but this discomfort will be the catalyst for the change toward a truly sustainable food system. The increasing price of fuel may be the best thing that has happened to the sustainable farming movement since my parent's generation."

**Russell Lester**, a fourth-generation California farmer, farms with his daughter and farm managing director **Jenny Lester Moffitt** and other family partners at Dixon Ridge Farms in Winters. They farm 450 acres of walnuts, and process walnuts on a total of 3000 acres. They began farming organically in 1989 and till their soil every six or seven years.

Concern about future fuel costs has driven the Dixon Ridge Farms partners to explore complete energy self-sufficiency. Agriculture is fuel-intensive and fuel-dependent, Lester notes. It can't help but be affected by the tripling of fuel costs in the last year.

"I think a 10 percent increase in fuel costs is a conservative estimate for what is coming," he said.

Lester said they started looking around their farming operation at potential energy sources.

"We had walnuts and walnut shells and we wanted to use them as a source of energy," he said. "Last year, I set a goal of being energy self-sufficient by the year 2012, while being carbon-neutral or negative. Another part of the goal is that this energy would come from an inedible source."

In 2007, Dixon Ridge Farms began working with the Community Power Company (CPC) of Colorado. They secured a California Energy Commission grant to place CPC's \$400,000 BioMax 50 machine, which burns walnut shells for energy, at Dixon Ridge Farms.

"Our system was up and running by November 2007," said Lester. "We heat the

walnut shells above 2,000 degrees Fahrenheit until they 'gasify.' The combustible gas can then be used in our walnut dehydration system or in a gasoline generator to produce electricity."

According to Lester, the BioMax 50 produces 50 KW of energy per hour, which powers a 12,000 square foot freezer that previously cost them \$4-5,000/month to operate. They use the "waste" heat to heat their buildings or dry the walnuts. Previously, Dixon Ridge used about 9,000 gallons of propane a week during the month-long drying season; now they use recycled heat.

Lester said the exhaust from the walnut shell-powered generator is similar to that from a propane engine.

"The 'char-ash' from the combustion of the shells should be able to be put in the soil," Lester said. He and his daughter have been working on the carbon aspect of the project with UC Davis associate professor and ASI-affiliated faculty member **Johan Six**, of the plant sciences department.

"We like that our system is a full-circle, closed-loop, local-loop system," Lester adds. He has plans to convert his gasoline engine to a diesel engine, using synthetic diesel or inedible walnut oil for the 15 percent liquid fuel required. The other 85 percent will come from the gas produced from walnut shells. A new module will convert some of the walnut shell gas into liquid synthetic diesel.

"We will be the only commercial operation in the world to produce our liquid fuel this way," he said.

The processing plant can also produce 15-20,000 gallons per year of inedible walnut oil and meal "cake" to burn. Lester and his daughter have also installed 3,500 square feet of solar panels at their main shop and hope to have as many as 100,000 square feet in two or three years.

He said he began to seriously think about energy self-sufficiency when he heard politicians talking about it. "I got tired of them aiming for 20 percent self-sufficiency in 2040," he said. "By then, it's more than likely that I'll be dead. My company is 25 percent energy self-sufficient now. By the end of the year, we hope to be about 60 percent

self-sufficient, and 100 percent in three-and-a-half years."

Lester said the biggest hurdles to energy self-sufficiency at Dixon Ridge Farms have been regulatory. Walnut shells are not currently considered a renewable source of energy by the utility. He noted that former Assemblymember (now State Senator) **Lois Wolk** of Davis and her staff have been very helpful in steering the Dixon Ridge Farms partners through the maze of regulations.

First-generation farmer **Scott Park** of Meridian began farming in the 1970s. In the late 1980s he made the transition to an exclusively organic production system.

"The University of California and the SAFS project in particular have been the most critical source of information for me," said Park. "I hope the funding keeps rolling for sustainable agriculture research."

Park said that every day farmers reconsider their crop rotations, often driven by energy use. He noted that improved soil structure is the most important factor in reducing energy use on his land.

"We have found we get fuel savings with healthy soil," he said. "Our ground is pretty mellow, and we try not to disturb it with tillage. We have found that good soil fights insects, and cover crops lead to good soil in part by loosening it. I don't need more than a 90 horsepower tractor to till it, which I don't do much."

Park planted wheat this year for several reasons.

