

Sustaining Our Agricultural Bounty

An Assessment of the Current State of Farming and Ranching in the San Francisco Bay Area



Source: Harley Goat Farm

**A White Paper by
American Farmland Trust
Greenbelt Alliance
Sustainable Agriculture Education (SAGE)**

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Bay Area Agricultural Sustainability Project - Introduction

What would the Bay Area be like without farms and ranches? Imagine our region without the range and farm lands that bring us a bounty of local produce, fresh meats and dairy products, and the inspiring landscapes and ecosystems that define the Bay Area. Sooner than we realize we may lose this – unless the region’s agriculture can be sustained as a successful economic sector and valued for the productive land and ecosystems that supply us with a multitude of beneficial resources.

Since 1984, more than 200,000 acres of agricultural land in the nine-county Bay Area have been lost to development. Much of the region’s urban footprint was carved from irrigated cropland, the most productive and versatile land for food production. It is this high quality land that still remains the most vulnerable to development. Today, only 367,000 acres of this critical resource are still in production and much of it is up for grabs. With almost two million more people expected to live in the region by 2035, it is imperative that strong local land-use policies and conservation investments assure that the best remaining farm and ranch lands are preserved and that development consumes as little of it as possible.

But preserving the land is not enough. The one thing that distinguishes agricultural land from all other kinds of open space is that, by definition, it provides for a basic human need. Neither the food produced on agricultural land, nor its other public benefits – its scenic beauty, its environmental value as undeveloped watersheds and wildlife habitat, its historic character and cultural significance, its very presence as a bulwark against urban sprawl – can be guaranteed unless agriculture itself succeeds financially.

This recognition was behind a key recommendation of the Bay Area Open Space Council, Greenbelt Alliance, and Association of Bay Area Governments (ABAG) in a 2009 report entitled *Golden Lands, Golden Opportunity: Preserving Vital Bay Area Lands for All Californians: Help keep the region’s farmers and ranchers in business.*

Close to urban areas, Bay Area farmers and ranchers are under more pressure than their counterparts in more rural areas of the state. The cost of land and other inputs is higher and the potential for conflict with urban uses is greater. To stay in business, agriculture in this region must overcome these competitive disadvantages. And to do that, it needs the understanding and active support of the public, not only as consumers who can exert influence through their buying power, but also as constituents who can influence public policies that impact agriculture.

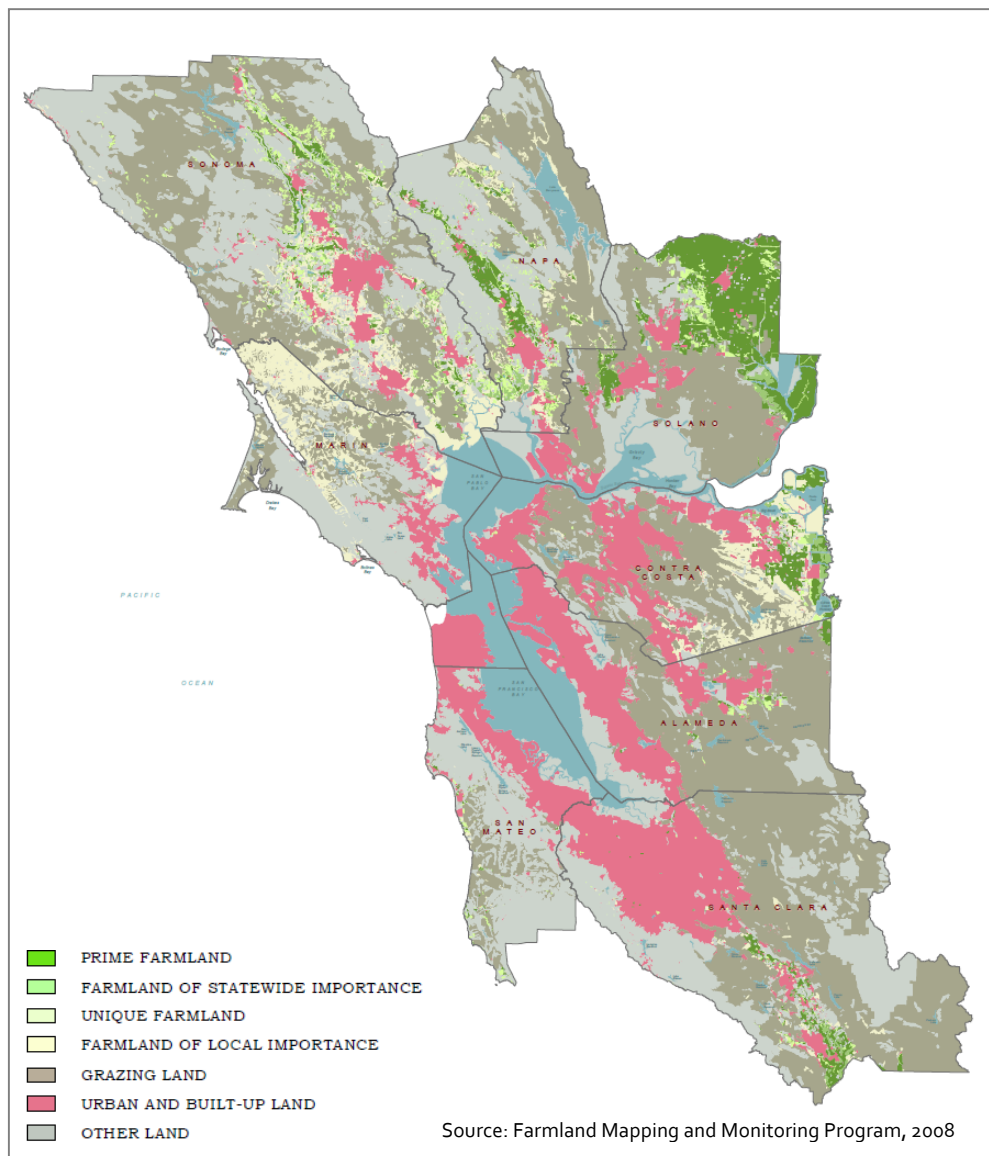
The Bay Area Agricultural Sustainability Project was inaugurated to keep the region’s agriculture competitive and economically viable. It is intended to help farmers and ranchers overcome the challenges they face, and to maximize their opportunity to capitalize on the advantage they enjoy due to their proximity to seven million customers. In so doing, this project seeks to maximize all of the contributions that agriculture makes to the livability and sustainability of the region as a whole.

The Bay Area’s agricultural land is not a placeholder for future development, nor simply preserved open space that will help prevent urban sprawl and all of its undesirable consequences – though that is surely one of its important functions. The Bay Area Agricultural Sustainability Project envisions a working landscape that continues to enrich the region for many generations to come as an irreplaceable environmental, cultural, and historic resource that supplies healthy food to the region’s residents and visitors, while supporting farm and ranch families who are pillars of the metropolitan community.

The Bay Area Agricultural Sustainability Project consists of two components: 1) this white paper, the product of reconnaissance to document the defining characteristics of the region's agriculture and to identify the challenges and opportunities encountered by the region's farmers and ranchers; and 2) a convening in early 2011 of a group of regional leaders from agriculture and other constituencies to consider the information in the white paper, along with their own experiences, and to begin designing a comprehensive strategy to assure a robust and sustainable future for Bay Area agriculture.

The Project is a collaboration among three nonprofit organizations: Greenbelt Alliance, Sustainable Agriculture Education (SAGE), and American Farmland Trust. It was inspired by an Urban-Rural Roundtable convened in 2008 by former San Francisco Mayor Gavin Newsom, which, among other things, recommended that a concerted effort be made to realize the full potential of the region's agricultural lands and producers to supply the region's growing demand for local food.

Figure 1. Bay Area Region, Important Farmland 2008



Bay Area Agriculture Today

While the Bay Area is home to over 7 million people and over 100 cities and towns, it continues to have productive working landscapes that provide a diversity of food for regional and worldwide markets. From the fertile southern Santa Clara Valley to the wine-grape growing regions of Sonoma and Napa, Bay Area farmers produce a cornucopia of fruits, vegetables, meat, dairy, and wines. Bay Area agriculture provides jobs, contributes to the local economy, and gives the Bay Area a sense of history, place, and unique character.

However, if agriculture is to continue to contribute to the quality of life in the Bay Area – indeed, if it is to capitalize on unique opportunities such as the public’s growing interest in locally grown food, ecosystem services, and agritourism – and to remain economically viable, it must meet some serious challenges.

Production, Producers, and Places

Bay Area farmers produce agricultural products valued at over \$1.8 billion dollars a year. Though this represents an 11 percent decline in production value over an 18-year period, in many ways agriculture continues to thrive and the potential of our region’s agricultural lands remains strong. With a wide diversity of nursery crops, livestock, fruits, and vegetables as well as a thriving wine industry, Bay Area farmers continue to supply the region and beyond with a bounty of food. Sonoma and Napa counties realize the highest agricultural values based on wine grape production. Solano, Santa Clara, and San Mateo counties follow in agricultural values, based on a wide diversity of agricultural products.

Grazing and farmland continue to cover a significant percentage of the Bay Area. Most Bay Area counties have more than 40 percent of their acreage in some form of agricultural production, and Napa and Solano counties continue to have more than half of their land base in agriculture. Grazing is by far the largest agricultural land use, accounting for almost 75 percent of agricultural lands in the region. Livestock is a leading agricultural product in seven Bay Area counties. However, most counties also produce a wide array of other food crops. In seven Bay Area counties fruits and vegetables are primary crops, with significant acreage devoted to orchards and row crops. Nursery crops, horticulture, and floriculture continue to play an important part in Bay Area agriculture. In several counties, most notably Napa and Sonoma, wine grapes are a driving factor in the agricultural economy.

Table 1.1 Bay Area Regional Agriculture Trends

	Agricultural Value		Change in Cropland Acres		Direct Sales	Population Growth	
	2008	2000-2008 % Change	All Cropland 1990-2008	Prime Cropland 1990-2008	As % of Total 2007	% Increase by 2035	Share of Growth by 2035
Alameda	\$41,185,000	10%	-35%	-53%	1%	23%	23%
Contra Costa	\$71,962,340	-22%	-19%	-37%	4%	22%	15%
Marin	\$63,311,293	6%	-4%	-96%	3%	10%	2%
Napa	\$409,122,900	-4%	5%	12%	0.3%	12%	1%
San Francisco	n/a	n/a	n/a	n/a	n/a	18%	9%
San Mateo	\$160,925,000	-33%	-40%	-7%	6%	16%	7%
Santa Clara	\$247,950,400	-18%	-39%	-47%	2%	27%	32%
Solano	\$292,840,200	28%	-14%	-11%	1%	29%	8%
Sonoma	\$593,407,000	-18%	-6%	-9%	1%	12%	4%
Bay Area Region	\$1,880,704,133	-11%	-12%	-18%	1%	22%	100%

Sources: County Agricultural Commissioners’ Crop Reports, 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 2007; Association of Bay Area Governments, 2008.

While some Bay Area counties have adopted strong land-use protections, the region continues to lose valuable agricultural land every year. In Bay Area counties, cropland, orchards, and row crops are disappearing most rapidly. While the Bay Area had 674,364 acres of cropland in 1990, that acreage had dropped to 591,167 by 2008, a 12% decline over 18 years. Even more alarming, as suburban growth has spread out over fertile regions in counties like Alameda, Contra Costa, and Santa Clara, these regions are losing a disproportionate amount of “prime cropland” – the land designated as the most valuable for agricultural production by the California Farmland Mapping and Monitoring Program. Over the last decade, the Bay Area lost at least 18 percent of its prime cropland.

Markets and Value-Added Activities

Bay Area farming operations are diverse in their acreage, scale of operations, and markets. Most operations are small farms selling niche products locally through farmers’ markets, community-supported agriculture (CSAs), and local grocers. Relatively few represent large operations growing thousands of acres of agricultural products that are marketed through wholesalers and distributed worldwide. Bay Area farmers continue to adapt to market demands. A decade ago, many Bay Area counties realized significant agricultural revenues from nursery crops. In several counties including Contra Costa, Santa Clara, and Sonoma counties, dramatic declines in the nursery industry have accounted for significant drops in agricultural values. Napa, Sonoma, and Alameda counties have developed vibrant, profitable viticulture industries that are the foundation of their agricultural economies.

As is the case around the rest of California and the nation, organic production, direct marketing, and agricultural tourism currently play a small economic role in Bay Area agriculture. However, these activities are on the rise with marked increases in each county over the past ten years.

While the Bay Area region boasts some of the best wineries in the world, other value-added and processing facilities are limited. Farmers around the region note that lack of processing facilities limits their ability to develop local alternatives to traditional commodities markets.

Policy Influences on Farmland and Agriculture

Napa and Marin counties acknowledged the value of their agricultural resources decades ago by enacting strong land-use protections that prevent the development for agricultural land. The success of these early, innovative land-use policies in protecting farmland is dramatic. Marin has lost less than five percent of agricultural lands in the 18-year period between 1990 and 2008, and Napa has increased acreage of cultivated farmland. Other counties have been less effective with agricultural land protections and have experienced a significant loss of farmland over the past two decades. For instance Santa Clara County lost 41 percent of its cropland from 1990 to 2008, with San Mateo and Contra Costa counties also experiencing dramatic loss of croplands.

Gradually, all Bay Area counties have come to acknowledge the importance of local agriculture. Today all Bay Area counties have some form of land-use regulation targeted at protecting agricultural land. Public agencies and nonprofit land trusts also work around the Bay Area to permanently protect agricultural lands. Marin, Napa, and Sonoma counties provide evidence that land conservation efforts are most successful when used in concert with strong land-use policies.

Over the past decade, some counties have begun to recognize that it will take more than farmland conservation to ensure that the Bay Area continues to have a local source of food. Local governments have begun to explore programs that preserve agricultural land, and some are starting to support limited

agriculture economic development efforts. Some county governments in the region have established agricultural advisory task forces and food councils to address agricultural issues. Several counties, including Marin, Solano, and Contra Costa counties, have amended county zoning to allow expanded direct marketing and value-added facilities. Marin County has a staff person dedicated to assisting farmers with the permitting and regulatory process. Some county governments, including San Mateo, Contra Costa, and San Francisco, are considering local food purchasing policies that require that county departments purchase food from local farmers. Still, many agricultural producers feel that much more can be done by county government to establish bolder economic development programs.

Challenges and Opportunities

Development pressures and land values. The cost of agricultural land on the urban edge of the Bay Area has skyrocketed as development pressures have reached traditional agricultural communities. Even when land-use policies protect against subdivision development, the Bay Area's bucolic agricultural landscapes draws new residents seeking rural estate homes. While the current economic downturn has temporarily mitigated this trend, the general momentum of escalating land values and uncertainty about future land use have made agricultural property owners in some Bay Area counties hesitant to invest in their farming operations and develop new markets.

Water. In several Bay Area counties like Alameda and San Mateo, lack of irrigation water significantly limits agriculture. Innovative solutions like the San Mateo Pond Project seek to address water issues, but infrastructure costs, permitting, and regulatory restrictions continue to create barriers. The competition for water among agricultural, urban, and environmental restoration needs is intensifying. Several counties have begun to explore innovative approaches to balance these needs such as using reclaimed water from neighboring urban areas for agricultural irrigation water but costs and regulations have been barriers here as well.

Local distribution. Due to the consolidation of California agriculture, globalization of food production, and increased production costs, many Bay Area farmers are struggling to survive economically. With some exceptions, the region's farmers do not have the acreage and scale of operations to compete in global commodities markets, and yet the local distribution system that once brought their products directly to local markets is no longer in place. Rebuilding the region's agricultural infrastructure and recreating a local food distribution system could provide Bay Area farmers with profitable new markets, provide urban residents with fresh, healthy food, and keep food dollars in local communities. County governments and farmers are working together in several Bay Area counties like San Mateo and Napa to build local food distribution systems.

Value-added production and regulations. As agriculture has changed over the past several decades, small-scale farmers have had to adapt their marketing strategies. Innovative farmers have found ways to connect with their urban neighbors through farmers' markets, roadside stands, community-supported agriculture (CSAs), and farm visits. However, in some counties, the well-intended land-use protections enacted to protect agricultural soils have restricted farmers from developing value-added processing facilities or engaging in on-farm direct marketing activities. For example, until recently Contra Costa County zoning prohibited farmers from making or selling value-added products like wine, olive oil, jams, salsa, and baked goods. Often, even when zoning permits value-added processing, the cost of permitting and infrastructure development is prohibitively expensive for small producers. Livestock producers face even more complex challenges to local processing with a myriad of state and federal regulations on processing meat. As a result, the region is critically lacking a sufficient number of meat-processing facilities. With the Bay Area showing among the highest consumer demand in the nation for grass-fed, natural, and organic beef

products, it is also seeing a growing demand from cattle producers who are interested in raising, slaughtering, and processing meats locally for regional markets.

Funding and Financial Barriers

Significant public and private investment will be needed to fund land conservation, agricultural infrastructure (including regional processing and distribution), and to rebuild a viable regional food system. Due to the current economic climate, financing initiatives to support agriculture has become increasingly limited. Several of the region's counties have identified programs to support local agriculture but have been unable to find funding for implementation. For instance, the recently updated Solano County General Plan called for two new positions to provide regulatory assistance to farmers, but the County was unable to sustain funding for the new positions due to budget challenges. While the Tri-Valley Vision 2010 identified steps to enhance Alameda County agriculture, the recommendations have not been implemented, in part, due to lack of funding. Some land trusts and agricultural organizations have been unable to continue key programs, and conservation funding agencies have reduced budgets for conservation easements. On the other hand, several counties, including Sonoma and Santa Clara, have voter-approved, well-funded open space districts that have been able to continue to permanently protect significant open space and agricultural lands.

