

UC Davis

Recent Work

Title

Assessing the Local Marketing Potential for Mandarin Growers and Hoshigaki Producers in Placer County

Permalink

<https://escholarship.org/uc/item/21d2x8h3>

Publication Date

2007-06-01

Assessing the Local Marketing Potential
for Mandarin Growers and *Hoshigaki* Producers in Placer County

By

HEATHER RICKS
B.A. (University of California at Santa Cruz) 1999

THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

International Agricultural Development

in the

OFFICE OF GRADUATE STUDIES

of the

UNIVERSITY OF CALIFORNIA

DAVIS

Approved

Committee in Charge
2007

Acknowledgments

I would like to thank the Placer County growers, producers, farmers' market managers, UC Cooperative Extension advisors, retail and business owners, educators, and researchers who provided their time and perspective to this research. I am indebted to Joanne Neft, the former Director of Agricultural Marketing in Placer County, for her generosity, guidance, wisdom and friendship.

I would like to express gratitude to my colleagues Jules Keane, Catherine Moravec, Michael Paine, Benjamin Lewis, Jennifer Campos, Nathan Cole and Renata Blumberg.

I am also grateful to Gail Feenstra for her immense support as my supervisor at the University of California Sustainable Agriculture Research and Education Program. I give her special thanks for helping me clarifying my ideas and more effectively communicate my thoughts while at SAREP and as a member of my thesis committee.

I am thankful for Frank Hirtz who was willing to offer conceptual advise and pushed me to think deeply about my research.

I am indebted to Mark van Horn for his attention to detail and thoughtful analysis of my writing. I offer special thanks to him for his guiding direction and support throughout my time at UC Davis.

I am thankful to my father, Michael Jordan Ricks, who inspires my love of education and my respect for the land and the resources we all share.

Lastly, I am very grateful for the love and support of my partner, Bill Heinrich, who inspired me to finish this project.

Table of Contents

I.	List of Tables	iv
II.	Executive Summary	v
III.	Introduction	1
IV.	Chapter 1 – The Rise of Agriculture in Placer County	3
V.	Chapter 2 - Efforts to Promote Local Mandarins in Placer County	7
VI.	Chapter 3 - Efforts to Promote <i>Hoshigaki</i> in Placer County	39
VII.	Conclusion	63
VIII.	Appendix A: Mandarin Description	67
IX.	Appendix B: <i>Hoshigaki</i> Description	69
X.	Appendix C: Interview Protocol for Mandarin Growers	70
XI.	Appendix D: Interview Protocol for Mandarin Stakeholders	72
XII.	Appendix E: Interview Protocol for Mandarin Retailers	73
XIII.	Appendix F: Interview Protocol for <i>Hoshigaki</i> Producers	74
XIV.	Appendix G: <i>Hoshigaki</i> Producer Profiles	75
XV.	References	78

List of Tables

Table 1a - Top Five Crops in Placer County in 2002	4
Table 1b - Top Five Crops in Placer County in 2005	4
Table 2 - Fresh mandarin supply, 1995/6 to 2002/03	10
Table 3 – Production and Value of Mandarins in Placer County, 2000-02	13
Table 4 – Placer County Mandarin Values based on Geographical Distribution	14
Table 5– Fresh Mandarin Utilization, 1995/6 to 2002/03	17
Table 6 - Placer County Per Capita Consumption of Local Mandarins, 2000-03	18
Table 7 - Placer County Per Capita Spending on Local Mandarins, 2000-03	18
Table 8 - 2003 Sales by Venue Distribution of Growers Interviewed	22
Table 9 - California Persimmon Production	41
Table 10 - California Persimmon Production by County (1997)	41
Table 11 - Current Market Distribution by Sale Type	46
Table 12 - Current Market Prices for Placer County <i>Hoshigaki</i> Producers	47
Table 13 - Reported Retail Prices for Dried Persimmons in California	47
Table 14 - Examples of potential agricultural marketing activities	58

Executive Summary

The purpose of this project is to identify the ways to promote and preserve two local food products, the mandarin and hand-dried persimmon, in Placer County, California. The first chapter details a general history of agriculture in the county. The next chapter is a detailed description of mandarin supply and demand, an assessment of current marketing channels for the mandarin within Placer County, followed by the overall barriers and opportunities for promoting the product and for expanding the market in mandarin growers in the county. The last chapter is a similar examination of another agricultural product in the county known as *hoshigaki* (Japanese hand-dried persimmon). This paper concludes with some broader themes reflected by the effort of Placer County's food growers and food producers to support small-scale, localized food systems and some of the unique lessons this community has experienced.

I. Introduction

Food provides not only sustenance but also an important cultural element that can connect communities. As regions of the world develop and incorporate more mechanized food production systems, more people are becoming less connected to the food they eat. The link between food consumption and agricultural production, however, is growing smaller in certain areas thanks to the efforts of some small-scale agriculturalists and food activists who are interested in promoting localized food production.

This paper will discuss the rise of two local food products in Placer County. Located in the Sierra foothills, Placer County is home to some of the fastest growing housing regions in the state of California and it is also the only county in the state to have its own Director of Agricultural Marketing. The county boasts two products that have both been promoted in an effort to increase revenue for local growers, preserve regional land and history dedicated to agriculture, and establish Placer County as an area dedicated to agricultural tourism. These agricultural products are the mandarin¹ and a specialty hand-dried persimmon (or *hoshigaki*)².

The first chapter of this paper will provide a brief history of agriculture in Placer County. The next two chapters will describe detailed research and assessment of the marketing potential for mandarins and hand-dried persimmons. The research detailed in this paper about the mountain mandarin was completed for the Sustainable Agricultural Research and Education Program's study of local food systems. It was compiled in a report and submitted as part of a larger nationwide study amongst 18 universities. The

¹ See Appendix A for the definition of mandarin used in this paper.

² See Appendix B for the definition of *hoshigaki* used in this paper.

final chapter of this paper is a summation of work done with a group of *hoshigaki* producers in Placer County as part of a larger analysis of the marketing potential of their hand-dried persimmons.

The format of the two latter chapters is similar. The current supply of both products is discussed as well as the current market demand for mandarins and the current market venues and productions systems for *hoshigaki*. Both chapters conclude with descriptions of barriers and opportunities for each product and recommendations for increasing their market potential. Interviews were conducted, in both cases, with growers and producers as well as retailers and other agricultural specialists in Placer County. Important information about regional agricultural history and involved stakeholders was shared by Joanne Neft, former Director of Agricultural Marketing in the county.

Both products offer unique opportunities for Placer County and have become part of a sustained effort to promote and therefore preserve the county's heritage. In my concluding thoughts, I argue why such research on localized food systems is necessary. I highlight the importance of preserving agricultural land and history and the cultural relevance of preserving traditional agricultural methods.

Chapter 1 – The Rise of Agriculture in Placer County

To better understand the significance of farming to Placer County, it is important to examine the history of agriculture in the area. Placer County stretches from the Sacramento area east toward Lake Tahoe and along the Nevada-California border. Placer wraps around the northern half of Lake Tahoe and is comprised of 1,431 square miles of increasingly valuable real estate. It is bisected by Interstate 80 and encompasses the cities of Auburn, Truckee and the fast-growing northeast suburbs of Sacramento. A variety of ecosystems occur within the length of the county, encompassing a portion of the flat lands of the Central Valley, the rolling Sierra foothills, and a section of the Sierra Nevada Mountains.

Originally inhabited by the Nisenan Indians, Placer County is now the home to over 250,000 people. Beginning in the 1800s, Welsh immigrants settled the area and began planting citrus and palm while also establishing the granite quarries in what is now Penryn. An important part of the area's economy, the county's agriculture developed as newcomers settled in the region. Miners began engaging in other wage-earning activities including farming, harvesting timber, and working for the railroad. As agriculture was developed and refined, fruit production became one of the main agricultural activities of Placer County until World War II.

Placer County's mild climate, with warm days and cool nights, assists in making large-scale fruit production very successful. Plums, pears, cherries and apples have historically been the main staples produced (King & Feenstra, 2001). However, fruit production began to decline between the 1940s and 1960s. Two factors contributed to the decline of the industry: mechanized irrigation and crop disease. When supplemental

irrigation became available to their orchards, growers in central California became stiff competitors to Placer County's fruit growers. Additionally, fire blight in the 1960s caused extensive and irreparable damage to the county's pear industry (King & Feenstra, 2001). Fruit trees require several years before they produce a sizable harvest, therefore the recovery of existing orchards from disaster and disease are historically very slow.

More recently, agriculture in Placer County has experienced massive change. Beginning with the decline of large-scale fruit production, other agricultural products have replaced many traditional crops. Rice, nursery products, livestock, and timber are high earning commodities in Placer in the 21st century (Turner, 2002). In 2002, the total value of agricultural production was over 76 million dollars: 57% from crops sales, 30% was from livestock and poultry sales, and 13% from timber harvest (Turner, 2002).

Crop	Value
1. Rice	\$15,383,800
2. Nursery Products	\$15,080,000
3. Cattle and calf	\$12,150,000
4. Timber	\$9,722,900
5. Chickens	\$6,507,000

(Turner, 2002)

Crop	Value
1. Nursery Products	\$13,998,300
2. Cattle and calf	\$13,230,000
3. Rice	\$11,824,000
4. Timber	\$11,514,000
5. Irrigated pasture	\$2,250,000

(Turner, 2005)

Of the total value of agricultural products in Placer County, fruits and nuts accounted for about nine percent of agricultural revenue in 2002 (Turner, 2002). In 2005, fruits and nuts accounted for eight percent (Turner, 2005). Placer County's fruit

production consists of a wide variety of over 23 types of fruits and nuts (Turner, 2002). Walnuts and oranges (including mandarins) have the highest value in this category. Nearly half of the total value of all fruits and nuts is comprised of miscellaneous fruits and nuts, including persimmons. Contrasted with the larger rice and livestock farms found in western flatlands of the county, fruit growers in the county tend to have small or moderate-size family farms in the foothills (King & Feenstra, 2001).

The major housing boom in the Sacramento area has stretched into Placer County in the last decade and threatens much of the flatland and foothill agricultural practices of the region. Placer has one of the fastest growing populations in California. The number of people living in Placer County has almost tripled since 1969 (King & Feenstra, 2001). Nearly 250,000 people live in Placer County today and the area is still expanding. Most of the expected population growth is believed to occur in the western portion of the county where access to jobs in Sacramento is convenient. This area is a draw for residents who seek a high quality of life at the edge of the city, near natural amenities and with a rural, small-town lifestyle.

While the influx of new residents has resulted in overall growth in gross profits and employment, the number of food wholesalers and retailers in the county is now declining (King & Feenstra, 2001). Agricultural activities are occurring on less land in Placer County today than in previous decades. The number of acres dedicated to agriculture has declined 49 percent from 1945 (King & Feenstra, 2001). The number of farms is declining in Placer County, but the rate at which they are declining depends on farm size. The number of large farms (greater than 500 acres) has been relatively stable since 1945, but the number of smaller farms is decreasing. Mid-size farms (50-499 acres)

have experienced the most rapid decline in numbers compared to small and large farms (King & Feenstra, 2001). However, despite this decline, small farms (1-49 acres) still account for 79 percent of all farms in Placer County.

Over the last decade, Placer County has initiated innovative programs that support a regional, sustainable food system. These include the well-known PlacerGROWN, a citizen-based, cooperative agricultural marketing program, ten farmers' markets and the Foothill Farmers' Market Association, CSAs, roadside stands, and a variety of harvest festivals including the Eggplant Festival, the Agro-Art Festival, the Farm & Barn Festival and the Mandarin Festival as well as the newly established Mandarin Mountain Farm Tour. Additionally, Placer County employs the first countywide local agricultural marketing expert in California who helps farmers/ranchers find markets for their products locally. Two products have been featured in the last five years within Placer County's agricultural marketing program: the mandarin and hand-dried persimmons (or *hoshigaki*).

Chapter 2 - Efforts to promote local mandarin growers

One of the most promising products to surface in Placer County in the last five years is the mandarin. Despite the growing popularity of mandarins within the county, growers and other agricultural experts sense that the local market for mandarins has barely been tapped. The purpose of this research was to assess the potential for marketing locally grown mandarins in Placer County. I modeled this project on a similar study done in Chicago to evaluate the local marketing opportunities for organic produce and this report was conceived as part of a nationwide study on local food systems. I am grateful to Gail Feenstra and Erin Derden-Little, who took this material and created the final version of the report for SAREP.

This chapter is organized into five sections. The first section provides an assessment of the current market supply of mandarins within Placer County as well as the United States and worldwide. The second section contains an assessment of the current market demand for citrus and mandarins, both in the U.S. and within Placer County. The third section summarizes the current marketing channels for mandarins within Placer County and the extent to which local growers are utilizing these channels. The fourth section is a summary of the barriers facing Placer mandarin growers. The fifth section is an assessment of the current and potential outreach and marketing strategies that are being implemented within the county, including ideas for future growth.

Current Supply

The current supply of mandarins, both worldwide and within Placer County, is on an upward trend, as mandarins gain in popularity and production efforts increase. The

United States is currently far behind other regions of the world in production of mandarin fruit but this reflects a different historical consumption pattern by Americans compared to areas such as Japan, where mandarins are valued highest among the citrus family.

Domestically, California is among the leaders in increased acreage planted to mandarins. Placer County, the fifth largest producer of mandarins in the state, is quickly dedicating more acreage to mandarins.

