

# Final Situation Analysis

## Santa Clara County Agricultural Marketing Feasibility Study

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The County of Santa Clara and the Santa Clara County Farm Bureau are funding this project.

*Santa Clara Agriculture continues to survives....What also survives is the value of agriculture. The connection between the soil, the cycles of the earth and the dedication of men and women to bring the harvest to the table, to enrich our lives with bountiful fruits, vegetables and all good things to eat, is worthy of our appreciation and acknowledgement. The farmer is an essential part of our strength as a nation. We take it for granted and yet, what would we be without the efforts of so many people to bring forth plenty for all of us. Whatever happens in the struggle over land and how it should be used, the one fact is certain: we have no more hills to cross, no new land to settle.*

**-Yvonne Jacobson  
Santa Clara County Native, Farmer & Historian**

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California's Santa Clara Valley"*

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## INTRODUCTION

The purpose of this document is to assess the feasibility of developing marketing systems that redefine and enhance the viability of agriculture in Santa Clara County. It represents the third step in a five-phase project.

Preliminary research findings were presented in the first phase of this project in a document entitled *Preliminary Situation Analysis for Santa Clara County Agriculture: A Marketing Feasibility Study*. This report was based on a review of published studies, news articles, and interviews with a key stakeholders. It was mailed to approximately 40 stakeholders for review and comment. During the second phase of the study, the consultants conducted in-depth interviews with 22 of these stakeholders to discuss their perspectives associated with enhancing agricultural viability in Santa Clara County. For a list of the stakeholders interviewed see Appendix A [page 63].

Reviewing the literature and interviewing stakeholders allowed us to develop this *Final Situation Analysis*. It offers an overview of the components critical to the future of agriculture. This overview integrates stakeholder perspectives with an analysis of the marketing potential for local agriculture and offers potential scenarios for future action by Santa Clara County stakeholders. The document contains several sections that clarify the findings and potential actions. It is designed to allow readers several ways of comprehending the situation in Santa Clara County agriculture.

This report provides a backdrop for five stakeholder discussions to be conducted between April and June. These discussions, constituting Phase 4, will help define an action plan for the future of Santa Clara County Agriculture. For the last phase of the project, the action plan will be added to this document to create a final report that will include the consultants' recommendations for future activity.

We believe that much of the research contained in this report provides information, perspective and examples for developing approaches and infrastructure that will assist the remaining farmers and ranchers to make the transition into a new agricultural economy. Perhaps most importantly, it offers a glimpse of the valuable local knowledge displayed by Santa Clara County stakeholders and the opportunity inherent in bringing this knowledge to the table.

The County of Santa Clara and the Santa Clara Farm Bureau are funding this project. We would like to thank the County Board of Supervisors, Agricultural Commissioners Office, County Planning Department, Santa Clara County Farm Bureau and those active and interested community stakeholders who are lending a hand in this important task.

## EXECUTIVE SUMMARY

It is feasible to develop infrastructure that will add value to agriculture in Santa Clara County. But this feasibility rests on the development of a new vision and role for agriculture in Santa Clara County. Acknowledging the many threats and impediments, one can also identify social, political and economic trends that are favorable to development of a new agriculture in Santa Clara County with multiple stakeholder groups prepared to contribute. Working as a community, combining several mutual interests, impediments can be overcome and threats can be managed.

Santa Clara County stands to reap significant economic rewards by initiating a multi-faceted campaign that redefines agriculture, links it to the needs of local urban culture, and as a result enhances long-term quality of life and natural resource protection. Such an initiative will demonstrate to consumers, educators, policy-makers and all other stakeholder groups in Santa Clara County that there are direct and powerful benefits to be derived from supporting local agriculture and utilizing its multiple services. The effectiveness of such work will be maximized if it is based on a whole-county partnership that includes stakeholders previously considered to be out of agriculture's sphere of influence.

There is no doubt that agriculture as it is now known in Santa Clara County is suffering due to unfavorable conditions. The indicators used to measure agricultural viability do not look promising. Moreover, conditions are changing so rapidly that many stakeholders have not had the opportunity to clarify the implications and act to redefine and reposition agriculture for success.

Change is occurring so quickly that the root causes of agriculture's distress are seldom addressed. Long-term solutions that impact core issues require strategic, multi-stakeholder planning processes that are hard to initiate. Moreover, efforts to implement the solutions derived from such strategic planning processes can be hard to sustain. Most often symptoms, such as homeowner/farmer conflict, are immediately apparent, and therefore, tactical or short-term solutions are attempted. In short, because of the complexity of the situation, the unclear connections between the issues, and the slow pace of bureaucratic systems, rapid deployment of innovative ideas and solutions is impeded. Santa Clara County appears to be prepared for a more comprehensive approach to solving agriculture's problems. Some believe it is too late. Others feel there is still time to enhance and maintain an agricultural sector in the County. We concur with those who feel there is reason to be optimistic.

There are many new indicators that, if connected into a comprehensive picture, demonstrate that "agriculture" is evolving in the county on its own. A generation of

“new” farmers operating smaller and more mobile operations are adapting to the difficulties facing traditional agriculture. These “new” farmers reflect the changing ethnicity of the county’s residents and work diligently to connect directly to the consumer. As a result some direct marketing venues, such as Farmer’s Markets, are flourishing, while others such as CSAs remain mostly an unrealized opportunity. Direct marketing innovations promote agricultural literacy, awareness and provide the experience that consumers must have to connect with natural systems and become educated about agriculture’s full community value.

The opportunity before us is to develop a systemic transformation that involves government, private enterprise and interested community organizations. Each focusing their actions on what they do best to fashion a new agriculture for the County. Government can enact ordinances and programs that increase flexibility in zoning, highlight agriculture’s solutions to resource protection problems, and alter tax policy. It can invest in the formation of consumer awareness of agriculture’s contributions to quality of life in Santa Clara County. The agriculture industry can increase its collaboration on marketing and promotion, think new and different about what services and products it can deliver to the urban consumers, and widen the circle of those considered as part of the industry. Community organizations from environmental groups to churches can actively support the development of clear and conscious links with the County’s remaining farmers. They can encourage the public to buy local, preserve agricultural lands in ways that benefit producers, ask employers and retailers to lend a hand in the effort to maintain and enhance what remains of the Valley of the Hearts Delight. Everyone has a role to play.

Any effort must begin with a clear picture of the realities facing agriculture in Santa Clara County today.

## **EIGHT ESSENTIAL FINDINGS**

The 22 stakeholder interviews and short discussions provided important “local expert” perspectives on the current state of agriculture in Santa Clara County. These knowledgeable stakeholders offered many insights that related to components of a stabilized and continually evolving agricultural sector. These critical components are outlined below.

### **I. AGRICULTURAL LITERACY, AWARENESS & EXPERIENCE!**

#### **Agricultural Literacy and Awareness**

Research and interviews with local participants in Santa Clara County have highlighted the pressing need to launch a powerful and coordinated effort to cultivate agricultural literacy and awareness. This element was the most important issue identified by stakeholders. The “agriculture system” is much more complex and disparate than it was

even 10 years ago and many of the participants in the system have little to no idea of what “agriculture” means at this point in time. This lack of awareness stretches from the County Agricultural Department to consumers purchasing produce in local grocery stores, and even includes the Farm Bureau itself. [See page 19].

### **Education & Schools**

As a central location where all stakeholders are connected through children and teenagers, schools and the educational system are a focal point of stakeholders views on Agricultural awareness and literacy. Early research indicates that Santa Clara County is beginning to develop innovative approaches for teaching multiple subjects, ranging from art to computer skills, within the valuable context of agriculture. This translates into more student visits to farms and more farmer visits to schools. As a result of this budding relationship between farms and schools, there is emerging recognition that schools should and will become valuable partners in purchasing local agricultural commodities. In fact, this is already starting to happen in other areas of the country [See page 20].

### **Agricultural Tourism and On-Farm Experience**

Fundamental to building agricultural literacy and awareness is the role of providing local children, residents and visitors with direct experience of agricultural life and the knowledge and stories that farmers who live that life can tell. Already, thousands of children visit Santa Clara County farms and ranches each year. In addition there is a successful and stable agricultural tourism program that if supported can adapt to the particular opportunities and dynamics of Santa Clara County Agriculture. One of the most important roles of agriculture tourism and experiences is that investments in their success generate revenue for agricultural operations while contributing to desired awareness and literacy outcomes [See page 21].

### **Labeling Initiative for Local Agriculture**

Many of the stakeholders expressed the desire for a recognizable label to identify locally produced agricultural commodities. One local organization has already begun the process of developing such a label. One of the stakeholders suggested that the term “Silicon Valley” be used since this was universally recognized as a specific geographical area. The importance of a label is that it would provide a “brand” for the local citizens to recognize that would be linked to agricultural information. The most important knowledge gained from interviews and research is that a labeling initiative on its own will not be able to add value to the agricultural sector. Its success rests in its connection to other equally important developments in agriculture. The label would act as a visual tool” “to identify the value of local agriculture and its presence in the County. It could be used to promote local produce, educate citizens, ethnic groups and tourists on agricultural issues, and identify agricultural operations and commodity groups that are helping the county at-large overcome challenging issues and barriers [See page 22].

## **II. MARKETING: RURAL SUCCESS LINKED TO URBAN NEEDS**

### **The Rural/Urban Connection**

Many stakeholders interviewed are beginning to see how urban issues and needs are intrinsically connected with the success and sustainability of rural communities. These stakeholders agree that the most powerful solutions that boost agriculture's viability will also be solutions that contribute to solving dilemmas in the urban environment [See page 25].

### **Serving the "Green" Consumer with Food and Information**

The "Green" Consumer is one who votes with their food-purchasing dollar. They see the connections between agricultural practices, their own health and ecological sustainability. They demand information with their food purchases that tell them that the practices that produced that food will not harm their bodies and the natural environment. To serve this niche market, the agrarian must begin to use sustainable practices that minimize or eliminate agricultural chemicals and include information about such practices as part of the final product. [See page 26].

### **Urban Agriculture**

Farming in an urban environment is just now gaining acceptance in this country as a valuable way to promote local food security, increase urban awareness of agriculture's full community value and contribute to additional problems facing the urban environment such as storm-water runoff, pollution and energy conservation. Agriculture should be seen as a valuable contributor to Silicon Valley quality of life and the sub-issues that comprise it. A few stakeholders interviewed see the value of agriculture in urban environments and agree that awareness building efforts should be accelerated. Policy makers and land use planners need to begin considering agriculture's potential contribution to the urban environment [See page 29].

### **Farming & Weed Abatement on Industry Landscapes**

Sustainable agriculture on industry landscapes is feasible in Santa Clara County. A few examples of its success exist and the conditions are now appropriate for moving forward with a more determined and comprehensive approach. Agriculture can offer many services to industries with high costs to maintain landscapes. Examples of these services are weed abatement, utilization of campus water runoff and employee health. Industry has much to offer to Agriculture in the form of large populations of employees who desire fresh, local produce and need exposure to open space and agriculture. Policy makers need to develop incentives that promote such activities [See page 30].

### **Opportunities for Direct Marketing**

Initial interviews and research revealed that Farmer's Markets and CSAs are beginning to penetrate the markets in the County. One CSA advertisement generated 200 requests,



much more than could be filled. Farmer's Markets in several cities are expanding with not enough local farmers to fill the need. These facts, combined with the increase in demand for, and production of, ethnic crops, indicates that there are many more customers for locally grown produce than are being reached. Combined with the knowledge of the "Green" Consumer requirements, local agriculture needs to act to fill this niche [See page 32].

### **III. SUPPORTING & INVOLVING ETHNIC FARMERS**

#### **Support for Ethnic Farmers**

A large number of family farmers working the land in the County are from outside America. This fact requires that any plans for revitalizing agriculture in Santa Clara County include a serious evaluation on its ability to support different ethnic groups. This evaluation needs to include topics such as ethnic representation on the Farm Bureau, availability of regulations in various languages, and incorporation of the ethnic perspective into the sphere of policy development [See page 36].

#### **Information Access & Delivery**

While the Internet is now inextricably linked to the future of agriculture, the ability to adequately reach and support ethnic farmers depends on the incorporation of more traditional communication technologies such as radio, television and print media. Models exist for successful development of information delivery infrastructure but it will be important to provide incentives for media groups who own high value outlets for information [See page 37].

#### **Ethnic Knowledge & Perspective**

Santa Clara County is experiencing a rapid demographic shift towards an ethnic majority. Agriculture's success in partnering with these ethnic markets depends on its ability to support ethnic farmers and learn directly from them what it takes to serve the ethnic consumer [See page 38].

### **IV. LAND STEWARDSHIP & PROTECTION**

#### **Conserving Land**

At least four groups have initiated land conservation efforts in Santa Clara County. However, the conservation of Valley floor land currently hinges on agriculture's uncertain future. Land and open space should be preserved for multiple reasons, only one of which is agricultural viability. Preserving land for agricultural reasons must be balanced with consideration of the other reasons for preserving open space [See page 39].

#### **New Conservation Approaches for Emerging Agriculture**

As a new model for agriculture emerges in Santa Clara County, so too must a proactive approach to enhancing and preserving it in perpetuity. Such an approach could involve

looking at parcels of land that are strategically located in urban areas with high exposure, such as corporate landscapes and the few remaining large parcels of farmland in developing cities, to create and maintain wildlife habitat and corridors. [See page 40].

#### **Watershed Protection and Rehabilitation**

Agriculture has a tremendously important role in the stewardship of watershed health and vigor. A loss of agricultural viability translates into loss of watershed health, a decrease in the economic sustainability of Silicon Valley, and an increase in costs incurred by ratepayers due to more expensive and unpopular methods for utilizing wastewater and recycled water. An excellent model that highlights how to approach this issue exists in New York City [See page 41].

#### **Biologically Integrated Farming Systems**

Biologically Integrated Farming Systems offer the opportunity to both protect the environment and enter emerging markets. BIFS not only reduce exposure to risk, they increase access to local “Green” Consumers and position the farmer for benefits derived from support for watershed stewards. Farmers may even be eligible to receive payments for their conservation efforts [See page 43].

### **V. THE ENTREPRENEURIAL FARMER**

#### **Integrating & Sharing Information**

Farming systems and markets are changing so rapidly that it has become very difficult for producers and other stakeholders to keep up. Stakeholders agreed that it will be important to follow and keep track of developments in Biologically Integrated Farming Systems, the Emerging Green Market and to develop the core entrepreneurial competencies that allow the producer to translate such information into increased farm revenue [See page 47].

#### **Connectivity, Speed and “Co-opetition”**

Entrepreneurial farmers must be supported in the development of the infrastructures that connect them to valuable information relating to regulations, environmental issues, best practices and local markets. Such infrastructure must allow them rapid access to such information in the context of their operations. Moreover, farmers must be supported in developing the infrastructure, communication channels and trust necessary to engage in “coopetition” with other farmers included in the agricultural network of knowledge [See page 48].

#### **The Entrepreneurial Farmer is a Teacher**

The entrepreneurial farmer is a teacher with valuable knowledge and perspective to offer. This perspective is of benefit to the whole community of stakeholders. [See page 49].

## **VI. LOCAL GOVERNMENT & POLICY STEWARDSHIP**

### **Agricultural Ombudsman**

Many of the stakeholders felt that there is a serious need for a “point person” who can freely move between government agencies, farm organizations and non-profits. The ombudsman would coordinate the issues impacting agriculture and help develop the common perspective needed to help insure the viability of agriculture in the County. Recently, the County Agriculture office created a new position to handle disputes between residents of new developments and local farmers. This position could be expanded to include many of the needed tasks defined from the interviews [See page 51].