As the Bay Area residents increasingly recognize the importance of local agriculture to the Bay Area's economy, public health, and environment, they may be willing to support regional funding mechanisms to support agriculture and agricultural economic development.

Initiatives and Goals

Land conservation. Over the past several decades, all of the region's counties have adopted land-use policies that intend to protect the Bay Area's remaining agricultural lands. The strength and success of these policies in protecting farmland from development pressures has varied significantly from county to county.

Around the Bay Area, open space districts, land trusts, and state agencies that had traditionally focused on open space and habitat lands have begun to fund and implement permanent protections for agricultural lands. The Marin Agricultural Land Trust (MALT) was established over 30 years ago as the country's first agricultural land trust and has since permanently protected one-third of Marin County's agricultural lands. The importance of agricultural lands is beginning to receive more regional recognition as shown in the Association of Bay Area Governments' (ABAG) designation of several of the Bay Area's agricultural areas as Priority Conservation Areas.

Regional Marketing. Bay Area farmers are working collaboratively to brand their products through regional marketing campaigns. Sonoma Select, a forerunner in regional branding, created a logo and brand that allowed consumers to identify premium, local products from Sonoma producers. Other counties have followed with Buy Fresh Buy Local campaigns and unique regional brands such as San Mateo's "As Fresh as It Gets," Marin Organics, and Solano Grown. However, as demonstrated by Sonoma Select, it is often difficult for farmers to raise funds to sustain regional branding campaigns. Napa, Sonoma, and Alameda farmers benefit from strong established regional identities based on international reputation of their wines.

Studies and summits evaluating agricultural needs. As people in the Bay Area increasingly recognize the importance of protecting the future of the region's agriculture, many of the region's counties have embarked on studies and community forums to explore the challenges and opportunities for building a vibrant future for agriculture in their region. Marin, Sonoma, and San Mateo counties have convened

regional agricultural summits. Alameda, Marin, and Solano counties have commissioned a variety of studies to identify land use and economic development strategies. Unfortunately, as government and foundation funding has become scarce, Bay Area counties have found it difficult to implement many of the recommendations resulting from the studies.

Linking local farmers with urban neighbors. While Bay Area farmers produce a remarkable volume and diversity of fruits and vegetables and animal products, some urban neighborhoods do not have access to fresh, healthy food. Several Bay Area counties, including Alameda, Napa and Santa Clara, have active food systems projects that seek to increase food access for all residents. Increasingly, food access advocates are joining with farmers and agricultural organizations to build food connections between farmers and their urban neighbors. In Napa, the Agricultural Commissioner is working closely with the County government, farmers and advocates on the Local Food Initiative to increase local food production for the community. In Contra Costa, the County government, the Brentwood Agricultural Land Trust, and local farmers have developed a community-supported agriculture (CSA) that brings fresh fruits and vegetables directly from Brentwood farms to “food insecure” neighborhoods in Richmond.



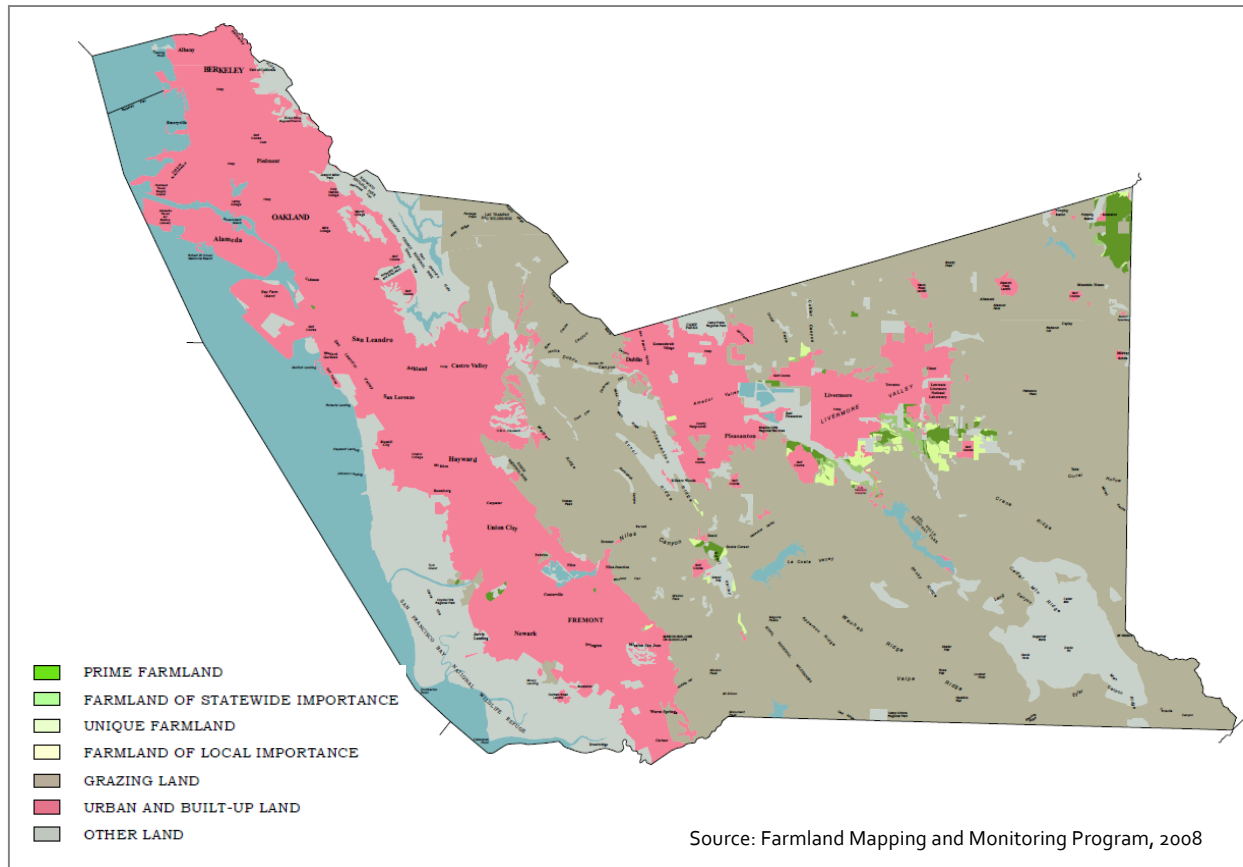
Alameda County

Alameda County, the second most populous county in the Bay Area, was for over 200 years an extraordinarily productive and diverse agricultural region. The fertile bayside lands were home to dairy and poultry ranches and produced abundant crops of fruits, vegetables, flowers, and nursery plants year round, mainly for the growing Bay Area population. Early agricultural records report huge harvests of potatoes, diverse citrus orchards, and a 50-acre raspberry farm. The last remaining farm on these east bayside lands is part of an historical park. Urban development stretching from

Albany to Newark now covers the rest of these lands; though myriad urban agriculture projects still reflect the suitability of this area for growing food.

The eastern part of the county started as prime grazing lands for the Spanish missions and land grant holders. From the 1870s until about 1900, vast fields of dry-farmed grains were cultivated in the southern drainage plain of Mt. Diablo, an area now known as the Tri-Valley. Large vineyards, some of the first in California, were established by the mid 1800s. Today, the vineyards around south Livermore and many hillside cattle ranches are the most vital remnant of the county's agricultural heritage.

Figure 2.1 Alameda County, Important Farmland 2008



Alameda County Agriculture Today

Table 2.1 Alameda County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	11,745	7,689	-35%
Grazing	254,826	244,250	-4%
Number of Farms	1997	2007	% Δ
Total	458	525	15%
Producing \$10,000 or Less Per Year	245	313	28%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$154	\$322	110%
Annual Value of Production at Farm Gate (Inflation Adjusted)	2000	2008	% Δ
Total	\$37,406,807	\$41,185,000	10%
Fruit & Vegetable Crops	\$9,240,751	\$9,517,000	3%
Other Production	\$20,371,684	\$23,855,000	17%
Livestock Products	\$7,794,373	\$7,813,000	0%
Leading Production, 2008	Value	Acres	
Nursery Production	\$19,317,000	265	
Wine Grapes	\$8,586,000	2,526	
Livestock & Poultry	\$7,813,000	n/a	
Field Crops & Pasture	\$4,538,000	193,300	
Vegetable Crops	\$745,000	74	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

Alameda's 525 farms and ranches constitute over 250,000 acres and cover 48 percent of Alameda County. However, food produced for regional markets is currently limited. In 2008, Alameda's productive agriculture lands consisted of 189,000 acres of grazing land, over 2,500 acres dedicated to wine grapes, 300 acres to other fruit crops, and 74 acres of vegetable crops.

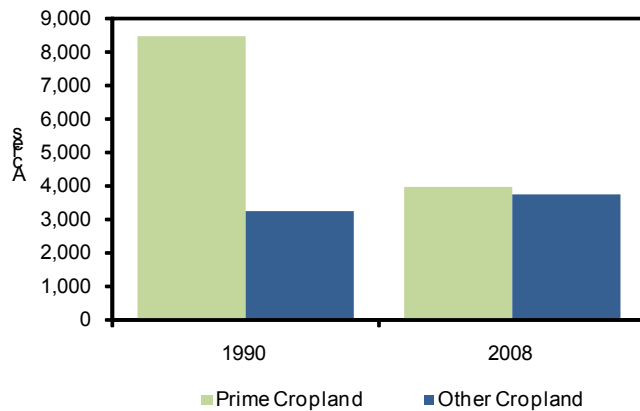
The Tri-Valley area represents the mainstay of the county's agricultural economy, which is centered on grape production and cattle grazing. Alameda's small number of orchard crops, including pistachios and olives, are also located in this area. Although the Tri-Valley region has the climate and soil needed for productive agriculture, it does not have the water. Row crop production is limited and remains only in small pockets around Hayward, Sunol, Livermore, and in one historic farm located in the Ardenwood Regional Preserve located within the city of Fremont.

Overall, Alameda County's agricultural sector has seen steady growth between 2000 and 2008. During this time, the value of the county's overall agricultural production increased by 10 percent, despite an overall acreage decline of 6 percent. Valued at \$37.4 million in 2000, Alameda's total agricultural output grew to \$41.2 million by 2008. An addition of a pistachio crop is mainly responsible for a 682 percent boost to fruit crops. Red wine grapes more than doubled, and nursery crops gained in value by 25 percent. However, vegetable crops have seen continuous declines, dropping in value by 37 percent since 2000.

Alameda’s top producing crop is nursery products which are primarily cultivated in the area along the Highway 84 corridor in Sunol. These crops grow on 235 acres and are valued at \$19 million, representing nearly half of the county’s agricultural value. Wine grapes represent 21 percent of the county’s agricultural value, grown on 2,500 acres and valued at \$8.6 million. Livestock and poultry represent 19 percent of the county’s agricultural value (\$7.8 million), making them the county’s third highest valued agriculture product in 2008.

Despite the growth in agricultural values over the past decades, high quality cropland is rapidly disappearing in Alameda County. In 2008, the Farmland Mapping and Monitoring Program inventoried 7,686 acres of cropland and 244,250 acres of grazing land. Within the years between 1990 and 2008, the county lost 53 percent of its prime cropland, a greater percentage loss than any other Bay Area county. Areas dedicated to grazing lost only 4 percent over the same period. Many of the changes occurred due to urban growth of low density housing, “ranchettes,” parks, golf courses, and commercial development.

Figure 2.2 Alameda County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Markets and Value-Added Activities

The foundation of Alameda’s agricultural economy is in the production and distribution of wine and livestock to markets outside of the region. Alameda’s wine industry has successfully brought Livermore and other county wines to the national and international market. Cattle are raised primarily for slaughter, processing, and distribution outside of the region. Many cattle producers participate in a “vertical coordination” program with Harris Ranch, a California producer that processes and sells mostly statewide, or with Coleman Natural Products located in Colorado. Vertical coordination means that Alameda ranchers use prescribed bull genetics and vaccinations and sell calves to processors that place the cattle in feedlots before processing.

Specialty and niche producers take advantage of local and regional markets but also reach as far as New Mexico. Perry Farms, which grows the majority of the county’s vegetable crops on less than 100 acres, sells 80 percent of their harvest to Veritable Vegetable, a San Francisco-based distributor that reaches all of the western states. Perry’s remaining 20 percent is sold at a farm stand and to local grocers, direct to consumers at farmers’ markets, and through community-supported agriculture (CSAs). For most of the county’s smaller vegetable growers, these are the primary market outlets. The county’s pistachios, walnuts, and olives are other niche crops that grow well in Alameda. While Alameda is home to some small olive processing operations, value-add facilities are generally lacking. Without processing infrastructure in Alameda County, these crops are mostly sold to processors outside of the county.

Alameda County farmers are increasingly benefiting from direct market outlets, such as farmer’s markets and direct sales to grocers. Between 1997 and 2007, the value of direct market sales more than doubled to \$322,000 (adjusted for inflation), even though the number of farms (29 farms) selling direct has slightly

dropped in number. Still, direct market sales consistently represented only 1 percent of all food production value throughout those 10 years. Organic operations are also a small niche in Alameda, with only 20 organic producers, representing 3 percent of the total production (inclusive of wine grapes). Many small-scale growers operate organically as this is often the best way to sustain a profit margin high enough to remain competitive.

Agritourism, which is concentrated in the Livermore Valley wine growing region, has opportunities for growth. Around forty wineries offer activities including tasting rooms, restaurants, special event venues, and large concert facilities. The Livermore Valley Winegrowers Association hosts a regional wine celebration event over Labor Day weekend, and promotes the region as a whole with a wine-trail map. Understanding that their wines shine better when served with good food, some of the wineries that operate restaurants are developing gardens and are seeking out local, top-quality ingredients. This could present an opportunity for local farmers. Other agritourism activities include fall pumpkin patch–corn maze venues, year-round activities at Ardenwood Historic Farm, and the Alameda County Fair, which includes a large animal husbandry section.

Another potential value-added activity in the county could include agricultural eco-system services to provide carbon sequestration on the almost 200,000 acres of grazing land. Additionally, the potential use of reclaimed water could provide another indirect eco-system service by reducing the energy-intensive pumping of waste water from eastern Alameda County over the hills into the Bay and providing irrigation water for the fertile soils of the North Livermore Valley.

Policy Influences on Farmland and Agriculture

In recent years, Alameda County has enacted a number of rigorous policies geared toward preserving agricultural land. Though these policies have mainly served to protect viticulture, they have shown the County's commitment to preserving its agricultural heritage. One of the most remarkable policies is the Save Agriculture and Open Space Lands Initiative (Measure D) which voters passed in 2000 in an effort to preserve the county's vanishing agricultural lands, protect open space, watersheds, and wildlife habitat. The measure establishes county growth boundaries around Dublin, Pleasanton, and Livermore, and focuses urban development in and near existing cities, encouraging increase densities in those areas and restricting the development of public facilities that increase capacity for growth outside of the cities. It also limits subdivisions on farms and ranches in eastern Alameda County and around several of the southwestern cities and requires agricultural mitigation for any subdivision.

In 1993, the City of Livermore and the County created another landmark policy: the South Livermore Valley Area Plan (SLVAP), to preserve and expand viticulture and other cultivated agriculture within South Livermore. The Plan includes a number of innovative tools, including a density bonus system that allows a reduction in minimum parcel size only if the landowner permanently protects the majority of the parcel with a conservation easement and plants vineyards. The plan also requires developers to pay a mitigation fee when agricultural land is converted to urban uses. The American Planning Association awarded the County the 2005 Outstanding Planning Award for implementation of the SLVAP. By 2006 planted vineyards within the plan area increased from 2,100 acres to almost 5,000 acres and the number of wineries more than doubled.

Challenges and Opportunities

Alameda County faces many of the same challenges encountered in other Bay Area agricultural regions, heightened by the permanent loss of land suitable to grow food crops. With 4,000 acres of prime cropland remaining, the dwindling acreage cultivated in vegetable crops indicates that vineyards have become the

most valued cultivation of cropland. With high land and operating costs, profit margins for vegetable production are barely enough to make an operation financially sustainable. Adding to the cost of operation is the lack of local infrastructure to support crop farming and other food production such as poultry and dairy. Producers often need to travel to the Salinas or Central valleys to purchase or maintain equipment and other inputs of production. The facilities for processing nuts and slaughtering and processing livestock and poultry are nonexistent. The county also lacks a local labor force, an important factor for annual food crops which require significantly more labor than vineyards. Even where there are potentially productive lands, uncertainties as to availability and cost of water sources dissuade investment in new or existing operations. All of these factors discourage older and younger generations from farming.

Most of the County's agricultural preservation policies have been instituted in recognition of the economic value of vineyards. The County's policies have had minimal effect on building the capacity of the region to produce food crops, mostly because the areas most suitable for growing food crops have been replaced by urban centers and the remaining areas lack adequate water. Other key land-use policies such as the County's right-to-farm policy, its large parcel zoning in agricultural zoned areas, and its support of agricultural processing facilities and agricultural support services, have succeeded in bolstering viticulture. If the County placed more emphasis on enhancing cultivation of food crops, these policies, coupled with Measure D and the provision of new water resources, might provide incentive for the expansion of the overall agricultural industry and food production specifically.

Though the lack of water resources represents a major constraint for the growth of agriculture, improved infrastructure could bring more water to agriculture in the region. Zone 7 is the major water agency in eastern Alameda County and has provided imported surface water suitable for the region's agriculture via the South Bay Aqueduct for several decades. Yet, availability, reliability, and transmission costs pose uncertainties to sustaining this source in the future. Another potential major irrigation source in the county is reclaimed water. The City of Livermore and the Dublin San Ramon wastewater facilities already have programs that use reclaimed water during the summer months for irrigating parks, medians, and commercial properties. The remaining wastewater could possibly be available for agricultural use. With investment in better treatment, storage, and distribution of reclaimed water, this underutilized source could significantly boost the capacity for food production in the county.