Worldwide Production

China leads the world in mandarin production, with 36% of the world tangerine (a variety of mandarin) total in 1999-2001 (Perez & Pollack, 2003) and an estimated 39% in 2001/02 (University of Florida, 2004). Surpassing Japan in the late-1990s, Spain is second and accounts for 10% of world production, mainly in Clementine tangerines. Japan ranks third with Brazil, Iran, Thailand, the Republic of Korea, Italy, Turkey and Egypt completing the list of top producers worldwide in 2001 (Perez & Pollack, 2003). Production of tangerines has risen in Argentina and Morocco within the last few years (University of Florida, 2004).

Domestic U.S. Production

The United States has produced around three percent of the world's total mandarins in recent years. The U.S. has never been a major producer of this crop, with only six percent of world production in the 1970s and roughly four percent in the 1980s, but has produced consistently. Production of mandarin fruit within the States is centered in Florida and California but also includes some growing regions in Arizona, Louisiana, Alabama and Texas. Most of these areas are subtropical and are generally associated

historically and culturally with major citrus production, so it is not surprising that acreage planted to varieties of mandarins is on the rise in these zones and growing significantly in certain areas. Tangerine production in Florida went from 43% of U.S. production in the 1986/87 season to around 70% by the 2002/03 season (Perez & Pollack, 2003). Likewise, acreage planted to tangerines is on the rise in California, where 25% of U.S. production is centered.

Additionally, imports of mandarins have increased significantly in the last ten years, some years growing by as much as 27% (see Table 2) and are mostly coming from Spain, the world's largest Clementine producer (Perez & Pollack, 2003). Historically, Mexico has supplied the U.S. with supplementary tangerines and, while imports from there have remained relatively stable, the drastic increase overall points to changes in consumer preference. Overall, imports of tangerines increased from 33 million pounds in 1994/95 to 169 million pounds in 2003/04 (Perez & Pollack, 2003; Pollack & Perez, July 2004), an increase of over 400 percent. The small decrease in imports in recent years is due to a ban placed on European tangerines in 2001/02, a result of the Mediterranean fruit fly found in Spanish Clementine that season (Perez & Pollack, 2003). After redefining the inspection protocol between the US and Spain, importation has eventually begun again but reflects some hesitation on the part of Spain to resume the levels of operation before the ban.

Year	Domestic Production	Imports	Total supply --Million pounds--
2002/03	646	170	816
2001/02	691	140	831
2000/01	618	206	823
1999/2000	697	207	904
1998/99	602	124	726
1997/98	619	90	709
1996/97	710	75	784
1995/96	645	43	688

(Perez & Pollack, 2003)

California Production

According to the California Department of Food and Agriculture, the value of fruits and nuts in the state exceeded seven billion dollars in 2001 (CDFA, 2002). With regard to mandarins, California ranks second in U.S. production and cultivates 25% of the domestic crop. Of the nearly 9,000 acres planted, 82,500 short tons (roughly 165,000,000 pounds) were harvested. Cash values of tangerines from 1999 to 2001 ranged between \$17,684,000 and \$31,815,000 (CDFA, 2002).

Harvest runs from the beginning of November through the end of April with the leading counties being Tulare, Riverside, San Diego and Imperial. Compared to the rest of the state's 350 crops, mandarins do not represent a large percentage of acreage or cash income. They were ranked 60th in 2000 on the commodities list of crops in California and 57th in 2001 (CDFA, 2002).

Most varieties grown in the state are Satsuma and Clementine (Perez & Pollack, 2003). Domestically, Satsuma are grown mainly in California. However U.S. production of the Clementine is growing in California. This is most likely due to the state's similar climate with regions like Spain (where Clementine do very well) and

increased demand for mandarins by U.S. consumers. Florida cannot grow Clementine on a large scale because the climate is too humid to produce good-quality fruit (Pollack & Perez, 2004). Recently, efforts to plant this particular variety have exceeded other varieties in California, with acreage planted to tangerines up three percent in the 2003/04 season and mostly occurring in the San Joaquin Valley (Pollack & Perez, 2004).

Unlike Florida, California and Arizona do not have statewide quality and size standards for processing mandarins so the fruit that does not meet fresh market standards in these states is sent for processing. However, because the demand for processed mandarin products is minimal and the standards so low, growers are not paid well for boxes of mandarins destined for processing. Yet they are usually able to recover some costs by selling the already-picked fruit in this manner, therefore prices reported for mandarins reflect more closely fresh market prices.

Placer County Mandarin Supply

The first farmers to plant mandarins in Placer County did so in the 1950s. By this time, orchard farming was well established in the county and Placer was known nationwide for its pear, plum and peach orchards. The demand for these stone fruits was high; truckloads of produce were sent by train to the east coast and numerous packing warehouses lined the streets of urban centers like Loomis and Newcastle. One grower, Frank Poyer began planting mandarin trees on his property in the mid-1950s and by 1958, he convinced three other established growers, including Ed Pilz and Frank Aguilar, to do the same in the Penryn area. Around this time a pear decline hit most orchards in Placer County and many growers lost all their stone fruit trees. Shortly after convincing his colleagues to start growing mandarins, Poyer lost his trees to frost. Of the three

growers, two still have a foothold in the business, though both operations are being run by younger generations (interview, January 12, 2004).

As most farmers in the area fought the pear decline, many turned to planting other crops to diversify their inventory. Mandarins have seen their biggest increase in acreage within the last decade, before the major housing growth that has marked the region in the early 21st century. Many growers planting mandarins these days are returning to farming after the hard hits they took during the 60s pear decline. Others are newer farmers, interested in trying their hand at agriculture as a hobby or as a second income; these growers have either retired from their first careers or are still working other jobs. A rare few have entered the field only to farm, and this group is increasingly limited by the rising cost of land; even those with family connections to land are diversifying their incomes with other work. Yet others still, who grew up on functioning agricultural land in the county, are looking elsewhere for more reliable income.

Despite these obstacles, acreage planted to mandarins has tripled in the last ten years according to Cindy Fake at UC Cooperative Extension (interview, January 29, 2004). As the number of growers has increased and the popularity of events like the Mandarin Festival has escalated, the supply of mandarins in Placer County has reached new levels therefore growers are starting to work together to find homes for their fruit and to solidify their place in Placer County agriculture. They face hurdles to marketing and sales but as the only cultivars of sweet mountain-grown mandarins, the specialized market is theirs to create and from which to benefit.

According to the Agricultural Commissioner's 2003 Crop Report, 148 acres of land in Placer County were bearing mandarins. With an estimated average output of five

tons per acre, the total production of mandarins in Placer was 740 tons for 2003 (see Table 3). These mandarins were valued at \$1,790 per ton, down from the previous two-year values of \$2,867 and \$1,900 respectively. Despite the decrease in value from 2002 to 2003, the overall annual value of mandarin production in Placer County seems to be on the rise at almost two million dollars in 2002, a sum nearly triple the value of 2001 and a reflection of the major increase in crop bearing between 2001 and 2002.

Year	Total Bearing acreage	Bearing per acre in tons	Total amount of mandarins produced in tons	Value per ton	Total Value
2003	148	5	740	\$1,790	\$1,324,600
2002	127	5	635	\$2,867	\$1,820,500
2001	93	3.10	288	\$1,900	\$547,800
2000	93	2.70	251	\$1,589	\$398,800

(Turner, 2001, 2002 & 2003)

Interviews³ were conducted with eight mandarin growers in the spring and summer of 2004, represented 18% of the number of growers at that time⁴ and 66% of the total bearing acres within the county.⁵ In addition, I gathered data from four Placer County stakeholders⁶, three retailers⁷, and at five grower association meetings in April, May, June, July, and October of 2004.

To help determine what percentage of their sales occurred inside or outside of the county, growers were asked how they market their fruit (see Marketing Channels, page 19). Data from the Agricultural Commissioner and interview responses show that most of the mandarins sold by Placer growers are purchased through venues within the county.

³ See Appendix C for Interview Protocol.

⁴ There were 43 growers at the time of data collection.

⁵ The eight growers account for approximately 99 acres of the 148 within Placer County.

⁶ See Appendix D for Interview Protocol.

⁷ See Appendix E for Interview Protocol.

It is estimated that as much as 66% of sales occur within Placer, with the remaining made outside the county (see Table 4).

	2002 Values in \$US	2003 Values in \$US
Sold within Placer County ⁸	\$1,201,530	\$874,236
Sold outside Placer County ⁹	\$618,970	\$450,364
TOTAL	\$1,820,500	\$1,324,600

(Mandarin grower interviews, 2004)

Current Market Demand For Citrus And Mandarins

The current market demand for citrus, and specifically mandarins, is also on the rise as more and more Americans are including increased amounts of fresh fruits and vegetables in their diet. Oranges, the largest citrus fruit consumed in the States, has historically been a favorite both as a fresh food and as processed juice. They rank as the second most popular fruit consumed in the country.

Historically a small market in the U.S., mandarins are rising in popularity throughout the States as a fresh, easy-to-eat food. Most are consumed fresh, with very little volume processed for juice or canning. On average, Americans eat approximately three pounds of mandarins annually and the majority of domestic consumption occurs in the Pacific Northwest region.

Within Placer County, the demand for mandarins appears to be on the increase with per person consumption rising from just over one pound in 2000 to almost four pounds in 2003. This trend is possibly due to the rapid growth of local mandarin

⁸ Based on venues described by growers.

⁹ Ibid.

production within the last decade and major efforts to increase direct marketing within the county.

Demand for citrus in the U.S.

According to the USDA, oranges¹⁰ have ranked consistently high among the favorite fruits consumed by Americans. Consumed as a juice, oranges rank number one. In overall production value with the U.S., oranges are second only to grapes and, as a country the U.S. is ranked behind only Brazil in production. Combined, the U.S. and Brazil account for over half of the world's production of oranges.

Partially because of the current convenience and year-round availability of orange juice, consumption of fresh oranges has declined while other citrus consumption has increased slightly. Historically, fresh consumption of citrus was higher in the 1950s and 1960s, peaking at 19 pounds of oranges per person annually in 1959, as methods of increasing production were developing and consumers relied more heavily on fresh products for nutrient needs. Orange consumption declined beginning in the late 1960s and into the 1970s. Since the early 1990s, however, fresh orange consumption is on the rise as more Americans are concerned with eating a healthy diet including more fresh fruits and vegetables. Additionally, bigger crops and increased imports of oranges and tangerines have increased the quantity and diversity of citrus available, thus possibly contributing to the increased popularity of citrus in the States.¹¹

Culturally, people of color within the U.S. report the highest consumption of orange products. Some groups, including Asians, consumed an average of 116 pounds

¹⁰ In much of the USDA data, mandarins (or tangerines) are included within the orange label.

¹¹ USDA, Electronic Outlook Report from the Economic Research Service, August 2003.

per person annually of fresh and processed oranges compared with whites at 80 pounds.¹² Overall, ethnic groups consumed the highest amounts of fresh oranges (Pollack et al., 2003).

Demand for mandarins in the U.S.

Mandarins, easy to peel and containing few seeds, have risen significantly in popularity within the U.S. in recent times. “Tangerines fit modern consumers’ preferences for convenient, easy-to-eat foods and have gained in popularity while other fresh citrus fruit have suffered” (Perez & Pollack, 2003). The bulk of current production is marketed to the Pacific Northwest (Perez & Pollack, 2003). According to UC Davis horticulturalist Louise Ferguson, mandarins control only two percent of the Western citrus market because of the immense popularity of navel and Valencia oranges (interview, February 6, 2004). In parts of Europe, mandarin consumption accounts for approximately 30% of citrus fruit (Contra Costa County Farm Bureau, 1999).

Within the States, an average of 70% of mandarins, both domestics and imports, are sold in the fresh market. The remainder is utilized as processed juice, sectioned and sold or utilized in other forms. For example, tangerine juice is often blended with orange or grapefruit juice for coloring and sweetening in Florida’s industry (Perez & Pollack, 2003). Unlike oranges, mandarin processing is miniscule compared to the fresh market, as the demand is lower for processed mandarin products.

According to a USDA report highlighting U.S. mandarin consumption published in 2003, Americans consumed an average of 2.6 pounds of mandarins annually in the last decade (Perez & Pollack, 2003). Consumption of mandarins was up to 2.9 lbs per capita

¹² USDA, Electronic Outlook Report from the Economic Research Service, August 2003.

in 2002/03 (see Table 5). This rate of consumption is the lowest of the fresh citrus fruits (except limes) but is the fastest growing. More and more Americans, according to the Economic Research Service of the USDA, are finding mandarins a convenient and easy to eat food and this is contributing to their rise in popularity (University of Florida, 2004).

Table 5– Fresh Mandarin Utilization, 1995/6 to 2002/03				
Year	Total supply	Exports	Domestic consumption	Per capita consumption
	--Million pounds--			--Pounds--
2002/03	816	37	779	2.9
2001/02	831	34	797	3.0
2000/01	823	33	791	3.0
1999/2000	904	62	843	3.1
1998/99	726	32	694	2.6
1997/98	709	55	654	2.4
1996/97	784	51	733	2.7
1995/96	688	49	640	2.4

(Perez & Pollack, 2003)

Demand for mandarins within Placer County

As mentioned previously, the average annual consumption of mandarins in the United States has been around three pounds per person for the past decade, with growth occurring in recent years. As production has risen, consumption of local mandarins has reflected this change on a local level. Assuming that local residents have historically consumed two-thirds of mandarin sales, local mandarin consumption has been growing rapidly. In 2001, local consumption per capita averaged just over one pound, increasing

slightly to 1.5 pounds. By 2002, local consumption jumped to 3.4 pounds per capita and was up to nearly four pounds in 2003 (See Table 6).¹³

	Tons produced in Placer County	Local tons (66% of total)	Local pounds ¹⁴ (66% of total)	Local pounds consumed per person
2003	740	488	976,000	3.9
2002	635	419	838,000	3.4
2001	288	190	380,000	1.5
2000	251	166	332,000	1.3

(Turner, 2001, 2002 & 2003; Mandarin grower interviews, 2004)

Consistent with data, as consumption has risen per capita spending, too, has risen.