### **Regulatory and Permitting Innovation**

Several of the farm owners of large farms (over 100 acres) stated that the County Agriculture Department was doing a good job of providing regulatory information. Farmers, however, agreed that consolidating the information and simplifying the language in the assistance materials would be very beneficial. This is especially true in the case of ethnic farmers who don’t speak English. The County’s existing Green Business Program offers a good working model for this kind of approach [See page 52].

### **Tax Shifting in the Local Economy**

There is an emerging model for taxation that places taxes on outcomes that aren’t desired, such as industrial and agricultural pollution, and reduces taxes on outcomes that are desirable, such as open space and contributions to clean air and water. The County of Santa Clara should follow these developments and consider local shifts in taxation if they will benefit the economy of Silicon Valley and that of agriculture [See page 53].

## **VII. INNOVATION “HUB” FOR LOCAL AGRICULTURE**

### **“Incubator” or “Hub” for Innovations in Agriculture**

Both the complexity of the agricultural dilemma and the need for an unprecedented level of stakeholder collaboration require that multidimensional infrastructure be developed. Stakeholder input suggests the need for agricultural incubators or hubs already common in Silicon Valley and elsewhere. Such entities would integrate and network stakeholder groups and offer multiple services to agriculture and the County at large. The development of such a concept would allow Santa Clara County to leverage Silicon Valley’s expertise. Moreover, the knowledge and experience gained from the process of revitalizing local agriculture could very well place it in the position as world leader in agricultural innovations [See page 55].

## **VIII. ADDITIONAL STAKEHOLDERS TO INCLUDE**

One of the most important outcomes of the stakeholder interviews was the highlighting of the stakeholders who remain to be included in this process. Success of local agriculture will benefit from the involvement of many interests. During the second phase of this project, the consultants were able to gain a clear perspective of the stakeholders not yet at the table. All stakeholders will need to be involved and collaborate to define their role in new agriculture. Within agriculture it will be vital to include the following stakeholder groups:

### **Short-Term: April- June Stakeholder Sessions**

- Representatives from high technology
- Ranchers
- Ethnic farmers

### **Long-Term: Additional interests to incorporate in future developments**

- Nature Conservancy
- Santa Clara County Open Space Authority
- Santa Clara Valley Water District
- Restaurants
- Independent and ethnic food grocers
- Realtors
- Educators

# AGRICULTURAL HEALTH INDICATORS

## WORLDWIDE

Agriculture is not immune from the huge economic changes underway worldwide. Advances in production, communication and distribution technology combined with a loosening of trade barriers under international structures such as NAFTA and the WTO have led to increasing supplies of agricultural commodities in the world market. This has been an added bonus for American consumers, already somewhat spoiled by the fruits of our domestic agricultural industry's success. Consumers expect low prices and high quality, often perceived as blemish-free and large-sized, and year-round access to most fruits and vegetables. While this is good news for the shopper, it is bad news for the traditional agricultural producer trying to compete in international markets while incurring local operating costs. As global commodity prices decrease, production costs are on the rise. While the sale price of a commodity is set by world supply, production costs are dependent on local supplies of arable land, labor, water, and fuel.

In the United States farmers and ranchers are finding themselves caught in the vise of decreasing world prices and increasing production costs. Consequently, producers are being forced to change. Some jump out of one commodity and into another that is of higher value per unit. Others seek to grow their scale of operation and to vertically integrate (participate in more of the value chain: from growing to processing, preparing, portioning, packaging, and marketing) in order to maximize efficiencies related to costs such as equipment, facilities, shipping, technology and more. Many are doing all of the above.

The problem is particularly acute for producers on the urban fringe where land, water, labor and regulatory costs are highly impacted by urban economics and zoning. In many cases, these cost impediments make it very tough for producers to make the changes. Obviously, Agriculture is disappearing at an accelerated rate worldwide on the urban fringe.

## NATIONAL

Ranching and farming in general are declining throughout the United States. According to the USDA's 1997 Census of Agriculture, (the most recent available) 90% of all operations are less than 180 acres in size and over 73% generate less than \$50,000 from products sold.<sup>1</sup> The work just doesn't pay anymore. The USDA's Economic Research Service Reports that on average 88% of an operator's household income flowed from

off-farm or ranch sources in 1998.<sup>2</sup> This is supported by the fact that over 31% of the farmers work more than 200 days per year off the farm just to make ends meet.<sup>3</sup> This is not a sustainable trend.

Farmers are aging and because of the industry's challenges, few young farmers are replacing them. Conventional production techniques that have been dependent on chemical use require increasingly complex regulatory compliance work and do not engender support from non-farming people that fear exposure to chemicals. Regulations are harder to enforce and extremely difficult for farmers to comprehend. Not only do these pressures create economic hardship, they help create an environment in which depression and suicide among farmers skyrockets.<sup>4</sup>

The indicators are slightly different when ethnicity of farmers is looked at. For Asian and Pacific Islanders the number of farms increased by 7.8%. The total land farmed increased by 17.7%. Most of these farms are still small with almost 75% operating on 50 acres or less. For Latinos the improvements were even greater. Farms operated by Latinos increased by 32.6% and the total land farmed increased 32.4%. For this group 44.5% of the farms are less than 50 acres.<sup>5</sup> While farming is decreasing overall across the nation, specific ethnic groups are showing an increase in farming activities.

## CALIFORNIA

The power and influence of California's agriculture continues to decline. From 1992-1997 the number of operations has decreased by 4.6% and the total acres in production has decreased by 4.4% with 1,280,218 acres being removed from agricultural productivity in the last 5 years. That is an average of over 250,000 acres per year lost to agriculture in California alone.<sup>6</sup>

California's Agricultural sector provides for more than \$100 billion in production and related economic activity to the state's economy.<sup>7</sup> It employs 800,000 to 900,000 workers annually, nearly 1 in 10 California jobs.<sup>8</sup> Statewide there is a 10 percent turnover in the sector's labor market, with 80,000-90,000 workers leaving and simultaneously entering the market on an annual basis.<sup>9</sup> The AFL-CIO and UFWU are increasingly interested in organizing immigrant workers and farm laborers. And newly elected Presidents Bush and Fox of the U.S. and Mexico are considering the creation of an agricultural guest worker program.<sup>10</sup> Combined, this information points to the increasing importance of agriculture's relationship with its laborers and the potential impact of guest worker housing.

At times it appears as if the California gold rush has never ended. Now the gold is in high technology, entertainment and service industries that are pulling people and wealth into the state. Over the past 30 years, California's population has doubled and is projected to reach 52 million by 2030.<sup>11</sup> With the influx of more and more people

coming to the state the loss of agricultural land will be compounded by the need to house and employ the growing population.

## SANTA CLARA COUNTY

A shrinking farm-labor pool, high land costs, and the loss of agricultural support facilities have also made it difficult for Santa Clara County farmers to be able to compete with farmers in the Central Valley and other farming regions of the world. Additionally, the agricultural areas of the County are under pressure from urban and non-urban uses. As a result, there are few large pieces of land available for large-scale farming.... The trend is now toward agriculture operations occurring on small parcels. However, many farmers are leasing several small parcels for their operation.<sup>12</sup>

The Silicon Valley and the enormous wealth it has generated overshadows the legendary Valley of Heart's Delight and the agricultural bounty that dominated the economic indicators up to the early 1970's. The face of agriculture has changed as a consequence. The trend toward fewer and smaller agricultural operations is a reality that is unlikely to be reversed. In fact, as reported in the Santa Clara Community Newsletter *Alliances*, nearly 400,000 jobs will be created in the next ten years with only 100,000 new housing units becoming available.<sup>13</sup> This estimate is supported by the recent decision to increase immigration for the high tech sector. Congress, hesitant to leave Silicon Valley employers short of workers, approved an increase in the number of visas for skilled foreign workers by almost 70% for each of the next three years, from 115,000 to 195,000.<sup>14</sup> The H1-B Visa Program will likely add to the pressures on Santa Clara County agriculture as even more people will seek to earn a slice of the high tech pie.

The demographic profile is shifting as rapidly as the rate of immigration. By the year 2010, the California State Department of Finance projects that Santa Clara County will be comprised of 31% Asian and Pacific islanders, 26.8% Hispanic and 38.4% White. Only 10 years later the percentages will be strikingly different, with 35.7% of the population Asian and Pacific Islanders, 30.3% Hispanic and 30.3% White.<sup>15</sup> As we will see later this demographic shift towards an ethnic majority offers promising opportunities for enhancing agriculture's future.

A recent study by *Joint Venture: Silicon Valley Network* points to the fact that even the high-tech industry is experiencing the negative impacts resulting from phenomenal success. The average commute time is now two hours and the median home price is approaching \$500,000.<sup>16</sup> People are working longer hours and taking less time off from work. It is conceivable that the Silicon Valley could lose valuable employees due to high costs of living and doing business here, a shortage of qualified workers and worsening traffic. Thus, there are indications that there is a need to provide County residents with healthy options to hectic lifestyles.

Adaptation to these changes is difficult. The number of full time farmers has decreased 12%.<sup>17</sup> The most recent data available, 1992-1997, indicates that land currently in farms is down 7%, almost twice the state average.<sup>18</sup> The economic boom that boosted the local economy between 1997 and 2000, the loss of land is almost certainly worse. The changes underway over the last 30 years in Santa Clara County have hobbled the industry's ability to enhance or even maintain its health.

Production and marketing are made more difficult by shrinking parcel size, availability and a consolidating retail sector. Some grocery chains are now requiring commitments of 100,000 to 1,000,000 boxes of a commodity in order to win a supply contract. Small operations left out of these arrangements are now forced to pursue relationships with small, independent stores targeting local customers. As the producer base declines so do the processing and support options. Farmers are forced to move processing operations on-site, if zoning regulations allow, or shift crops. As old industry structures erode, the "tried and true" options for surviving in agriculture disappear. Del Monte's departure is evidence of this.

### **New Indicators Need To Be Developed**

It has become clear that traditional indicators of agricultural health must be augmented with new indicators that demonstrate the complete picture of agriculture's valuable products and services. Such indicators make the connection between pure economics of agriculture to other areas, such as the economics of watershed health and urban waste stream reduction. The most important facet of this discussion is that local indicators of agriculture's health and contributions be developed. Santa Clara County, for instance, has unique issues and problems that define how agriculture contributes to culture. As a result there are some agricultural indicators that must be customized locally. These indicators, once developed, allow for recognition and support of unique and innovative approaches outside of the agricultural norm.

### **Key Findings**

- Agriculture seen through the lens of traditional indicators is in decline everywhere, especially in Santa Clara County.
- Farming in California continues to decrease while state population continues to grow.
- Santa Clara County Agriculture and its infrastructure is decreasing nearly twice as fast as the State average.
- Silicon Valley is still booming. Projected increase of 400,000 jobs and 100,000 new homes in the next 10 years.
- Demographics of Santa Clara County population projected to change. In 10 years there will be 35.7% Asians and Pacific Islanders, 30.3% Hispanic and 30.3% Whites.
- In Santa Clara County, the amount of open space is decreasing, traffic and stress of residents is increasing.
- Traditional indicators of agricultural health do not fully value the contributions of farming on an international, national, state and especially local level.



## **Potential Solutions**

- Redefine “agriculture” locally, within the unique context of Santa Clara County. Base this definition on a complete system of indicators that measure agriculture’s total health and contribution.

## THE FUTURE OF AGRICULTURE IN SANTA CLARA COUNTY

No single stakeholder group can single-handedly tackle the challenge of re-visioning and re-vitalizing agriculture in Santa Clara County. It will require the active cooperation of a diverse group of stakeholders to define agriculture on Santa Clara County's terms and base this definition on a locally unique set of indicators. All stakeholders interviewed in Phase 3 of this project agree that there are powerful challenges and pressures affecting Santa Clara County Agriculture as it is currently defined. Given the current state of Santa Clara County's agriculture, it could be very easy to assume the worst – that the decline of agriculture will continue until only museums exist to remind people of the historic fecundity of the Valley of Heart's Delight. Santa Clara County is indeed part of a larger crisis relating to farms in America, agricultural land and ranching families. But hope exists, and it can be found within the crisis itself.

Crisis literally means "turning point," a moment in time when change becomes inevitable. Crisis situations create negative outcomes because those affected by the change have not been able to create a successful response. Moreover, such outcomes are usually a result of the lack of comprehensive knowledge of the situation and the help of a complete support network. Santa Clara County's agricultural crisis all but ensures that the direction of farming in the County will be permanently altered, but how it will be altered and what direction agriculture follows remains to be defined by the stakeholders. This translates into knowledge, collaborative support and action.

The twelve farmers interviewed generally agree with the difficulties articulated in the *Preliminary Situation Analysis* and for the most part do not believe traditional agriculture in Santa Clara County will survive past the current generation working the few remaining large parcels of land. Local agriculture competing within international and national marketplaces is in decline, and by many accounts "dead" due to insurmountable economic pressures. To quote Mike Mantelli, of Christopher Farms "the farmer is doomed in Santa Clara County."<sup>1</sup> The feeling from other farmers was that decreased awareness of agriculture's value combined with developer interest in premium land makes it difficult to avoid selling and moving their operation, regardless of how much they love to farm. They feel that selling their land is the only economic choice left that provides them with the compensation they deserve.

Clearly in Santa Clara County, the traditional form of agriculture, based on large-scale production, is increasingly difficult to maintain. Mr. Mantelli noted that even *if* this model remained economically viable local soils are "tired" from a long history of hard use. After further discussion, he agreed with the observation made by other stakeholders that a different approach to agriculture is emerging.<sup>2</sup>

For instance, he sees ethnic farmers working smaller plots of land that Christopher Farms would never have considered farming.<sup>3</sup> Nearly all producers interviewed see a future for an emerging agricultural model that resonates with memories of the traditional “truck farming” concept. This concept is incorporated into the description of emerging “Entrepreneurial Agriculture” on page 49. Even some larger producers are including a possible return to “truck farming” in their long-range strategic plans.<sup>4</sup>

In Santa Clara County, this emerging agriculture adapts and responds to unique local requirements. It is beginning to succeed in the much-needed effort of telling “agriculture’s story” to the masses of consumers who have lost touch with the value of farming life and land stewardship. Throughout the county, entrepreneurial farmers are creatively adapting to a complex and rapidly changing economic landscape. These farms garner above commodity prices for their product through some or all of the following avenues:

- direct on-farm sales
- direct-to-consumer sales at Farmer’s Markets or through CSA programs
- diversification of revenue streams to increase the net return on their land by using the same asset in multiple ways
- utilizing other competitive advantages to maintain market share at a profitable price.

## The Core Policy Group

The “Core Policy Group” as it might be called, is comprised of officials from the Agricultural Commissioner’s office, the County Planning Office, the Board of Supervisors and the Farm Bureau. This group also observes a whole new generation of farmers doing things in unique and innovative ways. They seek to create policies that enable the success of the county’s agriculture, both old and new.<sup>5</sup>

Intimately aware of the challenges faced by local agriculture, they are highly motivated to find win-win solutions that contribute to helping agriculture take part in the economic success of Silicon Valley. All agree that there are industry and community benefits derived by promoting agriculture, protecting open space and greening the urban environment. They observe a positive future for agriculture, but one that depends on the realization of two fundamental goals: increased public-private partnership and agricultural awareness building.<sup>6</sup>

They concur with the consultants description of an agricultural model that is generally more flexible than in the past. This model is focused on consumers and high quality specialty crops. It responds quickly and directly to an emerging set of local conditions and is more closely or even directly linked to local or regional consumers through Farmer’s Markets, up-scale farm stands, the Internet or subscription systems. It meets growing consumer demand for products that support personal and environmental health. But while these indicators are encouraging, new agriculture is still at a very critical phase and the policy makers are interested in acting quickly to foster its success.<sup>7</sup>

The work of the farmer, which provides both commodities and community service, is not appropriately valued if one seeks to maintain and enhance agriculture on the urban fringe. This results from rapid changes that make it difficult for the community to continually update their concept of "Agriculture". In Santa Clara County many stakeholder groups such farmers, policy-makers and educators still envision a 100 or 1000 acre farm when they think of "Agriculture."<sup>8</sup> In the midst of agriculture's current crisis, it is overwhelmingly evident that this picture and definition needs to be clarified to allow for a coordinated response and an agricultural sector that is completely valued. Agrarians need community-wide assistance in developing vision, strategy, assets, tools and the skills necessary to allow emerging entrepreneurial agriculture to firmly take root in the County.

