



Diet/health study brings fresh produce to low-income neighborhood

Jimmy's, a low-income neighborhood market in Sacramento offers area residents a range of products from hot lunches to apparel and fishing gear in addition to basic grocery items, but, until recently, fresh fruits and vegetables weren't among the offerings. That changed this fall when owner Ker Vue installed a 40-foot display case to feature fresh fruits and vegetables in an experiment to see if his customers will be inspired to purchase healthier products.



*Karen Jetter and Ker Vue in Jimmy's Market
1201 Grand Avenue, Sacramento*

The display case and accompanying marketing and health educational expertise are part of an agricultural policy/human nutrition research project funded by the California Cancer Research Program to increase the accessibility of healthy foods for low-income individuals and determine the long-term effect on obesity and such related diseases as diabetes and heart disease.

Karen Jetter, AIC research economist, is collecting sales data and will be doing an economic analysis of the sales of fruits and vegetables from Jimmy's. Researchers will determine whether making healthier foods more available will lead to a healthier diet among area residents.

There are no supermarkets in the immediate neighborhood and many of the residents don't have automobiles, so their access to healthy foods is limited, a situation that is repeated in low-income neighborhoods throughout the state.

"Health education programs are important. But it's hard to make a healthy choice when it's nearly impossible to purchase fresh fruits and vegetables," says Diana Cassady, study director and assistant professor in the Department of Public Health Sciences, UC Davis.

Previous research suggests that access to healthy foods is associated with consumption of healthy foods. For instance, one study found that people who live near supermarkets that sell low-fat milk and wholewheat bread are significantly more likely to purchase those healthy choices. Conversely, people who live farther from supermarkets are likely to consume fewer servings of fruits and vegetables.

Research also shows that a diet rich in fruits and vegetables is protective against certain cancers and other leading causes of death such as heart disease. The USDA Dietary Guidelines for Americans 2005 recommends consuming 4.5 cups of fruit and vegetables each day.

Contributions to AgMRC focus on commodity profiles and value-added production

AIC contributions to the multi-state Agricultural Marketing Resource Center (AgMRC) for 2006 are focusing on developing profiles for agricultural commodities and research on economic impacts of value-added processing, product differentiation, and linkages between government programs and value-added products.

Newest AIC staff member Hayley Boriss is updating dozens of fruit and vegetable commodity profiles and developing new profiles where the AIC has particular expertise. New or expanded profiles also are being developed for tobacco, cotton and citrus. The profiles will be featured on AIC and AgMRC websites and will also be a resource for presentations to industry and other interested groups.

The research focuses on the viability of value-added agriculture and will generate information for academic audiences, producers, lenders, technology providers, government workers and others with an interest in government policy and agriculture. Topics include measuring market and development impacts of value-added investments for the wine industry, processing tomatoes, and other fruit and vegetable industries and the economics of product differentiation. Issues being addressed include strategies for creating, maintaining and enhancing markets; and analysis of alternative policies designed to enhance production of regional foods, including trademark laws and geographical indicators.

The multitude of government programs that regulate, tax or subsidize agricultural production and marketing also will be addressed. The goal of this research program is to improve decision making for participants in all aspects of value-added agriculture.



Hayley Boriss

Organic industry grows

California's organic industry is undergoing significant changes. The number of producers reporting sales has not changed much, but total acreage devoted to organic production and income from sales is growing. In 2000, there were 1,903 organic growers. The 148,552 acres in production generated \$200.8 million in sales that year. In 2003, 1,757 organic producers harvested 173,821 acres and generated \$329.8 million in sales.

California organic production by grower, acres and sales, 1998 -2003

Year	Growers	Acres	Annual sales	
			Sales \$ (million)	growth rate percent
1998	1,757	85,131	183	27*
1999	1,741	125,720	204	12
2000	1,903	148,552	201	-2
2001	1,925	167,460	207	3
2002	1,847	164,503	250	21
2003	1,757	173,821	330	32

*based on 1997 sales level of \$144 million

Vegetable crops lead organic farm sales with 46.9 percent of total sales in 2003, but the livestock, dairy, poultry and apiary (beekeeping) group has the greatest rate of increase in sales.

The forthcoming AIC publication, *Statistical Review of California's Organic Agriculture, 1998 - 2003*, analyzes an abundance of information provided through the registration process for organic growers.

In addition to information on the number of growers, acreage, and farm level sales, the report presents information by commodity groups and by specific commodity for counties, regions and the entire state.

When released in early 2006, *Statistical Review of California's Organic Agriculture, 1998 - 2003* will offer the best overview of California's dynamic organic industry available to policy markers and

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Bervejillo returns to Uruguay



José Bervejillo, a research specialist at the AIC since April 2001, returned to his home country, Uruguay in December.

During his tenure at the AIC, Bervejillo was engaged in a variety of projects. He was responsible for an annual report on California agricultural exports, published each year as an *AIC Issues Brief* and included in the California Department of Food and Agriculture Resource Directory.