"Less tillage occurs in prepping the ground to plant wheat and there is no tillage during the season," he said. "I am incorporating the straw because the huge amount of biomass helps the following year in feeding microbes, supplying fertilizer, improving soil structure and water retention capabilities. Because the soil has such wonderful tilth, tillage is done lightly to capitalize on the healthy conditions. This helps minimize fuel consumption along with lowering irrigations and fertilizer inputs. The wheat is not baled (which you do get paid for) because I think the dollar return value of straw incorporated far exceeds the straw payment."



## Farm education leaders gathered at UC Davis

Farm education leaders tour UC Davis Children's Garden Program site and share outdoor teaching techniques. (photo by Mark Van Horn)

Leadership issues were highlighted as representatives of California farm learning centers gathered Nov. 7-8 at UC Davis for a statewide meeting

The program, "Farm Education Programs in California: Opportunities & Challenges," was sponsored by the campus's Agricultural Sustainability Institute (ASI). It was designed to honor and support public and private farms that offer educational opportunities to students of all ages.

"We were very happy to recognize the many farmers, garden programs, sustainability centers and other venues and personnel who do educational outreach," said **Jane Pinckney**, a program coordinator at the UC Davis Children's Garden at the Student Farm, an institute affiliate. "What these educational farms are doing is huge for the people of the state."

A panel of fellow farm educators discussed their work, and participants had opportunities to join in group discussions. Presentations covered resources and information about California farm education programs, and included an overview of other educational programs in the United States.

Participants also toured the UC Davis Student Farm, one of the most dynamic educational farms in the state, according to Pinckney. Tours were also offered of other area farm education programs, including the Center for Land-based Learning in Winters,

Loma Vista Farm and Garden in Vallejo, and Soil Born Farm in Sacramento.

"This conference brought together, for the first time, many of the people who provide these educational opportunities for kids and their communities," said **Tom Tomich**, director of the Agricultural Sustainability Institute. "Additionally, we wanted to identify and listen to mutual needs, and form partner-

ships so we can all become more efficient in our work. This conference was one step in doing that."

Last year, **Larry Yee**, former UC Cooperative Extension county director in Santa Barbara County, suggested such a conference to the UC Hansen Trust, which agreed to help support the meeting. The Campbell Soup Company also supported the conference.



Indoor and outdoor workshop discussions were lively. (photo, top by Mark Van Horn, bottom by Jeri Ohmart)



## CONFERENCE CONTINUED FROM PAGE 1

opportunities for Southeast Asian growers, a small farms marketing assistance project, and direct marketing opportunities for heirloom dry bean varieties. Other panels will look at direct markets in ethnic and low-income communities, how local food systems function within rural communities, and farm-to-school programs as a strategy to build local food systems. Participants will hear about a Trinity County heritage orchard project, sustainable community food systems in Marin County, and Solano County's assessment of its agricultural sustainability now and in the future.

A panel on economic challenges and opportunities of local food systems will feature an assessment of small-scale livestock harvesting and processing facilities, a Placer County collaborative CSA, and a discussion of the feasibility of organic farming in California. Participants will hear about place-based labels and branding, the challenges of local food

systems infrastructures, export marketing, and Web-based marketing.

**Paul Muller** of Full Belly Farms will deliver the keynote address. Muller, whose diversified organic farm harvests year-round and sells to outlets like Alice Waters' Berkeley restaurant Chez Panisse, was named the 2006 Western Region winner of the Patrick Madden Award for Sustainable Agriculture by the USDA's Sustainable Agriculture Research and Education program.

**Michael Dimock**, president of Roots of Change (ROC), will share his vision of sustainable food systems and provide a context for the conference's discussions on the second day. ROC includes leaders and institutions focused on achieving a sustainable food system in California by 2030.

Feenstra said she expects both university and community food systems partners to share insights from their individual experiences. She

said there continues to be strong interest in community food systems as neighborhoods, cities and regions face changes in the global economy and national agriculture policy that are reshaping how food is produced, processed and distributed.

The event is co-sponsored by SAREP; ASI; UC Agriculture and Natural Resources, North Coast and Mountain Region; and the California Communities Program, a Cooperative Extension unit of the UC Davis Department of Human and Community Development. It will take place at the Buehler Alumni and Visitors Center at UC Davis. Registration (\$100) includes conference sessions, a local foods reception at Rominger West Winery in conjunction with Slow Food Yolo, breakfast, a seasonal local luncheon, and refreshments. Ten student scholarships are available. Registration deadline is Nov. 18. More information is available online at: <http://www.sarep.ucdavis.edu/cdpp/lfs08/>.