Prices for local mandarins vary depending on marketing venue and time of year. On average, direct sales garner around \$1 per pound and wholesale prices can dip as low as \$.40 per pound.¹⁵ If so, annual direct sale spending on local mandarins by local residents has risen to just under \$4 in 2003 (see Table 7).

	Local pounds consumed Per capita	Average yearly expenditures (via Direct Sales) per capita
2003	3.9	\$3.90
2002	3.4	\$3.40
2001	1.5	\$1.50
2000	1.3	\$1.30

(Turner, 2001, 2002 & 2003; Mandarin grower interviews, 2004)

¹³ Per capita consumption of local mandarins by county residents in 2003 can be figured as follows: If 740 tons of mandarins were produced by growers in Placer County, 1,480,000 pounds were harvested and sold. Based on interviews with local growers, a composite average of 66 percent of locally grown mandarins are sold within the county. Of those 740 tons produced in 2003, 488 were sold locally or 976,000 pounds. According to the Census Bureau, the population of Placer County in 2000 was 248,399. So, per capita consumption in 2003 was roughly 3.9 pounds per person. These consumption and spending calculations do not yet take into account waste product.

¹⁴ Tons to pounds conversions are based on 1 ton= 2000 pounds.

¹⁵ Based on grower interviews.

Current Marketing Channels For Mandarins Within Placer County

According to grower remarks, mandarin sales have historically come from on-farm, that is, grower to consumer sales. As described in an earlier section, Placer County's agricultural culture is well known. Many Placer County growers are able to sell all their fruit each season based on reputation and on-farm sales; however, some growers I spoke to feel this is getting more difficult as the number of sellers increases.

As increasing numbers of large scale growers have begun planting and harvesting mandarins, Placer County growers have had to re-think the ways they can sell fruit. Such marketing channels are described below and include: wholesale, direct retail, institutional sales (schools and hospitals), farmers' markets, and agricultural tourism (seasonal festivals and farm tours). A summary of marketing venue data collected from grower interviews concludes this section.

Placer was a major fruit supplier for the state and the U.S., with numerous packing sheds and well-established contracts with buyers in other parts of the country. Today, mandarin production is very different. Placer's last fruit packing facility closed in 2001 (interview, December 3, 2004), and large-scale grocery retailers are replacing the smaller "mom and pop" stores in the area. Very few growers in Placer County have been able to maintain or create relationships with wholesalers who supply these retail stores. Instead, they buy goods in sizable quantities from large-scale produce growers in the southern Central Valley or outside of the state or country, importing produce from overseas to accommodate year-round availability of goods for grocery chains.

Overall, this venue accounts for just over one-third of mandarin sales by local growers in the county. Most of these relationships are with wholesalers outside of the

county who ship mandarins bought in Placer to the Bay Area or as far as Washington State. These wholesale companies are specifically interested in buying locally produced and/or organic fruit; one grower, based on a niche-marketing characteristic of the fruit, sells a significant portion of their mandarin crop in such a way.

As previously mentioned, mandarin sales have consistently come from on-farm sales. Marketing strategies related to this venue rely on continual interest from returning customers and sales occurring on-farm. Some advertise in the Placer County Ag Guide and are included in press for the Mountain Mandarin Festival. Only a few advertise on the PlacerGROWN website and only one grower I spoke with operates their own website.

With the exception of one grower, most of the interview participants sell the bulk of their supply to customers visiting their farms, generating between 80-100% of their total sales from on-farm activity. For one grower, on-farm sales are becoming more and more difficult because of the location of their orchard; they are either too far out and do not draw attention from local residents or they feel the county roads they live along are not designed for increased traffic from customers. Instead of attempting to bring more consumers onto their property, they find other venues for their fruit such as wholesale markets or direct retail relationships. However, the majority of growers in the county rely on this venue for sales and as a group the growers are moving toward increasing this method of sales by promoting ag-tourism in the county. Increasingly, more consumers enjoy the outing to a rural area to peruse the local farms and villages and are willing to pay more for the experience.

Placer County does have a handful of locally owned retailers that specialize in showcasing regional produce and goods, some of whom buy directly from mandarin

growers. This venue, however, is limited and only one retailer is actively interested in buying local mandarins. Other small-scale retailers from the county have turned to the larger growers in the southern Central Valley because they have found wholesale prices from that region to be significantly cheaper.

While all growers are aware of the holiday market potential that mandarins provide since harvest season coincides with Thanksgiving, Christmas and other winter holidays, only one grower advertises specifically for the shipping market while another one offers to ship boxes for customers every year. Other growers knowingly sell holiday boxes to customers but do not offer shipping services and only one grower and one retailer actively advertise this service online. Only one grower interviewed has an established relationship with a local high school lunch program to which they sell approximately a load a week during the winter season.

Local farmers' markets are plentiful in the area. Placer County boasts the Foothill Farmers' Market Association, based in Auburn and responsible for 10 markets within the county. However, because mandarins are such a seasonal item and most sales have historically been occurring on-farm, many mandarin growers have not explored this venue for selling their fruit. Some expressed difficulties gaining access to the well-established, seasonal markets; there have been efforts by market managers to extend certain markets more calendar days with mandarin growers in mind. This venue seems to be a great outlet for mandarin growers, especially those selling other goods or value-added products, to access the general public yet the only real problem is that farmers' market managers generally do not want more than a handful of growers selling the same product at a given market at one time.

All growers with whom I spoke regarding the festival agreed that it has helped their business. Most successfully sell their fruit over the weekend, some even attributing 100% of sales to the festival. However, numerous growers did complain that as the festival has gained in popularity and corporate sponsorship, they themselves have been marginalized in to the corner of the activities and feel left out.

Grower Marketing Venue Data

Based on grower interviews,¹⁶ I learned that the largest marketing channel for the crop is through wholesale venues, representing 42% of sales (see Table 8). However, the large wholesale account of one producer skewed the sales for the whole county, overestimating the importance of wholesale for the majority of the growers. Conversely, on-farm sales were underestimated, accounting for approximately 30% of sales in recent years. Direct retail generated approximately 20% of sales, while revenue from local farmers' markets and the annual Mountain Mandarin Festival account for almost 10% combined. Sales to local schools and mandarins shipped during the fall holidays each comprised around one percent of overall sales for these growers.

	Percentage of Sales	Tons
Wholesale	42	210
On-farm	29	143
Direct Retail	18	90
Farmers' Markets	6	28
Mandarin Festival	3	13
School	1	6
Holiday Shipping	1	5
TOTAL	100	495

(Mandarin grower interviews, 2004)

¹⁶ Those interviewed comprise an estimated 66 percent of the value of Placer County mandarins in 2003, based on Placer County's Crop report, the bearing acreage of land planted to mandarins that year and grower figures from 2004 season sales.

Barriers Facing Mandarin Growers

Overall Barriers

Agriculture has been an important part of the culture and economy of Placer County for generations, and until the rapid housing development of the last decade, farmland was the dominant feature of the county's landscape. With the recent and rapid conversion of farmland into housing subdivisions, agriculturalists are facing major obstacles that threaten their economic foothold in local and statewide markets. Consequently, the county's agricultural heritage is threatened.

Numerous conversations with growers and community members directly involved with agricultural activity revealed that small-scale agriculturalists in Placer County are facing increasing barriers that preclude their ability to continue farming the area. These barriers can be grouped into three categories: the effects of global agricultural trends, Placer's rapid urbanization and issues related to grower knowledge about agricultural marketing and promotion.

Global Agricultural Trends

Various effects of global agricultural trends in the last 50 years have supported price competition from large-scale growers outside the region and increased the availability of out-of-season, non-local mandarins.

Competition from larger growers in Southern California

According to conversations with large-scale retailers in Placer County and the larger Sacramento area, there is an increasing demand for mandarins in the region and throughout California. Many fruit growers in the southern Central Valley of California

run production systems that are significantly larger than the average 10-acre orchards found in Placer County. These large-scale growers have the capability to produce and supply copious amounts of produce, sold mainly to similarly large scale produce wholesalers and grocery retailers, both of whom dominate the mainstream retail market. Certain large-scale grocery retailers require their produce suppliers to provide an entire season's worth of produce. It is more economical, in their opinion, to operate on a large scale and to do business with one or two growers or wholesalers. Thus, the system is set up to accommodate large production and this limits small-scale growers like those in Placer County from entering retail markets in the state.

There are a few exceptions. Some large-scale retailers are willing to support local growers and even feature them in the store. However, this type of wholesaling for any grower requires a good deal of paperwork and some growers in Placer County complain that it is not worth the effort. Other medium-scale markets, like the Sacramento Natural Foods Co-op, are accessible only through wholesalers and only purchase organic produce (only a handful of Placer mandarin growers are certified organic). A few of these mid-sized markets were once smaller in scale and owned by local residents, growing in size as Placer County's tourist market has grown. Some of these retailers have historic buying relationships with local growers but are finding that the large-scale growers in the Central Valley are able to provide mandarins at significantly lower prices. These retailers are not concerned with marketing local mandarins or find no real difference in the fruit they are buying from the valley.

Competition from mandarin imports

According to Louise Ferguson, varieties of mandarins, both imported from Spain and those grown in California, could stretch the harvesting season from September to March (interview, February 12, 2004). Ferguson advocates for establishing links with producers in the southern hemisphere to keep mandarins in American stores year-round (Contra Costa County Farm Bureau, 1999). This could be detrimental to Placer County mandarin producers. Like retail competition from large-scale growers within the state, imports of mandarins from other countries impact local growers. Mandarins shipped to U.S. supermarkets during the off-season undermine the uniqueness of Placer's mandarins.

Urbanization in Placer County

Some effects resulting from recent urbanization in the region are an increasing restriction of the supply of irrigation water, the encroachment of intolerant neighbors, pressure on existing resources and markets for established growers and the threat of new "hobby" farmers, and skyrocketing land values that entice growers to sell and discourage new farmers from buying property.

Access to water

A general consensus among growers about access to irrigation water can be summed up in one grower's comments: "If growers do not have water already, they're not going to get it" (interview, January 12, 2004). A handful of growers are frustrated that water is being redirected toward all the subdivision growth within the county, particularly in the areas of Roseville, Rocklin, Lincoln, and Marysville, while their access

to increased amounts is continually denied. A water pipeline installed two years ago and in close proximity to numerous mandarin growers is pumping treated water underground toward new housing developments in the rapidly growing areas. Despite requests by local growers, the county will not allow local residents access to this piped water. These same growers are being refused any increases in the amount of water they receive; despite what some argue is a growing need. Only in times of hardship are requests for emergency rations considered, according to growers.

To make matters more complicated, maintaining current access to water and ensuring historic amounts are still available is not the only concern for growers. Water prices are going up. Some growers report a 15 percent annual increase over the last ten years in areas of the county. Additionally, the manner in which water is delivered to agricultural regions seems threatened. Growers are concerned that the current open ditch water system is likely to disappear as more people move into areas that have historically been devoted to agricultural activity. This system, these farmers feel, may be considered unsafe to new residents and eventually removed. Growers then wonder how they will afford treated water if it is the only option.

Neighbor complaints

Complaints from neighbors about the side effects of living so near to agricultural activity are growing. Despite the draw of rural farmland that many new residents enjoyed when moving into the area, many do not seem to relish in the day-to-day proximity they now live to farm activity. Growers are receiving more complaints from neighbors about spraying and noise equipment, even though many only spray once a year and keep machine noise to a minimum. Without established rapport with the growing

number of residents who surround them, growers are concerned that more people moving into the area will challenge their agricultural practices and change their way of life.

Competition from newcomers

Some growers complain that because of the positive consumer response to mandarins in Placer County (and the United States in general) in the last decade, two things have resulted: some of the existing relationships between established growers and retail markets have been usurped by newcomers and small, hobby farmers who set-up roadside stands are underselling the general mandarin grower group.

As the number of farmers growing mandarin oranges in California increases, relationships between these growers and the retail market have changed and it is difficult to maintain the existing “homes” for the harvested fruit. Informal agreements, despite their historical significance, are often broken when newer sources offer lower prices, mostly in a secretive manner. Venues that Placer County mandarin growers once had within the county and even those for overseas markets are not available from year-to-year, leaving some growers to scramble in mid-season to unload their fruit.

Additionally, a number of Placer County residents, witnessing the growth in popularity of mandarins in the area, have planted tiny orchards (between 10-50 trees) in their backyards. According to some growers, these neighbors have fruit-bearing trees within a few years and often begin underselling their fruit to tourists, advertising along roadsides and pricing their fruit for much less than the established growers whose costs of operation are greater. Others actually purchase mandarins outside the county and sell them along the major thoroughfares, advertising the fruit as Placer grown. This raises concern among Placer County mandarin growers over quality, as they feel that fruit

grown elsewhere does not have the same signature taste (see Opportunities section for a description of Placer's unique fruit).

