Planning to Sustain Small Farms: An Upgrading Strategy for Farmers and Institutions  

by Janelle Santos

In addition to its direct economic benefits, small-scale agriculture produces a variety of indirect benefits valued by many communities as public amenities, including scenic view sheds, agrarian cultural heritage, wildlife habitat, a personal connection to food, and enhanced local food security (Hellerstein et al., 2002; Rossett, 2000). In many regions in the U.S., the direct and indirect benefits have become under threat as market competition and real estate development have overtaken agricultural land for alternative uses (Hellerstein et al., 2002). In response, policy makers have sought to protect local agriculture through the implementation of fiscal incentives and land use controls such as preferential taxation; urban growth boundaries; development easements; and agricultural zoning by county, state, and federal governments (Nelson, 1992). These policy approaches may prevent the loss of agricultural land to development. However, they do not address the
market challenges in small-scale farming that threaten economic viability.

This paper will argue that sustainability in small-scale farming requires economic development supports in addition to land use and fiscal policies. It will draw on a case in Placer County, California where local stakeholders successfully applied economic development supports in the form of production and marketing assistance to promote their struggling agricultural base. Despite ongoing high population growth and urbanization in the region, the county’s mandarin orange industry, which was nearly extinct two decades ago, has since undergone resurgence. This article identifies the conditions under which the revitalization of the mandarin industry occurred through an analysis of the actions taken by a county-level agricultural marketing agency, a local farm extension office, and the industry’s growers.

Placer County has employed the model of direct marketing, an innovative strategy that involves the direct sale of commodities by farmers to consumers, to revive its mandarin industry. By creating direct consumer outlets, Placer County’s farmers have secured markets and captured retail rather than the usually much lower wholesale prices for the goods they produce. Through this strategy, and the higher earnings that it has made possible, farmers in Placer County have improved the long-term stability of their farms by increasing profitability, reducing market risks, and strengthening economic ties with their communities. Composed of small-scale orchards, the mandarin industry has become regionally competitive on the basis of quality in terms of freshness, taste, and purchasing experience. Despite rapid population growth, the industry has expanded in terms of acreage and the number of orchards while weaving itself into the local culture and landscape.

Economic Development Supports in Agriculture

In agriculture, institutions that provide economic development supports include farm extension agencies, which assist farmers in improving production activities; farmers markets, which create physical marketplaces where local produce is sold; and regional agricultural marketing organizations, which promote produce from a specific region to targeted consumers (American, 1998; U.S. Department of Agriculture, 2003). This case demonstrates that economic development supports provided by such institutions can enable small-scale farming to become economically competitive. In Placer County a variety of local institutions, described below, have delivered services to support mandarin growers in production and marketing. The Placer/Nevada Counties University of California (UC) Extension, a farm advisory office, has provided production assistance specific to small-scale farming and citrus production. The Placer County Government has financially covered the extension office’s building and overhead costs. The Placer County Agricultural Marketing Director, situated within the Placer County Agriculture Department, has promoted the industry throughout the state and linked it to local arts and business groups. In addition, the Mountain Mandarin Growers’ Association, which represents the county’s mandarin growers, assists growers in addressing industry constraints and opportunities and coordinates with the UC Cooperative Extension and Agricultural Marketing Director.

After receiving assistance in production and marketing from such institutions, the mandarin industry has experienced substantial growth. In the last 17 years, the (continued next page)
number of orchards in the county increased from five to sixty-five, a 13-fold increase. Between 1988 and 2006, the number of farmers’ markets in the county increased from 2 to 17. In addition, attendance by visitors at the Mountain Mandarin Festival, a significant market outlet for the county’s mandarin growers, increased from 1,500 to 35,000 between 1994 and 2005. This article argues that these institutions have been successful as a result of three main outgrowths that have stemmed from their work: collective efficiencies, trust among growers, and intersectoral linkages.

**Collective Efficiencies**

The UC Cooperative Extension and the Placer County Agriculture Department have helped the mandarin industry to develop collective efficiencies in production and marketing. Collective efficiencies are defined as resources that provide competitive advantages to all firms located in a regional industry. They include skilled labor and inputs, specialized knowledge, and market access (Schmitz, 1995). The development of collective efficiencies in the mandarin industry has been the result of a critical mass of capable leaders with a consistent vision and the creation of a deep knowledge base relevant to the region’s small-scale farming needs. Incremental changes in leadership since the late 1990s has resulted in a current group of leaders that shares similar values and works effectively together. This has eased the process of mustering up the resources necessary to set goals and implement programs.