## David Chaney leaves UC

**David Chaney**, education coordinator at the statewide UC Sustainable Agriculture Research and Education Program and the UC Davis Agricultural Sustainability Institute (ASI), retired at the end of August after 20 years of service.

Chaney, who has also been the USDA Western Region Sustainable Agriculture Research and Education (SARE) representative for California for 13 years, recently received a commendation from national SARE director **Jill Auburn**, former SAREP associate director.

"His work performed in the area of sustainable agriculture in California has helped shape extension education and farmer-rancher programs, and elevated awareness of sustainable agriculture in general," Auburn said. She noted that his work has benefited the "true Land-Grant mission of the University of California."

Chaney began his tenure at SAREP in 1987 as an information analyst and technical writer. In 1995 he was promoted to academic coordinator. Recently, he has been coordinating the statewide and campus programs' Web presence.

As state SARE coordinator, Chaney provided greater access to Western Region and national SARE resources, strengthened professional development opportunities for advisors and other agricultural and community development professionals, and developed educational materials for agricultural professionals' work with California farmers and ranchers. Among the many projects and products he coordinated are an online course in Ecological Pest Management, workshops and educational materials on agricultural direct marketing, and the Organic Farming Compliance Handbook for Western Region agricultural professionals.

**Tom Tomich**, ASI director, noted that Chaney's broad understanding of educational outreach and his proficiency with Web tools "will be deeply missed."

Chaney has moved with his family to Corvallis, Ore., and is exploring a new career in education and pursuing gardening, travel and the arts.

"I have had the opportunity to work with incredibly talented and dedicated colleagues during my time at UC," he said. "I'm grateful for the experience and the friendships that have developed along the way."

## ASI receives three grants for undergraduate sustainable agriculture major

The UC Davis Agricultural Sustainability Institute (ASI) has received \$214,000 to support the development of a new undergraduate major in sustainable agriculture (tentatively called “sustainable food and agricultural systems”). Much of the development of experiential learning activities and related aspects of the major will be from the ground up and will require resources beyond what would be needed for developing a more traditional Land-Grant university major. Grants from the following funders will be used to support the major.

**The Columbia Foundation.** A grant of \$100,000 to support the launch of an interdisciplinary undergraduate major at UC Davis. The skills and knowledge gained through this broad, interdisciplinary curriculum will prepare graduating students to become national and international leaders in addressing the complex questions associated with the global need for more sustainable agriculture and food systems.

**The Clarence E. Heller Charitable Foundation.** A \$100,000 grant to support the creation of experiential learning components within the new major. Funds will be used to support experiential learning activities and their assessment, development of “capstone” courses, the internship program, and professional development for faculty and staff.

**The UC Davis Undergraduate Instructional Improvement Program (UIIP) Faculty Course Development Award.** A grant of \$14,000, including a \$6,000 Chancellor’s Fellow Course Development Award, and \$8,000 for other course development expenses.

The UIIP committee noted that “the proposed course represents a valuable investment in inquiry-based learning ... particularly because it reflects efforts in establishing not only a new course, but a new major. It also reflects the university’s increased emphasis on interdisciplinarity, particularly

those that engage the sciences with disciplines outside the sciences. The committee was also impressed by the strong support given to this project by the department.”

## Children’s Garden Program

**The Children’s Garden Program Receives funding to provide professional development for the USDA Fresh Fruit and Vegetable Program in California Schools.** CGP/SAREP received \$107,000 from USDA to work with California Department of Education and UC Davis’ Center for Nutrition in Schools to develop and deliver “Fresh Fruits and Vegetables: A Centerpiece for a Healthy School Environment—Seasonal Trainings and Technical Assistance.” **Carol Hillhouse**, Children’s Garden Program director, will direct the grant.

## ‘Buy local’ projects

**Ryan Galt**, ASI affiliate and assistant professor in the UC Davis human and community development department, and **Gail Feenstra**, ASI/SAREP food system analyst, have been awarded \$25,000 for the “Grow Local – Buy Local” project of the Sacramento County Farm Bureau, funded by Sacramento County. They will supervise a graduate student researcher who will do a market analysis report and a draft implementation plan about regional consumer/buyer preferences, barriers to local markets, and new opportunities for area commodity and specialty producers. The draft plan will specify roles for the Farm Bureau, the Sacramento County Agricultural Commissioners Office, UC Davis, Sacramento County UC Cooperative Extension, Sacramento County Economic Development Department, city governments, local grass roots organizations, and business groups.