Santa Clara County has the opportunity to expand upon its international reputation as a high-tech leader by working with agriculture and other stakeholder sectors to create a model for diverse economic growth, community vitality and natural resources preservation and restoration. Such a model, if successful, will serve as a template for other regional centers experiencing rural/urban conflicts and environmental quality challenges. Just as the County's "Silicon Valley" has spawned a worldwide paradigm shift in communication technologies, so too can it be successful in contributing to a shift in the agricultural paradigm in the 21<sup>st</sup> century. Out of all regional centers in the world experiencing such complex difficulties, Santa Clara County is among the most prepared due to its immense resources, talents and experience in innovation.

High-tech companies must be seen as welcome neighbors in this process. These companies, large and small, have skills, technology and resources (including purchasing power) needed by agrarians seeking to serve a community of consumers in the new economy. The challenge is to discover a means of engaging these neighbors. Engagement will be facilitated by clarifying agriculture's important contributions to regional and urban quality of life. Farms, ranches, vineyards, orchards, and nurseries contribute many important environmental, cultural, health, and economic benefits that, if understood by County residents, will increase agriculture's valuation. Clearly agriculture contributes:

- 1) economic diversity
- 2) valuable ecosystem services such as groundwater recharge, carbon sequestration and land application of municipal green waste
- 3) other potential resource stewardship roles such as water quality protection, waste water reuse, etc.
- 4) fresh, local produce or what may be called the "food shed"
- 5) open space or what may be called the "view shed"
- 6) bio-diversity through maintenance of diverse habitat for wildlife and plants
- 7) venues for non-farming people to connect with the natural world and biological systems that sustain life and recharge themselves
- 8) cultural diversity by providing farming people a means to live within a largely urban setting.

Few remember that of all humans, save those indigenous people living in traditional systems, farmers and ranchers have the most intimate connection with the earth. They are in contact with the most basic natural systems on a daily basis. They live and breathe the annual cycles. They live the life that many catalogues, television images, and feature films present as ideal. They bring forth the food and fiber from the earth that makes life possible. In short, farmers cultivate civilization.

Representatives from three Santa Clara NGOs were interviewed in Phase 2 of this project. These groups were: The Greenbelt Alliance<sup>9</sup>, The Foundation for Global Community<sup>10</sup> and The Land Trust for Santa Clara County.<sup>11</sup> In general, they seek to promote Santa Clara County quality of life through open space preservation, environmental restoration, development of urban green infrastructure and awareness building amongst urban and rural citizens.

Each of these organizations has a deep-rooted interest in contributing to agriculture's future and see urban issues and needs having a lot to gain from the farming community. They observe that the time may be right for such relationship building, given increased environmental awareness amongst urban consumers and policy makers, feeling of crowding and knowledge of agriculture's multiple services to community. Representatives from these organizations feel that they are well positioned to facilitate the creation of links between rural and urban land, residents and lifestyle. They see the future of agriculture intimately connected to Smart Growth Initiatives and Green Infrastructure work currently underway to enhance Silicon Valley's Quality of Life. To revitalize agriculture it will be very important to build strong rural/urban and public/private partnerships between agriculture, urban planning and redevelopment, initiatives, environmental and land preservation groups.

Agriculture must remind the masses of its contribution if it is to survive. This requires thorough education of county residents. Santa Clara County's producers have an opportunity to connect with the local population by linking themselves in the consumers' mind to the idealized concept of agriculture and to translate that linkage into market demand for local products. In short, to convince county and regional residents that a purchase of local products is an investment (as opposed to a cost) that helps ensure a higher quality of life.

If that connection is made, the idealized concept adds value to products and creates value for its services. Many people will pay a little bit more for a local product that is seen as enhancing the community than they will for a generic product or one from an unknown origin. Marketing provides the means for making this "value-added" connection. In Santa Clara County, with its high proportion of concerned "Green" consumers, such efforts have a higher potential for success.

### **Key Findings**

- Emerging Agriculture has a future in Santa Clara County.
- Large-scale production agriculture is not positioned for success in Santa Clara County's economic climate.
- Agriculture's future rests on developing new indicators to define agriculture within the local context of Santa Clara County.
- Policy Makers see the need to assess the situation, learn the characteristics that allow for these early success stories and create community-wide mechanisms for support and transfer of knowledge.
- If lessons learned from these examples can be scaled up to meet the needs of the whole agricultural system there is a bright future for agriculture.
- Comprehensive, public/private partnerships for the benefit of agriculture are needed.

### **Potential Solutions**

- Compel a diverse and talented group of stakeholders to take part in the creation of opportunity for agriculture.
- Develop knowledge gathering and support infrastructure for all perspectives connected to agriculture, including policy makers.
- Engage Silicon Valley and create incentives for their sustained participation and contribution.
- Work to clarify what "Agriculture" means and how is valued for all members of the community, including ethnic groups, children and powerful urban interests.

## FINDINGS FROM THE LITERATURE REVIEW & STAKEHOLDER INPUT

### I. AG LITERACY, AWARENESS & EXPERIENCE!

#### Agricultural Literacy and Awareness

All of the stakeholders interviewed identified the general public's lack of agricultural literacy and awareness as the most powerful and underlying barrier standing in the way of agricultural success in the Valley. While there are other extremely powerful barriers, this is the most fundamental. Multiple "pieces" of efforts have been developed to address this issue, but there remains no coordinated and comprehensive solution.

Agricultural producers have witnessed an eroding respect for their work over the last few decades due to a decreased awareness of agriculture's value. Neighbors are likely to appreciate the idyllic view and open space provided by farmland next door. They are generally unaware of the other valuable aspects of farmland. And when it comes to dealing with the realities of an agricultural operation – noise, dust, smell, use of chemicals – their appreciation diminishes.

Producers, such as Kip Brundage, know that more needs to be done to improve the situation by reaching out to the general population. But with 15-hour days, they cannot take on all of the workload required by such a massive awareness building effort.<sup>1</sup> Even if this was possible, they feel that it is not their job alone. In short, producers need help and a wide range of stakeholders must lend a hand.

Policy Makers agree that awareness of agriculture is a tremendous hurdle. The county government is not immune from this fact, with a traditional definition of agriculture driving policy development. For example, this definition sees any parcel of land under ten acres as non-agricultural, which makes worker housing on small farms challenging to develop. They see the need for a common definition of agriculture so that all county departments are able to work on the "same page" and coordinate their services.<sup>2</sup>

A good example of such coordination is the collaboration between the Santa Clara Planning Office and the Department of Agriculture on Worker Services. Their *Santa Clara County: Agriculture Worker Services "Quick Reference Guide"* is an excellent integration of countywide information relating to the services that are available for agricultural workers<sup>3</sup>. It covers such subjects as health and welfare, workplace safety, housing, education and employment services and immigrant services. This example of collaboration can be used between departments to develop materials and train county

personnel on agricultural issues, definitions, programs and the creation of a new vocabulary so that policy can be developed and implemented in a fashion that encourages a new emerging agriculture.

## Education and Schools

All stakeholders agree that our educational system has much to contribute to agriculture and vice versa. Hidden Villa CSA alone reported visits from 20,000 children last year.<sup>4</sup> Schools serve as a physical location where agricultural systems can be implemented as demonstrations or as real contributors to the school operations. For example, agriculture can serve as a wonderful context in which to learn about any subject, whether it be art, biology, chemistry, or Internet technology. In addition, the school cafeteria is a large consumer of agricultural products. Both schools and agriculture can benefit from this relationship. Stakeholders agree that we must work to improve the role of agriculture in the educational system.

Agriculture has unparalleled value as a context in which to teach almost any subject and, more importantly, demonstrate the "links" between subjects. An interview with Vera Gomes, teacher at Live Oak High School in Morgan Hill, highlighted the recently funded High Tech Agriculture Sciences Academy at Live Oak High School. This program serves as an excellent early example of integrating agricultural awareness and expertise with the other sciences, high technology, creative arts, community involvement and ethnic and social studies<sup>5</sup>. It is an indicator of the county's early potential in this arena and needs to be followed closely so lessons learned can be on a countywide level. Part of their Digital High School project, this agricultural program expects that staff, students and community will,

*...model the successful use of the clustering concept; share the usage of project-based learning; maximize appropriate technology integration; raise standardized test scores; increase the success rates of students of color [and] increase community involvement in the school and provide a more talented applied base of graduates ready for the world of work.<sup>6</sup>*

Agricultural Awareness building efforts must be connected to local school systems in a fashion that serves multiple functions. A discussion with Nancy Richardson, Executive Director of the Land Trust for Santa Clara County, points out that such efforts can be connected to new revenue streams for local agriculture.<sup>7</sup> She cites the USDA's recent release of a report on Farm-To-School Alliances called *Innovative Marketing Opportunities for Small Farmers: Local Schools as Local Customers*.<sup>8</sup> The report addresses the USDA Small Farm/School Meals Initiative Southeast Regional Workshop held May 1, 2000 in Georgetown, Kentucky.



This work, currently underway in Kentucky, North Carolina, the Florida Panhandle, and Southern California, is addressing the importance and benefits of farm-to-school marketing. It discusses the following topics:

- product preferences of the school food service buyer;
- factors that influence a school food service buyer's choice of vendor;
- potential barriers to entry faced by the small producer;
- recommended approaches for breaking into the school food service market;
- case studies of successful farm-to-school initiatives.

Such a program, if designed for the particular characteristics and needs of Santa Clara County, could be generating revenue for and awareness of local agriculture. It would be supplying schools with fresh, local agricultural products such as American and ethnic vegetables, fruits, meat products while connecting with students and teachers on the value of local farming and farmers. In addition, it would be possible to connect this type of direct marketing to programs similar to the above-mentioned High Tech Agriculture Sciences Academy. Richardson would like to see an in-depth study of the relationship between local agriculture and schools that result, in part, with proposals to increase on-the-farm educational experiences for children and the in-the-school experiences for local farmers.<sup>9</sup>

Overall, the hope of many of the stakeholders interviewed is that Santa Clara County will create a comprehensive way to combine and meet the needs of local farmers and local schools. Their hope is that agriculture can develop a marketing strategy that partners with schools and the many school districts in the county. To do this, federal and state support will have to be combined with local and national "success stories" to create a multifunctional program that works for the whole community of stakeholders who are linked to each other through children going to school.

### **Agricultural Tourism and On-Farm Experience**

"The changing demographics and lifestyles of California and US populations offer opportunities for more closely linking agriculture to consumers. Exploiting these opportunities requires a new set of skills that are somewhat different than those typical of traditional agriculture"<sup>10</sup>

Local agriculture must step-up its efforts to enhance the direct relationship between farmer and consumer. With direct marketing programs like CSAs and Farmer's Markets the entrepreneurial farmer is taking produce directly to the customer. Another emerging source of increased market exposure is getting customers to come out to the farm. This is becoming more and more common across the United States and is termed *agricultural tourism*. It has already been happening for some farmers in Santa Clara County for several years.

Massachusetts has one of the most innovative agricultural tourism programs in the nation. This state-directed program has integrated trailblazing signs, a farm directory, a website ([www.massgrown.org](http://www.massgrown.org)), a calendar, conferences and farm tours.<sup>11</sup>

Santa Clara County is on its way to a comprehensive agricultural tourism program, one that holds promise for the County given its rich agricultural heritage and the international “superstar” status of Silicon Valley. Country Crossroads is a Santa Clara and Santa Cruz County program that fosters the relationship between farmer and consumer by providing consumers mapped directions to farms that sell produce and added-value products on-site. Over the past seven years, in Santa Clara County, membership has been consistent, at 26 farms. As agricultural tourism continues to develop, an interesting trend is emerging in the County Crossroads program. Nita Gizdich, the program coordinator, is beginning to see whole families visit Country Crossroads sites.<sup>12</sup> This trend is tied to the emerging “Green” market consumer who values not only good products, but also demands information and experiences for the safety and enrichment of their own life.<sup>13</sup>

Stakeholders interviewed feel that agricultural tourism in Santa Clara County needs to look at ways to establish a web presence that includes components of existing examples such as Local Harvest, which sponsors a web site that allows users to access information about agricultural tourism, CSAs and farmers markets.<sup>14</sup>

Another observation is that the Country Crossroads program, while already successful in Santa Clara County, can improve its success by combining above-mentioned marketing technology with expansion from its current south county focus to the entire county, more maps in circulation, and increased awareness building at farms.<sup>15</sup>

While the membership has remained steady, and there is promise for the future, there are barriers that have prevented more farms from joining this program. These barriers to increased farm membership include:

- Farms going out of business
- Insurance liability
- Neighborhood considerations

The insurance liability issue is currently being addressed through a collaboration between the North American Farmers Direct Marketing Association (NAFDMA) and the Scottsdale Insurance Company, a member of the Nationwide Insurance Group. For a small yearly membership fee of \$75, NAFDMA members and their agricultural tourism operations will be covered by a basic liability plan.<sup>16</sup>

## **Labeling Initiative for Local Agriculture**

Every day a portion of the population, what we call informed consumers, becomes increasingly cognizant that their product purchases affect the issues that are most

important to them. Along with this awareness comes demand for more information. Labels on products convey information about those products and connect them to issues that are important to consumers. In a setting such as Santa Clara County where local farm sustainability, the environment and quality of life are pressing issues, information about such issues will have more potential to reach the consumer if it is connected to the purchases they make. Most importantly, it will allow agriculture an opportunity to show how it connects to multiple local issues and contributes to the development and implementation of their solutions.

Throughout the nation, labeling initiatives have sprung up in attempts to provide consumers with the information they demand, and help them “see” how their purchases contribute to the resolution of important issues. Now, such initiatives are in their infancy, and much remains to be learned. But one thing that has been learned is that a lone sticker on a product will not succeed in delivering its message. It has to be connected to a broader infrastructure that provides real solutions and services to the different stakeholders involved in the food supply network, from the field to the table.

Susan Stansbury, Project Director for the Foundation for Global Community, a Santa Clara County NGO, points out that, “a label for locally grown food would have an incredibly positive effect on agriculture and local quality of life.” She, along with other stakeholders, feels that a labeling initiative is an important component of a long-term solution to the issue of agricultural literacy and awareness.<sup>17</sup> They see such an initiative as a link to the tremendous opportunities presented by large, educated and affluent local markets and as a way to create a visible environment for establishing powerful partnerships between sectors such as agriculture, high-technology, local restaurants and retailers.

With this in mind, The Foundation For Global Community’s *Valley of Hearts Delight Project* is in the initial stages of developing a Valley of the Heart’s Delight logo to support “local” and “ecological” agriculture in the County.<sup>18,19</sup> Supported by stakeholder interviews and research, the consultants believe that the success of this labeling initiative will rest upon its ability to connect to the whole system of developing agricultural infrastructure and serve all members of the food supply chain. The first important link will be to establish the trust of the agricultural community. Therefore, it is hoped that the Valley of the Hearts Delight project does not get too far ahead of the dialogue and consensus building underway in the agricultural community.

It is an excellent sign that most of the producers interviewed see the value of a local food labeling initiative, with farmers operating on a larger scale tending to respond with “It couldn’t hurt.” Such large farmers, involved in the marketing of commodities on a national and international level, do not see how a label would add value to their businesses. Vera Gomes, however, raised an important point. As an educator who has worked with the Farm Bureau, she contends that a label connecting products with the tremendous name-recognition of Silicon Valley would be beneficial even in the international market<sup>20</sup>.