The mandarin industry has benefited in particular from the work of three local leaders: Cindy Fake, farm advisor at the UC Cooperative Extension; Christine Turner, the county’s Agricultural Commissioner; and Joanne Neft, the county’s Agricultural Marketing Director. Fake and Turner both indicate that they share a “great synergy” working together and with Neft. In addition to regulating the industry, Turner ensures that farmers are educated on county and state laws and promotes land use policies to the county government that support agricultural interests. Fake has provided growers with specialized knowledge in small-scale farming and citrus production. Neft’s marketing expertise, experience in social entrepreneurship, and passion for agriculture have enabled local farmers to expand their direct marketing opportunities. By exchanging their specialized knowledge and interacting directly with the region’s farmers, Fake, Turner, and Neft have developed both a broad and deep understanding of the conditions facing small-scale agriculture in Placer County. They have applied this understanding to develop programs that respond directly to the region’s small-scale farming needs.

Through their combined efforts, Turner, and Neft have created a deep knowledge base for farmers to access involving farm management, production and marketing. In addition to supplying their own expertise to the industry, they bring in knowledge from other organizations, including a local university and regional and national leaders in sustainable small-scale farming. As a result, they have created a knowledge base that informs both their own decision making and helps farmers access specialized information related to their activities.

Cindy Fake, the UC Cooperative Extension farm advisor, solicits input from the growers when designing the workshops conducted by the UC Cooperative Extension. The extension has brought state and national leaders in small-scale farming and direct marketing into (continued next page)
the region to provide information relevant to growers’ needs. In 2005, for instance, the extension brought a national expert in agritourism to educate local farmers in a Farm Conference session. The UC Cooperative Extension has also incorporated information from the entire University of California system, which includes individual UC campuses and the UC Sustainable Agriculture and Research Program (SAREP), a state-wide program that produces research and education for agricultural and food systems (University, 2006b). The office of UC SAREP is based at UC, Davis, which is highly specialized in agricultural sciences and located closest to Placer County among the campuses in the UC system. UC SAREP researchers have produced a variety of research reports to support Placer County’s agriculture and the mandarin industry in particular. Their studies have analyzed the past and present trends of the county’s food supply, formulated cost studies for commodities appropriate to the region, and evaluated marketing opportunities for Placer County’s mandarins in other regions.

Trust among Growers
Growing trust among growers has enabled individual mandarin growers to enhance production techniques and implement regional marketing strategies that they could not undertake alone. Direct marketing, as the most advantageous vehicle for securing local markets at retail prices, appeals to the needs of the entire grower community. Related group-centered programs in production and marketing through the UC Cooperative Extension, the Placer County Agriculture Department, and the Mountain Mandarin Growers’ Association have created venues whereby mandarin growers have developed group trust and a shared identity by learning about their common interests and struggles in the industry. From this process, they have recognized that collaboration is essential in maintaining quality production and accessing regional direct markets. As a result, the region’s growers rely upon each other in production and marketing activities to enhance their regional competitiveness.

The Shared Interests of Growers
There are two shared characteristics among the region’s mandarin farmers that have helped facilitate trust. First, the county’s mandarin growers are market driven and have a shared motive to keep their farms economically viable. Although most farmers have second jobs and their farm income composes a smaller share of their total income, they consider their work a business. Fake states: “They rely on farm income, are serious about what they do, and are very committed, as demonstrated by the time they devote and their emphasis on quality.”

Because farmers require retail prices to remain economically viable yet cannot access traditional retail outlets, they must target niche markets on the basis of quality. When asked what their consumers expect from their fruit, all of the growers interviewed indicated that quality was the most important attribute. To access local markets, they are vigilant about producing mandarins that are fresher and have a superior taste than those produced by corporate farms and sold in retail supermarkets. In turn, they have gained a reputation for quality.

The mandarin growers are concerned about protecting their shared reputation for quality. They are collectively represented by the region’s PlacerGROWN brand and logo. One farmer illustrated the importance of quality and reputation by explaining, “A person may eat one hundred good mandarins, but only remember the bad one.” The growers have assisted each other to maintain high quality. Starting in about 2002, a long-time mandarin grower coordinated with the mandarin community to educate its members on how to distinguish quality in mandarin produce. Another long-time grower indicated that he never misses a Mountain Mandarin Growers’ Association meeting. He attends to ensure that “new guys do things right in freshness and packing. It is essential for the rest [of the group] to stay in the industry.” In 2005, the growers’ association began to develop a quality standards protocol. A committee from the association is working to finalize and implement the standards.