Feenstra is also involved in three other projects that were funded recently, including

- “Developing Values-based Distribution Networks to Enhance the Prosperity of Small and Medium-Sized Producers,”

on which she is a co-principal investigator with Shermain Hardesty, UC Davis. Awarded \$497,251 for January 2010 – December 2011.

- “School Food FOCUS,” from Liquori and Associates, LLC/ W.K. Kellogg Foundation. SAREP will be the lead evaluator of a national farm-to-school program that will enable school meal programs in large urban school districts (> 40,000) to redirect food procurement toward healthier, more local and sustainably produced foods. Awarded \$193,500 for July 2008 – June 2011.
- Team Nutrition Training: Fresh fruits and vegetables—a centerpiece for a healthy school environment,” from California Department of Education/ USDA (Food and Nutrition Service). SAREP will conduct the evaluation of the project in conjunction with the Student Farm Children’s Garden Program. Awarded \$4,700 for November 2008 – June 2010.

## Funding Sources for Projects in Sustainable Agriculture, Food Systems, and Organic Farming

### Western Region SARE program

[wsare.usu.edu/](http://wsare.usu.edu/)

The Western Sustainable Agriculture Research and Education (SARE) program invites proposals for its 2009 competitive grants program. Areas of funding still open for 2009 are:

- Farmer/Rancher grants— Applications due: December 5, 2008
- Professional + Producer grants— Applications due: December 5, 2008
- People with disabilities or without Internet access may call Western SARE at (435) 797-2257.

### USDA CSREES Funding Opportunities List

[csrees.usda.gov/fo/funding.cfm](http://csrees.usda.gov/fo/funding.cfm)

Sort by due date to get current Requests for Proposals.

### Western Region IPM Center Funding Opportunities List

[wrpmc.ucdavis.edu/Research/index.html](http://wrpmc.ucdavis.edu/Research/index.html)

List of funding opportunities and grant programs for Western Region researchers and educators.

### US EPA Region 9

[epa.gov/region09/funding/rfps.html](http://epa.gov/region09/funding/rfps.html)

Calls for proposals on a variety of target issues and topics; variable funding cycles.

### Sustainable Agriculture and Food Systems Funders

[safsf.org/](http://safsf.org/)

SAFSF is a national working group of grant-makers that seeks to promote a more sustainable agriculture and food system.

### Organic Farming Research Foundation / Scientific Congress on Organic Agriculture Research

[ofrf.org/research/index.html](http://ofrf.org/research/index.html)

OFRF is dedicated to promoting organic farming through funding of on-farm research and dissemination of the results. Proposals are considered twice a year. See their Web site for most current deadlines. For more information, contact **Jane Sooby** at OFRF, PO Box 440, Santa Cruz, CA 95061 or email [research@ofrf.org](mailto:research@ofrf.org) or [jane@ofrf.org](mailto:jane@ofrf.org).

### Building Better Rural Places: Federal Programs for Sustainable Agriculture, Forestry, Conservation and Community Development

[attra.ncat.org/guide/index.html](http://attra.ncat.org/guide/index.html)

Publication written for those seeking help from federal programs to foster innovative enterprises in agriculture and forestry in the United States. The guide addresses program resources in community development, sustainable land management, and value-added and diversified agriculture and forestry.

### Community of Science (COS) Funding Opportunities

[cos.com/](http://cos.com/)

A comprehensive database of published grants, scholarships, fellowships and awards with more than 23,000 entries. Other services available are COS Expertise, a worldwide database of profiles of researchers, scholars and other experts, and COS Abstract Management System, a comprehensive Web-based system for managing the submission, review and approval of abstracts.