The core policy group supports a labeling initiative that promotes local agriculture and believes it will play a role in heightened awareness of agriculture's importance in Santa Clara County<sup>21</sup>. Maria De La Fuente, UC extension office director and advisor, adds the caveat that such a program must be connected to infrastructure-wide improvements that address farmer support, urban/rural partnerships and the proper valuation of ethnicity in agriculture<sup>22</sup>. She believes that the best opportunity for marketing systems to speak to the urban consumer is to connect agricultural awareness and participation with already high awareness of environmental and human health issues. These are the critical sales points for agriculture. A transition to Biologically Integrated Farming Systems (BIFS) will prove to be very important in the process of making such connections with consumers [See page 43].

### **Key Findings**

- Agricultural Literacy and Awareness is the root cause of the current crisis in agriculture.
- All stakeholders, including County personnel, need improved education and resources in this area.
- The most important partner in Agricultural Literacy and Awareness is the School and Education system.
- Schools need incentives to use agriculture as the context in which nearly all subjects can be taught. There are examples of this in the county.
- Schools are a sector of the community that pose tremendous opportunities for Direct Marketing local agriculture. Models exist in the Southeastern US.
- Literacy and Awareness depends on Experience. Agri-Tourism routes are the most promising way to provide literacy and awareness while increasing on-farm revenue. Barriers must be addressed.
- A labeling initiative has support from nearly all stakeholders interviewed. Stakeholders caution, however, that a label alone will not revitalize agriculture.
- A labeling initiative that serves all members of the food supply chain through services and education will be most effective.

### **Potential Solutions**

- Encourage School Districts to develop policy and programs that support agriculture and utilize its valuable services.
- Closely monitor the High Tech Agriculture Sciences Academy. Expand its successes so other schools learn from its mistakes.
- Support the development of Country Crossroads agricultural tourism program. Set goals for farm visits per year and value added to farms by such visits. Address barriers.
- Develop a comprehensive labeling program that integrates with other important components of agriculture's revitalization.

## II. MARKETING: LINKING RURAL SUCCESS TO URBAN NEEDS

### The Rural/Urban Connection

Producers interviewed see the division between rural and urban interests as the key to the current agricultural crisis. Santa Clara County epitomizes urban fringe volatility and clearly shows a sharp division between urban and rural environments. A juxtaposition of the economic and demographic expansion of Silicon Valley alongside the simultaneous economic, social and physical contraction of the Valley of Heart's Delight exposes a rift that brings to mind a geographical fault line or a towering mountain range. While the gap between these two processes *looks* impossible to bridge, in reality it is a matter of manpower, materials and engineering. The urban environment and Silicon Valley have much to gain by partnering with farmers, farmland and the rural environment. And of course, agriculture's viability is dependent on the urban environment and the consumers who live there.

Research and interviews have demonstrated that the process of "linking" rural and urban interests is possible. In fact, urban/rural partnerships involving agriculture have already started in Santa Clara County. As an example, the consultants choose the partnership between the City of San Jose's Office of Environmental Services and local farmers. Their homepage<sup>1</sup> includes a powerful image of how farming and agricultural land contributes to the urban environment. This graphic shows how urban green waste is redirected from the landfill to the City's composting facility, which then sends extremely valuable compost to agricultural operations. Agriculture is then connected with Landscape Management which "closes the loop" by connecting back to the urban environment. Removing agriculture from this loop would create detrimental economic conditions and have reverberations throughout the County.

This program clearly demonstrates that agriculture provides valuable services that are important to the economic and environmental health of the urban environment. Such *agricultural services*, as opposed to *commodities*, are the key ingredient to improving the rural/urban connection. A look at the Environmental Services Department website<sup>2</sup> shows other environmental issues that agriculture could contribute to resolving.

- Recycling & Garbage
- Drinking Water
- Wastewater Treatment
- Water Conservation
- Water Pollution Prevention
- Recycled Water

If highlighted and actively promoted, these services can develop to the point where agriculture can further diversify its sources of revenue by serving the urban community. The urban community, seeing the economic losses associated with the loss of agricultural services, now has a powerful interest in contributing to agriculture's viability. It can contribute by taking an active role and developing fiscally sound measures that compensate agriculture for its role in the health of the urban environment and the reduction of rates associated with the resources of water, air, soil, and energy.

## Serving the "Green" Consumer with Food and Information

Consumers are requesting more and more information about the products they purchase, the conditions where they live and the food they consume. Sophisticated technologies such as web sites now provide access to data on the toxic pollutants of companies by zip code (the online information for the Toxic Release Inventory can be found at [www.scorecard.org](http://www.scorecard.org))<sup>3</sup>. The success of sites such as these, along with eco-labels, indicate the desire of the public to know more about the whole systems that provide their sustenance. This trend has been identified for several years and has been analyzed in detail by The Hartman Group.<sup>4</sup>

In 1996, the W. K. Kellogg Foundation commissioned the well-established market research firm, The Hartman Group, to survey and analyze data from 1,766 households nationwide to ascertain the market potential for products that carry environmental attributes as part of their identity. The findings, further developed in follow-up studies done in 1997 and 1998, are surprising. The majority of the nation's consumers are now interested in buying products that are produced with minimum negative impact on environmental quality.

The study defined four market segments, collectively termed the Hartman or "Green" consumer that would respond to environmentally oriented marketing messages. These four environmentally sensitive segments constitute 53% of the consumer population. They are:

- The *Affluent Healers* are high performance professionals of above average and high income. Careful shoppers, they seek quality, a term they uniquely define. They represent 11% of the '98 samples, down 1% from '96.
- The *True Naturals* are very committed to their own and their children's health. They shop at natural food stores and are most likely to purchase organic foods. They represent 11% of the 1998 sample, up from 7% in 1996.
- The *New Green Mainstream* is composed of typical Americans who are hard working, family oriented, of medium to above average income and education. They probably shop at major retail chains and are price conscious. They are not deeply

informed on environmental issues, but they know enough to be concerned. The health of family and self is important to them. They represent 17% of the '98 sample, down from 23% in '96.

- The *Young Recyclers* are from among the nation's youth. They have grown up in a world where recycling and environmental thinking are mainstream activities. They are price conscious due to limited incomes and their purchasing decisions are often driven by fad. They represent 14% of the 1998 sample, up from 10% in 96.

Although the Hartman Report is the best evidence, it is not the only evidence defining a solid market for products with environmental attributes. What might be called confirming evidence is beginning to appear in many parts of the United States and Europe. In the Netherlands, the industry-controlled flower auction organized creation of the *Milieu Project Sierteelt* (Floriculture Environment Project) or MPS in response to consumer demand. The MPS created a set of environmental production standards for flower growers. According to the MPS brochure, "consumers not only demand a good quality product, they also want to have a good feeling about the products they buy. The consumer wants to be absolutely certain that the flowers and plants he buys have been cultivated in an ecologically sound way." The noteworthy elements of this particular program are that (a) flowers are not a consumable item, which might lead to human ingestion of biocides, and (b) the vast majority of Dutch-grown flowers are for export to the United States. Perhaps most important, however, is the fact that 70% of the nation's hot house flower growers are enrolled in the MPS program<sup>5</sup>.

In the United States, several programs are developing marketing messages that promote biologically integrated farming practices. They include the Core Values apple program in New England; Wegmans' IPM merchandising program; The Food Alliance eco-label out of Oregon, which encompasses a cross section of farm products; California Clean Growers, which focuses on stone fruit and table grapes in the San Joaquin Valley; and the Wisconsin potato growers' collaboration with the World Wildlife Fund. All of these programs are increasing their market share and are receiving positive media coverage for their efforts. Supporting this is, the Consumers Union's decision to design a website that tracks and critiques eco-labels.<sup>6</sup> Thus, organic is not the only production system that meets consumer demand for environmentally sensitive agriculture.

The high price of organic food indicates the opportunity to capture unmet demand with products grown using biologically integrated farming systems. Organic agriculture continues to expand with most commodity groups organizing industry-wide structures that promote or support the expansion of organic sales. The Federal Organic Rule, which developed a national standard and created the USDA label, is also expected to increase purchases. However, it is important to note that in the three years between 1996 and 1998, Hartman's True Natural segment increased 50% in size, but organic sales did not. The high price of organic food will keep large segments of the population, including some True Natural's, from always purchasing organic foods.

Research, combined with stakeholder interviews, paints a picture of Silicon Valley that has a high Hartman consumer profile. First, Silicon Valley's median personal income of \$64,344 ranked among the top 4 counties in California in 1997.<sup>7</sup> This, combined with the high level of education of the majority of Silicon Valley's employees begins to show that the "Green Consumer" segment has found a home in Santa Clara County.

Supporting evidence for the Hartman Consumer profile comes from the number of Whole Foods stores in a given area. Whole Foods, which recently partnered with Giam to expand its entry into the e-commerce market, incorporates into its business strategy the needs of the LOHAS (Lifestyles of Health and Sustainability) consumer, of which Hartman's "Green Consumer" is a part. With stores in Campbell, Cupertino, Los Gatos and Palo Alto and a combined sales near the \$2 billion dollar mark,, Whole Foods is demonstrating the success of its market analysis and strategy.<sup>8</sup> It is not surprising then to find that Santa Clara County currently has 4 of 33 Whole Foods Stores in the state of California- a little over 12% of its stores. Thus, the case is beginning to form that environmental, health and wellness messages targeted at those groups will most likely be received by open ears.<sup>9</sup>

This is not to suggest that Santa Clara County Agriculture can easily re-orient its strategy to partner with Whole Foods. They are a large chain and often require that their network of producers supply not just a single outlet, but a whole chain of regional outlets. This may not be possible in Santa Clara County, except for a few producers of the county's most lucrative crops. It therefore becomes necessary to look to develop partnerships with local independent grocers and retailers looking to remain afloat in the face of competition with Whole Foods and its tremendous purchasing power. The County may even consider avenues to facilitate the development of small, independent grocers to provide a market for local produce.

One of the first places to look in search of partners is the Independent Grocer's Association (IGA). Our research indicates that IGA, with over 4,000 members throughout the nation, has none in Santa Clara County.<sup>10</sup> Given the lack of independent grocers, it will be increasingly important to develop direct marketing opportunities for local agriculture and pursue the idea of an agricultural cooperative that can integrate and coordinate the work of multiple agricultural operations to serve large retail chains and increase the access and knowledge to ethnic markets.

If the County can approach this issue comprehensively, Whole Foods may choose to take a more active role in contributing to the local agricultural sectors in which their stores are located. Whole Foods does have a stated policy to purchase as much produce as possible within they states that stores are located in. Wegman's Markets in upstate New York has a similar policy. Their reason clear-cut for William Poole, Manager of Food Safety and Regulation. It's simply "the right thing to do!"<sup>11</sup>



## Urban Agriculture

Urban agriculture promotes food security, improving each participant's health and quality of life, while creating dynamic, aesthetically pleasing cityscapes. Expanding on urban agriculture's conceptual framework has great potential to contribute to the facilitation of sustainable food systems in predominately urban areas.<sup>12</sup>

City government agencies can facilitate entrepreneurial agriculture in urban settings, especially if urban farming is recognized as contributing to additional municipal government objectives, such as vacant land management, neighborhood revitalization, or smart growth. Such agencies and their staff see the "Whole System" of needs within a community and make decisions that contribute to serving multiple needs in concert. There are many steps that Santa Clara County officials can take to support urban agriculture. City zoning ordinances can be amended to allow urban agriculture as either a permitted or conditional use in residential and industrial districts where land is not heavily contaminated. General plans can incorporate urban agriculture. For example, the city of Seattle has incorporated urban agriculture into their comprehensive land use plan as a desirable civic activity helping to build a more livable community.<sup>13</sup>

City and County governments must recognize diverse urban agriculture as an important element in their open space goals, quality of life strategies and other municipal objectives. After such recognition it will be important to develop relationships with non-profit organizations involved in urban agriculture, such as the Foundation for Global Community, to create ways to achieve other municipal objectives.

In Goleta, California (suburban Santa Barbara), Michael Ableman's Fairview Gardens has successfully demonstrated that urban lifestyle and infrastructures can be melded with sustainable agriculture in a profitable manner, serving multiple functions for the city. His farm comprises 12 acres, employs up to 15 people and feeds 300 to 500 families fresh, local vegetables. Everything produced from the farm is sold directly to consumers, either through the farm stand at the edge of the property, through a community supported agriculture network that serves 75 families, or at Farmer's Markets in Santa Barbara and Santa Monica. The Garden's annual gross income is \$350,000. A nonprofit organization, recognizing the multiple value points of the farm, purchased it and transferred it into public trust to remain as a working organic farm and education enterprise called The Center for Urban Agriculture.<sup>14</sup>

In Santa Clara County, the Foundation for Global Community<sup>15</sup> is playing a role in demonstrating the benefits of agriculture to participants in urban life. The foundation's *Valley of Heart's Delight* project has four main components:

- Home Food Gardens
- Edible Schoolyards
- Corporate Partnerships
- Economic Support Network

This foundation and its work should be recognized as a leader that promotes the interests of agriculture through a comprehensive approach that addresses other community interests.

## **Farming and Weed Abatement on Industry Landscapes**

Santa Clara County soils are extremely fertile and provide endless options in terms of which crops to grow. However, the large corporations that comprise "Silicon Valley" own much of that soil and have placed their campuses on it. While much land has been paved and built on, there is tremendous amount of soil comprised by corporate landscapes. Due to this, these soils remain a viable location on which farmers can grow crops. At the very least, says Kip Brundage of G & K farms, there is a developing economy for "Weed Abatement" services offered by farmers to companies with undeveloped land<sup>16</sup>.

Something less well known is that these soils provide tremendous opportunity for corporations to grow culture and invest in economic savings and "soil value." Landscapes do not have to be a line item cost for corporations. With customized agricultural processes for corporate landscapes the unused corporate soils can become profit points. They can easily become sites for the alternative use of grey water and stormwater runoff. In addition, if these agricultural operations can be seen through USDA lenses as "viable," the companies could be in line to pursue many avenues of agricultural conservation payments. Powerful farming, environmental groups and the National Governors Association are lobbying for these funds even now.<sup>17</sup>

Most stakeholders interviewed believe such agriculture is feasible, with projects on the landscapes of the San Jose Mercury News and IBM as the main examples referenced. When IBM purchased the land from the Lester brothers, they secured a contract to manage the orchards *and* were able to keep the proceeds from sales. But they note that deals such as this are unusual and corporate CEOs will need to see real incentives if such ventures are to become a consistent facet of Silicon Valley.

Some additional incentives are benefits for corporate culture and worker health, reduction in costs associated with landscape maintenance, especially reduced chemical use. Some stakeholders do not think traditional methods of farming using pesticides, fertilizers and soil tillage practices will be appropriate for these situations. They believe that farming practices will need to be some combination of organic or biologically integrated farming systems. These farms must be "customized" for the corporate campus environment just as they are for the particular natural environments.

An idea mentioned by Maria De La Fuente was to approach Cisco Systems as they work to develop a new campus in Coyote Valley to propose developing a public/private partnership to house environmental, open space, and agricultural organizations.

Combined with on-site models for agriculture, riparian corridors, and natural resource conservation, such a pilot project could signal the formal recognition of emerging agriculture.<sup>18</sup> This is an excellent opportunity for Silicon Valley executives to improve their role in revitalizing quality of life and merge their work with the Valley of Heart's Delight. A similar design approach has been taken by the City of Portland, OR with regards to urban sustainability.<sup>19</sup>

Opportunities present themselves daily to pilot these ideas. One involves the upcoming Gilroy City Council vote on annexing 600 acres of land currently zoned as Agricultural land. They will be voting on the issue sometime in April. The Valley of the Heart's Delight project is beginning the process of helping the town of Gilroy develop "a win-win situation for saving the farmland, making it economically feasible for the farmer, and looking at alternatives to revive the economy of downtown Gilroy."<sup>20</sup> This work should focus part of their total resources on preparing for the possible annexation and development of this land. Such a focus should create innovative designs for integrating agriculture, open space and business development based on the City of Gilroy's specific needs and rich agricultural heritage.