The Natural Resources Conservation Service identified tens of thousands of additional acres in the South and North Livermore areas that have the soil qualities (good drainage and high water holding capacity) to be productive land.¹ If these areas could obtain water resources, the county could significantly enhance its agricultural production capacity.

As the agricultural industry becomes increasingly competitive, Alameda County relies on its established wine and livestock industries to carry the tradition of agriculture into the future. The success of the wine industry can create a base for building upon and enhancing other specialty crops associated with fresh, organic, and premium foods. The proximity of agriculture to urban population centers creates a distinct opportunity for local producers and urban entrepreneurs to build economic ties. For example, the Jack London Square Market in Oakland is scheduled to open by summer 2011. The 70,000 square-foot gourmet food market will feature local sustainable food vendors, including produce stands and artisan food retail.

¹ *Tri-Valley Agriculture Enhancement Program. Water, Agriculture, and Markets: Phases I, II & III.* Submitted to: Tri-Valley Business Council. Prepared by: Agland Investment Services, Inc. December 5, 2002.

Initiatives and Goals

The Tri-Valley Business Council (TVBC) has given significant attention to the preservation of agricultural land and the economic health of agriculture. With funding from the City of Pleasanton and Alameda County, the TVBC initiated the Agricultural Enhancement Program in June 2002 as a part of the Vision 2010 project. Intended to evaluate the opportunities and constraints for agriculture over the next 10 to 20 years, the program highlighted the potential for enhancing agricultural activity within the Pleasanton, Livermore, and San Ramon Valley corridors. The program's published study assesses the available resources, crops, and the economics of selected crops for both irrigated and range lands and offers recommendations on various marketing opportunities. Though the County and cities of Pleasanton and Livermore were generally receptive to an economic development plan for agriculture, the lack of funding has delayed further work.

The Tri Valley Conservancy and the Alameda County Resource Conservation District (RCD) are other regional organizations focusing on agriculture. The Tri Valley Conservancy acquires conservation easements that are purchased as a development mitigation requirement. The RCD administers programs to facilitate the acquisition of conservation easements for mitigation purposes.

While there are few efforts in Alameda County that support small-scale farming, one effort stands out as a model for the Bay Area. The Sunol AgPark, located on 18 acres of land at the historic Sunol Water Temple, was created from the mutual interest of Sustainable Agriculture Education (SAGE), a nonprofit that leases the land, and the San Francisco Public Utilities Commission. The two organizations shared an interest in integrating sustainable agriculture, natural resource stewardship, and public education. The model has allowed small farm operations to secure land and access local markets with relative ease. There are currently four different farming operations that share infrastructure, equipment, information, and collectively pay license fees and water costs. Most of the farmers have been successful and are looking for opportunities to expand.

Insights and Analysis

Situated in the heart of the Bay Area, Alameda County has been a natural location for urban growth. Within a commute's reach to the region's economic centers, the population is expected to swell by almost 400,000 additional residents over the next 25 years. This means that Alameda County alone will absorb almost one quarter of the Bay Area's population over the next two and half decades. While the county boasts an optimum climate and soil quality needed for competitive agriculture, lack of water is a major issue. Organizations like the Tri Valley Business Council have made efforts to diminish the "either/or" attitude toward agriculture and urban growth, but high land values and limited water availability are likely to continue to challenge the production of food crops in Alameda over the coming decades. However, the potential for beef and other pastured food to be marketed regionally is significant and relatively untested. As a heavily urbanized county, there is unique leverage for Alameda to support regional agriculture through urban economic development policy that simultaneously supports local food and local food enterprise. The result could further strengthen regional urban/rural relationships. Efforts like the proposed Jack London Square Market have the potential to create opportunities for farmers to add value to their products and, in the process, may contribute to small business development in the Bay Area's growing specialty and niche food industry.

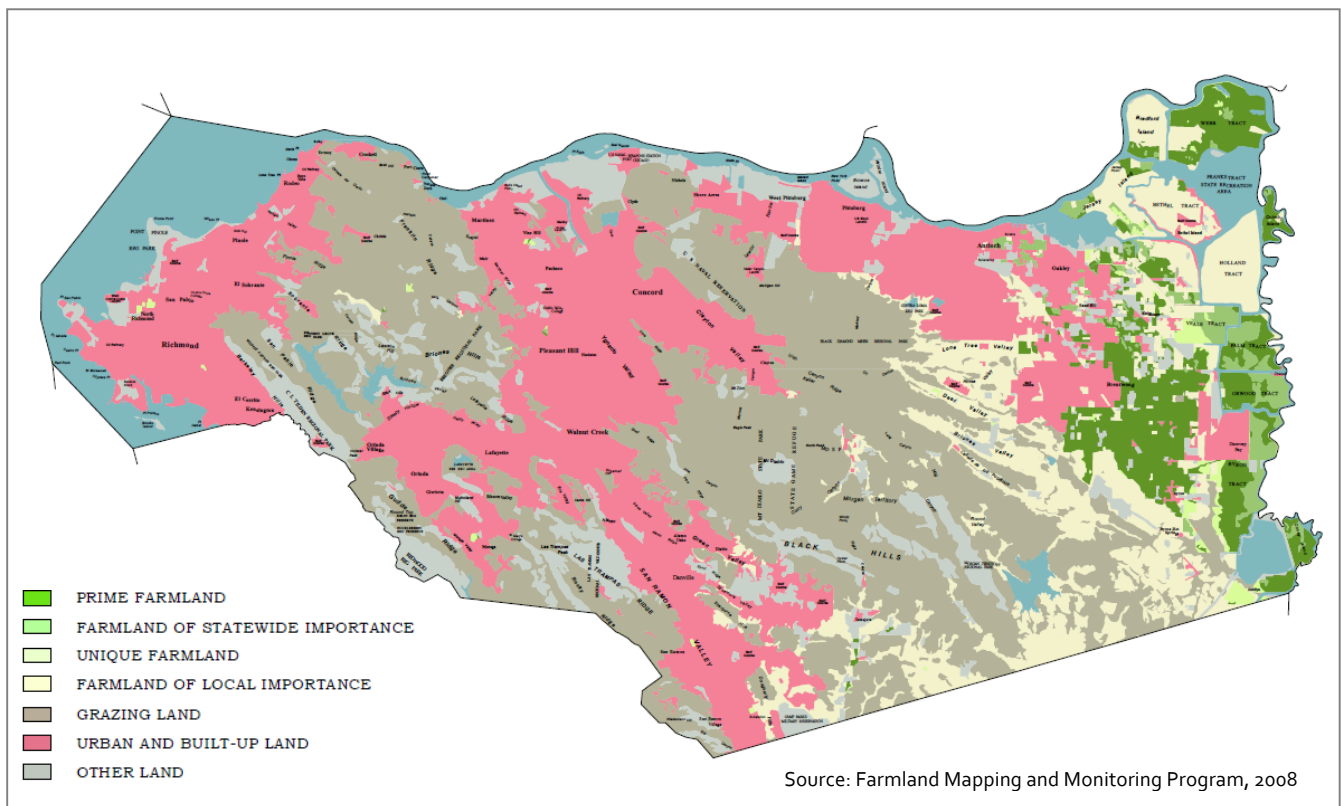


Contra Costa County

Contra Costa farmers have grown food for the Bay Area since the Gold Rush: from vast fields of winter wheat in the 1850s to the famous Brentwood sweet corn, peaches and cherries that we enjoy today. For generations, Bay Area families have traveled to Brentwood each summer to pick fruit at the U-pick farms, making Brentwood one of the Bay Area’s most beloved and iconic farming regions. At one time, Contra Costa farms stretched from the San Francisco Bay shoreline of Richmond to fertile delta lands east of Mt Diablo. Over the past fifty years, Contra Costa has urbanized. However, Contra Costa County

continues to have over 23,000 acres of harvested farmland and over 160,000 acres of rangeland. The Brentwood farming region east of Mt. Diablo remains one of the Bay Area’s most productive agricultural regions, with more than 12,000 acres of contiguous, irrigated prime farmland less than 50 miles from Bay Area cities.

Figure 3.1. Contra Costa County, Important Farmland 2008



Contra Costa Agriculture Today

Table 3.1 Contra Costa County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	112,187	90,915	-19%
Grazing	178,875	168,905	-6%
Number of Farms	1997	2007	% Δ
Total	587	634	8%
Producing \$10,000 or Less Per Year	348	421	21%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$1,277	\$1,776	39%
Annual Value of Production at Farm Gate (Inflation Adjusted)	2000	2008	% Δ
Total	\$114,471,085	\$71,962,340	-37%
Fruit & Vegetable Crops	\$43,362,178	\$39,518,900	-9%
Other Production	\$60,194,314	\$19,714,720	-67%
Livestock Products	\$10,914,594	\$12,728,720	17%
Leading Production, 2008	Value	Acres	
Vegetable & Seed Crops	\$23,153,900	5,552	
Fruit & Nut Crops	\$16,365,000	3,957	
Field Crops	\$15,507,000	15,507,000	
Livestock	\$12,728,720	n/a	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

Over the past 150 years, Contra Costa agriculture has adapted to changing markets and loss of farmland to urban development. Just a decade ago, the greenhouses of Richmond produced \$32 million in nursery crops, almost one-third of the county's agricultural values. East Contra Costa County dairies still produced milk valued over \$7 million. Today the nurseries of Richmond are almost gone, and there are no dairies remaining in the county. While the 2007 Agricultural Census shows that there are over 600 farms in Contra Costa County, most of the county's 275 irrigated farms are in East Contra Costa County.

The 12,000 acres of farmland south and east of the City of Brentwood continue to produce a remarkable diversity of crops – sweet corn, stone fruit, vegetables, olives and wine grapes. The California Department of Conservation classifies the rich delta land of the Brentwood region as “prime farmland” with high quality soils and growing conditions that maximize productivity. With water rights established in the early 20th century, Brentwood farmers have access to inexpensive water through two agricultural irrigation districts. The year-round growing season, with hot days and cool nights, creates an extraordinary Mediterranean climate for food production.

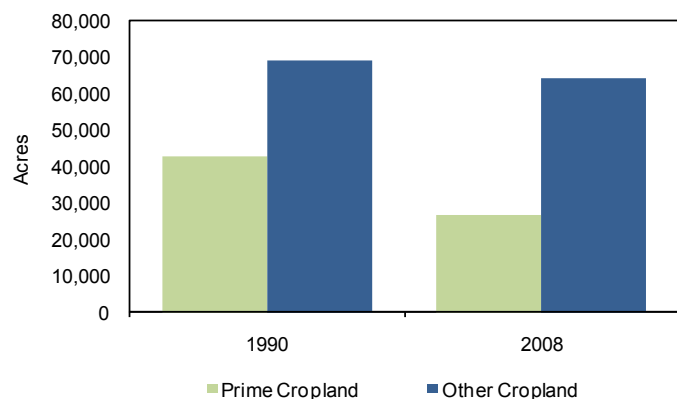
In 2008, Brentwood area farmers produced over \$55 million of fruit, nut, vegetable and field crops. For the past decade, Brentwood sweet corn has grown in acreage and value due to its exceptional quality and a successful branding campaign by local growers. With one-fourth of the Brentwood area's irrigated farmland currently planted in sweet corn, corn was the leading vegetable crop in 2008 with a \$13.5 million value.

Brentwood is also an ideal climate for tomatoes (\$6,382,000), green beans (\$1,395,000), and stone fruit (cherries, \$2,003,000; apricots, \$1,800,000; and peaches, \$1,419,000). In recent years, Brentwood farmers have revived Contra Costa wine grape growing (\$5,754,000). Brentwood farmers work collaboratively to annually rotate corn, tomato, bean, and alfalfa crops on their land.

Over the past 20 years, the Brentwood farming region has rapidly lost prime agriculture land to urban development. As Brentwood became an affordable bedroom community for Bay Area families, some of the qualities that make the region perfect for food production also made it attractive for suburban development. Brentwood is near Bay Area cities and jobs, the prime farmland is flat and easy to build on, and the weather is beautiful. Since 1990, the City of Brentwood grew from a small farming town of 7,500 to a suburb of over 53,000 people, sprawling out over the prime delta soils of the Brentwood region.

Between 1990 and 2008, Contra Costa County lost almost 16,000 acres of its most fertile farmland – a decline of almost 40 percent of the county’s prime cropland. During the housing boom, Contra Costa County lost 4,381 acres of cropland in the three-year period between 1997 and 2000, ranking fourth among counties in California in the loss of agricultural land to urban use. Today East Contra Costa County leads in foreclosure rates with home and land values dropping as much as fifty percent since 2008.

Figure 3.2 Contra Costa County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Markets and Value-Added Activities.

Brentwood is remarkable for the diversity of its farming operations. Several large sweet corn producers grow over 3,000 acres of sweet corn, supplying Brentwood corn to the Western United States all summer through Safeway and other major retailers. Brentwood farmers also deliver a large volume of processing tomatoes to Northern California canneries each summer. Organic growers such as Frog Hollow Farms and Knoll Farms also thrive in Brentwood’s perfect soil and climate, selling to high-end restaurants and markets. However, in 2008 only 336 acres of Brentwood farmland was in organic production indicating that Brentwood farmers may have an opportunity to expand organic production to meet consumer demand.

Brentwood’s long tradition of U-picks and roadside stands make it one of the best known agricultural areas on the urban-edge of the Bay Area. With over 200 acres of U-pick cherries, hundreds of thousands of people continue to travel from around the Bay Area to Brentwood during cherry season, and many Bay Area residents have fond summer memories of childhood trips to Brentwood during the summer to pick fruit. Seventy-six farmers, some of whom have been farming in Brentwood for generations, sell to direct markets through roadside stands, U-pick operations and farmers’ markets.

Policy Influences on Farmland and Agriculture.

In the 1970s, the Contra Costa Board of Supervisors recognized the importance of East Contra Costa County’s prime farmland in the County General Plan by creating the County Agricultural Core to the east and the south of the City of Brentwood. In 1994, the Board of Supervisors established a countywide urban limit line and further limited subdivision in the 12,000-acre County Agricultural Core. Land in the County

Agricultural Core cannot be subdivided smaller than forty acres. While one home is allowed on each parcel, the land can only be used for farming and agricultural processing. Because of the protections provided by the County Agricultural Core and the countywide urban limit line, the Brentwood farming region continues to have a contiguous block of 12,000 acres of irrigated, prime farmland.

When the County created the County Agricultural Core, the primary goal was to protect prime farmland from development. While well intentioned, the zoning in the County Agricultural Core was so restrictive that farmers were unable to take full advantage of direct marketing and agricultural tourism opportunities. In 2004, the County revised the agricultural zoning to allow wineries, tasting rooms and olive oil processing facilities. Additional changes were needed to reduce the fees from the local transportation authority to accurately reflect the traffic created by seasonal agricultural processing, and to make these facilities economically feasible. In 2007, the zoning in the County Agricultural Core was further amended to allow farmer to make and sell “value added” products from their harvests. The amendment also allowed farmer to operate larger roadside stands. The County is considering additional zoning changes to expand agricultural tourism opportunities for Brentwood farmers.

In 2002, the City of Brentwood enacted an agricultural mitigation program. The City ordinance requires that developers who build on farmland must pay an agricultural mitigation fee to the City. The City holds the mitigation fees to fund agricultural conservation easements. The program also provides for a transfer of density from farmland to development within the City. The City has collected over \$12 million in agricultural mitigation fees since 2002.

In 2002, the City also formed the Brentwood Agricultural Land Trust (BALT), to implement the City’s agricultural mitigation program. The City funded BALT with mitigation fees until 2007 when the City decided to administer the agricultural conservation program with City staff. The City continues to contribute mitigation funds to the purchase price of the easements acquired by BALT and local land trusts. The City has recently amended the agricultural mitigation program to allow expenditure of the mitigation funds for regional marketing and other agricultural enterprise activities.

Challenges and Opportunities

Despite the countywide urban limit line and the County Agricultural Core zoning, development pressures continue to threaten the agricultural lands surrounding the City of Brentwood. A 2005 Brentwood ballot initiative to push the urban limit line into the County Agricultural Core was narrowly defeated by 148 votes. Although the county voters affirmed the urban limit line in 2008, another initiative to allow development of agricultural land was considered by Brentwood voters in June 2010. The 2010 initiative was soundly defeated by the voters.

Prior to the current limitation on subdivision within the County Agricultural Core, half of the land located in the County Agricultural Core had been subdivided into parcels of ten acres or less. Consequently, even with the county urban limit line and agricultural zoning, estate home development remains a threat to the region’s prime agricultural land.

At the same time that suburban and estate home development has threatened Brentwood farmland, the globalization of food production has made it increasingly difficult for Brentwood’s farmers to compete in their traditional commodities markets. For instance, in the past decade Brentwood farmers have found it impossible to compete with apples grown in China and Washington, and most Brentwood apple orchards have been pulled out and either been replaced with row crops or left fallow. While some Brentwood farmers

may not have the acreage and scale of operations necessary to compete in the global markets, the proximity of Brentwood to the Bay Area presents exciting opportunities to directly access local markets.

At one time, Brentwood Boulevard was lined with packing sheds. Railroad lines ran through the agricultural region picking up produce for delivery to local canneries, Bay Area markets, and the East Bay ports. Local businesses provided farmers with farm equipment repair services, fertilizers, irrigation systems and agricultural inputs. As the Brentwood region has lost agricultural land to development and California agriculture has consolidated, the packing sheds and agricultural businesses have moved to larger agricultural areas. Today Brentwood lacks the agricultural infrastructure needed to support local farming, and many Brentwood farmers do not have the resources to deliver source-identified Brentwood produce directly to nearby Bay Area consumers seeking local food.