### Biological control of aphids

*Flower Flies (Syrphidae) and Other Biological Control Agents for Aphids in Vegetable Crops*, by **Robert L. Bugg**, UC Sustainable Agriculture Research and Education Program/UC Davis Agricultural Sustainability Institute (SAREP/ASI); **William E. Chaney**, recently retired UC Cooperative Extension farm advisor, Monterey County; **Hugh A. Smith**, UCCE farm advisor, Santa Barbara/San Luis Obispo counties; **James Cannon**, computer resource specialist, SAREP/ASI; and **Ramy G. Colfer**, organic agricultural researcher, Mission Organics/Earthbound Farms, Salinas. UC ANR peer-reviewed publication (8285), 25 pages, 2008. Free download available at <http://anrcatalog.ucdavis.edu/ltems/8285.aspx>. California is the foremost producer of vegetable crops in the U.S. The crops are typically produced in large-scale monocultures, often on leased land—a disincentive for using low-value rotational crops or cover crops that can be used to break pest cycles, including those of aphids that attack lettuce, cucumbers, other vegetables and cotton. But farmers have an ally: flower flies called Syrphidae or “syrphid flies,” whose larvae are effective aphid predators. UC researchers have teamed up with an industry entomologist to quantify the pest control effect of the flies and detail the way



farmers can manage vegetables to favor them. This guide is extensively illustrated to allow identification of adult and immature beneficial insects.

### UC Small Farm publications

Five farmers market publications produced by the University of California Small Farm Program have been added to the program's Web site, where they are available for free download: [http://www.sfc.ucdavis.edu/farmers\\_market](http://www.sfc.ucdavis.edu/farmers_market) The five newly available books can each be downloaded as individual PDFs. Many of the longer books are also available in a chapter-by-chapter format, with smaller downloadable files. The titles now available to read online include:

- Starting a New Farmers Market
- Management Skills for Market Managers
- Growing Your Farmers Market
- Food Safety at Farmers Markets and Agritourism Venues
- Guide to Managing Risks and Liability at California Certified Farmers Markets

Print copies of each book are still available from the Small Farm Center, though some of the titles are in limited supply. Orders for printed copies are taken by email, phone or fax. To order printed copies, visit <http://www.sfc.ucdavis.edu/docs/publications.asp>.

Additionally, the following publication is available for sale at the Web site: *California's New Green Revolution: Pioneers in Sustainable Agriculture*, by **Desmond Jolly**, retired Small Farm Program director, and **Isabella Kenfield**, formerly of the Small Farm Program. The book is a collection of profiles of

innovative family farmers and agricultural marketing organizations, with a focus on the sustainable agriculture movement. For more information or to order the book, visit <http://www.sfc.ucdavis.edu/docs/publications.asp?view=17>

### Agritourism publication

*The New Agritourism: Hosting Community and Tourists on your Farm*, by **Barbara Berst Adams**, New World Publishing, 224 pages, \$24.95. Farmers worldwide have rediscovered a new crop: Agritourism. This new book provides practical information to increase farm revenue and build support for local agriculture. Order through New World Publishing, [www.nwpub.net](http://www.nwpub.net), email: [nwp@nwpub.net](mailto:nwp@nwpub.net), phone/fax: (530) 823-3886. (ph./fax)

### New Publications from SARE

The USDA Sustainable Agriculture Research and Education (SARE) program has helped advance farming systems that are profitable, environmentally sound and good for communities through a nationwide research and education grants program. Three new SARE releases may be downloaded free from its Web site (links below).

*Clean Energy Farming: Cutting Costs, Improving Efficiencies, Harnessing Renewables*. 2008. SARE's newest bulletin features innovative SARE-funded research and examples of farmers who are improving energy efficiency while saving money, implementing practices that save energy and protect natural resources, and producing and using renewable fuels. Download free at <http://www.sare.org/publications/energy.htm>.

*Managing Cover Crops Profitably, 3<sup>rd</sup> Edition*. 2007. This handbook explores how and why cover crops work, and provides information to build cover crops into any farming operation. Completely revised and updated, the 3<sup>rd</sup> edition includes new chapters on brassicas and mustards, six new farm profiles, as well as a comprehensive chapter on the

use of cover crops in conservation tillage systems. Updates throughout are based on more than 100 new literature citations and consultations with cover crop researchers and practitioners around the country. 244 pages. Download free at [www.sare.org/publications/covercrops.htm](http://www.sare.org/publications/covercrops.htm), or purchase print copies for \$19.

*SARE 20/20: Celebrating Our First 20 Years, Envisioning the Next*. This 20th anniversary edition of SARE project highlights chronicles 20 years of agricultural innovation—from SARE's beginning in 1988 to present-day stories of farmers, ranchers, researchers and educators working across America to develop and implement sustainable marketing and production practices. Download it free at <http://www.sare.org/publications/highlights.htm>.