Another opportunity involves the 12-mile San Thomas Aquino/Saratoga Creek Trail that will wind through major valley technology campuses. This trail will be built with support from the County, Cities of Santa Clara and Cupertino, and multiple high tech firms. This project will be:

- a long term strategy for reducing the frustrations associated with the County's traffic problem by providing Santa Clara's huge working population with a way to bicycle to work;
- accessible by four passenger rail systems- Caltrain, light rail, Amtrak and the Altamont Commuter Express;
- provide schoolchildren with a way to learn about the environment and riparian habitat;
- And provide another option for local outdoor recreation.<sup>21</sup>

Agriculture has a role in this project, and stakeholders would be well served by considering action to create such a role. This would be yet another opportunity to link agriculture to industry campuses, urban awareness of agriculture and the school system. Most importantly, it could couple alternative marketing of agricultural products to consumers choosing a different manner to transport themselves to work. But to really engage this opportunity, discussions should begin soon and stakeholders involved in urban quality of life and problem solving must begin to see the benefits of entrepreneurial urban agriculture.

## Opportunities for Direct Marketing

In Santa Clara County, where education, affluence and high population cross paths, innovations in Direct Marketing offer multiple opportunities to emerging agriculture. Innovations such as Community Supported Agriculture (CSA), Farmers Markets and direct marketing over the internet offer agriculture the chance to increase revenue and achieve goals related to building awareness amongst the urban populace.

Community Supported Agriculture fosters the "...connection between a nearby farmer and the people that eat the food that the farmer produces."<sup>22</sup> This direct marketing connection can occur in many ways depending on the unique situation and needs of consumer and farmer. On one end of the CSA Model spectrum, there are CSAs that require their member-consumers to actually take part in both the growing and distributing of the fresh food, which they get a box of each week. On the other end of the spectrum, consumers simply "subscribe" to a weekly or monthly box of produce like they would a magazine. Despite the model used for the specific locality and situation, CSA is a powerful way to place more of the food purchase dollar in the farmer's hands, enhance agricultural awareness and literacy and firmly demonstrate how agriculture supports community.

CSAs are an example of local farming entrepreneurs recognizing complex customer requirements and adapting their agricultural production businesses to a service model. Such services brings a box of agricultural produce and added-value commodities to knowledgeable customers who value local agriculture and at the same time find themselves having less and less time to shop for such products themselves. Anywhere there are people and farmers there is potential for a CSA program. Santa Clara County is no different. Currently, there are eight CSA programs that serve Santa Clara County as listed by the Community Alliance with Family Farmers. Based on reported weekly CSA fees and an approximate total reported county membership of 1,500 people, sales of CSA boxes account for estimated \$1,100,000 contributed to the regional farming economy.<sup>23</sup>

Andrew Scott, director of the Hidden Villa CSA program, feels that Community Supported Agriculture programs are an excellent path to accessing and building awareness in the urban consumer and that such programs could just as easily be given the label Agriculture Supported Communities. He cites tremendous unmet demand, supported by a Hidden Villa advertisement that brought in 200 responses, more than their program could handle. CSA programs are a valuable business opportunity for local agriculture and contribute to increased agricultural awareness. Mr. Scott believes that such direct-marketing innovations need to be recognized and supported, especially by the Farm Bureau and at the level of County government.<sup>24</sup>

SuEllen Sterling, market manager at the Los Gatos and Willow Glen Farmer's Markets, sees opportunity for local farmers who develop CSAs but to take advantage of such opportunity, she cautions that a "special type" of farmer is needed. She agrees with the

consultants description of entrepreneurial agriculture and cites, as an example of a CSA that best serves local customers, Willow Glen CSA which is owned and operated by Tom and Constance Broz. Sterling suggests that if the County chooses to bring in expert advice and experience with the CSA concept that they ask Broz to share his perspective<sup>25</sup>.

There are concerns voiced by larger farmers that the CSA concept is irrelevant to their operations due to the small-scale nature of the CSA venture. Scott notes that CSAs have been proven to work on a larger scale, with examples of institutional CSA programs where farmers develop CSA contracts with institutions such as churches or hospitals. The potential for CSA relationships with large buyers most likely begins with large companies and schools, hospitals, jails and county commissaries, although further research and discussion is needed.

Conceivably, CSA programs in the area could be expanded to the point where 15,000 or 150,000 similar customers were provided weekly boxes of fresh vegetables and produce along with educational material. It is easy to imagine high-tech companies with thousands of employees with long commutes and little time to shop as perfect venues for consolidated CSA programs. And as commutes ease through innovations in alternative transportation, such as the bicycle commuter path referenced earlier, local agriculture will have the opportunity to customize direct marketing opportunities.

While the CSA concept is new for many farmers, Farmer's Markets have been the traditional method for farmers to get their produce directly to the customer. Farmer's Markets have been a place for farmers to not only find out what the customer wants, but also to talk to other farmers to find out what the "hot topics" are in the world of agriculture. For many farmers these markets provide an opportunity to connect with customers and share knowledge and experiences with fellow farmers. But the traditional market scene is changing.

One of the issues faced by small farmers attempting who work farmer's markets is competition from large farms taking advantage of the financial opportunities inherent in such direct-marketing venues. A recent article in the San Jose Mercury News discussed the current state of Farmer's Markets in California, "...as large farms have expanded their presence at California Farmer's Markets, smaller growers say they have suffered."<sup>26</sup> If Farmer's Markets are to truly remain *the farmer's* and contribute to enhanced urban awareness of local agriculture's value, certain needs must be addressed. Sue Ellen Sterling has observed the success of Farmer's Markets and the opportunity presented by the sheer number of local consumers who are highly educated and financially secure. She notes that opportunities exist for local farmers but that many times, due to the current state of agriculture in Santa Clara County, she can't find local farmers to be vendors at her markets. As a result, she is forced to make arrangements with out of county farms.<sup>27</sup>

Farmer's Markets have been the traditional locations for direct sales and information exchanges between farmers, but now these markets are changing. There is a need to assist local farmers in differentiating their products from those brought in from outside farms. This may be one of the important areas where a visible label can serve local farmers by differentiating their commodities from larger, out-of-county farms.

### **Direct Marketing Over the "Web"**

Marketing agricultural commodities over the "web" has yet to become a profitable endeavor. To often it seem like the "web," instead of being an informational medium that people travel through to find valuable information, works more like a spider's web that captures Internet surfers and won't let them go. But as with any new infrastructure for communication and doing business, if innovators stick with it long enough, the kinks get ironed out and something of use develops for businesses and consumers.

Often when people think of food sold over the Internet, they think of Webvan, "The World's Market at Your Doorstep". But even Webvan, with over \$100 million raised so far from the likes of such giant corporations as CBS and Yahoo! has struggled to find an economic model that works. At this time the company is losing money in five of eight markets.<sup>28</sup>

Neither on-line market has been able to crack what experts call the most daunting Internet challenge of all: local delivery of superior quality dry and perishable goods to consumers' homes, at competitive prices, within a 30-minute delivery window chosen by the customer.<sup>29</sup> Webvan's decision to reduce the number of regional centers it serves highlights such difficulties.<sup>30</sup> The economy's recent transition to a bear market decreases the likeliness that this online-food puzzle will be cracked any time soon, and even then, probably not for the benefit of small to medium-sized farming operations.

On the other hand, it might turn out that the model they have been using isn't the one consumers want. And a quick glance at the produce offered on their website indicates that it probably isn't the one for farmers either. Maybe local consumers don't want the world's market at their doorstep but rather a local farmer's market. Given the popularity of direct marketing innovations such as Farmer's Markets and CSA initiatives it is quite possible that while consumer's demand for quality is a given, some might sacrifice their "need for speed" for safe, locally grown produce. This, combined with knowledge that their purchases are making a real difference in their own health, that of the environment and the sustenance of a farming family could create a profitable model for direct marketing over the Internet.

Some businesses and organizations are testing this hypothesis. America Fresh is a new web-based farmer's market with headquarters in Los Gatos. Founded by Brian Gardiner, a long-time organic grower, America Fresh is on a mission to "implement a Just-In-Time distribution system for "totally" fresh, organic produce"- the same produce that restaurants strive to serve their customers. Currently America Fresh is focused on

serving the Bay Area's restaurants, but has an ambitious strategy to expand to other regional centers throughout the nation.<sup>31</sup>

For the Internet to contribute to local agriculture in Santa Clara County, multiple stakeholder groups, including the two local businesses discussed above, must be involved. Moreover, this work must tie in with the other topics mentioned in this study such as agricultural tourism, regulations, and the need for "Green" consumer customer requirements. Partnerships must be forged and all partners must see clear and powerful benefits from their participation.

### **Key Findings**

- The divide separating rural and urban interests must be bridged for the benefit of all stakeholders in the community. Building this connection is feasible. In fact, it has already begun.
- To sustain this connection, agriculture must remain viable and its environmental services must be valued.
- The "Green" Consumer is interested in supporting local agriculture and its environmental services.
- Urban agriculture presents numerous opportunities for direct marketing, awareness building and literacy development.
- Agriculture on industry landscapes is feasible.
- Direct marketing innovations are vital to enhancing agriculture's viability.
- Direct marketing food over the Internet has been challenging to date, but the consultants are confident that solutions will be found for the benefit of local agriculture.

### **Potential Solutions**

- Continue to focus on bridging the divide between rural and urban stakeholders by demonstrating the important connections between them.
- Work with Urban Environmental Services departments to create additional incentives and value for enhancing the services provided by local agriculture.
- Continue the process of supporting urban agriculture by supporting The Foundation for Global Community and other interested groups.
- Create a customized pilot farm on a highly visible Silicon Valley Campus that demonstrates the feasibility and incentives inherent in such work.
- Develop a pilot CSA program with a highly visible Silicon Valley Company.
- Forge partnerships with local businesses interested in utilizing the benefit of Internet technology to direct market safe, local produce.

### III. SUPPORTING & INVOLVING ETHNIC FARMERS

The traditional model of large-scale production agriculture relies upon a large workforce that consists predominantly of different ethnic groups and immigrant laborers. As mentioned earlier, the model of agriculture that hires such workers in large numbers is losing its viability in Silicon Valley and giving way to a smaller, mobile and personal one. Transitioning to this new model will also involve transitioning the lens through which agriculture perceives ethnicity and its employees. The California State Department of Finance projects that Santa Clara County will be comprised of 31% Asian and Pacific islanders, 26.8% Hispanic and 38.4% White. Only 10 years later the percentages will be strikingly different, with 35.7% of the population Asian and Pacific Islanders, 30.3% Hispanic and 30.3% White.<sup>1</sup>

These population trends reflect the current and future local markets that farmers must learn about. The best way to learn about these customer requirements will be to partner with and support the farmers who have such knowledge. The future of agriculture involves treating ethnic groups and farm workers as more than a labor force, but as people with a tremendous amount of knowledge about consumers from their culture.

#### Support for Ethnic Farms

Ethnic Farmers all too often fall into the box of the "Limited Resource" Farmer as defined by the USDA. Such a farmer displays one or more of the following characteristics:

- 1) Gross farm sales averaging \$40,000 or less in each of the last three years, and there is no non-farm income.
- 2) Total household net income, farm and non-farm, is 75 percent or less of the non-metropolitan median income level for the state or county.
- 3) Lack of access to capital, labor, or equipment.
- 4) Farm or ranch size is significantly smaller than average size.
- 5) Social, cultural, customs or language barriers, minimal awareness of USDA programs, limited management skills, level of education below county average or undereducated, and less likely to take business risks and adopt new technology.<sup>2</sup>

This definition, while helpful in promoting the support and success of small farms and ethnic farmers within the, production-focused agriculture, creates a perspective of ethnicity in agriculture that implies, among other things, that small farms and ethnic farmers are "limited." This is not true for the emerging agriculture that is taking root throughout the country and in Santa Clara County.

Santa Clara County has 180 Chinese farmers<sup>3</sup> out of a total of 985 farms<sup>4</sup>. It is imperative that the agricultural support system and the policies that create such systems (Agricultural Commissioner's Office, Farm Bureau, County Planning Office, UC Extension Office) incorporate the knowledge and perspective of Ethnic Farmers to some



extent at all levels. Ethnic Farmer representation on decision-making bodies such as the Farm Bureau Board of Directors is cited as something to be considered.

Local governments will benefit with a higher rate of regulatory compliance and awareness of available services. Because agriculture on a county level has accessed the rich knowledge embedded in the minds of ethnic farmers, it will be increasingly able to serve local non-Anglo consumers. And the ethnic farmers will benefit because they are being supported and valued on their own terms, for their unique values and cultural perspectives. From Maria De La Fuente's perspective, the three hurdles to the success of this are translation, representation and cultural awareness.

First, agriculture must work with the county at-large to train translators who have agricultural skill sets and knowledge of how to best approach and work with different ethnic groups.<sup>5</sup> De La Fuente notes that the biggest problem with the existing translation system is that the translators do not have adequate knowledge of agriculture. Kathy Sukamoto, of Japan Town Farmer's Market and Business Association in San Jose, expressed an interest in the development of an agriculture translator's network and offered to help in the initial coordination.<sup>6</sup>

Ethnic farmers must be fairly heard and represented in the policy-creating and policy-lobbying community.<sup>7</sup> De La Fuente believes that the local Farm Bureau can build upon its willingness to explore and look at new approaches to supporting agriculture by expanding its representation of ethnic farmers.

### **Information Access and Delivery for Ethnic Farmers**

While entrepreneurial agriculture in the new economy must definitely leverage Internet technology for business success, it will be important to leverage the strengths of television, radio and typewritten technology for communication success with ethnic groups and farmers. This will be one of the first steps to fostering increased entrepreneurial success of these farmers and Santa Clara County Agriculture. One of the best models for working with ethnic groups has been developed in Fresno County by Richard Molinar, farm advisor at the local UC Cooperative Extension. He coordinates multiple workshops, tours and radio broadcasts in several languages for his diverse Fresno County clientele. As a result he has received a UC Division of Agricultural and Natural Resources Distinguished services award for the success of his work.<sup>8</sup>

In order for these successes to be translated into the context of Santa Clara County, the local media must be brought in as a valued partner who has something to offer and something to gain. Not only can the media as a stakeholder assist with outreach efforts to ethnic groups, but it also can play a vital role in the revitalization of the County's agricultural sector. To date this has been a challenging task with media outlets hesitant to work with agriculture due to the high value of airtime or print space in Santa Clara

County.<sup>9</sup> Partnerships must be forged between agriculture and media. The development of such partnerships will be hastened if a broader community of stakeholders requests the participation of media groups and provides them with incentives to participate.

## **Involving Ethnic Knowledge and Perspective**

As Maria De La Fuente, UC Cooperative Extension Director and Advisor for Santa Clara County put it, “These farms and farmers are true “family farmers” who come from agrarian cultures with a direct and powerful connection to the land.”<sup>10</sup> The simple fact is that white consumers in Santa Clara County will comprise less than 40% of the population by 2010 with the remaining 60% being Hispanic, Asian or Pacific Islanders.<sup>11</sup> Agricultural viability, which rests in part on accessing and forging direct relationships with local customers, must access ethnic markets through serving the unique needs of ethnic farmers.