Increasing land value

Current plots of land in the county are selling from between \$30,000 and \$250,000 per acre. With land prices so high, agriculture is quickly being pushed out, as many landowners are tempted to sell to developers who are "planting homes instead of food." Some feel the only way agriculture will survive is if small growers (4-5 acres) who already own land are able to maintain a foothold. One grower feels the market potential is there but access for new growers or expansion of current holdings is difficult with the cost of land rising so quickly.

Grower knowledge about marketing and promotion

Placer county mandarin sales and growth are related to the varied levels of knowledge among small-scale growers about the importance of marketing in today's agricultural system.

Varying levels of knowledge and understanding of the importance of marketing

Marketing and self-promotion are becoming increasingly vital for small-scale farmers in today's agricultural markets. Food advertising influences consumer choice regarding where to buy food as much as what types of foods to purchase. With more and more American consumers cooking foods that are pre-packaged, pre-made and less connected to the places they are actually grown, small-scale agriculturalists are more reliant on human connection between themselves and their consumers. For many growers, this aspect of producing food might be new. For some, historic relations with

local businesses or on-farm consumers have been enough and marketing outside these venues has not been necessary. This is particularly true in Placer County, where fruit production has a long history, and Placer's reputation as a source of high-quality agricultural products continues despite the decline of large-scale production since the 1960s. As marketing needs change in the area, some growers are adapting, but others would benefit from greater marketing expertise.

Current Strategies For Marketing & Ideas For Future Growth

Overall Opportunities

Many resources for small-scale growers in the region will become limited as described in the previous section because of the population growth in the region. However, opportunities for increasing mandarin sales for local growers in Placer County do exist. Placer County boasts the only county-appointed agricultural marketing specialist in the state of California, whose efforts have produced an annual mandarin festival and a system of farmers' markets throughout the county. In addition, current local officials and supervisors are sympathetic to agricultural issues. An Agricultural Commissioner and Cooperative Extension staff, who are knowledgeable and interested in supporting Placer's farm community, further support the county.

Opportunities highlighted in this paper all fall under the umbrella of increased marketing. To be more specific, they have been grouped into the following categories: product differentiation, utilizing existing resources, targeting consumers, and new marketing venues.

Product Differentiation

A key element to promoting local mandarins in Placer County lies in the description and differentiation of this unique fruit. Mandarins are grown all across the globe but within the U.S., mountain-grown mandarins like those from Placer County are only grown in northern California. Agreed-upon standards within the Placer growing community such as an accompanying label describing the fruit as PlacerGROWN (see Utilizing Existing Resources for information on this label) or something similar will help brand the product and inform consumers.

Mountain-grown mandarins are unique

Because of environmental factors, mandarins grown in mountain areas like the foothills of Placer County are unique in flavor. Hillside orchards facilitate irrigation that does not leave trees standing in water but does allow water to soak into the ground and the excess to run downhill. Additionally, the mountain climate allows for warm days and cool nights. Both of these factors (irrigation and climate) increase the sugar content and enhance the overall flavor of Placer County mandarins.

Value-added Products

Currently, only one grower produces value-added products including seven items. This line of value-added goods accounts for a large portion of the grower's business income. Other growers are catching on: in 2003, one experimented with a mandarin butter made by a local business that bought the fruit from the grower and sold the butter both in their store and on the grower's farm. Sales were high and there are plans to expand the amount of butter in 2004.

Ease of growth and maintenance

Mandarins are a fairly easy crop to manage. People see how easy they are to grow and how pest-free the trees are compared to other crops and many decide they would like to try growing mandarins. According to Cindy Fake from UC Cooperative Extension, acreage in Placer County devoted to mandarins has tripled in the last ten years (interview, January 29, 2004). Mandarin trees grow well in the foothill climate and they usually are in full production in three to five years. However, as residents begin growing mandarins for hobby, competition is increased for existing markets. Demand is high and markets within the county and the surrounding Sacramento and Tahoe areas have not been fully realized. An organized and more standardized selection method could be utilized to increase mandarin production within Placer County.

Demanding a price that reflects the differentiated product

Because mandarins grown in Placer County are unique due to the growing conditions and mountain climate, fruit grown in that area can be marketed for that uniqueness in flavor. According to the USDA, because mandarins are available for such a short time and because citrus does not store well on the tree, the fruit can potentially demand a higher price than other types of fresh produce (Perez & Pollack, 2003). If there is any lag time between the availability of mandarin or tangerine varieties, prices may begin to rise between the dwindling supply of the current crop and the next variety. If marketed within northern California and surrounding states, mandarins can also be promoted as a local crop. Consumers concerned with the environmental effects of

shipping produce long distances will be more likely to purchase mandarins from their local area that are fresher and higher in quality.

Utilizing Existing Resources and Services

Many established resources exist within Placer County to help agriculturalists. Not all growers can use every source, but many do exist and efforts are constantly made to update growers on these resources, many of which are free.

Established educational resources exist within Placer County

Numerous resources have been established within Placer County to assist agriculturalists with issues from pest management to marketing. The University of California Cooperative Extension office and its Farm Advisor, Cindy Fake, create field workshops for growers to learn more about issues related to irrigation and crop rotation. This resource could also be utilized to run workshops that integrate farm tours with local school children and other educational outreach programs.

Placer County growers have access to PlacerGROWN, a non-profit organization that provides marketing and networking services to farmers. They offer free advertising on their website as well as free links to individual grower websites. Additionally, growers also have access to assistance from the county's Director of Agricultural Marketing who provides invaluable resources to growers and retailers on marketing fresh produce and other agricultural products grown in the county. The Director is also in charge of developing festivals that focus on mandarin growers. Lastly, Placer County's Agricultural Commissioner, Christine Turner, is another invaluable resource for local growers.

Increased cooperation between mandarin growers

Increased cooperation is occurring between mandarin growers and many growers see this as a good thing. Efforts on the part of some growers and community members to really pull the community of mandarin growers into a joint, loosely formed association have been well received and seem to be moving the group in a positive direction with regard to marketing. The mandarin growers would do well to follow the example created by grape growers in the region who have established a non-profit association or the El Dorado County coalition of grape growers and wineries with the same goal of creating a uniform voice for marketing, protecting agricultural landscapes, and the exchange of information.

Many mandarin growers have recently begun participating in monthly planning meetings to discuss marketing issues and ideas. The first annual Mountain Mandarin Magic Farm Tour occurred in the height of the 2004 harvest season. Designed to attract local residents and tourists and to draw attention to Placer County's mandarin growers and farms, this tour was developed and organized at the planning meetings by the growers and other community members involved in agriculture. These same growers often attend the monthly field workshops organized by UC Cooperative Extension and hosted at various mandarin farms and orchards.

While all of these efforts seem to be moving the growers toward a common goal of selling their fruit, a number of them expressed hesitation. Some are worried about divulging too much information about their operations. However, it is their shared knowledge about growing citrus fruit and an interest in maintaining Placer County's agricultural heritage that bonds them. Like the Bay Area Farmers Association (BAFA),

Placer mandarin growers might join together to define cooperative ways of working together. The association was created by farmers for farmers and supports the expansion of consumer awareness of the importance of supporting local food connections at home, in restaurants and in retail establishments.

Targeting and Educating Consumers

Besides targeting residents of the county who are familiar with the agricultural history of the region and new homeowners moving into the area, many long-term residents of Placer County and the surrounding area are not aware of the bounty of agricultural products in the region.

Urbanization brings new buyers into the region

Growth in Placer County is increasing steadily, making it the fastest growing county in the state of California and one of the quickest developing regions in the US. With all this growth, the potential for new consumers of local goods increases. As Placer County continues to increase its agricultural marketing efforts and develop a secure foothold for the farmland that remains, it can capitalize on the thousands of new residents moving into the county.

Buy Local Campaign

According to both growers and other agricultural specialists in Placer County, many local residents are uninformed about mandarins themselves. Although the influx of mandarins has been growing for years, many locals are unaware of the distinct fruit both as a locally grown food and as a citrus choice in the supermarket. Mandarins are becoming increasingly popular in the States and, although Placer County has a rich

history of growing fruit, many residents are unaware that they are grown within the county. According to some agricultural stakeholders in Placer, many consumers are familiar with only canned mandarins. Folks living as near as Sacramento and Davis are often surprised to learn that mandarins are being grown as a crop so close to them. Interestingly, the mandarin varieties being grown in Placer County are unique to that area and not grown anywhere else in the U.S.

Efforts to increase the number of farmers' markets are underway and to extend a select few of these markets to mandarin growers will help educate old and new residents. The development of agricultural tourism events will also draw more consumers into the area and encourage the purchase of local goods with the local community. Additionally, growers can benefit from educating consumers on the health benefits of eating mandarins. In an American society increasingly concerned with obesity and other health problems, fresh and local fruit is highly nutritious. Low in calories, no saturated fat or cholesterol, loaded with dietary fiber and free of artificial colors or preservatives, mandarins can be marketed to health-conscious consumers.

New Marketing Venues

Agricultural marketing within Placer County must be geared toward generating revenue for the growers and county but also in educating consumers on the importance of supporting local growers, as mentioned above. Many efforts have already been established and are underway including the Mountain Mandarin Festival, the Mandarin Mountain Tour and the expansion of farmers' markets specifically for mandarin sales. These and other marketing venues can continue to be explored and expanded.

Internet/Website marketing

Internet sales have not been explored in the least by Placer County mandarin growers. Only one grower has their own website and makes fruit and products available online to customers. Retailers or the association of growers could also tap into this venue. One local retailer shipped over 6,000 pounds of fruit from their online store in the 2003 season and feels the potential for shipping online has not even been tapped.

Direct Retail

While difficulties exist for small-scale growers in establishing business relationships with many large-scale retailers, there are a number of local retailers who would be willing to buy directly from growers. According to interviews, only 90,000 pounds of local mandarins are being sold outside Placer County. Based on data from large and small-scale retailers in the county and the larger Sacramento area, some 977,000 pounds of mandarins are purchased by retail markets.

Ag Tourism

Opportunities for expanding the tourism industry in Placer County are numerous and include: farm visits that incorporate activities for children, picnic areas, and mandarin tastings; U-pick operations; farm stays, small on-farm markets and farm tours (see below). Joanne Neft, former Director of Agricultural Marketing in the area, received a variety of requests for these services (interview, December 3, 2004).

Placer County standards/label for Placer County mandarins

Placer County growers might do well to create standards of freshness and ripeness that could brand the county name on quality fruit. Creating a Placer County Mandarin

label that showcases a grower association logo, cohesive packaging as well as point of sale items like brochures describing the fruit's high quality and the unique Placer County landscape could all help to brand the produce and create a name for Placer mandarins outside the immediate area.

Newly established Mandarin Tour

Together, the group of a few dozen mandarin growers who met regularly agreed, in 2004, to host the first Mandarin Mountain Tour – a self-guided driving tour of participating farms and orchards that will showcase the mandarin growers as well as local artists who belong to the Placer Arts Council.

Increased revenue spent on marketing

Because, historically, mandarin sales have been on-farm and have not required much marketing on the part of small growers, most producers do not spend a great deal on advertising. Increases in efforts to promote local mandarins in recent years have involved small contributions to the Placer County Ag Guide and support for the newly established Mandarin Mountain Tour, but money spent by growers on advertising remains small compared to most businesses. Avocado growers in California are required to contribute four percent of their production costs to the state Avocado Board to pay for advertising (interview, December 11, 2004). Some balk at this amount but other local businesses spend as much as 20% of gross income on marketing (interview, December 3, 2004). Large-scale grocery retailers certainly spend vast amounts on advertising with no plans to stop. Again, small-scale agriculturalists have to re-think how they market and promote themselves.

Final Considerations

Opportunities highlighted in this report all focus on increased marketing. More and more growers are becoming aware of the importance of marketing and the potential benefits of expanding production to include agricultural tourism, value-added products, and educational efforts that encourage consumers to buy food locally. Growers are also aware of the need to pool resources from one another and the community and to work together to grow a quality product.

Placer County mandarins, unique in taste and flavor because they are mountain grown, have the potential to target not only untapped areas of Placer but also high-end markets willing to pay for the unique and seasonal product. While agriculturalists in Placer County face a number of barriers in marketing their products as farmland is quickly replaced with concrete and new housing divisions, mandarin growers have a well-established foothold in the local economy.

Chapter 3 - Efforts to promote hand-dried persimmons in Placer County

Another unique and promising product that Placer County's marketing program has begun to promote in the last few years is a specialty product known as *hoshigaki*, or hand-dried persimmons. This product, the result of an East Asian method of drying persimmons, is done by a few of Placer County's Japanese American residents.

Along with a group of my colleagues, I conducted a study to identify some potential ways to promote the preservation of this commodity and to possibly increase its economic viability. In doing so, we presented the information we recorded and we made suggestions to the Director of the Placer County Agricultural Marketing program that included an assessment of the production and marketing systems currently in place as well as some specific recommendations for improving the producers' economic returns. In addition, we created a marketing brochure to be utilized by the program and the *hoshigaki* producers.

This chapter of the paper is organized into seven sections. The first section provides an assessment of the current supply of persimmons within Placer County as well as the United States and worldwide. The second section includes a description of the Japanese hand-dried persimmons and the drying technique. The third and fourth sections, respectively, contain assessments of the current production systems and marketing venues for *hoshigaki* based on interviews with four Placer County *hoshigaki* producers. The fifth section highlights some barriers for *hoshigaki* producers. The sixth section is an analysis of some opportunities for increasing the economic viability. The final section contains specific recommendations, taking into account the Placer County producers'

goals and preferences based on the interviews.