Secondly, nonmarket motives strengthen the growers’ dedication to their own farms and the industry. The growers that were interviewed explained that the lifestyle provided by farming enables them to exercise a rural pace of life, express personal values with regard to the environment, and develop social connections with a like-minded community. One new grower reported enjoying a “very close relationship with the mandarin growers and other farmers.” Another farmer indicated that he equates farming with “being able to see tangible benefits from your work.” One farmer from one of the county’s long-time farming families stated that he enjoys the work because of the “lifestyle, sense of place, and purpose” it provides. Despite the market challenges and pressures from land development, he remains a farmer because “leaving [his farm] would require a major change of life.” To afford the land required to establish a farm elsewhere, “he would have to go far way.” Indeed, since the attraction of new and experienced growers during the 1990s, no one has left the mandarin industry.

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Signs of Trust

Rising levels of production due to the maturation of the industry’s trees set the stage for collaborative problem-solving based on trust. As an alternate bearing crop, mandarins bear heavy fruit every other year. By 2002, the maturation of trees planted during the early to mid-1990s and the growth in competition from new mandarin producers signaled to farmers that they could no longer “sit on the farm and wait for the product to be sold.” Institutional leaders and interested growers consequently began to consider an agritourism strategy to capture new markets. As a result, they decided to examine a model of agritourism from a neighboring county. Neft, Fake, Turner and approximately eight new and experienced growers traveled together to visit the model, meet with its key stakeholders, and consider opportunities for an agritourism strategy unique to the mandarin industry in Placer County. After returning from the study tour, significant signs of collaboration appeared within the grower community. The local growers, interested in introducing agritourism to the county, recognized that collective action was necessary. They decided to meet regularly to develop and implement a plan. They carried this out by organizing monthly meetings over pizza to discuss their interests. By the end of 2003 these individuals founded the informal Mountain Mandarin Growers’ Association. The founders continued their meetings over pizza and transformed them into association gatherings open to the entire grower community.

The events of 2003 signaled a major change in the way mandarin farmers operated in the region. The manner in which farmers negotiated challenges and opportunities in production and marketing began to shift from independent to collaborative. After 2003, growers began to work with the UC Cooperative Extension and Placer County Agricultural Marketing Director to develop an innovative strategy to raise the competitiveness not just of their own farm, but of the entire grower community.

Cindy Fake, farm advisor at the UC Cooperative Extension, was instrumental in facilitating collaboration and trust by delivering group-centered services to the mandarin community. During her first encounters with the mandarin grower community in 2001, when she began her position, Fake found the group pessimistic about the future of the industry. In 2003, Fake worked with long-time growers to identify problems in farm production by surveying the grower community and conducting a needs assessment. Farmers indicated that pest management, one of Fake’s areas of expertise, was a problem. In response, she developed a seminar focusing on the topic and personally invited experienced growers to attend. While providing group-centered educational services, she also encouraged farmers to share knowledge and rely upon each other. As a result of her close connection to the group, she has become aware of the expertise of its members and is able to broker knowledge. When contacted by a grower with a question, she refers them to another grower that has the answer.

Shortly after the study tour the offering of group-centered seminars in 2003, Fake began to organize field meetings at growers’ orchards. In these field meetings, which continue to meet monthly six to eight times a year, the group focuses on a particular topic within the context of the orchard visited. During the visit, the owner of the orchard talks about his or her trees and discusses issues and concerns with the attendees. The topics have included irrigation practices, pest management, pruning, and orchard floor management. In response to current growers’ needs, recent workshops have focused on marketing. In the initial meetings between twelve to fifteen new and experienced growers attended. As the meetings over pizza and at orchards have continued, though, attendance has risen. Today, the attendance has reached 20 and above. One long-time grower in the region indicated that Fake’s group-centered educational programs represent a change in the UC Cooperative Extension office’s method of service delivery. In the past, UC farm advisors usually performed farm calls and assisted farmers individually.