### CSA Resource

*Community Supported Agriculture for the Workplace: A Guide for Developing Workplace Community Supported Agriculture Distributions*, CISA (Community Involved in Sustaining Agriculture (CISA), 2008, free downloadable PDF <http://www.buylocalfood.com/Workplace-Manual2008.pdf>. (A limited number of hardcopies are available; contact Claire Morenon, CISA, 1 Sugarloaf Street, South Deerfield, MA 01373; (413) 665-7100, Ext.16; [www.buylocalfood.com](http://www.buylocalfood.com).)

CISA's Workplace CSA program was established in 2005 and has worked with seven workplaces and nine farms in Western Massachusetts to start up off-farm CSA distributions. This manual includes key lessons that may help other non-profits, farmers, and workplaces replicate the project.

Adult female syrphid fly visits a flower. (photo by James Cannon)

# CALENDAR

## \* SAREP WEB CALENDAR AND ONLINE COURSE

SAREP offers a regularly updated sustainable agriculture calendar on our World Wide Web site at: [www.sarep.ucdavis.edu](http://www.sarep.ucdavis.edu) (click "Calendar" on top menu bar). Please feel free to add sustainable agriculture events. In addition, we offer an online course for pest control advisors and others titled Ecological Pest Management. Up to 11 CE credits for California PCAs. See [www.sarep.ucdavis.edu/courses/](http://www.sarep.ucdavis.edu/courses/).

## \* NATIONAL/INTERNATIONAL CALENDAR

The National Agricultural Library maintains a calendar as part of AgNIC at [www.agnic.org](http://www.agnic.org). It links to more than 1,200 major national and international agricultural conferences.

## DECEMBER

*Local Food Systems Symposium*, UC Davis. Symposium showcases local food systems projects funded by UC SAREP. Projects demonstrate how partnerships and marketing opportunities can be created in new ways, linking consumers, distributors and producers in rural and urban areas. Cooperative Extension personnel, researchers, government agencies, nonprofits, farmers & community members invited to network, share regional food systems activities. Keynote speaker: Paul Muller of Full Belly Farm, Capay Valley. Co-sponsored by SAREP; ASI; UC ANR, North Coast & Mountain Region; & California Communities Program (Coop. Extension unit of UC Davis Depart. of Human & Community Development. Buehler Alumni & Visitors Center, UC Davis. Information at: <http://www.sarep.ucdavis.edu/cdpp/lfs08/>

## JANUARY 2009

**21-24 29th Annual Ecological Farming Conference: *United We Grow***. Location: Asilomar Conference Grounds, Pacific Grove, CA. More than 50 workshops, innovative farming techniques, organic meals, farm tours, organic wine tasting, and exhibitors. Information: <http://www.eco-farm.org>

**28 11th San Francisco Urban Integrated Pest Management Conference**, Presidio Golden Gate Club, San Francisco. Sponsors: San Francisco Dept. of Environment & the Presidio Trust. 8 a.m.-4 p.m. Keynote: Mark Hoddle, UC Riverside on controlling noxious exotics with beneficial invaders. Conference focus: New, longtime IPM techniques; government agency, commercial pest control professionals networking. Continuing Education Units from Calif. DPR (~5-6 credits), International Society of Arboriculture, CA Structural Pest Control Board (~4hrs). Discounted registration before Dec. 15. More information: <http://sfenvironment.icontact.com/newsletters/GreenPurchasing.ToxicsDisposal.IPM.for.SFGov>

## MARCH

**1-3 California Small Farm Conference: *Farming for the Future***, Sacramento. State's premier gathering of small farmers and those who support them. 3-day educational conference includes on-farm tours, focused workshops, general educational sessions and opportunities for peer networking. Topics include cultivation, water conservation, pest management, business development, USDA opportunities, marketing. Plus workshops for new farmers, experienced farmers and farmers market managers. Featured speakers: Thaddeus & Moyra Barsotti, Capay Valley farmers; Ann Evans, Davis food & agriculture writer/community leader; AG Kawamura, secretary of the California Department of Food & Agriculture. Registration at [californiafarmconference.com](http://californiafarmconference.com)

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- UC ANR Sustainable Agriculture Research and Education Program (SAREP)
- UC Davis Russell Ranch Sustainable Agriculture Facility
- UC Davis Student Farm

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