Initiatives and Goals

In 2008, the Association of Bay Area Governments designated the County Agricultural Core as a “Priority Conservation Area.” The Brentwood Agricultural Land Trust has acquired conservation easements on six Brentwood farms, and is working with agricultural property owners on several additional easements. While the easement transactions currently underway will expend the remainder of the City’s agricultural mitigation fund, state agencies that fund agricultural conservation have expressed an interest in funding easements on Brentwood farmland.

Over the past thirty years Brentwood farmers have worked to brand and promote Brentwood agriculture. Established in 1976, the Harvest Time growers publish an annual map of Brentwood U-pick farms and roadside stands. Brentwood corn growers have been very successful in branding Brentwood sweet corn through their retail markets. Over the past few years, Brentwood Agricultural Land Trust has worked with local growers to develop the Brentwood Buy Fresh Buy Local marketing campaign through advertising, billboards and events. BALT’s Buy Fresh Buy Local campaign has been funded with government and foundation grants. In 2008, the City of Brentwood also created a marketing campaign funded with agricultural mitigation fees. The City has certified “Brentwood Grown” and local farmers can apply to use the certification to market their products.

Contra Costa County is geographically divided between the productive Brentwood farming region in the east and dense urban populations in the west, and therefore has remarkable potential to build a local food system. Over the past decade, farmers and agricultural organizations have sought to engage urban supervisors in positive, politically viable projects that demonstrate the benefits of local farming to urban constituents, educate the Board of Supervisors about Brentwood agriculture, and build political support for farmland conservation and agricultural land-use reforms. For the past few years, the Board of Supervisors has celebrated local farming by declaring June “Buy Fresh Buy Local” month. The County is working with the Green Purchasing Institute to create a local food purchasing policy that will increase the local food purchased by county hospitals, clinics and correctional facilities. The county’s produce distributor has created a “Brentwood vegetable mix” for local hospitals and institutional purchasers. Since 2008, Richmond Supervisor Gioia and Brentwood Supervisor Piepho have worked closely to develop an innovative community-supported agriculture (CSA) program that brings Brentwood produce directly to Richmond families. In 2010, the County began developing a county agricultural mitigation program and additional zoning reforms to support local agriculture.

Insights and Analysis

Although the Brentwood region has experience intensive development pressure over the past 20 years, county zoning and an urban limit line have protected a remarkable, productive farming region that

continues to produce premium fruits, vegetables and field crops. While the prime farmland of the Brentwood region remains at risk of suburban and estate home development, the reaffirmation of the urban limit line, the defeat of developer initiatives and the current decrease in development pressure provide opportunities to create a positive future for Brentwood farming. With greater land use certainty, Brentwood farmers are beginning to permanently protect their land with conservation easements, invest in agricultural infrastructure and increase their efforts to brand Brentwood agriculture for local markets.

The Brentwood farming community is diverse – in scale of production, growing and marketing techniques, growers' alliances and politics. While the diversity of Brentwood agriculture has been its strength, allowing it to adapt to market changes and the pressures of urban growth, it has also made it difficult for Brentwood farmers to develop community consensus and support for a unified effort to conserve land and brand Brentwood farming.

Significant public and private investment will be needed to fund land conservation, agricultural infrastructure and build a local food system that links Brentwood farmers directly to Bay Area markets. While City mitigation funds and foundation grants have supported efforts over the past seven years, no sustainable funding source has been identified to support a countywide agricultural land trust, regional marketing campaign, or agricultural land-use reforms.



Source: Grown in Marin

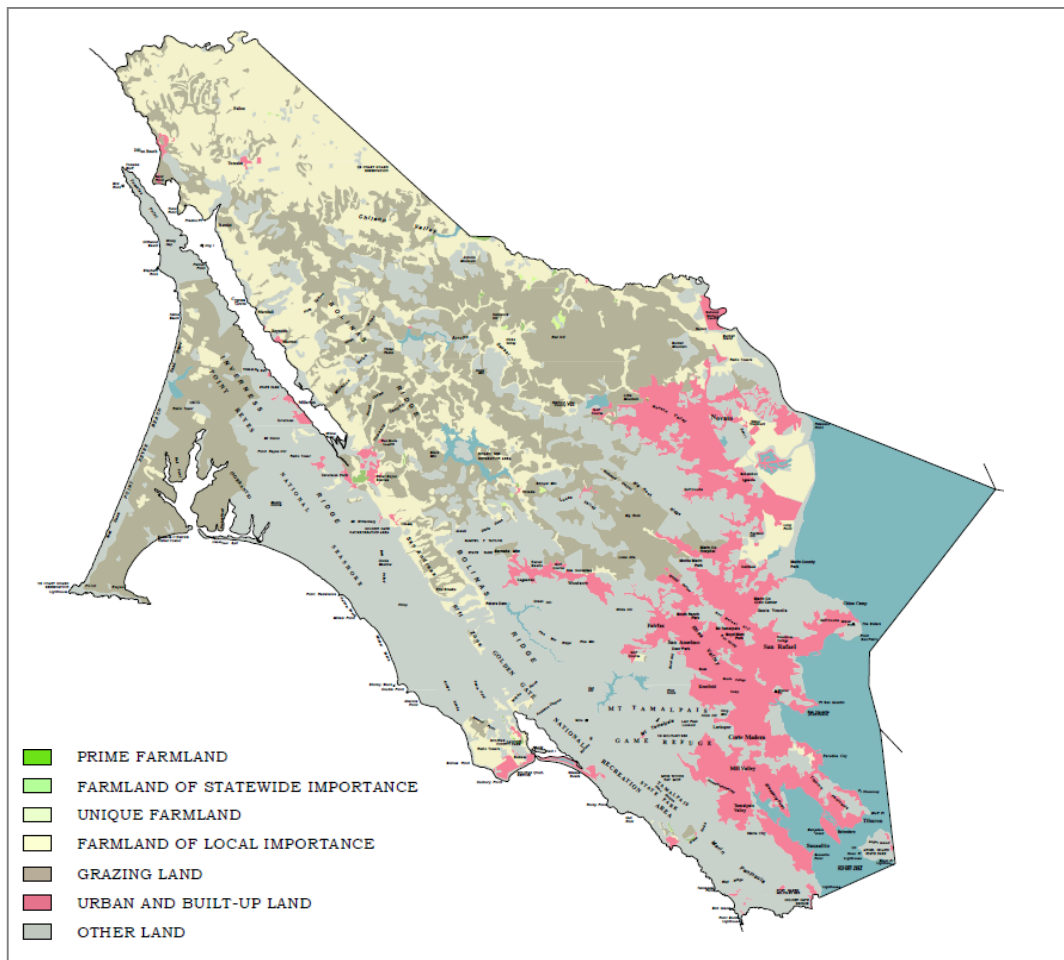
Marin County

Marin agriculture is known and appreciated throughout the Bay Area. This reputation is grounded in the extraordinary agricultural resources of the county and in its forward-looking producers and deeply rooted agricultural traditions. The iconic agricultural landscape in rural Marin is rolling grazing land – velvet green or golden depending on the season – punctuated by oaks and delineated by the dark green of wooded ravines. Dairy and beef cattle operations predominate in this landscape. Other

agricultural operations, including organic row crops, vineyards, olive orchards, small livestock production, and aquaculture exist at smaller scales but still contribute significantly to the county’s agricultural bounty and diversity.

Every year, 2.5 million visitors experience Marin’s agriculture; many are on en route to recreational destinations in the Point Reyes National Seashore and the Golden Gate National Recreation Area. With the agricultural sector valued at over \$63 million, Marin County is indeed bountiful as well as beautiful. Today, milk and livestock products dominate the sector but a growing number of operations produce fruits, vegetables, and aquaculture products, including oysters, mussels and clams.

Figure 4.1. Marin County, Important Farmland 2008



Marin County Agriculture Today

Table 4.1 Marin County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Farmland	68,851	65,920	-4%
Grazing Land	92,342	89,556	-3%
Number of Farms	1997	2007	% Δ
Total	276	255	-8%
Producing \$10,000 or Less Per Year	105	114	9%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$888	\$1,654	86%
Annual Value of Production at Farm Gate (Inflation adjusted)	2000	2008	% Δ
Total	\$59,572,412	\$63,311,293	6%
Fruit & Vegetable Crops	\$1,271,797	\$2,654,374	109%
Other Production	\$24,358,532	\$25,032,120	3%
Livestock Products	\$33,942,083	\$35,624,799	5%
Leading Production, 2008	Value	Acres	
Livestock Products	\$35,624,799	n/a	
Livestock	\$13,304,779	n/a	
Field Crops & Pasture	\$7,886,586	158,517	
Fruit & Vegetable Crops	\$2,654,374	476	
Aquaculture	\$2,918,780	n/a	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

Marin's 255 farms and ranches cover more than 40 percent of the county. Most of the agricultural land is dedicated to raising cattle, with 158,517 acres dedicated to field crops and pasture. Only 476 acres are cultivated for vegetable and fruit crops. The hilly topography, prevalence of nonprime soils, and lack of reliable water supplies are deterrents to more intensive and diversified agriculture. Most of Marin's row crop farms are small (usually less than 10 acres) and are often dry farmed in the low-lying areas with fertile soils.

The majority of Marin farms and ranches are third- and fourth-generation family-owned operations. The average size of a farm or ranch in Marin is large in comparison to Bay Area counterparts, at 588 acres. Some growers operate large livestock enterprises on hundreds or thousands of acres, selling in California and national markets, often using both owned and rented land. Other producers operate at a much smaller scale, selling to nearby niche markets.

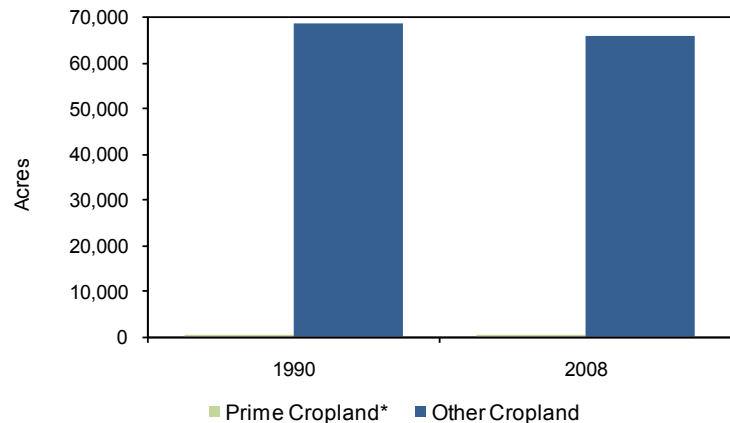
Between 2000 and 2008 agricultural productivity in the county remained fairly steady in terms of market value (6 percent increase) and acreage in production (1 percent decline). Marin's total agricultural output reached \$63.3 million in 2008. Milk production, worth over \$35 million in 2008, has consistently represented over half of the county's total agricultural value. Though representing only 4 percent of the county's total production value, fruits and vegetables showed the highest growth, more than doubling in value from 2000

to 2008. Aquaculture, representing five percent of the county’s total production value, experienced the second highest growth with a 63 percent climb in value over the eight years. Livestock production, which represents 12 percent of the county’s production value, also saw notable growth, with a 16 percent gain over its value in 2000.

Marin’s agricultural land base has held strong compared to many other Bay Area counties over the last two decades. In 2008, the California Farmland Mapping and Monitoring Program reported only a 4 percent drop in agricultural land, from 161,000 acres in 1990 to 155,000 acres in 2008. Prime cropland, which represents less than 1 percent of the county’s agricultural land, saw the greatest percentage reduction, from 168 acres in 1990 to only 7 acres in 2008, a 96 percent loss. This loss gradually occurred over the 18 years due to new residential development, golf course development, and the expansion of dairy operations.

Grazing land, which represents almost 60 percent of agricultural land, has remained relatively unaffected over the last two decades, with only a 3 percent reduction in land over the last 20 years.

Figure 4.2 Marin County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

* Prime Cropland, not visible, was 168 acres in 1990 and 7 acres in 2008.

The Point Reyes National Seashore and the Golden Gate National Recreation Area in southwestern Marin have gained particular attention for their potential production capacity, as well as ability to contribute to agritourism and provide ecosystem services. Dominated by grasslands, agriculture in these national parks represents 17 percent of Marin’s overall agricultural production and 17 percent of its agricultural land. The Marin UC Cooperative Extension office highlighted opportunities for sustaining, and even increasing, agriculture in this area in a report published in 2009. Many agree that through new partnerships and management practices, the cultural and historic aspects of farming and ranching in this region could be preserved while also optimizing the economic and ecological values that it contributes to the surrounding communities and to the region.

Markets and Value-Added Activities

The Bay Area represents an important market for Marin’s producers, though many take advantage of national markets as well. Marin’s major agricultural product, dairy, is primarily sold regionally. A sixth of the county’s beef producers sell to markets within Marin or the Bay Area, and several of these producers have organized a standardized grass-fed beef marketing effort. Wine grape growers sell wine grapes as well as produce their own wine. Aquaculturists primarily target Bay Area markets, though some also have substantial California markets.

Marin County farmers and ranchers are increasingly benefiting from direct market outlets, such as farmer’s markets and direct sales to grocers. Between 1997 and 2007, the value of direct market sales almost doubled to \$1.6 million (adjusted for inflation), even though the number of farms (40 farms) selling direct stayed the same. By 2007, direct market sales represented 3 percent of total food crops, significantly above the national average. Organic operations producing fruits, vegetables, and pasture also represent a strong niche in Marin’s agricultural sector. In 2008 there were 56 registered organic producers in Marin, farming

over 13 percent of the agricultural land and producing agricultural products with a value of close to \$17.5 million. Of the 20,598 acres registered with the Agricultural Commissioner's office, 20,197 were organic pasture and 410 were row crop acreage. This reflects the strong animal agriculture that is the predominant agricultural land use in Marin.

With commodity prices for milk at all time lows, a growing number of dairy operators are seeking to convert to organic and add value to their product by making cheese, yogurts, and other dairy products. Several such operations have garnered a nation-wide reputation for their products, most notably Straus Dairy for its butter and yogurt and Cowgirl Creamery for its cheeses. In 1997 there was one artisan cheese company in Marin. By 2010, that number grew to seven cheese makers processing farmstead and artisan cow, sheep, and goat cheeses. However, the county lacks a streamlined permitting process to support the growth of such efforts efficiently. To address the growing demand for dairy processing, the Indian Valley campus of Marin Community College has initiated an artisan cheese-making certificate modeled after the Vermont Institute for Artisan cheese. The college is seeking funds for a training facility that will create incubator processing facilities.

Beef producers tell a similar story. While a few beef producers take their cattle to the only slaughterhouse within the Bay Area (Rancho Veal in Sonoma County) most beef cattle are sold before they reach slaughter weight and are moved to large finishing facilities in the Midwest. A small but growing number of Marin beef ranchers are interested in finishing their own cattle, and there is interest in developing on-farm or mobile facilities to reduce transportation costs.

Overall, the economic importance of agritourism in Marin likely rests more on promoting experiences and ambiance than on direct sales of products to visitors. Even with myriad agricultural tourism and promotion activities offered by various organizations, agritourism income in Marin has been minimal. The spread-out geography of agriculture in the county does not lend itself to a formal farm-trails organization or to extensive on-farm sales through farm stands. Farm visits tend to be geared less for casual visitors and more for education programs, farm tours, and farm stays. School children, an important target audience, are engaged through events such as the annual Marin County Farm Day, in which dozens of farmers and ranchers provide interactive on-farm exhibits. Farm tours for the general public, such as the monthly tours offered by the Marin Agricultural Land Trust, often serve organizational fundraising as well as education purposes.

Other value-add opportunities may lie with Marin's rangelands which have potential high capacity for carbon sequestration. The Marin Carbon Project is a multi-stakeholder collaborative research project that emphasizes the value of local soil carbon sequestration. The Project has completed soil surveys to establish pre-existing levels of carbon in Marin's rangeland soils. This baseline data will allow an accurate assessment of how much carbon is sequestered over time. In this process, the Marin Carbon Project is helping to establish an accredited baseline rangeland soil carbon measuring methodology. This could help other soil carbon sequestration projects and rangeland ecosystems throughout California and beyond.

Policy Influences on Farmland and Agriculture

Over the past forty years, the politically-active farming community has overcome significant threats to agricultural lands. With the defeat of major development plans for west Marin in the 1970s, the creation of strong local coastal and general plan policies, and the establishment of the Marin Agricultural Land Trust in 1980, the county's agricultural land has stood strong against the backdrop of the urbanizing Bay Area.

Policies in the Agriculture and Food Element of Marin's 2002 Countywide Plan recognize the importance of both protecting agricultural parcels and supporting the economic viability of agriculture. The County's A-60 zoning covers about 90 percent of the agricultural land in the county and requires a minimum lot size of one unit per sixty acres. The Countywide Plan requires purchasers of agricultural zoned land, who are not farmers and intend to construct new residences, to demonstrate through a management plan that their parcels will continue to be used for commodity production. The plan also highlights the most productive regions, such as the Inland Rural Corridor designation, an area that houses virtually all of the local dairies and generates most of the county's agricultural value. Additionally, the County is seeking to enhance their Transfer of Development Rights program by streamlining administration and proactively identifying potential donor and receiver sites.