Gaining the trust and “buy in” of ethnic farmers in Santa Clara County will be vital to agricultural viability. The dynamics of ethnicity in agriculture are vital to the future success in the farming sector. As cultural demographics rapidly change and agriculture continually searches for unique markets and specialties, immigrant farmers and farming families carry knowledge and perspective that can be of service, but they need increased support to help them incorporate their expertise into a new farming context.

### **Key Findings**

- Ethnic Farmers play a pivotal role in emerging agriculture in Santa Clara County.
- County support for ethnic farmers needs to be adapted to the changing needs of emerging agriculture.
- Ethnic Farmers are under represented on agricultural decision-making bodies.
- Lack of agriculturally literate translators creates a communication barrier that is difficult to cross.
- Information delivery and access is a barrier that prevents full participation of ethnicity in the future of agriculture.
- In a demographic scenario where ethnic groups comprise the majority of the potential direct market for local agriculture, the knowledge and perspective of ethnic farmers is valuable and should be incorporated into emerging agriculture’s priorities.

### **Potential Solutions**

- Collect information about ethnic farming and ethnic crops in Santa Clara County.
- Incorporate the development of an Agricultural Translators Network comprised of multilingual translators with basic agricultural knowledge and background.
- Represent ethnic groups on agricultural decision-making bodies.
- Perform an audit of the ways in which local ethnic farmers receive information.
- Work with media outlets to develop programs that enhance information delivery and access to information.
- Demonstrate that Santa Clara County values the role ethnic farmers play in the community and in agriculture.

## IV. LAND STEWARDSHIP & PROTECTION

### Conserving Land

There are at least five groups currently working to preserve land in Santa Clara County. They are the Open Space Authority, the Land Trust for Santa Clara County, the Greenbelt Alliance, the Nature Conservancy and a newly formed Silicon Valley Conservation Council. Beginning in 1999 the American Farmland Trust facilitated a series of discussions meant to distill recommendations for the development of an Agricultural Conservation Easement (ACE) Program in Santa Clara County. In April 2000 *The Final Report of the Santa Clara Agricultural Conservation Easement Task Force* was issued. As mentioned in the report the work is "an additional tool for maintaining agriculture in the long term"<sup>1</sup> and Santa Clara County deserves commendations for initiating this project in a challenging environment in which agriculture's viability is heavily questioned.

Discussions with the Santa Clara County Planning Department highlight a fundamental component of the land preservation issue.<sup>2</sup> At this point in time the individual and collective efforts at preserving agricultural land and open space hinge on the question of agriculture's viability as an industry. The Open Space Authority, in particular, hesitates to fully support preservation of valley floor land due to the question of whether or not SCC agriculture is viable.<sup>3</sup>

This question, in and of itself, threatens agriculture's future almost more than any other factor. Furthermore, it highlights the need for the Open Space Authority to gain a deeper understanding and perspective on agriculture's multiple contributions to Santa Clara County. While questions over traditional agriculture's viability are justified, it is unquestionably in the County's best interests to work diligently to preserve large and small parcels of agricultural land on the valley floor and elsewhere.

It is also fundamental to clarify that agriculture's viability is but one of many reasons for preserving land. Thus if agriculture were dead in Santa Clara County (which it is not) it would remain just as important to preserve agricultural land for other reasons. From a conservation perspective, the fundamental question to ask is not whether or not agriculture is a viable pursuit, but whether or not there are great economic, environmental and social justifications for preserving parcels of land.

But what is emerging is the fact that the vitality of a watershed, the value of greenbelts within watersheds, and the mere presence of open space on the health of residents have huge impacts on the long-term economics of local industry and quality of life. For instance, the costs associated with watershed degradation are mammoth in comparison to the investments necessary to protect watersheds and the land that catches and "sheds" water. This alone justifies the preservation of land, especially within the context of energy and water issues.

## New Preservation Approach for Emerging Agriculture

Along with the emerging model for “New Agriculture” arrives new strategies for sustaining and preserving it. As Santa Clara County works towards defining this agricultural model on its own terms, it will be fundamental that agricultural preservation interests incorporate lessons learned into their perspective and approach. If Mike Mantelli of Christopher Farms is correct in his assertion that the large scale farmer is “doomed” in Santa Clara County, it will be important for preservation groups to ask different questions of agriculture.

One of these questions should be “What model of farming isn’t doomed and what can we do to contribute to the livelihoods of those farmers?” Large valley floor farms should remain a primary target for assistance. But as the open space movement evolves and the emerging “new agriculture” model in Santa Clara County continues to take root, it will be important that preservation interests begin the process of supporting this farming model before its viability becomes an issue.

This translates into preservation work that recognizes the value of new agriculture and acts accordingly to preserve smaller parcels of land. And as a land preservation strategy, agriculture and land preservation groups must get involved in work that preserves and adds value to the small farm. Other ideas include:

- Developing long term landscape conservation easements or public trusts with urban farms or companies that work with farmers to implement viable agricultural operations on their land.
- Scanning for opportunities to enhance the viability of existing urban agricultural operations and create opportunity for new operations.
- Developing additional sources of agricultural revenue by working with tourism officials and other stakeholder groups to develop agricultural tourism programs that highlight farmer and farmland preservation work.
- Linking such preservation work with Agricultural Literacy and Awareness-building efforts within the urban population and schools.

A specific idea that relates to such a new perspective on land preservation derives from an interview with Dave Gordiano, whose 300 acre farm in the middle of San Jose is most likely the largest urban agricultural operation in the County.<sup>4</sup> During the interview, Gordiano echoed Mike Mantelli’s sentiments by stating that “Agriculture as we know it in the valley is over!” He is frustrated and pessimistic as regards agriculture’s future. His valid concerns are derived from such issues as the increased costs of doing business, frequent conflicts with neighbors over his use of agricultural chemicals and government bureaucracy. But even in this instance, there is tremendous opportunity. While Agriculture as Mr. Gordiano defines it may be over in the Valley, agriculture as seen through a different lens is not. One must only look to Fairview Gardens for proof.

In an instance such as this, agricultural preservationists including the Open Space Authority could recognize the multiple values presented by Gordiano's land and his agricultural operation. Such recognition might stimulate the development of a multi-agency and stakeholder assistance team. This team could rapidly deploy assistance to farmers such as Gordiano and contribute to a profitable transition to an agriculture that functions successfully in the urban context, direct markets to the urban consumer and preserves open space within the urban environment.

The team could also help the farmer implement a CSA program or set up a Farmer's Market. Agricultural tourism could be included and such an operation could become the first urban farm on the *Country Crossroads* network of farms. Most importantly, through short-term mediation, such a team would actively work to reduce the financial and mental strain associated with neighbor conflict. As a long-term strategy, a consultant could work to help such a farmer make the successful transition to a biologically integrated approach to farming.

Such work could benefit neighbors and "Green" consumers through increased access to fresh and safe commodities they desire and information they demand. Finally, such assistance would need to dovetail and support already-existing urban goals such as increased regulatory compliance, open space development, energy conservation and urban cooling through tree planting, and reduced loads on the storm water system through groundwater infiltration systems.

## **Watershed Protection and Rehabilitation**

It is well known that urban development and expansion has an impact on watershed health, water supply and flood control management. What is less known and properly valued is agriculture's role. Santa Clara County stands to benefit from establish collaboration between the Santa Clara Valley Water District (SCVWD), urban planning and development, and agriculture.

When a building development directly abuts a creek, it often eliminates the valuable services provided by the riparian corridor. As a result, environmental and economic effects ripple into the arena of water supply and flood control. And over the life span of the development, added expense is incurred because storm water cannot be dealt with in any other fashion than the costly municipal water treatment system. In such an instance, the free services provided by nature are replaced by the need to develop more costly and mechanical means of recharging the groundwater basin and managing flood situations. This highlights the importance of the relationship and communication between urban planning and the water district.

The SCVWD, recognizing the importance of this connection, hosted a summit on March 29, 2001 entitled "Blueprint for Improving Our Watershed- A Land Use and Water Summit."<sup>5</sup> This summit was an important step on the way to ensuring that land

use decisions and the policy that drives them are developed in a fashion that helps, not hinders, the County's efforts at ensuring high quality water supply and successful flood water management.

An additional relationship that enhances the effectiveness of Santa Clara County's water system is the one between the Water District and agriculture. Agriculture, as primary steward of the watershed, protector of valuable riparian corridors and as a large-scale customer for treated and recycled water, must be seen as a valuable service provider through the lenses of the SCVWD. This valuable agricultural service must be highlighted throughout all levels of the County, both public and private.

Early research indicates that the SCVWD board of directors recognizes the economic value of open space and agriculture. For instance, the Water District Board of Directors has gone above and beyond the District Act requirements and enacted policy that sets a cap on water rates for agriculture at 10% of the Municipal and Industrial (M & I) rate.<sup>6</sup>

The SCVWD is currently expanding its recycled water system to allow municipal wastewater to be redirected from a waste stream to a valuable resource stream for Santa Clara County. Agriculture is poised to be an effective user of such water and provide a lowest cost avenue for use. If agriculture's viability is not ensured, and thus not available as a water service provider, more costly and less popular alternatives will be explored. An example of such an alternative is indirect potable re-use that involves injecting recycled water into the ground for the purposes of recharging groundwater supplies.<sup>7</sup> Agriculture's fundamentally important role in the health of the watershed and water system also extends to the health of urban development and the growth of Silicon Valley. For example, the City of San Jose has had a wastewater flow cap placed on its water system by the Regional Water Quality Control Board, acting in accordance with the Federal Endangered Species Act on behalf of critical salt marsh habitat and species that need it for their survival.<sup>8</sup>

The City of San Jose has begun to develop solutions to the issue with such programs as their "Slow the Flow" program, which offers rebates to commercial and industrial water customers for implementing process and equipment changes that reduce wastewater discharges.<sup>9</sup> This flow cap restricts further development until other uses can be found for tertiary treated wastewater. In this instance agriculture must be seen as a valuable service provider that contributes to San Jose's economic development by accepting and utilizing municipal wastewater. This is especially relevant to urban agricultural projects or projects on industry landscapes. Success in this partnership rests on the county's ability to provide scientific assurance to agriculture that the wastewater is in fact a valuable resource that is safe for agricultural uses.

Indicators show that Santa Clara County's economic, ecological and social success depends on the health of the various watersheds and water infrastructures. The relationship and reciprocity between the SCVWD, Urban Planners and development interests, and agriculture has the potential to increase agricultural viability, allow for

continued economic expansion of Silicon Valley and maintain a high quality water system for all users.

One of the most important points in this discussion is that such a multi-agency, public and private collaboration with regards to water has important precedents to learn from. And its success hinges on the viability and sustainability of agriculture. One such example can be found in New York. In 1989 New York City, faced with the costly development of a water filtration system for its Catskill/Delaware supply, was able to receive a waiver from the US Environmental Protection Agency by developing a less expensive long-range watershed protection strategy.<sup>10</sup>

This strategy “was the first upstate/downstate collaboration to link water quality protection goals with an economic objective-preservation of the watershed’s farming economy.”<sup>11</sup> Components of this strategy include upgrades to City-owned dams, water supply and sewage facilities, and implementation of a Watershed Agricultural Program. One of the specific outcomes of this work has been the development of a Watershed Ag Council for the Farmers of Catskill Mountains.<sup>12</sup> Their work is comprised of the following five integrated programs:

- Watershed Agricultural Program
- Watershed Forestry Program
- Whole Farm Easement Program
- Economic Development
- Outreach

As a result of programs such as these, the City of New York has avoided approximately \$4 billion in costs for a water supply treatment system and been allowed to invest \$1 billion in the health of their watershed. The clear winners are the rural communities and the people of New York City.<sup>13</sup>

While Santa Clara County is definitely not New York City, the lessons and approaches learned from this success story do apply to how Santa Clara County approaches Urban Development, Water and Agricultural viability issues. Moreover, this demonstrates the belief on the part of City representatives and watershed residents that, “...in some circumstances, voluntary partnerships can protect water quality as effectively as regulatory restrictions.”<sup>14</sup>

## **Biologically Integrated Farming Systems**

In the context of land conservation, watershed protection and rehabilitation, and the emerging model for local agriculture, the farms most connected with the local biology of their land stand poised to gather numerous rewards and benefits.

The first benefit involves agriculture as the economic sector with the highest risk. In addition to the traditional market risks associated with running a business, farmers also have to contend with weather and pests. In the late 40’s and early 50’s, agricultural

production was revolutionized. Producers were presented with a new way to reduce some of the specific risk to their enterprise—chemistry. Agricultural chemicals were seen as another tool for creating efficient farming systems that would allow low cost production of superior products at high yields.

Agricultural chemicals have prevented crop damage from pests, replaced depleted soil nutrients and fought fungi, but there are consequences resulting from their use. When it all began, few if any realized the eventual problems that would arise for the industry as a result of these materials. So today agriculture is even more risky. Producers face the old threats (weather, pests, and markets) plus the threat of lawsuits from environmental organizations and fines and imprisonment from regulators. On top of it all in many places, farmers have become known as the environmental bad guys leading to a negative public image. The risks to producers have changed.

Today, the watchword among the commodity boards and producer advocacy groups is “risk reduction” and there is an emerging definition of agriculture as a multi-functional industry that offers much more than just food and fiber. The emerging image is of farmers and ranchers as stewards of the resource base and cultivators of quality of life. They are the people responsible for tending the natural systems that provide clean, water, food, and a diversity of plant and animal species. Change is in the air for agriculture and will require fast learning and quick response in order to make use of existing opportunities and to create others.

New technological innovations, research into more biologically integrated farming systems and the emerging “Green” consumer market are all becoming staples in the diet of information that farmers are required to consume in order to be effective in the business of agriculture. Farming in the new economy demands that farmers develop efficient methods for accessing and integrating important information and techniques into their operations. Never before have farmers had to be proficient in so many different skills.

Thousands of farmers around the world now employ biologically integrated farming systems (BIFS) methods on millions of acres of fruits, vegetables, grain, and nuts. They have adopted BIFS because, without harming the economics of their operations, this system reduces the risks associated with “conventional” farming techniques. They no longer spray chemicals based on a pre-set schedule. They are now keen observers and active stewards of the land, responding to the ever-changing dynamics within the multiple biological systems of fields, orchards and vineyards. BIFS offers a means for agriculture to meet society’s environmental goals at affordable prices on a mass scale.

Even farmers in Santa Clara County are beginning to look to BIFS. Kip Brundage, Farm Bureau President and owner of G & K farms, is turning to the BIFS approach for his weed-free hay operation. The primary reason for this transition, he says, is because “...it’s the last possible way I can cut costs.” In addition this work will provide him with



a tangible way to show neighbors that “he’s doing the right thing” and trying to address their concerns over the use of agricultural chemicals.<sup>15</sup>

BIFS farming is a composite of the best practices from existing water quality protection and IPM systems, conventional and organic agriculture. BIFS preserve the farm’s long-term productive capacity and the natural environment using a “whole systems” approach, enhancing natural biological processes. Specifically, farmers build and preserves soil health with natural vegetative cover, plant nitrogen rich cover crops, apply compost, and minimize the need for synthetic fertilizer by calculating precise nutrient needs in order to avoid build up of harmful nitrates. They minimize soil loss due to erosion thereby protecting waterways and dependent aquatic species from sedimentation. BIFS farmers encourage beneficial predator insect populations to control harmful pests. When they must spray, they seek to use the least biologically disruptive insecticides such as *Bacillus thuringiensis* or BT (allowed under organic standards), supplanting broad spectrum chemicals that kill randomly. BIFS farmers carefully monitor insect populations to pinpoint spray times, maximizing impact and reducing the quantities. They often seek to increase biological diversity by erecting raptor boxes and planting hedgerows of native grasses, shrubs, and trees, offering beneficial insect and wildlife habitat. Perhaps most importantly, BIFS farmers utilize a system of monitoring and assessment that leads to continuous improvement in their management of the resource base.