Current Supply Of Persimmons

Worldwide Production

Total production of persimmons worldwide has been steadily increasing since the early 1980s (FAOSTAT, 2002). Traditionally an Asian product, most of the current production is outside the East. This may indicate that the persimmons may be gaining importance beyond Asian consumers. The four largest producers of persimmons are Iran, Brazil, Italy, and Mexico (FAOSTAT, 2002).

Domestic U.S. Production

The U.S. produces a small percent of the world's total persimmons. Production is limited mainly to California and remains constant. The varieties grown in the U.S. were imported from Japan in the late 1800s. Despite its own native North American persimmon, production in the States is limited to the Japanese species, *Diospyros kaki*. The North American native, *Diospyros virginiana*, is indigenous to the northeast but produces small fruit.

California Production

California persimmon production accounts for 99 percent of all U.S. persimmons (Turner, 2002), with the largest crops originating from the southern and central valley regions. Persimmon production in California seems to be relatively stable, despite the increase in production worldwide. Total production in California was 25,266,000 pounds in 1992, and 24,756,000 pounds in 1997 (USDS/NASS, 1999). The total acreage planted

to persimmon increased slightly from 3,403 acres in 1992, to 3,459 acres in 1997. The number of farms producing persimmons decreased from 999 in 1992, to 931 in 1997. In addition, the number of farms that harvested persimmons also decreased, from 721 in 1992 to 687 in 1997 (USDA/NASS, 1999).

	1992	1997
Production	25,266,000	24,756,000
Acreage	3403	3459
# of farms producing	999	931
# of farms harvesting	721	687

(USDA/NASS, 1999)

Placer County Persimmon Supply

Placer County ranks 14th in the state for persimmon production, lagging far behind the top five producers listed in Table 10.

County	Harvested Persimmons (Pounds)
1. Tulare	5,789,762
2. Fresno	4,924,535
3. San Diego	3,570,952
4. Kern	2,879,126
5. Yuba	1,706,812
14. Placer	255,383

(USDA/NASS, 1999)

Japanese Hand-Dried Persimmons

Drying Technique

The Hachiya variety of persimmon, acorn-shaped and very astringent, is the type usually dried using this method. The variety is tart from its high tannin content but sweetens as its natural sugars crystallize on the skin in the process of drying. As the fruit dries, it shrivels and shrinks. Some 10 to 15% of the fruit is lost to weather or “fruit

drop” from the racks. Although variations exist, the following description of the drying method provides a guide to the process.

Most importantly, it is necessary to choose the persimmons at the right time. The quality of the dried product will vary depending on when in the season the fruit is picked. Harvesting of persimmons usually happens in October. Delaying harvest increases the sugar and therefore sweetens the fruit. However, waiting too long to pick the fruit can be risky. If so, the fruit is too difficult to handle and cannot be properly hung to dry without separating from the stem.

After the persimmons are picked, the first step is to peel the skin from the hard fruit. It is important to leave some skin around the stem for stability. String is attached to the stem of two individual fruits; the pair is hung over a pole making certain the two persimmons do not touch each other. Beginning four to seven days after hanging on the poles, the persimmons are massaged by hand on a daily basis. The massaging helps reduce wrinkles, facilitates evaporation, and also prohibits mold from growing in the wrinkles of the drying fruit.

Because too much sun may burn the persimmons, overcast weather is preferred. Although the persimmons may be left outside to dry on racks, rainy or moist weather will disrupt the drying process. In order to avoid morning dew, persimmons may be brought inside or covered at night. If the weather gets too cold, many growers will hang the persimmons inside and use heaters or fans to maintain optimal conditions. After a period of four weeks, the persimmons should be ready to package, freeze, or store. The techniques of drying persimmons vary and although this may hinder efforts to standardize the product, the individual approaches of each *hoshigaki* producer reflect the unique

nature of the product.

Cultural Context

Hoshigaki is the Japanese name for this traditional Asian, high-quality, dried fruit food product. While *hoshigaki* can be translated literally to English as “dried persimmon,” this definition is not complete. The term of *hoshigaki* should be considered in the cultural context surrounding the drying technique. The tradition of drying persimmons is practiced throughout Asia, particularly in China, Korea and Japan. Even in these countries, the tradition of hand-drying is slowly being replaced with oven-drying. As older populations pass away, the art and ancestral knowledge of hand-drying persimmons is threatened.

Throughout Japanese history, persimmons have been an important fruit, and dried persimmons were especially important as a source of food during the winter. Along with dried chestnuts, *hoshigaki* were one of the earliest known sweets of Japanese cuisine (Inoki, 2003). Before the introduction of sugar cane or sugar beets, *hoshigaki* was an important sweetener (Karp, 2000). According to one persimmon grower, his father-in-law used to dip the dried persimmons into his coffee to sweeten it (interview, March 11, 2004).

Today, dried persimmons are used in a variety of recipes and holiday traditions. For the Japanese- American persimmon growers in Placer County, these traditions are particularly distinct. These producers continue to hand-dry persimmons for family and friends, despite the daunting amount of labor and attentive patience required. While younger generations pursue diverging interests, the technique of drying, which has been passed down from generation to generation, is slowly becoming a dying art. The

diversity of tastes and qualities of *hoshigaki* reflect the unique techniques and innovations of each person.

Hoshigaki producers have a sense of pride and devotion to their traditional consumers and to their family who have been placing orders for *hoshigaki* for many years. For example, a Japanese friend of Hiro Matsuda started buying dried persimmons from Hiro's parents as a college student. At that time he was poor and could only afford to buy two pounds each season. He continued to increase his purchases for many years while he became wealthier. Now he buys 30-40 pounds a year (interview, March 11, 2004).

Current Production Systems For Hoshigaki In Placer County

The superior quality of *hoshigaki* is ultimately derived from the producers' preservation of the integrity of the traditional drying process. Numerous agricultural development projects have failed because they did not take into account the human dimension of the agricultural system they were seeking to improve. The research group interviewed four *hoshigaki* artisans in Placer County (see Appendix D for Interview Protocol and Appendix E for summarized interview transcripts). These producers were recommended by Joanne Neft and identified as the most accessible for the project. During the interviews, two types of information were collected. First, technical information such as how they obtain the persimmons, how they dry them into *hoshigaki*, where they currently sell their products, what is their interest in trying different marketing techniques and primary motivation for producing *hoshigaki*. Second, social information related to each producer's history, cultural perspectives, inspirations, and individuality

was gathered.

Each producer's motivations and life history is unique. This contributes to the beautiful variety observed in the final product. One might argue that *hoshigaki* production cannot be separated from its social and cultural context. Because of the individuality of each producer's drying techniques, it is important to highlight their own personal experiences and philosophies about *hoshigaki*. While there exist certain similarities among *hoshigaki* producers in Placer County, each producer's motivation to continue creating the product and their historical association to *hoshigaki* is unique.

Hoshigaki producers in Placer County can be separated into those who are both fruit growers and producers (approximately one-third) and those who produce *hoshigaki* from purchased the fruit (approximately two-thirds). Most are Japanese-Americans, though there are a few producers who are not but have learned about *hoshigaki* from their Japanese neighbors. Most producers primarily use family labor and may hire help for the initial peeling and tying procedures.

Among the four producers interviewed, the estimated total annual *hoshigaki* production was around 2,500 pounds of dried persimmons. Some of the producers have the capability to increase production but are constrained by insufficient drying space. In fact, producers commented that the lack of space is a hurdle for the growth of *hoshigaki* production. Most currently use drying systems in which the persimmons are hung on wooden racks similar to laundry racks or vertical clotheslines. However, since it is important that the fruit does not touch, these racks must be sufficiently spaced apart and thus can take up a great deal of area. Additionally, the drying persimmons have to be moved inside depending on the weather. In many cases, the process takes place in

basements, sheds, and even living rooms. Only one producer was able to build a separate small room for the *hoshigaki*.

At the end of the drying process, *hoshigaki* is packaged individually, in one or five pound bags, and shipped in cardboard boxes. Each dry persimmon weighs roughly 33 grams and measures about 4 cm wide and 8 cm long. Labels are rarely used. Storage spaces for the finished product are usually garages and sheds, although some producers freeze their products.

Current Market Venues For Hoshigaki

In order to identify new market opportunities for *hoshigaki*, we analyzed marketing avenues currently used by Placer County *hoshigaki* producers. Annual production levels range between 150 and 1,200 pounds per producer. Over two-thirds of *hoshigaki* made by Placer County producers is sold to wholesalers while 24% is sold directly to consumers on the producers' farms or through mail order. Six percent is sold directly to consumers at farmers' markets and less than four percent is sold to local retailers.

Table 11 - Current Market Distribution by Sale Type	
Wholesale	66 %
Direct	24%
Farmers' Markets	6%
Local Retailer	Less than 4%

(*Hoshigaki* producer interviews, 2004)

Hoshigaki producers that we interviewed currently sell their hand-dried persimmons for between \$5.50 and \$10.00 per pound. About 40% is sold for \$5.50 to \$6.00 per pound. Twenty-nine percent is sold for \$7.25 to \$7.50 per pound. Thirty-one percent is sold between \$8.00 and \$10.00 per pound. The *hoshigaki* sold wholesale at the

higher price is done so out of the county but, in general, the relationship between distribution and price is mixed.

\$5.50 – 6.00	40%
\$7.25-7.50	29%
\$8.00-10.00	31%

(*Hoshigaki* producer interviews, 2004)

In comparison, retailers and farmers' market vendors (who are presumably producers themselves) are currently charging \$14.00 per pound, on average (see Table 13). Three of the four markets are in California, two of which are in the Bay Area; the Placer County producers we interviewed did not sell in any of these markets.

Sale Location	Reported Retail Price
Ferry Building Farmers' Market	\$14.00 per pound
Bay Area Retailer	\$12.00 per pound
Hawai'ian Retailer	\$20.00 per pound
Santa Monica Farmers' Market	\$10.50 per pound

(Market Manager interviews, 2004)

The distribution of *hoshigaki* produced in Placer County is restricted largely to the county and a few retail stores in the Bay Area. It is interesting to note that the *hoshigaki* that is sold in the Bay Area commands a higher price than that sold elsewhere in northern California. All of the farmers interviewed are consistently able to sell their entire crop of dried persimmons each year. The largest producer predicted that he could sell more *hoshigaki* on-farm and through mail order.

This preliminary analysis indicates great opportunities for a shift to direct sales as well as through an increase in production. Taking into consideration producer insight and understanding of markets, this analysis also suggests that producers' economic returns

could increase if they are willing to increase their sale prices.¹⁷

Barriers To Increasing The Economic Viability Of *Hoshigaki*

The most important input to producing *hoshigaki* is the persimmon fruit itself. In addition to decreases in the number of farms, the average age of farmers is increasing in Placer County. The average farmer was almost 57 years old in 1997 (King & Feenstra, 2001). This factor alone could strongly influence the fate of agriculture in this region since many farmers sell their farms to suburban developers upon retirement. In the short term, *hoshigaki* producers and potential producers can expect the persimmon supply to remain stable. However, if many persimmon farmers sell their land to developers, the locally grown persimmon supply will most likely decrease. This possible decline in persimmon production presents a barrier for some *hoshigaki* producers who do not have their own orchards. For example, Dan Kajimura relies on getting fresh persimmons from other producers to dry in exchange for the finished *hoshigaki* product. As more orchards are destroyed, he notes that obtaining persimmons may become more difficult for him (interview, April 24, 2004). This may also be a problem for older populations of *hoshigaki* producers, who can no longer manage orchards, but who can still produce *hoshigaki*.

Overwhelmingly, the benefits of *hoshigaki* as a product outweigh its limitations, however some do exist. One major limitation is the fact that many Americans are not familiar with persimmons. Additionally, the visual appearance of a *hoshigaki* is not

¹⁷ Three of the producers expressed reluctance to raise their prices, citing a fear of losing traditional customers.

immediately appealing to a consumer unfamiliar with the product. Because of this, it is essential that the consumer be educated about its unique qualities in order to overcome any cosmetic limitations it may have.

Many substitute or replacement products for *hoshigaki* are available to the consumer. These substitute products include other dried fruits and dried persimmons not produced using the *hoshigaki* technique. A large variety of dried fruits are available on the market, which range in cost from the very cheap (e.g. raisins) to expensive (e.g. organic dried figs). While the diversity of dried fruit products on the market indicates a strong consumer interest in dried fruits, it presents a constraint to successful entry of new innovative products such as *hoshigaki* due to the lower prices of many less labor intensive, and thus less expensive, alternative dried fruits.

Dried persimmons produced using methods other than the *hoshigaki* method are also potential *hoshigaki* competition. Dried persimmons are available in many forms in the current market. *Just Persimmons* is a persimmon product produced from Central Valley grown persimmons that sells for \$5.00 per pound. Rancho Padre Organic Fruit, a nine and a half acre certified organic farm located in the Central San Joaquin Valley, sells dehydrated persimmons on the Internet.

Competition also exists for imported and locally produced *hoshigaki*. Currently, *hoshigaki* is imported into the United States from China and Korea. Asian food stores stock imported whole dried persimmons. However, the quality of imported persimmons varies and while some may be hand-dried by a method comparable to *hoshigaki*, others are likely oven-dried. These products directly compete with Placer County *hoshigaki* producers by satisfying the demand for the product by specific consumers.