The County's economic development support for farmers and ranchers is one of the most advanced among the Bay Area counties. Since 2002, the County has funded a sustainable agriculture coordinator; and in 2004, added a part-time "agricultural ombudsman," a contract staff person assigned to the County's UC Cooperative Extension (UCCE) office. The ombudsman provides direct assistance to agricultural producers interested in getting approval for value-added enterprises. This position also trains staff in the planning and other county departments on agricultural topics and works on special agriculture-related projects for county government including the Countywide Plan update. The agricultural coordinator conducts seminars for producers, maintains the Grown in Marin website, consults one-on-one with producers about diversifying products or crops, organizes several farmer workshops yearly; and publishes a bi-monthly e-newsletter to producers as well as creating how-to handouts. Farmers and ranchers have eagerly taken advantage of the services and information available from both of these staff members.

Challenges and Opportunities

Though the iconic agricultural landscape in rural Marin is an asset to Marin's agricultural industry it also attracts a serious threat. The beauty of rural Marin increasingly appeals to non-agricultural buyers who are eager and able to purchase farm properties for luxury homes and non-agricultural uses, escalating land prices far beyond what agricultural revenues can support. Ranching families often cannot afford to transfer property to the next generation and new, young farmers find it nearly impossible to afford housing and buy land to get started.

Though much of the County's policy and regulatory framework supports agriculture, producers still lack the infrastructure necessary to diversify their existing operations with added-value products and new markets. While the ombudsman assists farmers and ranchers, County permitting and regulations have been a major barrier to expanding and diversifying business operations. This issue is most notable with Marin's dairy and beef operations.

To sustain operations, farmers and ranchers must be able to realize revenues that allow them to compete with the development of home sites and other alternatives. Producers express the need for economic development and agricultural investment that would help younger producers enter the market, broker regional business partnerships, and encourage the development of value-added facilities and enterprises. With a growing organic sector, niche beef and dairy operations, and an environment ideal for ecosystem services, Marin is rich with opportunities to innovate and expand its Bay Area and distant markets. Additionally, with 2.5 million tourists visiting West Marin annually, attracted by the Point Reyes National Seashore and the bucolic agricultural ranchlands, producers are in a prime location to take advantage of agritourism activities such as tours, opening farm stands, and/or renting wedding sites. The prime location to regional markets is also one of Marin's strongest advantages as traditional beef and dairy producers

diversify, add value with farmstead and artisan cheese, and offer grass-fed beef products direct to Bay Area consumers.

Initiatives and Goals

Marin has a vibrant network of nonprofit organizations, ranchers, farmers, and County staff that are working to address current challenges and opportunities. The 1997 Marin County Agricultural Summit, co-sponsored by County Supervisor Steve Kinsey, was an early step forward. Many recommendations from that summit have been implemented. Recognizing the success of the summit, the UCCE, Supervisor Kinsey, and collaborative partners are organizing another Agricultural Summit for the fall of 2010.

In addition to the innovative leadership of the office of the County Commissioner, Stacy Carlsen, several organizations provide agricultural support programs. The Marin UCCE not only provides services to farmers and ranchers and hosts the ombudsman position; it also has published a number of industry reports that have helped to guide policy for the Countywide Plan and bring awareness of the industry's challenges to County staff and elected officials. The UCCE, along with local producers and other support organizations, have mounted a concerted effort over the past several years to encourage product diversification as a means of risk management and to increase agricultural profitability. The UCCE also produced the 30-minute documentary film called "Hidden Bounty," that was aired on public television to bring a new awareness and appreciation for producers. The Marin Resource Conservation District is currently producing an oral history of the county's farmers and ranchers. Marin Organic, a membership organization of farmers, ranchers, agriculture advisors, and marketing experts, has worked to increase local markets for organic growers, operate the Point Reyes Farmers Market, and promote Marin organic farming. The Marin Farmers Market (aka Ag Institute of Marin) has served as an incubator for direct marketing and start-up products and has provided opportunities to producers to test their products.

The Marin Agricultural Land Trust (MALT) was the first private nonprofit in the nation created specifically to protect agricultural land. Since 1988 MALT has acquired conservation easements on 49 ranches covering about 33,000 acres (roughly one-fourth of the private agricultural land in Marin).

Insights and Analysis

There are few landscapes in the world like that of Marin—an evocative place that embodies the environmental beauty, economic importance, and cultural heritage of centuries-old agriculture in the Bay Area. With its close proximity to San Francisco and coexistence with national parks and seashores, Marin's farms and ranches have a unique opportunity for agritourism and regional sales of both fresh and value-added products. A 150-year-old tradition of family farming and historically strong political will for preserving farmland has allowed the County to hold on tight to its ever-challenged agricultural industry. This is shown through a combination of agriculture-friendly zoning, land-use regulations, active support by County government, and the multitude of forward-thinking support organizations that work collaboratively to ensure the survival and viability of the agricultural sector. To survive and thrive in the coming decades, farmer, ranchers, and policy makers will need to address old and new threats ranging from escalating land values, excessively restrictive permitting policies that impede agriculture's ability to thrive, and insufficient value-added facilities and enterprises. By continuing to strengthen connections to other agricultural counties and to the urban centers of the region, Marin can also contribute to an urban-rural regional fabric that is increasingly important to residents and visitors of the Bay Area.



Source: Napa Valley Vintners

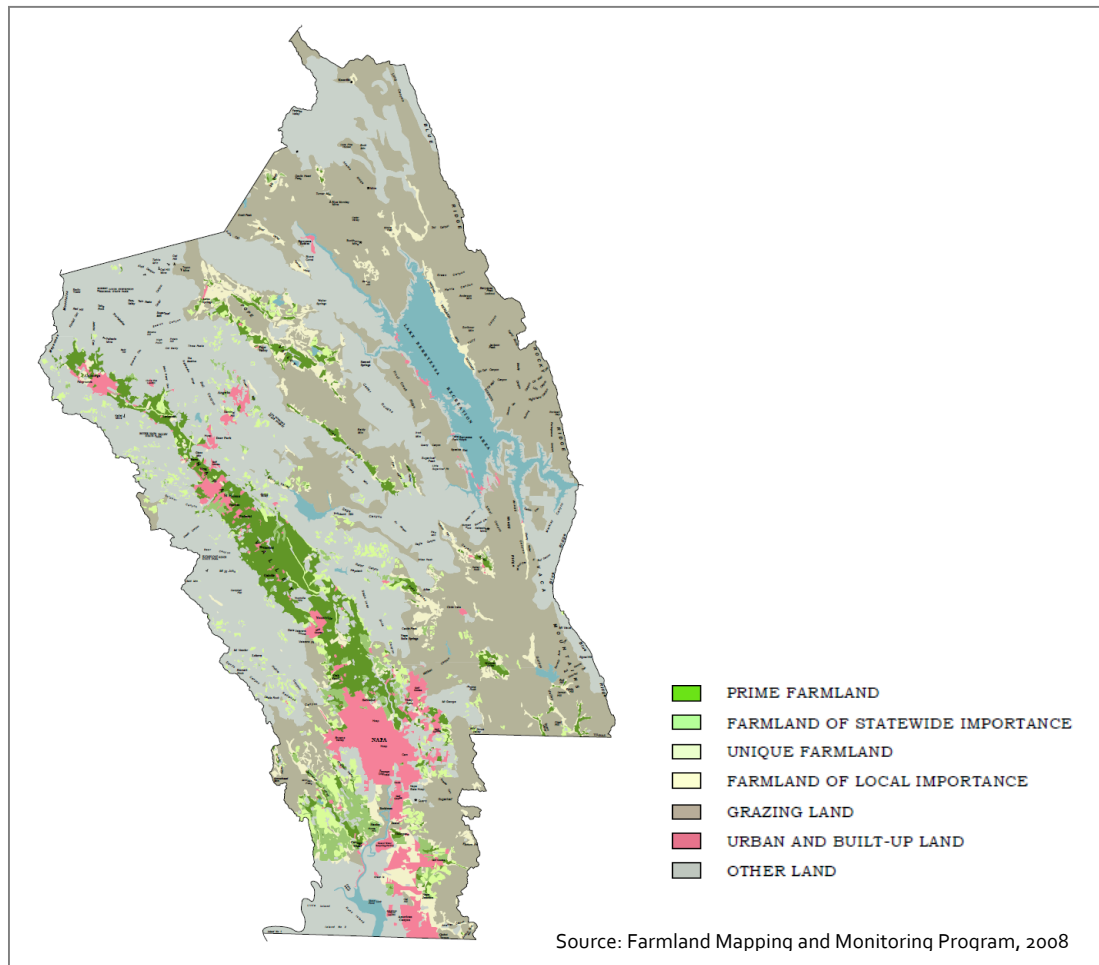
Napa County

Whether in the Bay Area or thousands of miles away, people know the name “Napa Valley” as America’s foremost wine making region. Beneath its wine country life-style cache, Napa Valley is an intensive working landscape. The valley floor is a patchwork of expansive vineyards, country towns, tree-lined rural roads, boutique produce operations, and wineries of every imaginable style. Route 29 on one side and the more rural Silverado Trail on the other provide the main north-south circulation along with the popular Wine Train.

Framed by the Mayacamas Range on the west and the Vaca Mountains on the east, the 30-mile long valley tapers from wide estuarine flats and the City of Napa to a narrow tip near the small town of Calistoga.

Overlooking the valley, ranches, smaller vineyards, and olive groves are tucked away in smaller high valleys. Stringent regulations have prevented the development of prime agricultural land and have also prevented agricultural development of important habitat and open space. Most of the hillsides surrounding the valley remain beautiful forests of redwood, oak, bay, and madrone.

Figure 5.1. Napa County, Important Farmland 2008



Napa County Agriculture Today

Table 5.1 Napa County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	72,377	76,353	5%
Grazing	188,236	178,957	-5%
Number of Farms	1997	2007	% Δ
Total	1,318	1,638	24%
Producing \$10,000 or Less Per Year	459	449	-2%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$637	\$1,148	80%
Annual Value of Production at Farm Gate (Inflation adjusted)	2000	2008	% Δ
Total	\$425,195,694	\$409,122,900	-4%
Fruit & Vegetable Crops	\$417,298,715	\$400,606,100	-4%
Other Production	\$5,513,545	\$5,004,600	-9%
Livestock Products	\$2,383,434	\$3,512,200	47%
Leading Production, 2008	Value	Acres	
Wine Grapes	\$399,913,100	42,870	
Livestock	\$3,512,200	n/a	
Floral & Nursery	\$3,347,700	n/a	
Poultry & Other Animal Products	\$1,114,600	n/a	
Field Crops	\$361,200	95,157	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

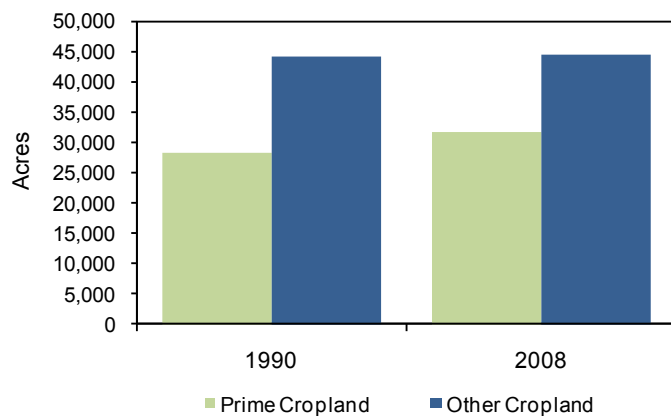
Production, Producers, and Places

Napa's 1,600 farms and ranches constitute 255,000 acres, covering 50 percent of all Napa County. While 70 percent of Napa's agricultural landscape is grazing land, Napa is truly a place for grape growing. Excluding field crops, almost all cultivated land in Napa is in grape production. Vineyards are planted on 43,000 acres in the county. Other cultivated land is in olives, walnuts, and vegetable crops, which together represent less than 500 acres. What little commercial food production exists in Napa is grown in the fertile valley floors, while vineyards extend upward on the surrounding terraced foothills.

Napa County's agricultural sector has held steady over the past decade. Between 2000 and 2008, the value of the county's overall production decreased by a slight 4 percent, with an increase in overall acreage by 3 percent. Valued at almost \$400,000,000, wine grapes dominate the agriculture sector, representing 98 percent of the total sector value in 2008. Even with a slight decline in value over the past years, acreage dedicated to grapes grew by 33 percent. Though small in comparison to grape production, food production has seen significant growth. Olive orchards doubled in value during the same time, reaching \$500,000 in value by 2008 and growing in acreage by 67 percent. Strawberry and walnut production combined quadrupled in value from \$50,000 in 2000 to \$200,000 in 2008. Likewise, poultry and dairy products nearly quadrupled in value from \$400,000 in 2000 to \$1.1 million in 2008. Vegetable crops were the exception. Valued at \$181,000 in 2008, vegetable crops dropped in value by 36 percent over the same eight years.

Contrary to all other counties in the Bay Area, Napa has seen an overall increase in acreage dedicated to cropland over the last two decades. In 2008, the California Farmland Mapping and Monitoring Program inventoried 76,000 acres of cropland and 179,000 of grazing land in Napa County. Within the years 1990 and 2008, the county gained almost 6,000 acres of prime cropland, a 12 percent increase. The acreage in grazing land dropped by 5 percent during the same time. Most of the small losses of agricultural land seen in Napa over the 18-year period were due to development of low-density housing (ranchettes), golf course expansion, and rural commercial facilities.

Figure 5.2 Napa County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Markets and Value-Added Activities

With the heart of Napa’s agricultural activity in vineyards, there is very little infrastructure for sales, marketing and distribution of perishable food commodities outside of niche markets such as restaurants and gourmet grocery stores. Direct market sales such as farmers’ markets and community-supported agriculture are also limited. Even so, several vineyards are diversifying by growing food crops and livestock, as well as wine grapes. They are taking advantage of the many niche markets that Napa has to offer. For example, Somerston Vineyards is raising 1,500 head of sheep in addition to their predominant crop of wine grapes. The sheep graze the entire Somerston property, restoring and enhancing the landscape. The operators take lambs to Dixon’s Superior Farms for slaughter and sell meat to local restaurants. Somerston has plans to open a gourmet grocery store in Yountville that will showcase their organic produce, honey, olive oil, and lamb, as well as other local products and gourmet items from neighboring properties. Another example is Long Meadow Ranch which also primarily produces grapes but also produces olives that are processed on site into olive oils, grass-fed beef, eggs, and heirloom fruits and vegetables. Its products are primarily sold to restaurants, in a storefront at the Ranch, and online. Long Meadow Ranch has also partnered with institutional purchasers like the local high school which occasionally serves Long Meadow grass-fed beef.

Wine country is a magnet for tourism in Napa Valley. In 2007, 29 Napa farms reported agritourism income totaling \$1.8 million. Wine-tasting at the valley’s numerous wineries is a year-round draw, and is supported by other attractions such as restaurants, art galleries, golfing resorts, biking, ballooning, and spas. The Mustard Festival in February and March, offers a host of activities, events, and tours to encourage visitors to experience the green and golden valley spring. Facilities such as the 12-acre Connelly Ranch offer children-oriented activities including a summer camp and seasonal farm festivals. Various winery associations, nonprofits, and chambers of commerce provide readily available information about everything from intimate wedding venues to hikes in conservation lands to cooking classes to large-scale tours.

Policy Influences on Farmland and Agriculture

Napa County has been a national leader in agricultural land-use protection for over 40 years. The wine industry in Napa owes much of its success to the forward-thinking zoning ordinance passed in 1968, which determined that the "best use" for the land in the fertile valley and foothill areas of Napa County is in agriculture and open space, not homes and industrial development. The ordinance instituted the

Agriculture Preserve District (AP) that lies primarily between the towns of Napa and Calistoga. The AP zoning requires a 160-acre lot minimum for the development of any home outside of city boundaries. The first of its kind in the nation, Napa's AP, which originally protected 26,000 acres, now covers 40,000 acres of the county. Beyond the protection of the valley floor, the County also designated and protected a large area as Agriculture, Watershed and Open Space (AW zoning). Together, the AP and AW total 482,000 acres and represent 91 percent of the county's 505,859 acres.

Napa County continued to establish regulations to protect agriculture in the 1980s and 1990s. In 1980, voters adopted Measure A, which restricted growth via building permit limits, in the unincorporated areas of the county to one percent per year. In 1990, voters approved Measure J, which requires a two-thirds vote of the electorate to rezone any agricultural land. Along with these policies, the County General Plan and other ordinances continue to prioritize agriculture. This includes the long-standing right-to-farm ordinance and policies that establish agriculture and rural residences as the senior users of ground water aquifers.

Challenges and Opportunities

The outcomes of the Agricultural Preserve and successive policies have far exceeded what many had envisioned and have shown that strong protections not only preserve the land base but can also boost the economic viability of agriculture. However, while the County's policies have greatly benefited the wine industry, they have done little to encourage agricultural diversification. New policies that promote diversification and value-add activities for food products could further strengthen Napa Valley's agricultural economy, without negatively impacting grape production. With a solid agricultural land base in place in a valley that boasts a unique Mediterranean climate and diversity of soils, Napa is poised to diversify production and take advantage of expanded economic opportunity. With innovative practices, small-scale production can be surprisingly abundant. Examples of innovative production include a vineyard operator who is planting a row of corn as a barrier crop between vines and a winery that is using space formerly devoted to ornamental landscaping to grow vegetables. Somerston Vineyard, Long Meadow Ranch, and other vintners have begun to grow specialty food crops, diversifying their operations and creating new niche markets, while maintaining wine grape production. The world renowned appellation of Napa Valley lends a tremendous opportunity to brand a wide range of agricultural products coming out of the valley.

One model that has become popular among some vineyards and that could be expanded across Napa is growing food for the vineyard's workforce as an employee benefit or for organizations like the Napa Valley Food Bank that provide food for underserved populations. Small-scale production of fresh fruits and vegetables that serves the community through venues like schools and farmers' markets can also help address issues like obesity-related disease and food insecurity which are growing public health concerns in Napa County.