Bervejillo, who has a background in cattle and beef economics, was also involved in projects related to foot and mouth disease and “mad cow” disease and their impacts on the beef industry and international

Organic industry continued

other interested parties. The report was compiled by Karen Klonsky, AIC associate director for agricultural environmental management, and Kurt Richter, AIC graduate research assistant.

trade. He coauthored two chapters in the 2003 book, *Exotic Pests and Diseases: Biology and Economics for Biosecurity*, published by Iowa State Press and has published several journal articles on livestock economics.

During 2005, Bervejillo coordinated publication of the book, *The Measure of California Agriculture*, which will be distributed in early 2006. This book updates and expands the year 2000 edition and is the result of a collaborative effort among several AIC staff members. Bervejillo wrote a large part of the book and ran the input-output analysis of the impact of agriculture on the state’s economy. The new edition, as in past editions, includes a chapter that measures the impact of agriculture and related industries on the overall state economy and in some of the most important regions of the state.

In Uruguay, Bervejillo, will join a family cattle business and pursue related activities in agribusiness. He will continue cooperating with the AIC and other UC Davis faculty on foot and mouth disease research.

Ag exports rise in 2004

California’s agricultural exports exceeded \$8 billion in 2004 and were up 9 percent over 2003 and 25 percent over 2002. Almonds were again the leading export, with a 2004 value of \$1.37 billion, up 27 percent from 2003. Wine exports ranked second at a value of \$684 million, up 24 percent. Overall, 29 of California’s top 50 export products increased in export value in 2004, while 18 decreased in value and a few remained unchanged.

Export values of the 50 leading commodities, as well as information on major international markets, are summarized in the *AIC Issues Brief*, “California’s International Agricultural Exports in 2004,” prepared by José Bervejillo and Daniel Sumner. More details can be found on the AIC website.

The export data, reported annually, are the product of an eight-year collaboration between the AIC and the Agricultural Export Program of the California Department of Food and Agriculture.

RESEARCH PROGRESS

Effects of agricultural policies on obesity

The effects of agricultural policies on obesity are being examined by agricultural economists Julian Alston, Steve Vosti, and Daniel Sumner. The study is analyzing obesity impacts of farm commodity programs, agricultural research and development, and food and nutrition programs. Preliminary results presented at the AAEA conference in July 2005 and the ASSA conference in January 2006 suggest that commodity-specific trade policy has increased the domestic prices of several major food commodities (such as beef, dairy products, sugar, and orange juice) beyond what they would have been in the absence of trade policy, but the consumer prices for most of these foods have fallen nonetheless.

Commodity subsidy programs have had significant impacts on participating farmers' incomes, but smaller impacts on commodity prices and quite small effects on retail food prices. Agricultural research and development has led to dramatic decreases in costs of production and long-term declines in commodity prices, but the links between commodity price declines and food prices are less clear and are conditioned by the structure of food markets.

Policies aiming to reduce obesity through changes in relative food prices or reducing investments in yield-enhancing research may prove ineffective or inefficient and may have serious consequences for other objectives. Potentially more effective strategies are those that focus on making healthy foods more available (in part by improving product quality and increasing shelf-life) and reducing the caloric content of "unhealthy" foods.

Antibiotic resistance in livestock

Antibiotic resistance in livestock production systems is being investigated by agricultural economists David Kennedy and Julian Alston. The research is focusing on 1) the human health

externality generated by antibiotic-resistant foodborne bacterial infections and the potential contribution of antibiotic use in food animal production, and 2) how consumer aversion to food animal production practices affects the development of the market for meat products produced without the use of antibiotics and hormones.

The questions being investigated include: 1) What is the potential size of the market for antibiotic-free and hormone-free meat and the associated price premium? and 2) What are the effects on both types of products when regulation is imposed to improve the safety of the riskier product? Of particular relevance is potential consumer willingness to pay a premium for products that reduce the risk of human health complications.

Agricultural e-commerce

A study of e-commerce on the Web by Rolf A.E. Mueller, Michael Clasen and Susanne Stricker notes that when the "dot.com bubble" burst, many agricultural e-commerce sites vanished and further progress in agricultural e-commerce is developing slowly. Their analysis of 233 agricultural e-commerce sites resulted in the following observations: 1) Liquidity is key. Not being a start-up, not collecting fees from traders, and having an established market presence are all-conducive for market liquidity and contribute to success. 2) Some features that are often regarded as indispensable for a marketplace on the Web, such as auctions, information services, and advanced inter-organization communication systems, do not foster success and may be detrimental.

The researchers also note that for a website to have commercial value, it must have a clear purpose, and the purpose must fit the business. The full benefit from e-commerce is exploited only if both parties to a transaction are able and willing to use the Internet for buying and selling. As more farmers and agribusiness firms are ready to buy and sell on the Web, positive network effects will set in and stimulate further e-commerce adoption in agribusiness.