During the 20th century, the U.S. witnessed a reduction of the number of farms, as well as an increase in average farm size (Gale, 2003). Farming practices and culture reflected these changes, as many children raised on farms did not continue farming. The social consequences of farm children leaving agriculture affect more than just the demographics of farming communities in the U.S. The number of young farmers throughout the U.S. has been decreasing, as they face numerous entry barriers, notably a lack of financial resources (Gale, 2003). As younger generations adopt urban lifestyles, the knowledge and family farm traditions to which they have been exposed are likely to perish. The negative consequences of this trend are currently being realized, as people acknowledge the social and ecological values of farming practices and rural culture. Scholars such as Kenneth Young have even suggested “conservation efforts also need to be directed toward ideas, focusing on how the cultural experiences that embed and transfer those ideas could be maintained, or at least understood” (Young, 2002).

The dying art of drying persimmons is one facet of California agriculture that is disappearing very rapidly. The tradition of *hoshigaki* has been an integral part of the rural landscape of Placer County, and, even now, still reflects a history of cultural and ethnic diversity in the farming communities of California. As the sons and daughters of *hoshigaki* producers take up non-farm occupations, they are unable to stay on the farms and do not engage in the labor-intensive process of drying persimmons. The practice of *hoshigaki* is therefore relegated to the older family members who still live in rural areas and who have the time to devote to the process.

This lends itself to a transfer of knowledge that may not remain within the Japanese culture. Because all the Japanese farmers we interviewed in Placer County are

getting older and many of their children are not interested in continuing the growing and/or drying of persimmons, the operation of hand-drying might become the job of residents outside the Japanese community.

Some Opportunities For Increasing The Economic Viability Of Hoshigaki

Opportunities exist for Placer County *hoshigaki* producers to preserve the traditional Japanese hand-drying technique through increasing its economic viability. The opportunities identified in this section are based on three main goals: shifting from wholesale sales to direct sales, increasing the price per pound, and consciously educating consumers about *hoshigaki*. These objectives can be accomplished by capitalizing on media attention, targeting likely consumers, increasing direct sales, and differentiating *hoshigaki* from other dried persimmon products.

Media Attention

Media attention for *hoshigaki* started in the fall of 2003, with the U.S. opening of “Red Persimmon,” an East Asian documentary about the hand-drying process. The film was released in New York and marked the beginning of increasing publicity for this special product. Media support was shown within Placer County as the Hachiya persimmon appeared on the cover of the *Placer County Agriculture Guide for 2004*. The guide featured a story about *hoshigaki* and local grower, Tosh Kuratomi.

Further print attention was given to the agricultural process and product in the Fall 2004 issue of *The Snail*, Slow Food USA’s newsletter. The Slow Food movement, the brainchild of Italian food critic Carlo Petrini, was started in 1986 as a response to the

influx of American fast food into Rome (Chadwick, 2002). It involves 42 countries and supports over 65,000 members (Chadwick, 2002). Petrini defines the concepts of Slow

Food as:

...an eco-gastronomic movement. We were born as a gastronomical association, paying attention to the traditional pleasure of table and wine, in order to oppose in some way the crazy speed of the 'fast life' – the way of life and food production that leads to the homogenization of flavor and the erosion of culture. However, we quickly realized that the flavors we wanted to save were closely connected to the work of people – of farmers, who with their ancient knowledge are the true custodians of biodiversity and the land. We had this fundamental realization of the connection between sustainable agriculture and gastronomic culture (Kummer 2004).

With 74 chapters and over 12,000 members worldwide, Slow Food is catching on in the U.S. and some chapters are turning away members (Stille, 2002). Interest in Slow Food is particularly high in the Bay Area with the help of Alice Waters, a well-known chef and advocate for Slow Food, whose restaurant in Berkeley features local growers, organic produce and specialty foods. The effects of exposure from establishments like Chez Panisse, Waters' restaurant, are very positive for specialty fruit products. Jim Churchill's Pixie Tangerines, an Ark food, from Ojai Valley, California are featured every spring on the dessert menu at the restaurant. According to the pastry chef, Alan Pangren, "people know that we go to a lot of effort to choose absolutely the best fruit that we can find" (McLain, 2002).

Exposure in restaurants also can often lead to direct sales. When consumers are educated about a food's origin and given access to grower names, some often phone the grower and request boxes of produce sent straight to their homes. Jim Churchill gets calls from people as far away as upstate New York for shipments of his Pixies (McLain, 2002). Slow Food attributes the potential interest in specialty foods in the U.S. to the growth in organics and the rising momentum behind Community Supported Agriculture.

Three initiatives are embedded in the Slow Food movement, all of which focus on

helping people grow, produce, and consume the right kinds of food: the Ark, the Presidia, and the Slow Food Award. The Ark is “a directory of endangered foods around the world that members rescue by enjoying them” (Kummer, 2004). The Presidia is a grassroots organization that Slow Food utilizes to help create methods to make Ark foods available to the general public. Finally, the Slow Food Award brings “aspiring artisans and agricultural activists, mostly from the Third World, to international attention and gives them concrete assistance” in maintaining their livelihood (Kummer, 2004).

The Ark was first introduced in 1996. Within a year, an official manifesto was created to outline the objectives of this faction of the Slow Food Movement. The Ark is concerned with saving the economic, social and cultural heritage associated with animal breeds, fruit and vegetables, cured meats, cheese, and cereals, pastas, cakes and confectionery. In preserving these food items and techniques, the Ark attempts to save “endangered tastes” by introducing nominated items first to Slow Food members and then the wider public through media, public relations and Slow Food events (Slow Food USA, 2004).

The Snail is distributed to all Slow Food USA members as well as numerous parties aligned with the Slow Food movement. *Hoshigaki* was nominated to the *Ark of Taste* by renowned chef and author, Deborah Madison, for the unique art form by which it is created and for its outstanding and unusual taste. “It is culturally linked to Japanese-Americans, and may not be easy to find outside of that community. But as these delicious confections are rightfully considered a delicacy, and that there is a lot of craft involved in turning a large fruit into an exquisite dried one, I thought that these persimmons would be worthy of consideration for Ark status. I am thrilled to report that

they have recently been accepted as a passenger on the Ark” (Slow Food USA, 2004).

This form of marketing attention has proven highly effective with other products in the *Ark of Taste*, for example. Growers must, however, be in a position to meet the demands of potential new consumers, following in the footsteps of several Ark foods that have preceded *hoshigaki*. The criteria for foods nominated as Ark items involve the ability for a food to create a “unique, pleasurable, high quality gastronomic experience,” a food or method of production at risk of extinction, a food that is produced or harvested sustainably, a food that is historically, socio-economically, or culturally tied to a specific region of locality, or a food that is cultivated or produced according to specific techniques (Slow Food USA, 2004). Foods nominated as Ark items may not contain genetically modified raw materials and no transgenic breed or plant will be listed.

The mission of Ark USA is to support high quality, small-scale food production; to rediscover, catalogue and describe foods and flavors in danger of disappearing from our tables; to protect biodiversity; and to champion the art of taste and the right to pleasure. Some Ark products include the Heritage Turkeys; Pixie Tangerine; Naturally Grown, Hand Harvested and Processed Wild Rice; Iroquois White Corn; the Elephant Heart Plum; Creole Cream Cheese; the Green Mountain Potato; and Red Abalone (Slow Food USA, 2004).

The Presidia, on the other hand, are localized organizations that were created to help provide a consumer base for these Ark foods. These individuals and groups put themselves at the disposal of artisans and conjure creative ways in which to assist them (Kummer, 2004). This is done by putting food makers in touch with one another and helping to introduce their products to restaurants and food-connoisseurs around the

world. Saving endangered foods is a way of achieving an even more ambitious goal: helping small-scale farmers succeed economically, protecting swaths of land, maintaining biodiversity, and preserving cultural heritage and traditional ways of life (Bacon, 2004).

Targeting Likely Consumers

Likely consumers for the potentially growing *hoshigaki* market could include such Slow Food connoisseurs as described in the previous section as well as consumers concerned with healthy eating. In the earlier section on the Slow Food Movement, the preservation of culturally significant foods as a growing higher priority for some consumers was discussed. These consumers tend to live in high-cost urban areas and have significant expendable income. Some have membership in the Slow Food organization.¹⁸ They often buy produce and other food products at farmers' markets and natural food stores in addition to innovative restaurants and boutiques. They are willing to pay a premium price for recognizable quality.

One of the goals of Slow Food is to present traditional foods with nontraditional uses. By creating new ways to enjoy traditional food, the potential accessibility to the food is increased. Deborah Madison feels that if *hoshigaki* is going to expand into new markets it will be based on people understanding the process. The persimmon is a fairly obscure and unknown fruit. A dried specialty version of an obscure fruit makes it even more unfamiliar. Therefore, education is central to the marketing and a common theme among foods nominated to the Ark.

According to a 2002 consumer survey by the Hartman Group, the total market for

¹⁸ In the geographic area accessible to the Placer County producers, this area would include San Francisco and the surrounding Bay Area.

wellness products and services based on reported consumer spending is \$5.5 billion monthly (\$66 billion annually). These consumer trends have important implications for successful marketing of *hoshigaki*. Persimmons contain high levels of dietary fibers and significantly higher levels of antioxidants than other fruits; in addition, they also contain higher levels of sodium, potassium, magnesium, calcium, manganese and iron (Gorinstein et al., 2001). Studies demonstrating the effect of dried persimmon consumption vs. fresh persimmon consumption on disease or other health problems are not currently available. The convenience of consuming dried fruit, however, has shown to increase fruit consumption (Pollack, 2001).

Strategies to Increase Direct Sales

Shifting sales from wholesale to direct marketing is an important part of increasing the profitability of *hoshigaki* production. Selling directly to consumers allows the producers to maximize their profit margin. In addition, direct marketing allows producers to develop a relationship with the consumer while also providing the opportunity to educate the public. For *hoshigaki* producers there are three particularly promising avenues for direct marketing that include targeting farmers' markets, Internet marketing, and agricultural tourism.

Targeting Farmers' Markets

Several facts, revealed by research done by myself and the group into current markets for *hoshigaki* and interviews with farmers' market managers, suggest that targeting farmers' markets is a realistic way to increase profits for Placer County dried persimmon producers. Because the supply of *hoshigaki* is limited and demand is likely to

increase, producers may be able to capitalize on higher sale prices.

Hoshigaki is able to draw a higher price (\$8-10) at farmers' markets and other direct sale outlets than when sold wholesale (\$7-7.50). The 600 pounds of *hoshigaki* currently being sold to wholesalers by Placer's producers could increase by 10%- 36% in gross profit if it was diverted to direct sale and sold within the current price range. Farmers' markets offer the most room for a price increase. Because *hoshigaki* is a novelty item, producers have a high chance of acceptance into competitive farmers' markets. There are few farmers' markets from Placer County to the Bay Area that offer dried persimmons and very few that offer persimmons dried whole using the traditional Japanese technique. Farmers' markets also offer an opportunity to build product recognition through sampling and direct interaction between producers and consumers.

Internet Marketing

Several websites have been developed as a clearinghouse for small producer specialty items. These websites allow small producers to access this growing market. There are several resources for assisting farmers in accessing both the technology of the Internet as well as the marketing potentials. The USDA reports on marketing possibilities and strategies and the National Farmers Union actively promotes economic and cooperative development, with a heavy emphasis on creating value-added agricultural processing and marketing initiatives. Their aim is to enable producers to retain ownership of their commodity, enhancing their returns on investment and getting more profit out of their production.

Hoshigaki producers in Placer County have the additional advantage of being connected to PlacerGROWN, a non-profit organization focused on assisting Placer

County farmers and ranchers with marketing. Their website provides an avenue for farmers and ranchers to advertise and it provides community members a way in which to find information about their local farmers and ranchers.

Ag Tourism

There are numerous opportunities for increasing farm income through agricultural tourism. Agricultural tourism can increase income by providing an increased consumer base for direct sales. Table 14 presents a sampling of potential agricultural tourism activities that can be applied on farm. The type of agricultural tourism that might be appropriate for a particular farm will depend on the resources and assets available.

Table 14 - Examples of potential agricultural marketing activities
Agriculture Food & Craft Shows Harvest Festivals
Educational or Technical Tours Roadside Stands & Markets
Family Reunions Self-Guided Driving Tours
Farm Work Experience School & Educational Tours and Activities
Food Festivals U-Pick Operations
Guided Crop Tours Wilderness Experiences

(Small Farm Center, 2004)

A regionally successful model of agricultural tourism is the Apple Hill Growers Association in neighboring El Dorado County. This association has grown from 16 original ranchers to over 45 ranchers, including Christmas tree growers, wineries, and vineyards. Apple Hill is an excellent example of how agricultural tourism in Placer County can be used to support growers. “So much of the history of Apple Hill has been preserved. The community has gone to tremendous effort to protect their history and offer the public an opportunity to step back in time, if only for a day” (Apple Hill, 2004).

Hoshigaki producers and persimmon growers in Placer County could also use

agricultural tourism as a direct marketing tool. Some producers may not be willing to raise their current prices, travel to urban farmers' markets, or actively seek competitive direct marketing opportunities with distant consumers. Still, these producers may be willing to share the traditional Japanese hand-drying process and traditional Japanese persimmon varieties with others. This subset of producers could consider marketing mainly the drying process rather than *hoshigaki*. This strategy may be particularly appealing to producers who have difficulty hiring affordable labor or finding a new generation with whom they can share their experience and knowledge.

Agricultural tourism related to *hoshigaki* could also serve as a way of educating consumers about the drying process and the product. Since persimmons and *hoshigaki* are not well known beyond Asian consumers, agricultural tourism offers producers the opportunity to explain the cultural significance, the unique characteristics, and the health benefits of persimmons and *hoshigaki*. In addition, several aspects of *hoshigaki* production lend themselves well to agricultural tourism. The beautiful drying racks that hang in the fall offer a point of attraction for farm tours. Participatory lessons on how to make *hoshigaki* could be offered to school children and to the general public.