Initiatives and Goals

In 2010, the Agricultural Commissioner's office initiated a Local Food Initiative, along with the Napa Farm Bureau, Sustainable Napa County, and the County's Environmental Management and Economic Development and Planning departments, to create a sustainable vision for agriculture in Napa County. A major part of this effort seeks to examine how the County can enhance the production of locally grown food in the county, particularly to benefit community needs. The Commissioner has recently organized a local food working group to create a sustainable vision for local food production and consumption in the county. The work group's initial discussion items include: 1) changing the paradigm of institutional food service delivery models; 2) increasing the number of planted acres where food is

produced; 3) supporting efficient economic models; and 4) developing a food system that provides the community locally grown food. Still in the development phase, the work group's first major achievement was the Napa Local Food Forum, which 225 people attended to discuss issues the county faces and how best to achieve the vision. The Agricultural Commissioner continues to host smaller community discussions to build awareness and momentum. The next steps include the formation of a local food council in which the County Board of Supervisors will appoint members to create a strategic plan and work with the Agricultural Commissioner to carry out the vision.

The Napa UC Cooperative Extension's Master Gardeners have worked to help establish community gardens in Napa. Today, there are 40 garden plots throughout the County. The goal is for that number to increase steadily over time.

Land preservation efforts have worked hand in hand with the Agricultural Preserve zoning. In 1976, to further support the AP, a group of Napa landowners, many of whom were vintners and growers, formed the Land Trust of Napa County. To date, the Land Trust of Napa County has preserved 50,000 acres of agricultural land and open space through conservation easements and transfer of lands to local, state, or federal conservation agencies.

Insights and Analysis

The dominance and success of the wine industry in Napa County make its agricultural landscape and future unique. Though land values are high, agriculture has withstood both rising value and population growth due to the success of the wine industry and strong land-use policies to protect agriculture and the bucolic landscape of the Valley. Given the stability of the wine industry, the agricultural landscape of Napa County will likely remain predominately in vineyards into the future. However, the success of the wine industry opens additional opportunities for agricultural innovation and economic diversity. While these opportunities may remain in small-scale production, there are opportunities for Napa Valley's farmers to produce and market high-quality specialty foods. Napa Valley's restaurants and resorts, cooking schools, and gourmet grocers are increasingly educating their consumers on seasonal eating and marketing Napa Valley as an appellation for locally produced foods.

The local community is also growing increasingly concerned about public health, food justice, and the ability of low-income populations to access fresh and healthy foods. Despite Napa County's world-renowned reputation for fine wines and dining, it ranks 57th among California's 58 counties for food insecurity, with 38 percent of adults in low-income households reporting an inability to easily access food. The Local Food Initiative of the Agricultural Commissioner and other leading organizations has placed this issue at the center of their agenda for increasing local food production. With momentum building behind the Local Food Initiative and support from the County Board of Supervisors, communities throughout Napa could see an increased amount of food grown amid the familiar vineyard landscape.

Whatever models of production and distribution growers choose to adopt, production of local food in Napa County will likely remain smaller in scale. For this reason, the most viable markets for distribution will likely remain local rather than regional, benefiting the Napa economy and community.



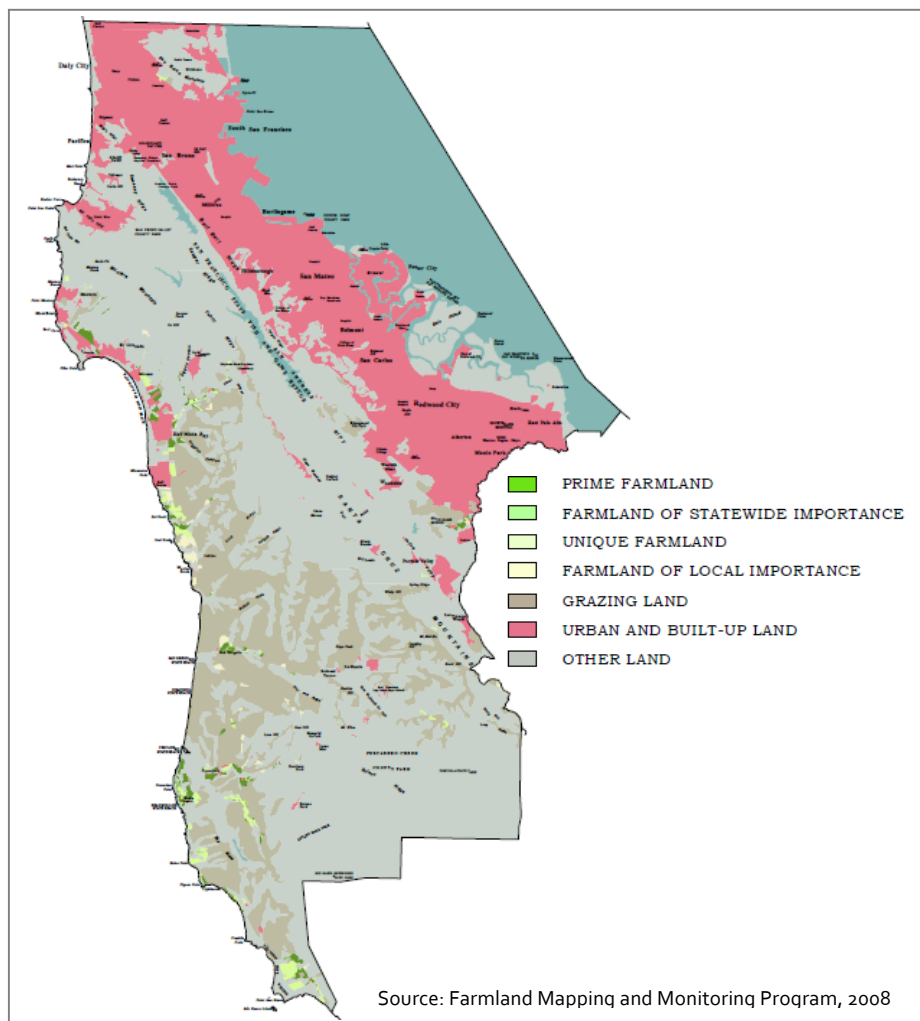
Photo by William K. Matthias, www.wkmphoto.com

San Mateo County

There are few more inspirational agricultural areas than San Mateo County's coastal region; a place where stream-fed coastline valleys shelter fields of cool season vegetables and pumpkin patches are within minutes of stunning cliffs perched above the crashing Pacific surf. Though San Mateo County's agricultural acreage is relatively small, the 2008 value of San Mateo crops was \$160 million, making it the fourth highest Bay Area county in terms of agricultural production value. San Mateo County has a rich and diverse agricultural heritage, and its farmers and ranchers

continue to produce a bounty of fruit, vegetables, and floriculture. A cornucopia of food crops grow on the county's farms today, including Brussels sprouts, grapes, mushrooms, strawberries, artichokes, and around 10 other primary crops.

Figure 6.1 San Mateo County, Important Farmland 2008



San Mateo County Agriculture Today

Table 6.1 San Mateo County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	9,169	5,481	-40%
Grazing	46,060	48,958	6%
Number of Farms	1997	2007	% Δ
Total	240	329	37%
Producing \$10,000 or Less Per Year	95	181	91%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$820	\$988	20%
Annual Value of Production at Farm Gate (Inflation adjusted)	2000	2008	% Δ
Total	\$239,988,793	\$160,925,000	-33%
Fruit & Vegetable Crops	\$45,663,526	\$22,081,000	-52%
Other Crops	\$192,678,620	\$136,466,000	-29%
Livestock Products	\$1,646,646	\$2,378,000	44%
Leading Production, 2008	Value	Acres	
Flowers & Nursery Products	\$134,843,000	958	
Mushrooms	\$6,927,000	8	
Brussels Sprouts	\$5,841,000	675	
Livestock	\$2,378,000	n/a	
Miscellaneous Vegetables	\$3,435,000	573	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

San Mateo's 329 farms and ranches constitute 50,000 acres and cover only 15 percent of the entire County. The County's agriculture consists of about 2,100 acres of cultivated vegetable crops, 200 acres of fruit crops, just under 1,000 acres of flower and nursery crops (including over 150 acres of greenhouses), and about 30,000 acres of pasture land used for grazing livestock. The agricultural soils and a unique microclimate make the lands in the coastal terraces and coastal valley inlets suitable for a variety of specialty crops. Grazing lands are located in the Santa Cruz Mountains area, where the steep terrain and very narrow fertile valleys preclude other agricultural uses.

Between 2000 and 2008, the value of the County's agricultural production declined by 33 percent, yet the acreage in production declined only by 3 percent. Vegetable and fruit crops declined in value by 52 percent and their acreage in production declined by 12 percent. This loss in value is greatly attributable to a decline in the mushroom industry (from \$29,896,765 to \$6,927,000). While flower crops represent 80 percent of agricultural dollar value, they are also declining. The value of outdoor flower crops dropped 55 percent and indoor crops dropped 19 percent over the eight year period. On the rise, the value of wine grapes jumped 180 percent, and strawberries climbed by 72 percent in value.

Despite strong land-use preservation policies and community acceptance of cultivated farmland, San Mateo County's loss has been consistent according to the California Farmland Mapping and Monitoring Program (FMMP). The FMMP reports a 40 percent drop in the county's cropland from 1990 to 2008.

However, prime cropland, which currently makes up 41 percent of all cropland in the county, experienced only 7 percent loss in that time. The loss of prime cropland has been the result of the cessation of agricultural use, including the fallowing of land, and conversion to open space and grazing land.

Markets and Value-Added Activities

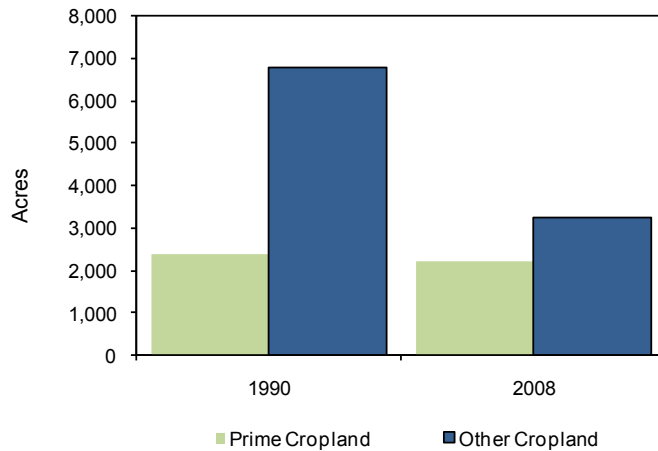
San Mateo County's farmers produce for both local and distant markets. Growers rely on three main market outlets. For wholesale distribution, producers utilize the Golden Gate Produce Terminal in South San

Francisco or other wholesale distributors where products are sold to both local and non-local buyers. This outlet is widely used by larger-scale producers. The majority of Brussels sprouts growers rely on both fresh and frozen processing facilities, which cast a wide distribution net, mainly outside of the region and outside of the state. Smaller-scale producers, whose production volumes are too small for wholesale distribution, rely on direct marketing to restaurants, locally owned and chain grocers, farmers' markets, and community-supported agriculture.

San Mateo County farmers are increasingly benefiting from direct market outlets, such as farmer's markets and direct sales to grocers. Between the years of 1997 and 2007, the value of direct market sales increased by 20 percent (from \$820,000 to \$980,000, adjusted for inflation), even though the number of farms (37 farms) selling direct stayed the same. By 2007, direct market sales represented 6 percent of total food crops. While this may seem like a small percentage compared to the total market value of all crops, on average only 0.8 percent of total food crop sales in the United States is marketed directly to consumers. This puts San Mateo County notably above the curve when it comes to taking advantage of local marketing opportunities. Organic operations are also a growing niche in San Mateo. According to the USDA Agricultural Census, the county had 17 organic producers, representing one percent of the total production. The census also reports that organic sales grew from \$39,000 in 2002 to \$121,000 in 2007, a tripling in value.

Agritourism, though not a source of extensive farm-related income historically, has grown considerably, with seven farmers reporting a total income of \$69,000 in 2002 and \$977,000 in 2007. Agritourism offerings in the county include the Half Moon Bay Art and Pumpkin Festival, "choose and cut" Christmas trees, and the Tour de Fleurs. Pumpkins, the 5th most valuable vegetable crop in the county, provide a focus for other local agritourism efforts. Educational farms are a small but also an important component of agritourism. Harley Farms, the only goat dairy in the county, makes a significant amount of its income from hosting tours. Elkus Youth Ranch, operated by UC Cooperative Extension, provides an opportunity for thousands of urban children each year to experience a working farm and ranch.

Figure 6.2 San Mateo County Crop Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Policy Influences on Farmland and Agriculture

San Mateo County's land-use policies are among the most aggressive in protecting agricultural land throughout the Bay Area. Most of the county's fertile areas are subject to both the County's General Plan and the policies of the Local Coastal Program (LCP), both of which provide strict right-to-farm protections and tight restrictions on any subdividing of prime agricultural land. The LCP and General Plan designation, Planned Agricultural District (PAD), prevents subdivision of agricultural lands. Among other requirements, the PAD requires that, when any subdivision or transfer of development credits occurs, an agricultural easement must be granted to the County that restricts the use agricultural soils to farming. The County also allows for a transfer of density credits, though this has not been widely used. The County recently adopted an agricultural awareness ordinance to protect farmers from nuisance complaints.

With little employment growth on the coast, there has been relatively low demand for housing and major services in existing coastal communities, thus development pressure has been fairly modest. Where growth has occurred, the County's growth management policies, including the Local Coastal Program designation of the urban/rural boundary line and the Local Agency Formation Commission's designated sphere of influence lines for Half Moon Bay and special districts, have been generally effective in concentrating growth in existing developed areas.

Challenges and Opportunities

In recent decades, threats to San Mateo's farmland and agricultural production have been tempered by strong coastal preservation policies, but challenges remain. San Mateo County has been effective in protecting quality farmland from urban encroachment. However, many potentially productive acres have transitioned to grazing land or have been left fallow. Economic factors including high input, competition with foreign imports, and lack of access to water have discouraged agriculture industry and investment. As farmers retire, speculation on land for rural residential development has driven the value of land too high to make it affordable to farmers. So while land-use policies protect land from development, underlying market conditions and the lack of economic incentives have been major contributors to the county's declining farm economy. Another concern among some growers is the need for additional housing, particularly for smaller units affordable to young start-up farmers.

Limited seasonal access to water for irrigation presents one of the most critical issues to farmers in San Mateo County. The smaller land area, seasonality of rainfall, and distributed nature of streams in the coastal watershed limits the ability of farmers to irrigate in dry seasons and placing farmers at odds with the coho salmon fishery that uses summertime stream flows. Farmers, conservationists, and the environmental community have been exploring off-stream water storage as a solution. However, farmers continue to express that permitting is too lengthy and costs are prohibitive. In 2002, the Coastal Conservancy funded the Ponds Project, an effort to develop a process and regulatory stream-lining of permits to encourage off-stream water storage for winter water diversions. Although widely supported, the initiative has stalled with little progress toward the goal.

Despite some of the challenges, agriculture in San Mateo County has strong political support, a diverse network of organizations and energetic individuals working concertedly to lay the groundwork to improve opportunities for agricultural production in the years ahead. Efforts to develop a central distribution facility that links schools, hospitals, and jails to locally grown food, along with legislation requiring government entities to procure local products, could significantly increase opportunities for farmers to reach reliable markets in San Mateo County. At the same time, there are increasingly more opportunities for farmers to grow food for these local and regional markets. The continued efforts of

the Peninsula Open Space Trust (POST) to make land available and affordable to farmers could open many opportunities for farmers to grow food on land that would otherwise sit fallow. Additionally, as trends show decline in the production of cut flowers, growers have transitioned their greenhouses to specialty vegetable crops such as tomatoes, peppers, herbs, leafy greens, and other vegetables. With stronger demand for locally grown vegetables and a decreased value in cut flowers, more growers could be encouraged to transition their land to high-value food crops.

Initiatives and Goals

San Mateo County and advocacy organizations are undertaking significant efforts to support farming in the county. In 2003, the Board of Supervisors hosted the San Mateo County Agricultural Summit. The Summit, attended by over 200 people, resulted in several key efforts that continue to have momentum, including the agricultural awareness ordinance and the “As Fresh As it Gets” campaign funded by the Board of Supervisors and currently being implemented by the Farm Bureau.

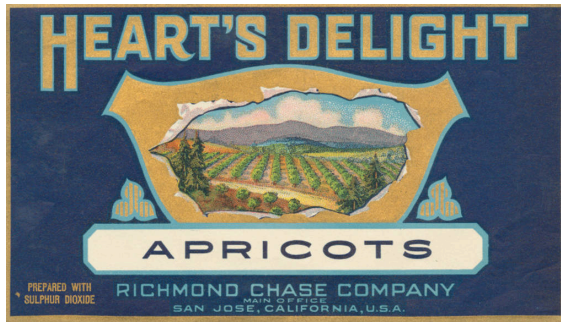
Working in conjunction with the County Department of Public Health and members of the San Mateo Food System Alliance, the Farm Bureau is taking “As Fresh As It Gets” several steps further than just a marketing campaign. The working group is focusing on overcoming one of the primary challenges of getting local products to local markets—the lack of central distribution. A feasibility study for the development of a facility that would connect farmers to the County hospitals, jails, schools, restaurants, and other large purchasers is in progress. Already, the Farm Bureau has a preliminary agreement with the new County women’s jail. Building on this effort, the County’s Public Health department is drafting legislation that would require County government facilities to purchase a certain percentage food from local farms.