In short, one might say that BIFS farmers recognize that protecting the environment and economic success are one and the same. This is because BIFS farmers become incredibly efficient over time. They become adept at using only those inputs that are required to ensure the crop is healthy. They let Mother Nature carry the load whenever possible because they recognize that natural systems have evolved over millions of years and contain inherent efficiencies that we cannot possibly hope to emulate at our present level of understanding and technology.

Unlike organic farmers, BIFS farmers do have the option of using a “hard chemical” if damage of economic significance threatens. Hence, they possess a sense that they are protected from pest induced disasters. Still, the reduction in chemical use is environmentally significant. Among surveyed farmers in the Biologically Integrated Orchard Systems (BIOS) project, biological farming has reduced harmful organophosphate usage by 90%.<sup>16</sup>

Farmers are not the only ones advocating BIFS methods. Government officials and non-profits focused on resource and environmental protection support these methods as a practical way of meeting society’s environmental goals. US EPA, USDA, the State Water Resources Control Board, Department of Pesticide Regulation, and other state and federal agencies and philanthropic foundations are investing in programs that promote biological farming. They do this because BIFS is more easily adopted by larger numbers of farmers in less time than the organic system. The increased numbers of growers using BIFS means major overall reductions in the use of chemicals. In addition,

food and fiber resulting from biological farming requires much lower price premiums than those associated with organic production, making environmentally sensitive products affordable for many more people.

Legislation sponsored by the Community Alliance with Family Farmers (CAFF) created the Biologically Integrated Farming Systems (BIFS) project managed by the Sustainable Agriculture Research and Education Program (SAREP) at UC Davis. BIFS projects funded by SAREP are currently underway to create biological farming systems for several different commodities including almonds, winegrapes, prunes, strawberries, rice, citrus and walnuts. Other commodities will be added in the years ahead. Additional BIFS funding of up to \$14 million for 2001-2 is being considered at this time by Governor Gray Davis following the passage of the CA BIOA Ag Initiative in April 2000 by the Senate and Assembly Appropriations and Ag Committees.

Legislative acceptance stems from the fact that BIFS methods have been field tested in a collaborative effort over the last six years by farmers, CAFF, UC farm advisors and researchers. Many people believe the concept is ripe for mass adoption by thousands of the state's farmers. The transformation of California agriculture to a biological farming approach would rid the industry of the public perception that it is environmentally destructive.

### **Key Findings**

- There are at least four land conservation groups working to preserve open space and agricultural land in Santa Clara County.
- Research indicates that some group's work, such as the Santa Clara County Open Space Authority, hinges on the question of agriculture's viability. Agriculture's viability is but one of many reasons for preserving open space and agricultural land.
- Emerging agriculture will require a new model for conservation and preservation.
- Agriculture is a key contributor to watershed health, water quality and flood control.
- The Santa Clara Valley Water District recognizes agriculture's value. The Agriculture, SCVWD and Urban Planning relationship will create opportunity for county stakeholders.
- New York City Watershed Protection program is a model that can help Santa Clara County address this issue.
- Biologically integrated farms will be best positioned to steward the watershed and receive compensation for such efforts. Farmers in Santa Clara County are beginning to transition to Organic and BIFS approaches to farming.

### **Potential Solutions**

- Create a working group on agricultural conservation for emerging agriculture.
- Develop a conservation model and approach that recognizes the value of emerging agriculture.
- Work to cultivate the relationship between the SCVWD, Agriculture and Urban Planners for the purposes of developing a comprehensive and low cost route to watershed health.
- Support the SCVWD in its work with agriculture and work to highlight the services agriculture can provide, such as use of recycled or tertiary treated wastewater.
- Promote and provide incentives for a County-wide transition to BIFS.

## V. THE ENTREPRENEURIAL FARMER

*The future of farming in Santa Clara County lies in new entrepreneurial thinking on the part of farmers with regard to the type of crops to grow and produce, and new ways to market them.<sup>1</sup>*

The consultants use the term “entrepreneurial” to define a wide-ranging set of competencies required by farmers to sustain their livelihoods. For the myriad reasons articulated in previous sections, farmers are faced with a new world of conditions and barriers that they must “see” through and prepare for in order to find opportunities. They must be supported in the development of a full set of competencies that can ensure their success and adaptability for the 21<sup>st</sup> century and beyond. Essential to developing these competencies is an understanding of the differences between the old and new economies. These differences are highlighted in Appendix B. When agriculture is looked at from this perspective, farming is seen as more than a matter of growing one crop and distributing it.

The traditional farmer has been proficient at three of the four aspects that define an entrepreneur: assumes risk, owns venture, manages growth and promotes product or enterprise. The fourth has been missing and has hobbled many producers as they seek to survive in a global system. Most producers are far removed from the ultimate sale of the food or fiber they produce. Consequently they have lost much of the value, which is generated at each step on the way to the consumer.

Most success stories in farming and ranching today are generated by those operations that are vertically integrated as broadly as possible from field to table. To be this involved in the value chain requires a highly developed set of diverse skills. Few individuals can manage it alone. But organized teams of people led by visionary producers are succeeding in today’s economy.

Entrepreneurs in the simplest form are people that do not give up. They seek a solution to every impediment until they succeed. They do this by projecting (think and analyze) ahead, adapting to change (go with the flow), and most importantly they believe in themselves and their ideas, which evolve with experience. A “full” entrepreneur has a better chance to succeed in world that requires focus on a niche market. In Santa Clara County where lack of affordable land forces smaller operations, niche markets are the primary marketing alternative.

### **Integrating and Sharing Information**

Farmers must establish competency in determining location and mode of access for information related to target markets. In addition they must learn how this information can be transformed into a valuable decision-making resource for their business. Once

this occurs, specific target markets or niches for direct sales can be accessed. The goal is to create the highest value for agricultural products in the most effective and efficient manner possible.

Existing resources such as the Farm Bureau, UC Extension and the Agricultural Commissioner's office have historically been instrumental in gathering and disseminating information to the farm sector. This information has been drawn from international and national markets and delivered to farmers attempting to compete in a global arena. At this point in time, global competition is not a feasible reality for the majority of Santa Clara Farmers. More important is local agriculture's ability to directly serve local and regional markets. This ability will only be fostered if farmers can be supported by the integration of disparate regulatory, environmental, economic and market information into the context of their working operations.

The traditional information channels for farmers are changing with the emerging economy. If one seeks growth and long-term viability it is no longer sufficient to simply provide commodities to an undefined consumer through centralized middlemen. In the emerging new economy, customers are requiring information relating to their purchases. This challenges the farmer to ascertain customer requirements and to develop delivery and information systems that satisfy them. Such systems need not be developed from scratch, but can be designed with already existing components in the county.

While the components are disparate at this point in time, there are a number of potential providers of information required by the entrepreneurial agrarian. These include Farmer's Markets, supermarkets, CSA providers, non-profit organizations and agricultural tourism destinations. These need to be recognized not only as places to directly provide goods and services to the market but also as potentially valuable points for collecting customer requirements. At these points, customer requirements could be strategically collected, synthesized and delivered to the farmers who could then be increasingly able to offer products and services that are of highest value to the consumer. In this new economy for agriculture, the mindset of consumer markets as entities to be *penetrated* must change to one that recognizes consumers as informed partners. These are people who vote with their money.

## **Connectivity, Speed and Co-opetition**

Silicon Valley is the home of the New Economy with the focus being on developing technological infrastructures that allow people, businesses and organizations to connect with each other. This infrastructure is available to the agricultural community and can be of tremendous benefit. In many cases, the organizations and businesses involved in the agricultural economy of Santa Clara Valley are already connected to the Internet via computers and web sites. There are even farmers in Santa Clara that have their own web sites. The critical issue is that while these disparate entities are connected to the Internet, they are not linked to each other. This problem can be overcome by turning to their high

tech neighbors for advice and guidance. And as mentioned earlier, connectivity includes more than Internet technology, but television, radio and print media.

As local and regional markets change rapidly, so too must the ability of local agriculture to adapt and grow with these changes. The change factors occurring in Santa Clara County are not going to slow down or take a break while agriculture catches up. Farmers in the valley will need to be trained in the use of emerging and appropriate technologies in order to make the transition to a new economy with the least amount of negative impacts possible. This training will begin when relationships between agricultural interests and high technology experts are forged. Through such partnerships dynamic highly functional and exciting initiatives can begin.

Local farmers face common challenges and have related goals. In the developing new farming economy alliances and peer collaboration replace competition. When individual small farmers have the information necessary to provide services and products to growing niche markets, it is in everyone's best interest to share experiences and build relationships that allow continued growth. This "Coopetition" will also create functional boundaries that help farm management feel that their enterprise is not threatened by these new allies.

### **The Entrepreneurial Farmer is a Teacher**

The entrepreneurial farmer is a teacher with valuable knowledge and perspective to offer. This perspective is of benefit to the whole community of stakeholders. As mentioned earlier, of all the workers in the modern economy, farmers have the most intimate connection to the land and its natural. In an age when more and more people are reaching out for this experience and seeking to build the connection with nature, farmers need to be seen as teachers with valuable stories to tell. They are more than people laboring to plant crops and raise animals-they are teachers and story tellers who can help enrich the lives of others, especially those living fast-paced, urban lifestyles. Increasingly, programs and initiatives must be developed that provide economic incentives for farmers to "tell their stories."

These stories include the rich history of the Valley of Heart's Delight as articulated by farmer historian Yvonne Jacobson in her recently re-issued "Passing Farms, Enduring Values - California's Santa Clara Valley." Another example is the website initiative called "Gifts and Graces of the Land." This web-based initiative, sponsored by Canon and developed by The Digital Journalist <sup>2</sup> utilizes the power of the Internet to tell a story - the story of farming.

Santa Clara County stakeholders must campaign for and highlight the story that farmers tell about agriculture. It is a story that connects us all and has the potential to connect every aspect of the infrastructures that supply our lives. Agriculture, especially the emerging "new" agriculture will be the integrating mechanism through which currently

disconnected segments of our urban and rural areas will be “linked.” Due to this linkage, very challenging and complex problems and issues will be solved on the basis of how they work with agriculture, its products, services and entrepreneurial competencies.

### **Key Findings**

- Farmers will need training in information technologies to be effective in the marketplace.
- UC Extension and the Agriculture Commissioner will need to be augmented with new information providers.
- Farmers will need to begin providing product information, in addition to their products, to the consumer.
- Farmers will need to collect customer information from new and existing infrastructures.
- While many agriculture-related entities are connected to the Internet, most are not currently linked to each other.
- Training is needed to allow farmers to use Internet technology to stay on top of the rapid pace of change in Santa Clara County.
- Farming is the highest risk sector of all, but full entrepreneurs are needed: ownership, risk, management and marketing.
- To minimize risk, farmers need to be able to access and integrate new information.

### **Potential Solutions**

- Design a workshop series on entrepreneurial farming within the context of emerging agriculture.
- Forge connections with Silicon Valley experts in technological infrastructures.
- Train farmers to use Internet technology.
- Consider developing farming cooperatives comprised of farmers who network to create opportunity and fulfill direct market need.

## VI. LOCAL GOVERNMENT & POLICY STEWARDSHIP

The core policy group in Santa Clara County involves the Agricultural Commissioner's Office, the County Planning Department, the County Board of Supervisors and the Farm Bureau. This group of committed leaders needs support in developing policy that promotes agriculture in the new economy. To be most effective policies and programs must be designed to benefit agriculture on the one hand, while simultaneously benefiting urban needs such as flood control. Such multifunctional policies and programs will have the strongest impact on Santa Clara County as a whole.

Earlier in this document, it was demonstrated how a solution for The City of New York's water issue was also a solution for agricultural viability. Additional solutions that have the potential to address multiple issues are:

- 1) creating a position for an agricultural ombudsman
- 2) implementing regulatory innovation
- 3) permit streamlining
- 4) shifting taxes in the local economy.

### Agricultural Ombudsman

During the stakeholder interviews, it was suggested numerous times that a third-party office be developed to serve the agricultural sector. Agricultural producers support the County's decision to hire someone to assist in the area of conflict mediation.

The answer to these concerns, many stakeholders feel, is the formation of an Agricultural Ombudsman's office in Santa Clara County. The ombudsman would:

- 1) Clarify permitting requirements
- 2) Resolve regulatory conflicts
- 3) Assist with neighbor/grower conflict and tension
- 4) Provide a central clearinghouse for agricultural information
- 5) Offer networking and marketing assistance
- 6) Assist with building agricultural literacy among non-farming residents
- 7) Support further development of agricultural tourism and resource stewardship

Throughout the nation and in California there are examples of ombudsmen who make a difference in the sectors they serve. For example, the California Integrated Waste Management Board Ombudsman works with businesses and individuals to clarify solid waste facility permit requirements and resolve regulatory conflicts.<sup>1</sup>

Another example is Cal/EPA program that has designated an ombudsman as a single point-of-contact to work with applicants and the public to clarify permit requirements and resolve regulatory conflicts.<sup>2</sup>

## **Regulatory and Permitting Innovation**

The agricultural sector, as with other sectors of our economy, faces tremendous difficulties in achieving and maintaining regulatory compliance. Throughout the nation and in California, there are many innovative programs that address the issue of increased regulatory oversight and assist businesses in achieving compliance and then translating it into consumer awareness and business profitability. Agriculture in Santa Clara County can adopt lessons learned from these working models into a local system that adds value to agriculture, increases regulatory compliance, and provides information to concerned members of the public.

One of the biggest challenges facing local producers is the complexity of the regulatory system. Compliance with regulation costs money and producers feel that the process needs to be simplified and supported. One farmer pointed out what he perceived as a double standard when a farm out of compliance gets public recognition while those obeying the law are not recognized at all. The core policy group also recognizes the existence of such barriers and is searching for contributions they can make to reduce the impacts on agriculture and thus support its viability.

Throughout the nation, California and even in Santa Clara County, there are steps those in charge of developing policy and programs can take. For instance, the Department of Labor's Office of Small Business Programs has a compliance assistance program for small businesses. Such a system, combined with the services of an Agricultural Ombudsman would be extremely helpful to the agricultural sector.<sup>3</sup>

The primary necessity when it comes to regulatory relief is the development of a more flexible and supportive stance toward agriculture on the part of the zoning and public health enforcement agencies. Producers need help placing farm worker housing on their properties. Value-added production facilities, such as kitchens, are increasingly important. Retail sites on property zoned for agricultural land must be allowed. The need for increased auto traffic on rural roads is obvious for agricultural tourism to flourish. Ag zoning must be redefined to permit a more complex set of activities. In short, the County would help agriculture's viability immeasurably by setting a more permissive tone based on the recognition that experimentation and entrepreneurship should be encouraged not discouraged. A deeper analysis of this issue is warranted and should be considered as a next step.

Nationally, resources are available to assist farmers with some compliance issue. The US EPA's National Agriculture Compliance Assistance Center provides information about environmental requirements that affect the agricultural community. They offer



comprehensive, easy-to-understand information about compliance and provide information on reducing pollution and making good use of the latest pollution prevention technologies. Such a system, while tremendously valuable, is not valuable to farmers until it fully incorporates the local conditions and compliance issues farmers face. This site when coupled with local assistance would prove very useful.<sup>4</sup>

Locally, the Bay Area Green Business Program works to address similar regulatory compliance issues. This program, which encompasses Santa Clara County, is a voluntary partnership of government agencies, professional associations, utilities, businesses and a concerned public. Coordinated by the Association of Bay Area Governments, this program works to assist, recognize, and build patronage for businesses that operate in an environmentally responsible way. The program helps businesses comply with environmental regulations, and then go beyond compliance to conserve energy, water and other resources, and reduce pollution and waste. This program has proven to be of benefit to the industry bottom line through a public recognition program.