Agricultural tourism in the fall and winter when persimmons are drying would coincide with the streams of tourists that come to the region for seasonal activities. *Hoshigaki* producers could also provide agricultural tourism outreach at the annual Placer County Japanese Bazaar.

If agricultural tourism activities could be held on-farm and engage consumers in the drying process, they might be willing to buy larger amounts of *hoshigaki*, fresh persimmons they could dry at home, and other farm products available for sale. In this

way, marketing the *hoshigaki* process could bring multiple sources of income to growers and producers in a manner that would allow them to avoid drastically increasing the price or the labor input needed to increase *hoshigaki* production.

Differentiating the Product

Product differentiation could be essential to a successful marketing strategy. For *hoshigaki*, this is perhaps the most important aspect of the marketing strategy. *Hoshigaki* has an array of unique characteristics that can be used to differentiate the product from other similar products. Two ways *hoshigaki* can be differentiated are labeling and point-of-sale materials.

Labels are often the first line of communication between producers and consumers. Labels create product recognition and can also provide name recognition for the farm. *Hoshigaki* labeling could tell the consumer where and how the product was produced, designating the uniqueness of Placer County and the labor-intensive drying technique.

Likewise, point-of-sale materials help sellers both promote and differentiate their products. These items can include pamphlets, recipes, trade publications, and small consumer gifts. This creates a method for producers to engage in public relations and also creates brand recognition among consumers. Point-of-sale materials help producers convince their consumers that their products have value. With a specialty product like *hoshigaki*, potential consumers are not likely to be familiar with the item. In this case, consumer education is critical.

Recommendations

In the previous sections I have presented the results of the group research on the local history of *hoshigaki*, our assessment of the current production and marketing of *hoshigaki*, the growing interest in *hoshigaki*, and some examples of successful agricultural marketing strategies in the form of opportunities that may exist for future marketing of PlacerGROWN *hoshigaki*. The recommendations our group made were aimed at three objectives: shifting from wholesale sales to direct sales, increasing the sale price, and increasing consumer education. These three objectives were designed to improve the potential for continued *hoshigaki* production by increasing profitability.

It is important to acknowledge that farmers are not solely motivated by the desire to maximize profit. Any meaningful strategy to increase profitability must take into account the wants and needs of farmers and their families, as well as farm specific resources and limitations. These factors could include feelings specific to the cultural or familial significance of a product such as *hoshigaki*. Increasing the awareness and profitability of *hoshigaki* should never come at the expense of the cultural and familial significance surrounding the product. The characteristics that make *hoshigaki* unique and worth preserving should be maintained and preserved and guided by the integrity of the *hoshigaki* process and product.

Recommended strategies derived from this research can be divided into three sub-groups: targeting consumer groups, increasing direct sales, and establishing product differentiation. Our first recommendation was to acknowledge the importance of education. One can assume that an increase in awareness of *hoshigaki* has the potential to help create an increase in demand. Thus, education can serve both goals of increasing

consumer awareness and producer profitability. In addition, education about *hoshigaki* can highlight the cultural heritage and diversity of agriculture in Placer County.

The second recommendation was for producers to shift distribution to direct marketing aimed at conscientious consumers. Farmers' markets, Internet marketing, and agricultural tourism are avenues growers may utilize to access the types of customers. All of these are based on forging relationships between grower and consumer. The result might be a higher potential for profitability but also a far greater connection between the people who are producing the product and those who enjoy the finished result. Both the producer costs and risks associated with direct sale are higher than wholesale, which is why farmers often choose to sell to wholesale outlets. However, I believe there is at least one reason to suggest a switch to direct sales; the unique nature of *hoshigaki* resides in its quality, not quantity. Producers in Placer County currently have no problem selling their entire crop in part because their product is so highly valued.

The third recommendation is based on product differentiation by the individual producer or the collective group. Labeling and branding is the most important aspect; it is invaluable that consumers understand via written information the connection between the product and its producer.

Conclusion

In this research, I attempted to examine a community whose history is rich in agricultural foundations. I do not claim to completely understand the atmosphere for decision-making with regard to growing or marketing food. Nor do I wish to be insensitive to the demands and pressures involved in making a living by growing or producing food products. In interviewing and spending time with the various growers in Placer County, I experienced a myriad of personalities and perspectives that reflect the variety of people and intelligences of that community. Regardless, a few general themes became apparent to me in my research; they form the foundation for my concluding thoughts about Placer County's mandarin growers and *hoshigaki* producers.

I wish to highlight the importance of preserving agricultural land for its history, specifically the cultural relevance of preserving traditional agricultural methods, and its significance in the larger food system. In examining the efforts to promote mandarins and *hoshigaki* in Placer County and in meeting the people associated with these efforts, it quickly became apparent to me how incredibly important the county's identification with its agricultural history was.

From the beginning of my research and throughout my work in the county, the community welcomed me as a representative of UC Davis whose interest coincided with their lifestyle and way of life with open arms and enthusiasm. I was asked to become part of community meetings and events, brought into the homes of many growers for interviews and samples of local food products, and continually encouraged and supported by a willingness to answer questions or offer information on the part of community members. I did not meet a single person unwilling to help me or, at the very least, point

me in the right direction to someone who could answer my questions.

As I summated the information and began to see broader themes that reflected the challenges and opportunities for Placer growers and food producers, I could also begin to delineate the unique lessons of the county; its historic role in feeding people and its protection of cultural traditions related to community and food. The county's rich and long history as a rural, agricultural community is more important, I would argue, to its survival than its promotion as a winter tourist destination.

While local food markets evoke status, distinction, and a sense of belonging to consumers, such markets also create tension between recreating nostalgic space and contributing to the progressive promotion of local food. American agriculture has changed drastically in the past five decades. In fact, some would argue that it no longer could claim a sense of "culture," having been replaced by machinery and factory-scale processing. Our small farms and homesteads are rapidly being sold to developers in some communities, becoming the foundations for the concrete maze of fabricated homes, strip malls, restaurant chains and seemingly endless freeways that comprise this country. Some children in America are being increasingly raised on fast food and, as a result, do not learn where food really originates. American society is becoming increasingly reliant on quick, convenient meals that are pre-prepared and not fresh. Many people in the States are losing the ability, and interest, to cook. Farmers' markets and agricultural tourism, for example, are increasingly being created as a means to return to a rural America that was rooted in farming in addition to serving as a method to promote local, healthy food.

But more is happening. Farmers' markets have become not just a venue for the

middle and upper classes to feast upon, they also represent a venues for the liberally minded to express stroing beliefs in promoting an ecological community. As an alternative, the promotion of local products cannot theoretically replace or even redefine the capitalist market system. This type of marketing can, however, provide a space for an alternative food system that might undermine the established and dominant frame of large-scale supermarket chains and big agricultural business that some feel plague society. As such, local food systems reflect a progressive method for marketing food and a way for citizens to support localized food products.

Additionally, they represent an interest, on the part of some consumers, to trace food origins. Some consumers believe goods that are locally produced are more likely to be traditionally manufactured or grown and demonstrate a clear origin. “Such direct agricultural markets would seem to mitigate, however modestly, growing public uneasiness about the social and ecological attributes of food” (Hinrichs, 2000). In the various forms of support garnered from participating in local food systems, consumers are able to voice their preference for certain foodstuffs and their lack of interest in certain goods. By choosing to shop at a farmers’ market, I would argue, a customer is framing their consumption in a number of ways, many of which overlap. Shopping at farmers’ markets allows consumers to express their alliance to a certain type of identity and to support various meanings applied to public space. In participating in alternative markets framed to support small-scale farmers, consumers align themselves with identities that are based in distinct characteristics, a sense of belonging and higher status but also identities that are simultaneously rural and progressive.

At the very backbone of agricultural communities is the simple truth that people

need to eat; that food and its production are central to survival. As developed cultures begin to forget this connection to their source of food, less land is being reserved for growing food products. As communities lose their ownership and self-reliance, it becomes more difficult to regain. Furthermore, communities that are more removed from food production are less likely to understand the real impact of a disregard for the value of land dedicated to agriculture because their experience of growing it themselves or, at the least, knowing community members who grow food is non-existent. People who can be reconnected with the growers responsible for raising the food they eat can also reconnect with the intimate details of the place and culture of their food.

Likewise, the methods that communities develop in celebration and honor of their connection to the land become vital cultural elements. As cultures become more removed from food production, traditions and rituals that highlight seasonal activities such as spring planting or fall harvesting can become lost. Moreover, traditional methods of handling, sharing, and celebrating the harvest help define certain communities; without these elements cultural identity, while not lost, is transformed.

APPENDIX A: Mandarin Description

For the purposes of the study, the term mandarin is utilized to describe a particular type of citrus fruit that is grown in Placer County. According to Julian Sauls, professor and horticulturalist at Texas State University, mandarins can be described as “a diverse group of citrus fruit that are characterized by bright peel and pulp color, excellent flavor, easy-to-peel rind and segments that separate easily” (Sauls, 1998). However, the term mandarin is not commonly used to describe the fruit. Rather, many American consumers refer to this small, orange fruit as the tangerine. In addition, much of the research data on mandarins is listed under the term tangerine therefore contributing to the confusion and, more often than not, the misuse of the term. To clarify, all tangerines are mandarins but not all mandarins are tangerines (Sauls, 1998).

Mandarins, as the larger grouping, can be separated into four categories: Satsuma, Mediterranean, King, and common tangerines. Of particular interest to this study of Placer County are Satsuma mandarins though other mandarin varieties are planted and grown within the county. Specifically, close to 80% of the mandarins grown in Placer are Satsuma while the common tangerine variety comprises roughly 20% of planted acreage within the area of study.¹⁹ See below for further detailed information on the four categories of mandarins.

The four types or categories of mandarins can be traced to various origins throughout the world. Satsuma originally came from Japan, where they are still considered the most important citrus. A number of varieties, both from Japan and others developed in the US, are in this grouping including: Owari, Obawase, Okitsu, Kimbrough, Big Early, Armstrong Early (Sauls, 1998), Caruso, C-35, trifoliolate and Cleopatra (the latter two used mainly as rootstock). The last four types of mandarins are predominant in Placer County²⁰. Satsuma are known for their high quality and seedless nature. Bright, reddish orange in color, the peel is easily separated from the fruit and the segments are equally easy to separate. This variety does best in cool temperatures during the fall and winter.

Mediterranean, most likely from Italy, originated in the Mediterranean basin and includes Willowleaf (or Mediterranean) as the most well known variety. The fruit is medium sized, is oblate in shape and exhibits a short collar and furrowed neck on the stem end. The fruit’s flesh is yellowish-orange in color, with a thin rind of the same color. Maturity is between October and November.

The King type of mandarin originated in Viet Nam and was first introduced to California around the end of the 19th century. King, the primary variety, is the largest of all mandarins, with a thick rind of yellowish-orange color. The flesh of the King is a deep orange and contains many seeds. This particular variety matures late, February to March.

¹⁹ Tony Aguilar, Mandarin grower, interview, 20 September 2004.

²⁰ Ibid.

Tangerines are the most culturally widespread mandarin and are mostly used for hybridization. The Clementine (or Algerian) was first introduced to the US from Algeria in the early part of the 20th century. It has a deep reddish orange color and is characterized by more adherences between the rind and flesh segments. Other tangerine varieties include the Dancy from Tangiers, Ponkan (or Chinese Honey) from India, the Changsha and the Fortune (a hybrid) (Sauls, 1998). Other hybrids include the tangelo (a cross between a tangerine and a grapefruit) and the tangor (a cross between a tangerine and an orange). Hybrids of these varieties are the Minneola (a tangelo which is also called honeybell and Orlando) and the Temple (a tangor) (Sauls, 1998).

APPENDIX B: *Hoshigaki* Description

Hoshigaki is a traditional Asian, high-quality, dried fruit food product. Through the drying process, the color of the fruit changes from orange to brown. The calyx and stem remain connected to the fruit and act as an anchor during the drying and eating process. The natural sugars that come to the fruit's surface give the dry fruits a white "dusted" appearance. The kneading process allows the whole fruit to dry evenly without slicing, so whole unwrinkled persimmons are considered the best *hoshigaki*.

APPENDIX C: Interview Protocol for Mandarin Growers

How did you get started growing mandarins? When did you plant your trees? What are the reasons you began growing mandarins? Was there a major event (e.g. food safety scare) that sparked your growing mandarins?

How many acres are planted to mandarins? How many mandarin trees do you have?

Why do you think mandarin production has grown so quickly in Placer County? What are the opportunities for future growth in mandarins? What are the barriers to future growth?

How do you market your mandarins?

(Farmers' markets, retailers, wholesale, schools, hospitals, on-farm, percentage of sales for each)

What local marketing strategies do you use?

Do you use the PlacerGROWN labeling on your mandarins? Do you advertise your farm/fruit on the PlacerGROWN website?

Do you use the Internet as a source to market your products or as a resource for ideas?

Do you have a website for your farm?

Do you attend or participate in the Mountain Mandarin Festival? If yes, how was your business affected? (increase sales? increase visibility?)

Did you attend or participate in the Mandarin Farmers' Market? If yes, how was your business affected? (increase sales? increase visibility?)

Do you market specifically to ethnic groups? (Which ones?)

Do you do any processing of your mandarins? Do you sell these processed products? (Where? What percent of sales?)