Another leading organization, the San Mateo Food System Alliance (FSA), includes 25 representatives from the agricultural and fisheries communities, public health, and environmental and conservation organizations. The FSA’s top priority areas include: local processing and food distribution; farm-to-institution; development of off-stream water storage; expanding school gardens/nutritional education; and generational succession.

POST, the Midpeninsula Regional Open Space District (MPROSD), and the Committee for Green Foothills all have ongoing efforts in San Mateo County to preserve farmland. MPROSD has been retaining and expanding grazing leases on many of their open space reserves. Over the last five years, POST has increasingly made their land available for production by leasing it at affordable rates to farmers. The organization has bought several farmland properties with the intention to transfer density credits off of the land. They have been responsive to growers’ interested in purchasing land where the density credits have already been sold for a reduced value.

Insights and Analysis

San Mateo remains one of the most unique agricultural counties in the state. Although its farmland is generally well-protected, agricultural production faces many challenges due to regulatory barriers, lack of affordable and reliable water and a need for economic development incentives. By combining centralized distribution and agritourism efforts with policies that support young farmers and generational succession and promote the continuation of farming on high-quality land, San Mateo could leverage the strong regional markets of the Bay Area while continuing to support markets outside the region. Political and advocacy momentum is building in the county to bring increased attention to these opportunities.



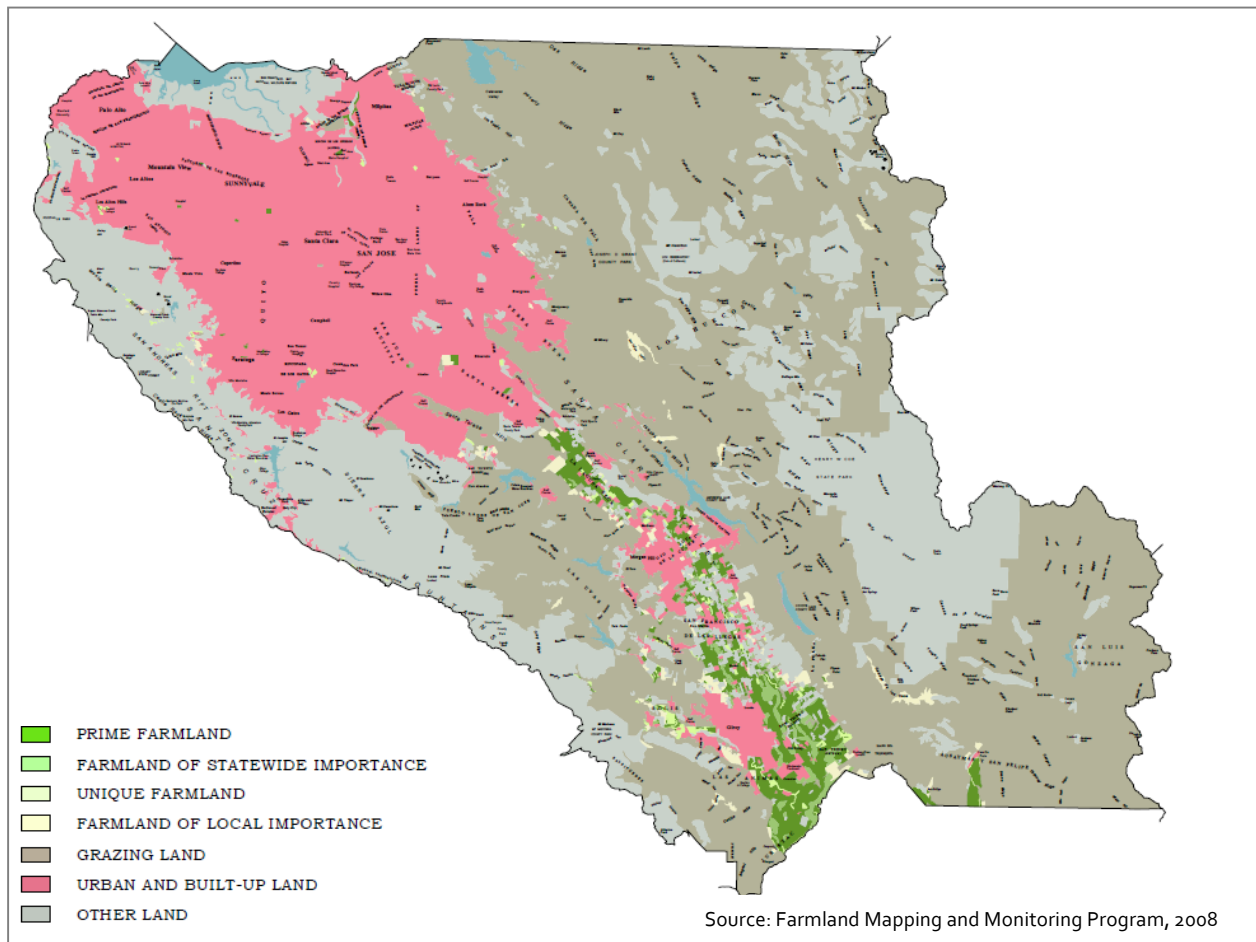
Santa Clara County

Until the 1950s, Santa Clara County was one of the most productive farming regions in the nation. With deep, fertile soils, moderate climate and plentiful water, the “Valley of Heart’s Delight” was renowned for its apricots, cherries, prunes, berries, nursery products and flowers. Before World War II, Santa Clara orchards produced one-third of all the stone fruit grown in the United States. San Jose was the largest

canning and dried-fruit packing center in the world.

Over the past fifty years, many of the orchards and fields of the Valley of Heart’s Delight have been lost to urban growth. Nonetheless, although Santa Clara County is still the fastest-growing county in the Bay Area, the Santa Clara Valley remains one of the Bay Area’s largest, most productive agricultural regions. From the Coyote Valley at the southern end of San Jose to the rich farmlands surrounding Gilroy, southern Santa Clara County has over 31,000 acres of important agricultural lands producing a cornucopia of fruits, vegetables, and nuts. Geographically, the rich agricultural region extends south across the Pajaro River into the beautiful Panoche Valley in northern San Benito County.

Figure 7.1 Santa Clara County, Important Farmland 2008



Santa Clara Agriculture Today

Table 7.1 Santa Clara County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	51,569	31,293	-39%
Grazing	405,537	390,090	-4%
Number of Farms	1997	2007	% Δ
Total	985	1,068	8%
Producing \$10,000 or Less Per Year	576	678	18%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$2,241	\$1,943	-13%
Annual Value of Production at Farm Gate (inflation adjusted)	2000	2008	% Δ
Total	\$371,978,858	\$247,950,400	-33%
Fruit & Vegetable Crops	\$19,691,762	\$18,043,100	-8%
Other Production	\$342,826,298	\$223,227,900	-35%
Livestock & Poultry Products	\$9,460,798	\$6,679,400	-29%
Leading Production, 2008	Value	Acres	
Vegetable Crops	\$123,043,800	12,428	
Nursery Crops	\$87,319,900	n/a	
Fruit & Nut Crops	\$18,043,100	3,313	
Livestock & Poultry	6679400	n/a	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places.

The 1,048 farms and ranches of Santa Clara County produce a dazzling variety of agricultural products. In 2008, their crops were valued at over \$247 million, one of the highest dollar values of agricultural production in the Bay Area. While nursery crops continued to be the highest value agricultural product, 16,000 acres of southern Santa Clara County was devoted to vegetable and orchards crops valued at over \$132 million dollars.

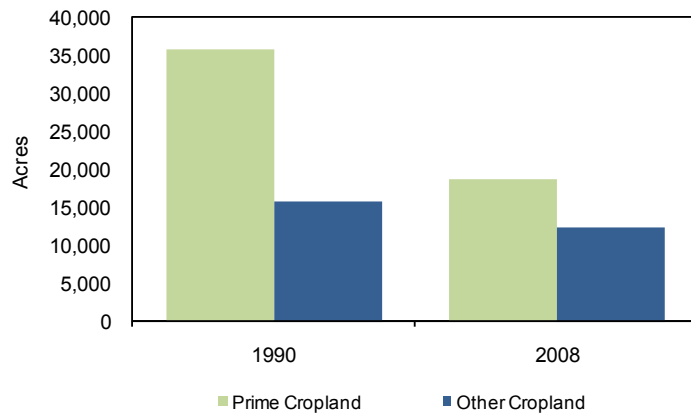
Santa Clara County agriculture is characterized by a remarkable diversity of fruit, vegetable, and nut crops. Mushrooms grown in greenhouses are the leading vegetable crop in dollar value, yielding \$57 million on 151 acres of land. However, over 25 fruit, vegetable, and nut crops in Santa Clara County each yield crop values exceeding \$1 million, including peppers (\$21.6 million), lettuce (\$8.9 million), cherries (\$8 million), wine grapes (\$6.4 million), tomatoes (\$5.2 million), and corn (\$4.9 million). Values of some crops like bell peppers, cherries, and garlic grew significantly in recent years due to increases in yield and acreage.

The fertile, productive farmland of Santa Clara County has the remarkable potential to provide a significant volume of fresh, local food to the urban centers of San Jose, the South Bay, and the greater Bay Area. Santa Clara farmers continue to have access to affordable irrigation water through the local water district – an increasingly important benefit for a California agricultural region.

Santa Clara County agriculture also provides a diversity of environmental benefits. The Coyote Valley and southern Santa Clara County provide key linkages between the wildlife habitats of the Santa Cruz Mountains and the Diablo Range. In addition to creating wildlife corridors for migrating and far-ranging species like mountain lions, Santa Clara County’s agricultural land is home to many unique plant and animal species.

As the cities of Santa Clara County have spread out over the fertile valley, virtually all of the agricultural land lost has been the most important and productive farmland. The loss of this prime cropland has accelerated during the past decade. According to the California Farmland Mapping and Monitoring Program, the County lost almost 50 percent of its prime cropland between 1990 and 2008.

Figure 7.2 Santa Clara County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Markets and Value-Added Activities

While Santa Clara County has a wealth of small-scale farming that is adjacent to major urban centers, there is very little agriculture tourism or agricultural marketing showcasing the county’s farming. Despite increased interest in local food, farmers’ markets and community-supported agriculture (CSA) programs, direct marketing in Santa Clara County has declined over the past decade. The County Crossroads Farm Trails map produced by the local farm bureaus lists a handful of roadside stands in southern Santa Clara, but information about local farming is not widely disseminated. While San Benito County has begun to promote farming in the Panoche Valley, Santa Clara County is one of the few Bay Area counties that does not have a Buy Fresh Buy Local or other agricultural marketing program.

Policy Influences on Farmland and Agriculture

Santa Clara County has a policy that prohibits urban development in unincorporated areas of the county, and has designated the unincorporated valley floor south of San Jose as “agriculture.” Cities in Santa Clara County can only annex land within their Urban Service Area, as approved by the Local Agency Formation Commission (LAFCO). Santa Clara County LAFCO and the City of Gilroy have adopted agricultural mitigation policies, and Morgan Hill is considering a similar policy. The Santa Clara Open Space Authority is considering partnering with local jurisdictions to implement their agricultural mitigation policies. However, the policies that have been adopted have not been strong enough to mitigate for the loss of farmland. For example, the Gilroy agricultural mitigation policy has a limited definition of farmland that triggers the mitigation requirement. Advocates are working to strengthen the agricultural mitigation policies proposed in the City of Morgan Hill.

The Santa Clara County Open Space Authority (SCCOSA), formed in 1992 and funded through public assessments, is successfully conserving open space, habitat, parkland, and agricultural land. SCCOSA has agricultural easement on 1,090 acres of farmland and 1,390 of hillside grazing land. Over the past three years, the SCCOSA has been working to clarify its agricultural conservation policies. The Silicon Valley Land Conservancy, a nonprofit land trust, holds easements on 1,620 acres of agricultural land

south of Gilroy. However the SVLC has not been active for several years. Agricultural conservation measures in Santa Clara County have been fractured. While no conservation organization has emerged with both the capacity and the policies necessary to accept local government agricultural mitigation funds or easements, advocates and SCCOSA are working closely to develop capacity.

The past year has brought some positive developments in Santa Clara County. Board of Supervisor Chairman Ken Yeager is a vocal supporter of both the urban food movement and Santa Clara County agriculture. Supervisor Yeager included comments about local agriculture and food security as part of his State of the County Address this January, and he has assigned a staff person to focus on the issues. The Board of Supervisors has been aggressive about legislating on nutrition and food issues, passing the nation's first ordinance banning toys in fast food restaurants in April.

The City of San Jose is currently in the midst of a General Plan review. The General Plan Task Force has recommended that the prime agricultural area of Coyote Valley be removed from development consideration and conserved for open space and agriculture. The Task Force has also recommended other policies to support local agriculture, increase healthy food access, and strengthen the City of San Jose's urban growth boundary.

Challenges and Opportunities

Smart growth has been slow coming to the rapidly growing cities of southern Santa Clara County. Without a countywide growth boundary, the cities of Morgan Hill and Gilroy have expanded into surrounding agricultural land. Development pressure has resulted in some of the highest land values in the Bay Area, reflecting speculation that the remaining farmland will soon be urbanized. Uncertainty about future land use has had a major impact on farming in southern Santa Clara County.

While there are large-scale agricultural lands to the east and south of Gilroy, many of the remaining agricultural areas in southern Santa Clara County are characterized by small parcel size. Seventy-five percent of the farms in Santa Clara County are 50 acres or less, with over 40 percent under 10 acres. Consolidation of California agriculture, competition from foreign imports, and the dismantling of local agricultural infrastructure have made it difficult for Santa Clara farmers to continue to compete in traditional commodities markets. Many farmers report it is no longer profitable to farm on the urban-edge of southern Santa Clara County.

Because of land use uncertainty and declining commodity market profits, agricultural property owners are hesitant to make capital investments in their farming operations, develop new niche markets or build agricultural tourism. Many have given up farming or lease the land for hay production. Some land owners acquired the land solely for its future development potential. In an interesting recent development, the City of Morgan Hill hired an agricultural consultant to analyze whether agriculture is still economically viable within Morgan Hill's sphere of influence. While the consultant acknowledged that large-scale production agriculture around Morgan Hill may not have an economically sustainable future, he found that small-scale farms emphasizing direct marketing and local sales remained viable.

Recently, new threats to the future of farming in Southern Santa Clara County and the Panoche Valley have surfaced. It is likely that the future California high speed rail will travel through the Santa Clara Valley. High speed rail could lead to further urbanization on the valuable agricultural lands of southern Santa Clara County. Farmers in Panoche Valley face the possibility that a proposed 4,717 acre solar "farm" will cover almost one-quarter of the valley floor.

Initiatives and Goals

Southern Santa Clara County has active and informed grassroots community groups that advocate for the protection of open space, habitat and agricultural lands. The activists in Morgan Hill, Gilroy, and Panoche Valley who are engaged daily with their city councils and local governments have a deep understanding of agricultural conservation issues in their area. The South Valley Environmental Collaborative brings these local groups together monthly with the Committee for Green Foothills and Greenbelt Alliance to discuss regional issues.

San Jose has been a leader in the urban agriculture movement for decades. The City of San Jose has nineteen community gardens, many of which have waiting lists of over a year. Organizations like Collective Roots and Full Circle Farms in Sunnyvale have built a strong base for urban farming in Santa Clara County. Deer Hollow Farm in Mountain View and Prusch Farm Park in San Jose are both educational farms that provide opportunities to experience Santa Clara agriculture. The Martial Cottle Park, a 290-acre agricultural park planned in San Jose, will be another significant urban agriculture center.

Over the past year, The Health Trust has brought together an alliance of urban agriculture, nutrition, and food justice advocates to form the Silicon Valley Food System Collaborative. The SVFSC is funded and staffed by The Health Trust and is well organized. SVFSC commissioned the recently published Food Access Assessment by Public Health Law and Policy, and is considering sponsoring a Santa Clara Ag Futures Alliance. While members of SVFSC have met with local farm bureaus and agricultural commissioners about local farming, SVFSC is primarily focused on urban agriculture and food access.

Insights and Analysis

Santa Clara County farmers have grown food for the Bay Area for generations. Once one of the nation's greatest agricultural regions, Santa Clara County continues to lose valuable farmland to urban development. Farmland protection remains the key issue in Santa Clara County. Strengthening county and city agricultural zoning protections and mitigation policies is essential if Santa Clara County is to save its remaining prime agricultural land.

While there is a remarkable, energetic network of grassroots activists aware of the importance of conserving the farmland of southern Santa Clara County, no conservation organization has been able to consistently pursue agricultural conservation.

While Santa Clara County farmers continue to produce a remarkable variety of fresh fruits and vegetables, they have not taken advantage of the emerging local food movement through agricultural tourism and a regional marketing program. Increasing visibility for Santa Clara agriculture may be a particularly powerful tool in a county with such a strong and politically popular urban agriculture, food justice, and nutrition and food access movement.