Close interactions have created a trust that has facilitated new opportunities in production and market- (continued next page)
ing. Since the creation of the growers’ association, farmers engage in collective purchasing for packing crates and parasitic wasps to combat pests. Depending on their production practices, some purchase pesticides and fertilizer together. Additional examples of collaboration include the group ownership of a trailer and the sharing of equipment. In my interviews of growers, all but one said that they rely on other farmers and others rely on them when farm problems arise. The farm advisor and agricultural commissioner describe these collaborative strategies implemented by farmers as an outgrowth of the UC Cooperative Extension’s activities.

**Intersectoral Linkages**

Another key component of success has been the development of intersectoral linkages. Intersectoral linkages occur when expertise from a given industry is applied to engage in production activities in another industry sector (Pietrobelli & Rabellotti, 2004). In the mandarin industry, this has been exemplified by farmers’ involvement in not only farm production, but tourism, the arts, and retail business activities. The examples below indicate how intersectoral linkages have provided the structure for a long-term upgrading strategy.

Joanne Neft, the Placer County Agriculture Marketing Director, has promoted a long-term goal of economic sustainability through agritourism. While her vision emerged in 1991, it wasn’t until the heavy bearing year of 2002 that Placer County had the critical mass of mandarin growers and level of production necessary to galvanize the grower community to participate. In 2004 mandarin farmers worked with Neft and the Arts Council of Placer County to create the inaugural Mountain Mandarin Tour. The tour demonstrates how the industry is networking with tourism, business, and community groups in the region. It consists of a guidebook that lists local mandarin farmers that open their orchards to artists and the public during the weekends of the harvest season. At the orchards, artists from the community work and sell to visitors of the tour. The various of art include silk screenings, sculptural ceramics, metal sculpture, black and white ink drawings, and naked raku (Dice, 2005). The idea stems from Neft’s greater vision of linking agriculture to tourism, heritage, and the arts. In a recent interview, Neft stated, “Frankly, arts and agriculture are appreciated by the same folks. People who enjoy eating in-season, freshly picked, wholesome local produce are the same ones who appreciate the visual arts, theatre, dance and music. Both arts and agriculture are substantial economic drivers in this region, so why not blend them? We are bringing the best of both worlds to Placer County” (Dice, 2005).

The festival and tour have generated strong linkages between mandarin growers and community members. The festival has woven the mandarin industry into local culture while the tour has connected its orchards with local residents. Many residents in the community, for instance, have developed a new tradition of visiting orchards during the harvest season and purchasing cases of mandarins to give as gifts during the holidays. Local farmers and institutional leaders agree that raising the cultural significance of agriculture to residents is critical to sustaining the industry. One farmer explained: “The tour helps people in the area realize that agriculture is located around the corner. It makes people aware and puts a face with a business.”

Members of the business community have also recently become involved in agritourism. Joanne Neft facilitated the linkage. In the summer of 2005, Neft met with the Sierra Business Council (SBC), an organization that represents over 500 businesses, agencies, and individuals within California’s 18-county Sierra Nevada region, and suggested that the council start a conversation within the business community to promote the development of an art, agriculture, and heritage tourism strategy in the Sierra Nevada region (Sierra, 2006). The SBC accepted the idea and promoted it, including it as a strand in their annual conference in October 2005. The session was attended by 80 people, including farmers, business owners, and vintners, as well as representatives from the hotel industry, arts community, and county government. Through this linkage with the SBC, small farmers in Placer County have the potential to expand marketing through regional and state-level agencies and attract investment by local businesses in art, agriculture, and heritage tourism.

As a result of recently formed intersectoral linkages, the mandarin industry now consists of a community of growers with deeper links to tourism, the arts, business, regional and state-level agencies, and local residents. These connections have enabled the industry to upgrade from exclusive commodity production into retail and tourism-based activities that produce services with an experiential value, incorporating cultural expression and heritage learning. Through this process, the county’s agriculture has risen in cultural and economic prominence locally and in the state.

**The Local Direct and Indirect Impacts**

The development of small-scale agriculture since the early 1990s has resulted in an array of public ameni- (continued next page)
ties. The county’s farmers’ markets have increased the quality of public spaces, creating places where different members of the community interact. In addition, new community-based organizations have arisen, such as the Mountain Mandarin Growers’ Association, promoting increased civic involvement. The direct marketing of mandarins has enriched the local culture, as evidenced by the region’s festival and tour and new traditions related to the crop. For those opposed to the social, environmental, and health implications of large corporate farming practices, the presence of local orchards has also provided an alternative market whereby consumers can have greater control over the food that they eat. Finally, the expansion of mandarin orchards has increased scenic view sheds and preserved historic land uses in the traditionally agricultural region.