Have you heard about any interest in a Placer County Mandarin Grower Cooperative? What do you think? Do you see any benefit or disadvantage in forming a cooperative of mandarin growers?

In what ways could Cooperative Extension or a university support or strengthen your marketing efforts?

The business community can also be helpful in marketing your produce. The following questions are an attempt to better understand your connections to the business community.

Do you have any connection to the Farm Bureau?

Another advocacy or policy organization?

Do you participate in Ag in the Classroom?

Or work with local schools in another way?

Are you a member of the local chamber of Commerce?

Do you participate in any consumers' organizations related to food or agriculture (e.g. Slow Food)?

Where is agriculture, in general, headed in this area in the next 20 years?

What is the greatest challenge to keeping agriculture in Placer County?

What do you think can be done?

Is there anyone (besides other growers) that you think I should speak with in regard to this project?

APPENDIX D: Interview Protocol for Mandarin Stakeholders

Is there a demand for mandarins in Placer County? Do you think it will grow? How?

Why do you think mandarin production has grown so quickly in Placer County? What are the opportunities for future growth in mandarins? What are the barriers to future growth?

Have you heard about any interest in a Placer County Mandarin Grower Cooperative? What do you think? Do you see any benefit or disadvantage in forming a cooperative of mandarin growers?

Where is agriculture, in general, headed in this area in the next 20 years?

What is the greatest challenge to keeping agriculture in Placer County?

What are the most viable marketing opportunities for locally grown produce? What scale are they likely to reach?

Is there anyone that you think I should speak with in regard to this project?

APPENDIX E: Interview Protocol for Mandarin Retailers

Do you sell mandarins?

If yes, what volume, when (seasonality) and how much (sales)?

Where do you get your mandarins?

Do you see the demand for locally grown mandarins growing?

Do you see your establishment meeting this demand?

From your perspective, what are the challenges to buying more locally grown mandarins?

Do you know where to find local mandarin growers?

In general, what are the most viable marketing opportunities for locally grown produce (including mandarins)? What scale are they likely to reach?

Where is agriculture, in general, headed in this area in the next 20 years?

What is the greatest challenge to keeping agriculture in Placer County?

What do you think can be done?

Is there anyone that you think I should speak with in regard to this project?

APPENDIX F: Interview Protocol for *Hoshigaki* Producers

What is your knowledge of the history of hoshigaki?

How important is it to you that you/your family continue the practice of hoshigaki (very, moderate, not important)?

When and why did you/your family start hoshigaki?

How did you/your family learn hoshigaki?

What is the most difficult hurdle you face in continuing to dry persimmons (labor, rate of return, delivery, other)?

What is the shelf life of a dried persimmon?

What are your post harvest processing issues?

Are the dried persimmons stored on farm?

How is the quality of the product reflected by the amount of work put into the process?

What varieties of persimmons do you dry?

How many pounds of persimmons do you process each season (pounds fresh, pounds dried)?

How many people are doing the labor (stringing, setting up/moving racks, massaging, packaging, marketing - # of people, # labor hours/rack, other costs)?

Who are they (family, hired)?

What are other on-farm/off-farm occupiers of your time?

Where do you market your product?

What percentage do you sell at each market outlet?

What is the type of transport you use and what are transportation costs?

APPENDIX G: *Hoshigaki* Producer Profiles

Tosh Kuratomi

Granite Bay, CA

Tosh's enthusiastic and friendly personality reflects his approach to *hoshigaki*. He speaks about the process with great interest and openly shares his methods. He is devoted to continually producing *hoshigaki* at the Otow Orchard, which the Otow family has farmed since the early 1900s. His mother-in-law, Helen Otow, is the current owner and tenant of the 40 acre orchard. In May of 1942, the Otow family members were sent away to internment camps and returned sometime between 1946 and 1948. After their return to Placer, Helen's grandfather started farming strawberries, grapes and pears. Eventually, they planted persimmons and peaches, and started to produce *hoshigaki*. After retiring from teaching, Tosh started working more frequently at his family orchard.

When asked what the greatest challenge Tosh faces in keeping the practice of drying persimmons alive, labor and training of the process were at the top of the list. Training is needed because Helen Otow is 88 years old and a transfer of knowledge to the younger generations is needed to ensure that the tradition of drying persimmons will survive. Tosh and his children are familiar with the process and currently Tosh and his wife, Chris, are responsible for much of the drying. Their children come home fairly regularly to help out in the orchard during various crop harvests. Recently, however, their participation in the persimmon drying process seems to be getting less frequent. Tosh's worry is that the next generation will not take over the orchard and therefore not continue the drying as well as carry on the tradition. However, Tosh's employee, Rodrigo, dries about 100 pounds of the Otow/Kuratomi persimmons and Tosh says Rodrigo does a good job. Tosh realizes that it may very well be Rodrigo and his family that continue the drying on Otow Orchard.

Dan Kajimura

Lincoln, CA

Drying persimmons is a 50-year tradition in the Kajimura family home near Lincoln. Dan Kajimura learned the technique from his father. Currently, Dan is the only member of his family who actively produces *hoshigaki*. With the help of his mother, he satisfies his relatives' demands for hand-dried persimmons and also sells to established customers and some retailers. *Hoshigaki* is a delicacy that the relatives look forward to receiving every year. Dan and his family send the *hoshigaki* that Dan produces to their extended family in Hawai'i, Japan and other parts of the US.

According to Dan, the family started drying the persimmons for relatives, and later expanded to include some commercial customers. Each year his kids come back to help for some hours, but he does most of the required work. He used to give his kids a penny per peeled persimmon when they were little, but they are grown now and have other interests. Dan emphasizes that everyone dries persimmons differently, and that each person has their own technique. He started drying when he was little and is very familiar with the process. However, he still has to treat each persimmon differently when he massages largely because each fruit is unique. Massaging is really a tricky process and it is hard to know how much to massage in order to get the expected outcome.

Moreover, a lot depends upon the climate and the year. He insists that *hoshigaki* is “like a baby, and just not trainable.” Therefore, he does not envision that the hand-drying method could be standardized in any way.

This is a particular issue for Dan because, unlike other *hoshigaki* producers, he does not grow his own persimmons but gets them from a variety of sources in exchange for the dried finished product. His persimmons vary because they come from different ecosystems and different soils. If he had to buy persimmons, he would not be able to continue drying because it would be too expensive. He also knows that there is demand for *hoshigaki* that is not satisfied, but in his case, supply will determine if that demand will be met. Dan plans on drying persimmons for as long as he is physically able to do so. He also acknowledges that *hoshigaki* “is a dying art.”

Hiro Matsuda

Shinob & Ayako Matsuda

Newcastle, CA

After Hiro Matsuda’s father retired from gardening in the Sacramento area, he decided to fulfill his life-long dream to become a farmer. The elder Matsuda’s have grown mushrooms, strawberries and grapes in the past. In addition, they planted persimmon trees 15 to 20 years ago. “Farming is a good way for my father to stay healthy,” Hiro said. “Farming requires that you tend something...It’s only when you quit caring for things that you go into decline. It’s part of the Japanese way of thinking.” The elder Matsudas are fully occupied with the persimmons from October to December and do not even leave the house for more than an hour or so due to their dedication to creating the best *hoshigaki*. The living room becomes filled with drying persimmons during this time. They give the fruits vigilant attention until they achieve perfection. The emphasis on perfection in Japanese culture shapes how the production and sale of *hoshigaki* is carried out. Hiro stated that in the history of Japan, perfecting one’s craft or service led to being rewarded. “The way of the warrior is still deeply engrained – [it] will never be completely removed...There is no such thing as giving up and you want to get it perfect. This persimmon – it’s just a pain... [but] when you put this all into context, it starts to make sense why they do what they do.” Rather than being simply a dried fruit, each family’s drying process produces a slightly different product. “Writing the process down is not the hard part...It’s like wine. The process itself is standard but there are all these little factors that make the difference.”

Hiro’s parents do not produce *hoshigaki* primarily to earn income. Rather, for Hiro’s parents it is more an expression of their inner characters. “Technically [my dad is] retired. [Noting] the Japanese belief – there are several beliefs that are so deep it’s not really a religion. It’s part of you. It took me over 50 years to figure this out.” Although Hiro himself doesn’t want to continue the process, he praises his parents for both their dedication and their *hoshigaki*. “They are both hard-working and intense – [they] want to do the best. Our family’s dried persimmons are some of the best.” Rather than making money, “it’s about making the perfect product.”

Jim and Karen Brenner

Lincoln, CA

Jim Brenner bought his 41 acre ranch in 1976 and since then has planted 34 acres

in fruit trees. Back then, Hachiya persimmons were the most profitable fruit coming out of Placer County and Jim recalls seeing drying racks all over the county bearing the slowly cultivated Japanese delicacy of *hoshigaki*. Japanese farmers in Placer County practiced this technique extensively 30-plus years ago. Jim and his family first started drying their persimmons in the traditional way back in the early 1980s. They were introduced to the technique from a Japanese neighbor whose drying racks were visible from the Brenner's house. They also received additional tips and help over the years from the Kajimura family.

During the drying season, late summer-early fall, Jim and his wife, Karen, spend between two and four hours a day, peeling, hanging and massaging their persimmons during the four to six weeks it takes for these delicacies to reach perfection. The youngest Brenner boy will help occasionally with this painstaking process but it is speculated that a quick, sweet snack is a more likely motivation than a real interest in this drying technique. In fact, all over Placer County the art of cultivating *hoshigaki* is slowly receding from the cultural landscape as older generations pass on, younger generations move away and farmers, young and old, are offered steadily increasing prices to sell the farm for new subdivisions. However, although Jim and Karen have wavered in the past (and even given up drying for a year or two) the pride they take in their product is evident from their willingness to share stories and tips with a friendly ear. The equal enthusiasm of their customers is apparent in the ease at which they are able to sell all the *hoshigaki* that they can produce.

In light of a mounting wave of information, publicity and recognition surrounding *hoshigaki*, there may be a chance to rekindle this labor-intensive practice, along with the cultural significance it holds. If demand keeps pace with the burgeoning publicity, there might be an increase in price that could make it profitable for small family farmers to continue to pass on this art. As for Jim and Karen, they say that they are willing to increase production if higher prices allow them to hire help.

References

- Apple Hill Growers website. 2004. <http://www.applehill.com>.
- Bacon, K. (2004, May). The Values of Good Food. The Atlantic.
- California Department of Agriculture. (2002). CDFA Resource Directory.
- Chadwick, B. (2004, May 17). The Slow Food Movement Takes on Fast Food Culture, eMagazine.
- Contra Costa County Farm Bureau. (1999, February 3). San Joaquin Valley News Tips.
- FAOSTAT, June 2002.
- Gale, F. (2003). Age-Specific Patterns of Entry and Exit in U.S. Farming 1978-1997. Review of Agricultural Economics, 25(1), pp 168-186.
- Gorinstein, S. et al. (2002). Comparative Contents of Dietary Fiber, Total Phenolics, and Minerals in Persimmons and Apples. Journal of Agricultural & Food Chemistry. 49, pp 952-957.
- The Hartman Group. (2002). Wellness Myths and Misperceptions. Bellevue, WA: Hartman, Inc.
- Inoki, L. (2003, May 25). Art That's Sweet Enough to Eat. The Japan Times.
- Karp, D. (2000). Persimmons: A Quest for the Cinnamon Persimmon Uncovers a World Of Distinctive Fruit. L.A. Times.
- King, T. (2003). Traditional Systems Rewards Shepherds, Not Corporations. Acres USA, 34(1), pp 21-23.
- King, S. & Feenstra, G. (2001). Placer County Foodshed Report. Davis: University of California Sustainable Agriculture Research & Education Program.
- Kummer, C. (2004, April). Slow Food. The Ecologist, pp 43-49.
- McLain, J. (2002, June 2). Pixie Tangerines Work Their Magic for Growers: Ojai Association Sells its Form of Mandarin Oranges at Gourmet Restaurants and by Mail. Ventura County Star.
- Perez, A. & S. Pollack. (2003). Fruit and Tree Nuts Outlook/FTS-306. USDA Economic Research Service Report.

- Pollack, S. (2001). Consumer Demand for Fruit and Vegetables: The U.S. Example. USDA Economic Research Service Report.
- Pollack, S. & A. Perez. (2004). Fruit and Tree Nuts Outlook/FTS-311. USDA Economic Research Service Report.
- Pollack, S. and A. Perez. (2004). Fruit and Tree Nuts Outlook/FTS-309. USDA Economic Research Service Report.
- Pollack, S., B-H. Lin, and J. Allshouse. (2003). Characteristics of US Orange Consumption. USDA Economic Research Service Report.
- Sauls, J. (1998). Home fruit production – Mandarins. Dallas: Texas A&M University.
- Slow Food USA website. (2004). <http://www.slowfoodusa.org>.
- Stille, A. (2002). Slow Food. The Nation.
- Turner, C. (2005). Placer County Agricultural Crop Report. Auburn: California Department of Food and Agriculture.
- Turner, C. (2003). Placer County Agricultural Crop Report. Auburn: California Department of Food and Agriculture.
- Turner, C. (2002). Placer County Agricultural Crop Report. Auburn: California Department of Food and Agriculture.
- Turner, C. (2001). Placer County Agricultural Crop Report. Auburn: California Department of Food and Agriculture.
- US Census Bureau. (1999). USDS/NASS.
- University of Florida. (2004). Citrus Reference Book. Economic and Market Research Department: Florida Department of Citrus.
- Young, K. (2002). Minding the Children: Knowledge Transfer and the Future of Sustainable Agriculture. Conservation Biology, 16(4).