Santa Clara County's high Hartman consumer profile creates the climate in which a Green Business Program for Agriculture could succeed. This would help agriculture raise its visibility as a natural resource steward and be very helpful in improving the viability of agriculture. Agriculture in Santa Clara County could benefit tremendously by having a customized Green Business program designed for its particular needs and goals.<sup>5</sup>

## **Tax Shifting in the Local Economy**

*Begin the long-term process of shifting to tax policies that — without increasing the overall tax burdens — encourage employment and economic opportunity while discouraging environmentally damaging production and consumption decisions.<sup>6</sup>*

Tax shifting that benefits the environment by placing taxes on pollution, waste, and resource depletion while reducing taxes on such things as employment and property could have a beneficial effect on Santa Clara County agriculture specifically and its entire economy overall. Tax shifting could complement regulation to foster a climate where businesses and individuals work harder to reduce pollution, save energy, and conserve resources and reap a direct benefit through lower taxes.<sup>7</sup>

In response to climate change, Britain has developed an 'eco-tax' that exempts green energies. The goals of this policy are to improve energy efficiency and reduce the greenhouse gases that contribute to global warming. Britain plans to exempt fuel used in public transport, rail freight, cogeneration facilities and renewable generation. The European union has approved this tax break. In addition, there are reduced tax rates for industry sectors that take part in voluntary energy efficiency programs.<sup>8</sup>

Tax incentives are used to attract businesses. They could also be used to alter the way agriculture is currently practiced. It is possible to envision that Santa Clara County could provide more tax incentives to farmers and ranchers to improve their land stewardship and biological farming techniques, resulting in more economically viable operations that reduced pollution, and resource depletion. Farmers that implement systems that enhance water quality, use green waste, or recycled water could be given tax credits or even a complete property tax relief for limited periods of time. Tax incentives combined with other rewards such public recognition, and a marketing initiative could have a tremendous effect on agriculture's bottom line.

**Key Findings**

- County Stakeholders support the hiring of an agricultural ombudsman.
- Agricultural producers support the streamlining and integration of regulations.
- A Green Business program exists in Santa Clara County.
- Zoning and health codes should be analyzed in a follow-up study to generate a set of new definitions for ag zoning to allow more activities that support economic viability on ag lands.
- Tax policies that create incentives for resource stewardship work could benefit both the agricultural sector and the County at large.

**Potential Solutions**

- Begin the development of the scope of services for an agricultural ombudsman.
- Expand the Green business program to serve agriculture.
- Reduce or eliminate property taxes shifts to determine feasibility for Santa Clara County Agriculture.

## VII. INNOVATION “HUB” FOR LOCAL AGRICULTURE

Redefining agriculture and creating opportunity for its future is no small task. One of the concepts that could integrate the components of agriculture’s future is that of a “Hub” or “Incubator” for Agriculture. Similar to the “Incubator” or “Hub” concept so often employed to hatch business models in Silicon Valley and elsewhere, the concept is that an entity be developed that focuses on generating opportunity for agriculture, other stakeholder interests, and the County at large. The underlying premise for this concept is that there needs to be one virtual or physical place where the multiple components of agriculture’s future can be integrated and coordinated. It also has been suggested that this be a development with both public and private support.

Such a hub could be directed by the Agricultural Ombudsman and perform some of the following services that resemble the structure of this Final Situation Analysis. Such services could be:

- **Agricultural Health Indicators** - Tracking indicators of the county’s health and agriculture’s health in international, national, state and most importantly local conditions. Scan for strengths, weaknesses, opportunities and threats that have effects on agriculture and the community.
- **The Future of Agriculture** - Coordinate the development of ideas and strategies that sustain present agricultural dynamics while creating future opportunities. Such work must also function to benefit other County sectors, both public and private.
- **Agricultural Literacy, Awareness and Experience** - Coordinate the development of initiatives and programs that work to address and surmount such barriers. For instance: a labeling initiative that differentiates local and/or biologically integrated farming operations; supporting the Country Crossroads agricultural tourism program; working with the County Tourism office to generate additional opportunities for agricultural tourism.
- **Rural and Urban Partnerships** - Scans for relationship building opportunities between rural and urban interests. Through research and application, demonstrates how agriculture can contribute value to areas such as flood control, watershed protection and continued urban development and growth. Facilitates the development of such relationships and “win-win” opportunities for multiple stakeholder groups.
- **Ethnic Knowledge and Culture** - collaborates with the UC Extension, the County, the Farm Bureau and other agricultural organizations and entities to develop support systems for ethnic farmers that increase their participation in County agriculture. Works with them to develop local approaches for better serving the local ethnic and specialty foods market. Coordinates AG translator’s network.

- **Land Stewardship and Protection** - works with conservation, agricultural, natural resource and urban interests to develop solutions that promote the interests of all stakeholders. Creates initiatives that demonstrate how business, development, agriculture and quality of life can integrate
- **Entrepreneurial Farming Support and Infrastructure** - supports the training and infrastructure development required for farming in the new economy.
- **Policy Development and Support for Agriculture** - develops recommendations and provides success stories from other farming regions that help guide policy makers and elected officials.
- **Internet Portal** - As a physical setting, the incubator or hub for local agriculture could be supported in-part by an Internet Portal. The purpose of this portal would be to provide assistance in the complex task of integrating and making sense out of information. It could provide farmers, consumers, policy makers and other stakeholders access to the information they need to make informed decisions.

Stakeholder discussion and additional research is required to prove the potential of this concept. But what must be mentioned is that many of the pieces for this concept already exist in the County. In many instances the only thing missing is coordination, sharing of information and, most importantly, the collaborative development of innovative ideas and strategies for action.

For instance, here are a few of the groups in the County that are currently addressing these issues:

- **Agricultural Producers:** developing and applying innovations such as BIFS that help sustain their operations, and if shared, sustain the operations of fellow producers.
- **Foundation for Global Community:** created the Valley of Heart's Delight Project that focuses on aspects of agricultural awareness building and literacy.
- **Farm Bureau:** constructing a website for the benefit of its members, co-funding this study.
- **UC Extension:** working to improve outreach to ethnic farmers and help them play more of a role in agriculture's future.
- **Agricultural Commissioner's Office:** funding this study and supporting continual improvements in pesticide use and monitoring.

- **Open Space and Conservation Groups:** purchasing conservation easements.
- **City of San Jose Office of Solid Waste:** partnering with agriculture to redirect urban green waste from the landfills into agricultural soils.

These are just a few of the innovative approaches that stakeholders in the County are taking. Such groups and their activities could be integrated and networked through such a hub concept. The value of such networking would increase the value of these activities by having the opportunity to leverage strengths of the group. In addition, if these collective activities were integrated, weaknesses and gaps would become apparent and easier to compensate for and eliminate.

## **S.W.O.T ANALYSIS**

### **Strengths**

1. Established CSA system in place serving over 1,500 people annually
2. Stable agriculture tourism program in place
3. Expanding Farmer's Market system targeting specific ethnic populations
4. Example of direct marketing of agricultural products over the Internet
5. Dedicated Farm Bureau membership open to thinking "outside the box"

### **Weaknesses**

1. Lack of detailed information on specialty or ethnic crops in County
2. Number of County farms participating in CSAs is low
3. No consumer information on local agricultural products available
4. Need more education for farmers in "entrepreneurial agriculture"
5. Few large farming operations left in the County
6. Few large tracts of farmland remain
7. No cohesive strategy exists for dealing with challenges exists
8. Few if any remaining agricultural operations have excess capital for investment in large scale public education or marketing campaign that is meant to benefit the entire agricultural community
9. Support for ethnic farmers low

### **Opportunities**

1. Population demographics reflect increase in "Green" consumers in County
2. Increase in natural food stores provide outlets for local products
3. Increase in cultural diversity of population provides growing market for specialty products
4. More families are participating in the agricultural tourism
5. Many examples of entrepreneurial agriculture operations are available in Silicon Valley and the local region
6. Strategic allies exist: NGO, corporations, philanthropic organizations
7. County government is responsive and focused on maintaining the quality of life
8. Technology industry is interested in maintaining the quality of life

### **Threats**

1. Massive growth in the south and east county that would eliminate remaining prime agricultural land
2. Push for land preservation removing large tracts of farmland from production
3. Increased production costs prohibiting farming alternatives
4. Multiple languages of population problematic for awareness building among consumers
5. Public outrage over pesticide use by farm operations
6. Continuing decline in general public awareness of and concern for agriculture.

## NOTES

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- 10) Susan Stansbury. Stakeholder Interview (1.12.01)
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## FINDINGS FROM THE LITERATURE REVIEW AND STAKEHOLDER INPUT

### I. Agricultural Literacy, Awareness and Experience!

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## **APPENDIX A: Stakeholder Interview List**

### **Santa Clara County Agricultural Commissioner's Office**

Greg Van Wassenhove, Santa Clara County Agricultural Commissioner

### **Santa Clara County Farm Bureau**

Jenny Derry, Santa Clara County Farm Bureau

### **Farm Bureau Board**

Joe Aiello, Uesugi Farms

Don Hordness, Royal Oaks Mushrooms

Kip Brundage, G & K Farms

### **University of California Extension Office**

Maria de la Fuente, Director

### **Santa Clara County Planning Office**

Don Weden, Santa Clara County Planning Office

### **Santa Clara County Board of Supervisors**

Rachael Gibson, Senior Policy Aid to Don Gage

### **Country Crossroads Ag-Tourism**

Nita Gizdich, Gizdich Ranch

### **Additional Farmers**

Russ Bonino, LJB Farms

Ralph Santos, El Camino Packing

Mike Mantelli, Christopher Farms

Dave Gordiano, Dave Gordiano Farm

Yvonne Jacobson, Agricultural Historian & Farmer

### **Santa Clara CSA**

Andrew Scott, Hidden Villa CSA

### **Santa Clara Certified Farmer's Markets**

Sylvia Prevedelli, Sunnyville Farmer's Market

SuEllen Sterling, Los Gatos Certified Farmer's Market

Kathy Sakamoto, Japan Town Certified Farmer's Market

### **Educator**

Vera Gomes, High Tech Ag Science Academy

### **Land Preservation & Ag Heritage Organizations**

Susan Stansbury, Foundation for Global Community

Nancy Richardson, Land Trust for Santa Clara County

Autumn Bernstein, Greenbelt Alliance

## APPENDIX B: Elements of Traditional & Emerging Agricultural Economies

ISSUE	Traditional Farming	Emerging Farming
<b>Economy-Wide Characteristics:</b>		
Markets	Stable/ Impersonal Non-Direct	Dynamic/Fluctuating/Personal Direct
Scope of Competition	National	Global or Local
Mode of Operation	Isolated	Networked
<b>Industry:</b>		
Production Scale	Mass Production	Flexible Production
Production Strategy	Monoculture	Diversification
Key Drivers of Growth	Capital/Labor	Innovation/Knowledge
Key Technology Driver	Mechanization Chemical Technology	Digitization Biological Technology
Source of Competitive Advantage	Lowering Cost Through Economies Of Scale	Innovation, Quality, Direct Marketing, Cost
Importance of Research & Innovation	Low-Moderate	High
Collaboration with Other Operations	Moderate	Highly Important
<b>Workforce:</b>		
Policy Goal	Full Employment	Higher Real Wages & Income
Skills Service	Specific Skills	Diverse Skills, Language, Customer
Labor-Management Relations	Adversarial	Collaborative, Knowledge Sharing
<b>Government:</b>		
Approach	Adversarial	Collaborative
Regulation	Command & Control	Market-Based Incentive

## APPENDIX C: Recap of Potential Solutions

- 1) Redefine “agriculture” locally, within the unique context of Santa Clara County. Base this definition on a complete system of indicators that measure agriculture’s total health and contribution.
- 2) Compel a diverse and talented group of stakeholders to take part in the creation of opportunity for agriculture.
- 3) Develop knowledge gathering and support infrastructure for all perspectives connected to agriculture, including policy makers.
- 4) Engage Silicon Valley and create incentives for their sustained participation and contribution.
- 5) Work to clarify what “Agriculture” means and how is valued for all members of the community, including ethnic groups, children and powerful urban interests.
- 6) Encourage School Districts to develop policy and programs that support agriculture and utilize its valuable services.
- 7) Closely monitor the High Tech Agriculture Sciences Academy. Expand its successes to other schools learn from its mistakes.
- 8) Support the development of Country Crossroads agricultural tourism program. Set goals for farm visits per year and value added to farms by such visits. Address barriers.
- 9) Develop a comprehensive labeling program that integrates with other important components of agriculture’s revitalization.
- 10) Encourage School Districts to develop policy and programs that support agriculture and utilize its valuable services.
- 11) Closely monitor the High Tech Agriculture Sciences Academy. Expand its successes to other schools learn from its mistakes.
- 12) Support the development of Country Crossroads agricultural tourism program. Set goals for farm visits per year and value added to farms by such visits. Address barriers.
- 13) Develop a comprehensive labeling program that integrates with other important components of agriculture’s revitalization.
- 14) Continue to focus on bridging the divide between rural and urban stakeholders by demonstrating the important connections between them.
- 15) Work with Urban Environmental Services departments to create additional incentives and value for enhancing the services provided by local agriculture.
- 16) Continue the process of supporting urban agriculture by supporting The Foundation for Global Community and other interested groups.
- 17) Create a customized pilot farm on a highly visible Silicon Valley Campus that demonstrates the feasibility and incentives inherent in such work.
- 18) Develop a pilot CSA program with a highly visible Silicon Valley Company.
- 19) Forge partnerships with local businesses interested in utilizing the benefit of Internet technology to direct market safe, local produce.
- 20) Collect information about ethnic farming and ethnic crops in Santa Clara County.
- 21) Incorporate the development of an Agricultural Translators Network comprised of multilingual translators with basic agricultural knowledge and background.
- 22) Represent ethnic groups on agricultural decision-making bodies.
- 23) Perform an audit of the ways in which local ethnic farmers receive information.
- 24) Work with media outlets to develop programs that enhance information delivery and access to information.

- 25) Demonstrate that Santa Clara County values the role ethnic farmers play in the community and in agriculture.
- 26) Create a working group on agricultural conservation for emerging agriculture.
- 27) Develop a conservation model and approach that recognizes the value of emerging agriculture.
- 28) Work to cultivate the relationship between the SCVWD, Agriculture and Urban Planners for the purposes of developing a comprehensive and low cost route to watershed health.
- 29) Support the SCVWD in its work with agriculture and work to highlight the services agriculture can provide, such as use of recycled or tertiary treated wastewater.
- 30) Promote and provide incentives for a Countywide transition to BIFS.
- 31) Begin the development of the scope of services for an agricultural ombudsman.
- 32) Expand the Green Business Program to serve agriculture.
- 33) Research local tax shifts to determine feasibility for Santa Clara County Agriculture.
- 34) Consider the development of a Hub or Incubator concept for agricultural innovations.

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AG Innovations Network is a leading strategic planning and marketing firm assisting agricultural organizations and enterprises, rural economic development agencies, and government to add value to agriculture and protect the natural resource base.

The firm specializes in planning processes that forge strategic alliances capable of implementing resource stewardship programs, public education campaigns, regional identity, eco-labeling, and agricultural tourism marketing programs. All programs are designed to maintain and/or enhance rural enterprises, particularly farms and ranches, struggling to compete on the urban fringe and in the global economy.

The firm provides specific assistance in the following areas:

- strategic planning and visioning processes
- development of resource stewardship and pollution prevention programs for agriculture
- development of regional branding, eco-labeling, and agricultural tourism campaigns and materials
- development of content for web sites and web enabled applications
- capacity building through education and training
- feasibility studies, marketing and public relations plans
- development of marketing and public relations materials
- qualitative market research (focus groups)
- implementation of public education, media relations and marketing plans for agricultural enterprises and organizations

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