The mandarin industry provides the local community with direct and indirect economic benefits. The direct economic impacts from the industry relate to business earnings from farm production, which provides exclusive or supplemental sources of household income. Following the intervention of institutions, farmers have upgraded by entering into new activities. Farmers now engage in marketing, distribution, and retail. Simply stated, mandarin farmers do much more than farm. In some cases upgrading has resulted in new businesses that are located off the farm. Agricultural businesses have been created or expanded in the county during the period of 2000 to 2005, including three locally owned retail produce stores, a new packing shed, and a new tractor retail store and mechanic.

Farmers now competitively capture retail rather than wholesale prices in a variety of local outlets. In 2005, retail prices for mandarins set by the county’s farmers at direct outlets ranged from $1 to $1.20 per pound. In contrast, wholesale prices set by distributors for higher quality mandarins such as those in Placer County were $.60 per pound on average. Farmers are now able to receive retail prices at local market outlets such as the farmers’ markets, festival, and tour. Growers also supplement these through supplier relationships with local schools, restaurants, retail markets, churches, regional brokers, and online customers.

In terms of indirect benefits, the mandarin growers support an array of local businesses through their operations. All but one of the local farmers interviewed reported that they purchase most of their inputs locally. Thus, purchasing from local farmers not only reduces spending leakages to non-local food producers, distributors and retailers, but also stimulates indirect economic impacts in other local agriculture-related businesses. Because the mandarin industry has increased consumer interest in Placer County agriculture and direct markets, it has anchored initiatives to market the county’s agriculture industry-wide. As a result of the Mountain Mandarin Festival and the Mountain Mandarin Tour, the mandarin industry has created a new regional driver for tourism. Finally, by supporting local agriculture, the County has helped preserve quality of life attributes that are important for attracting and retaining residents and businesses.

Conclusion
The mandarin industry demonstrates that economic development supports can sustain local agriculture in the most challenging of conditions. Instead of relying exclusively on land use policies and fiscal incentives, the Placer County government supported a variety of local institutions that provided specialized assistance in production and marketing, including the UC Cooperative Extension, the Placer County Agriculture Department, (continued next page)
the Foothill Farmer’s Market, and PlacerGROWN. By facilitating the development of various institutions, the Placer County Government has assisted stakeholders in organizing and specializing service delivery to farmers. Collective efficiencies, trust, and intersectoral linkages have provided farmers with resources that have promoted the economically viability of the industry. The interactions of institutional leaders with local and non-local universities, consultant expertise, and small-scale farming experts have developed collective efficiencies in production and marketing knowledge. Their development of production workshops, association meetings, and regional branding and marketing initiatives have helped to develop trust among growers, resulting in a shift from individual to collaborative problem-solving and decision-making. Consequently, growers are dedicated not only to the performance of their own farms, but to the industry’s regional competitiveness. Finally, the intersectoral linkages with tourism, the arts, and business have assisted in raising the industry’s economic and social significance in the county.

In the last few years, several counties have investigated Placer County’s model of direct marketing to explore policy options to preserve agriculture in their own regions. Some leaders from counties with strapped fiscal budgets discounted the program’s feasibility for replication due to Placer County’s positive state of fiscal health. Leaders in Placer County, however, argue that money has not been the most important determinant of success. Rather, they argue that small-scale farming and the mandarin industry in particular have grown because of the county’s “people capital.” Success has occurred due to the awareness of agencies and the capacity of growers to promote the willingness to trust and change.

Although fiscal and land use policies such as zoning, urban growth boundaries, preferential taxation and easements may prevent the development of farmland, they do not address the market challenges that may hinder its cultivation. As a result, such policy approaches offer only a partial remedy for a struggling agricultural sector. If local agriculture is valued by a community, county governments, community leaders, and farmers can promote economic viability by creating an institutional system of economic development supports that promote collective efficiencies, trust among growers, and intersectoral linkages. As evidenced by the mandarin industry in Placer County, this process involves the commitment of all stakeholders and the ability to identify and adapt to market opportunities and constraints in small-scale agriculture.

Editor’s note: the complete essay, along with references, is available from the author at janellesantos@gmail.com.