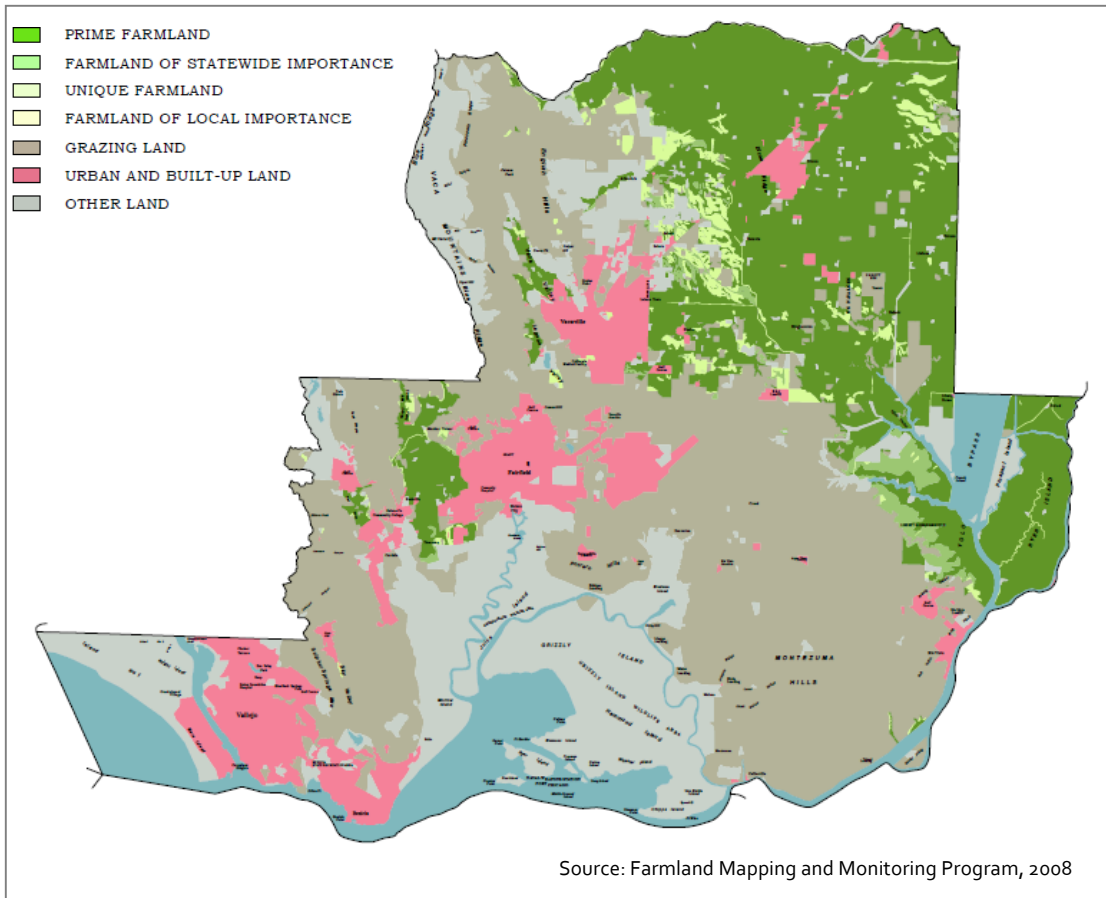


Solano County²

For many, the experience of Solano County is limited to a drive-by view from Interstate 80 between the Bay Area and the Sacramento Valley. Largely out of sight of the freeway, the diverse working landscape encompasses the bayside fields and the Montezuma Hills near the Sacramento Delta, and to the north and west, Green Valley, Suisun Valley, and the Dixon plain. Despite recent urban growth, agriculture still dominates the County's landscape with nearly 900 farmers and ranchers exhibiting tremendous diversity. Over 80 different crops grow in Solano, including fruit and nuts, vegetables, seeds, nursery, wine and olive oil, field crops, and livestock and livestock products. The county's agricultural sector is valued at over \$290 million, placing it third in agricultural production value among the Bay Area counties after Sonoma and Napa, and contributing significant benefits to the Solano County economy.

vegetables, seeds, nursery, wine and olive oil, field crops, and livestock and livestock products. The county's agricultural sector is valued at over \$290 million, placing it third in agricultural production value among the Bay Area counties after Sonoma and Napa, and contributing significant benefits to the Solano County economy.

Figure 8.1 Solano County, Important Farmland 2008



² With the authors' permission, this report includes analysis and stakeholder perceptions captured in the four reports produced for the Solano County Ag Futures Project, by Alvin D. Sokolow and Kurt R. Richter, University of California Agricultural Issues Center. 2007.

Solano County Agriculture Today

Table 8.1 Solano County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	177,561	153,298	-14%
Grazing	205,626	204,518	-1%
Number of Farms	1997	2007	% Δ
Total	795	890	12%
Producing \$10,000 or Less Per Year	403	525	30%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$1,013	\$1,337	32%
Annual Value of Production at Farm Gate (Inflation adjusted)	2000	2008	% Δ
Total	\$228,835,485	\$292,840,200	28%
Fruit & Vegetable Crops	\$78,746,898	\$99,660,100	27%
Other Crops	\$113,412,633	\$161,218,800	42%
Livestock Products	\$36,675,953	\$31,961,300	-13%
Leading Production, 2008	Value	Acres	
Field Crops & Pasture Land	\$89,365,400	305,470	
Nursery Production	\$43,056,300	1,421	
Livestock	\$31,961,300	n/a	
Processing Tomatoes	\$29,850,600	10,000	
Miscellaneous Vegetables	\$25,772,900	2,404	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

Agriculture in Solano County encompasses 362,000 acres, 62 percent of the county and 81 percent of the unincorporated area. Production consists of about 12,400 acres of cultivated vegetable crops, 17,000 acres of fruit and nut crops, 300,000 acres of field crops, and just over 1,000 acres of nursery crops.

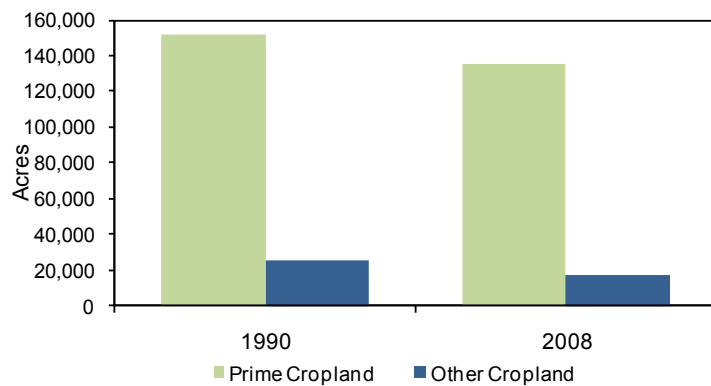
Between 2000 and 2008, the value of the county's agricultural production increased by 27 percent, and the acreage in production grew by 6 percent. Vegetable and fruit crops increased in value by 28 percent. Almond and walnuts saw the greatest value growth among the fruit and nut crops with 406 percent and 313 percent growth, respectively. While field crops continued to represent the single highest value agricultural product in 2008 (valued at over \$89 million), vegetable and orchard crops combined surpassed the value of field crops at nearly \$100 million dollars. Top producing food crops include processing tomatoes (\$29.9 million), miscellaneous vegetables (\$25.8 million), and walnuts (\$19.9 million). Livestock production plays a significant role in the agricultural economy, valued at \$32 million and representing 11 percent of the total market value in 2008—slightly higher in value than the leading food crops.

The majority of the county's agricultural land is in grazing, which currently makes up 57 percent of all agricultural land in the county. Solano is rich with prime cropland, which makes up 39 percent of all agricultural land and represents 89 percent of all of the county's cropland.

The county has rapidly urbanized in recent decades, resulting in the loss of farmland. In 2008, the state's Farmland Mapping and Monitoring Program inventoried 153,298 acres of cropland in Solano County, a 14 percent loss from the number of acres found in 1990. Much of the loss occurred in prime cropland, which experienced a loss of over 16,000 acres, an 11 percent decline, over 18 years. Cropland loss has primarily been a result of conversion to grazing land,

urbanization, rural low-density residential housing, and the addition of dairies and confined livestock, manufacturing plants, farm ponds, natural reserves, wetlands, and recreational land.

Figure 8.2 Solano County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

In an effort to preserve important agricultural areas, the County has recognized ten distinct agricultural regions in its General Plan, each characterized as a separate farming system according to commodities grown, soil conditions, cultivation practices, and water conditions. These regions include Winters; Dixon Ridge; Elmira and Maine Prairie; Montezuma Hills; River Island; Suisun and Green valleys; Pleasants, Vaca, and Lagoon valleys; Jepson Prairie; and Western Hills. Three of these regions are particularly significant to the economic health of agriculture in Solano. The Winters region has the top per acre market value because of its high-value nut and other crops. Dixon Ridge has the best combination of soils, water, and infrastructure, allowing row crop production that adapts quickly to market price demands. The Suisun Valley has greater growing restrictions, but could potentially have the highest value per acre of production in the county as it transitions from fruit tree to wine production.

Among the ten agricultural regions in the county, water needs and irrigation methods vary. Many farms and ranches depend on elaborate systems of irrigation and drainage. Designed to move water to and through large parcels, these systems have been upset by land divisions that create rural home sites. Water for irrigation is provided by three sources: irrigation districts (Solano Irrigation District, Maine Prairie and Reclamation District No. 2068); sloughs from the Sacramento River and Putah Creek; and groundwater wells.

Markets and Value-Added Activities

There is no one particular type of farming operation that typifies Solano County agricultural producers. Some growers operate large row crop or livestock enterprises of hundreds or thousands of acres, selling in national and international markets. Other producers operate at a much smaller scale, some growing produce for nearby urban niche markets. For many Solano County farmers and ranchers, processing facilities provide the principal market for their commodities. While some of these growers are still able to ship to local plants, the majority of processing takes place outside of the county.

Two notable local processing facilities are located in Dixon: Superior Farms for lamb processing (the only lamb slaughter house west of the Rocky Mountains) and Campbell Soup (the only outlet for local tomato producers). Solano is also home to Dixon Ridge Farm, one of the country's leading organic

walnut producers and processors, which distributes throughout the US and worldwide. Mariani Packing Company serves as the Solano's primary dried fruit facility and also operates a nut processing facility in nearby Yolo County. Currently, cattle are auctioned in Galt (Sacramento County) or are sent to the closest USDA inspected livestock processing plant in Oroville (Butte County). More local processing options could provide opportunities to market source-identified local beef. Walnuts and wheat are sold wholesale to local plants and are rarely sold direct to local markets. Whether or not a processing facility is conveniently available greatly determines the types of food produced locally and whether producers can take advantage of value-added opportunities.

Due to the dominance of vertically-integrated agriculture in Solano County, the majority of farmers do not pursue direct-to-consumer markets. Accessing local markets has been an increasing concern to the county's agricultural community for over a decade. Many Solano County producers believe that local and regional markets for farm commodities are untapped, especially for small farmers. Statistics about sales direct to consumers in the years between 1997 and 2007 confirm this belief. The county's direct-to-consumer sales hovered between one percent and three percent of the county's total food production value. Between those years, the value of production that was sold direct-to-consumers dropped by 32 percent, and the number of farms participating in direct market decreased by 20 percent. Direct marketing is mainly utilized by farmers in Suisun Valley, Green Valley, and along Pleasants Valley Road, where there are a few small producers growing cherries, pears, apricots, and other fruit for the fresh fruit market. The majority of the production from these farms is sold either on-farm or to local markets. While direct marketing may not make sense for many operations, organic production has soared over the past several years in Solano, increasing by over 300 percent from 2002 to 2007. The number of farms using organic production methods grew by almost 150 percent during this time.

Agritourism, though not a source of extensive farm-related income historically, has also grown substantially. With only three farmers reporting a total income of \$100,000 in 2002, by 2007 this number grew to 13 farmers who reported a total of \$1,742,000 from agritourism activities. Solano agriculture offers many opportunities for tourism enjoyment and experience. The Solano Land Trust hosts hikes, tours, and special events throughout the year. The Center for Land-Based Learning is a leading public education facility. The Suisun Valley offers year-round visitor experiences. Because of their accessible location, pumpkin patches and corn mazes near the interstate boast some of the highest visitation rates in the Bay Area.

Policy Influences on Farmland and Agriculture

Urban growth is one of the largest threats to agriculture in Solano County. In 2008, the County updated its General Plan with many new policies and implementation measures that intend to protect farmland from further urban development and enhance its economic viability. New General Plan language now makes distinctions in agricultural zoning designations that focus on the most productive agricultural regions, and include policies that encourage the location and retention of processing facilities and other outlets for agricultural commodities. The County is also considering an incentive program to encourage development of local processing facilities, a transfer of development rights program, mitigation policies, and an agricultural mitigation bank. City expansion continues to be held in check by policies and tools such as the Local Area Formation Commission's control over annexation, municipal urban growth boundaries in place in the cities of Benicia, Fairfield, and Vacaville, and the voter-approved growth restrictions originating from Solano's Orderly Growth Initiative and the County General Plan.

In 2006, Solano County commissioned the University of California to conduct the Solano Agricultural Futures project, a study that detailed the problems and future prospects of local agriculture. Many of the new policies and programs in the County's 2008 General Plan update were a result of the project's recommendations. In addition to measures mentioned above, the updated General Plan lays out an agricultural economic development strategy that includes the development of strategic marketing and economic plans for each of the 10 agricultural regions. The County has since completed the Suisun Valley Marketing Plan and has begun work on the Dixon Ridge Agricultural Region Strategic Plan. The General Plan implementation plan also included the creation of two positions within the Resources Management Department that have been essential in providing regulatory assistance to producers. Unfortunately, these positions were recently eliminated due to County budget reductions.

Challenges and Opportunities

The unique location of Solano County, sandwiched between two of the State's major metropolitan regions and bisected by a major interstate travel corridor, has had significant consequences on Solano's agriculture and farmland. Between 2001 and 2006, land prices nearly doubled, and low interest rates and low land values (compared to the Bay Area) fueled land speculation and rural home site purchases. The County's land use controls for rural home sites have been generally weak, which has further stimulated competition for land. While the larger farms in the eastern portion of the county are relatively distant from growth pressure, smaller-scale agriculture in the western portion continues to experience competition for land, primarily for rural residences. This has driven the price of land beyond the threshold of viability for agricultural production, and has resulted in many farmers shifting from traditional production to value-added production, asset sharing among growers, and direct marketing to urban consumers.³

As the county continues to urbanize, competition for water resources continues to increase. As agricultural land has been divided into rural residential parcels, the ability of public water agencies to deliver water to farmland has become increasingly complicated. In addition, an endangered species restoration project at the Lower Yolo Bypass, a massive levied floodway located west of the Sacramento River, may soon create additional requirements regarding water. Recently, a biological opinion rendered by the Bay Delta Conservation Plan ordered the creation of endangered species habitat (dendritic wetlands for Delta Smelt) in the Lower Yolo Bypass. The bypass currently provides drainage for much of Solano County's and Yolo County's agricultural production. A hatchery in this area, while beneficial for endangered species recovery, could create additional requirements on upstream agricultural users to maintain water quality.

While Solano County's agriculture has suffered land loss and some barriers to economic growth, the industry is strongly rooted in the county's economy. County government recognizes the importance of supporting and promoting its viability and expansion. This is evidenced through the recent myriad efforts driven by the County, including the County-commissioned Solano Ag Futures study, inclusion of a comprehensive set of land-use and economic development policies in the General Plan update, development of strategic marketing and economic plans for each of the 10 agricultural regions, and the food cluster development strategy led by the Solano Economic Development Corporation. Through this concentration of efforts, over time, the agricultural community may see increased support for value-added infrastructure, marketing, and agricultural support services necessary to expand farm businesses.

³ *Agriculture in Solano County: Current Patterns and Recommendations*. Agricultural Issues Brief. Alvin D. Sokolow and Kurt R. Richter, University of California Agricultural Issues Center. 2007.

Initiatives and Goals

In 1999, the County Board of Supervisors sponsored a Summit of Agriculture where different agencies, interest groups, and community members discussed the problems and possible solutions facing agriculture. The Summit involved several town hall meetings and culminated in an event with over 100 attendees. Local marketing issues emerged as a key issue. Action items from the event included the creation of a marketing and economic development task force and an agricultural advisory committee. Although the former has not been fully realized, an Agricultural Advisory Committee now reports to the Board of Supervisors. Their agenda includes work on marketing, value-added production, water, and conservation issues. The County, in partnership with the U.C. Cooperative Extension office and with the aid of a USDA grant, is currently developing a “Solano Grown” branding label and website to help producers market their products.

The Solano Economic Development Corporation (EDC) has also engaged in economic development efforts for the agriculture industry. They are currently developing a cluster development strategy for Solano’s larger-scale commodity crops to strengthen markets by increasing linkages between local producers and processors. As a part of the strategy, the EDC will take the lead in recruiting processors and agricultural support industries to Solano County.

The Solano Land Trust was formed in 1986 with the goal to permanently protect and preserve farmland, ranch land, and open space in the county. As of 2007, the Trust has permanently protected 19,403 acres through acquisition, conservation easements, education, and land management. Of that, 7,704 acres is farmland protected under conservation easements. In 2002, the Trust issued the Agricultural Conservation Easement Plan, with the goal to protect between 20,000 and 40,000 acres of agricultural lands with conservation easements over the next 20 years, or about 1,000 to 2,000 acres annually.

Insights and Analysis

Solano is one of the most diversified and fertile agricultural landscapes in the region. The County’s updated General Plan reflects a community committed to the protection and economic viability of its agricultural industry. However, the county, geographically situated between two major metropolitan regions, will only continue to face the challenges of urban growth and increased land values. Time will tell whether the County’s new General Plan policies and the strategic marketing and economic plans for each of the 10 agricultural regions will strengthen the existing agricultural economy and position it to compete with urban growth. The efforts of the County and the U.C. Cooperative Extension office to promote a “Solano Grown” brand, along with more liberal regulations for value-added business, could provide the county’s producers with tools to links to the broader Bay Area foodshed. Solano’s vertically integrated agricultural economy, absent of any direct marketing, has succeeded in maintaining its dominance in the county. While some vertically integrated producers may seek untapped markets in the Bay Area, their current model is likely to predominate well into the future. In the presence of increasing urban growth pressure, the economic viability of smaller farms will depend on their ability to achieve greater business diversification, including value-added products and direct-to-market sales.



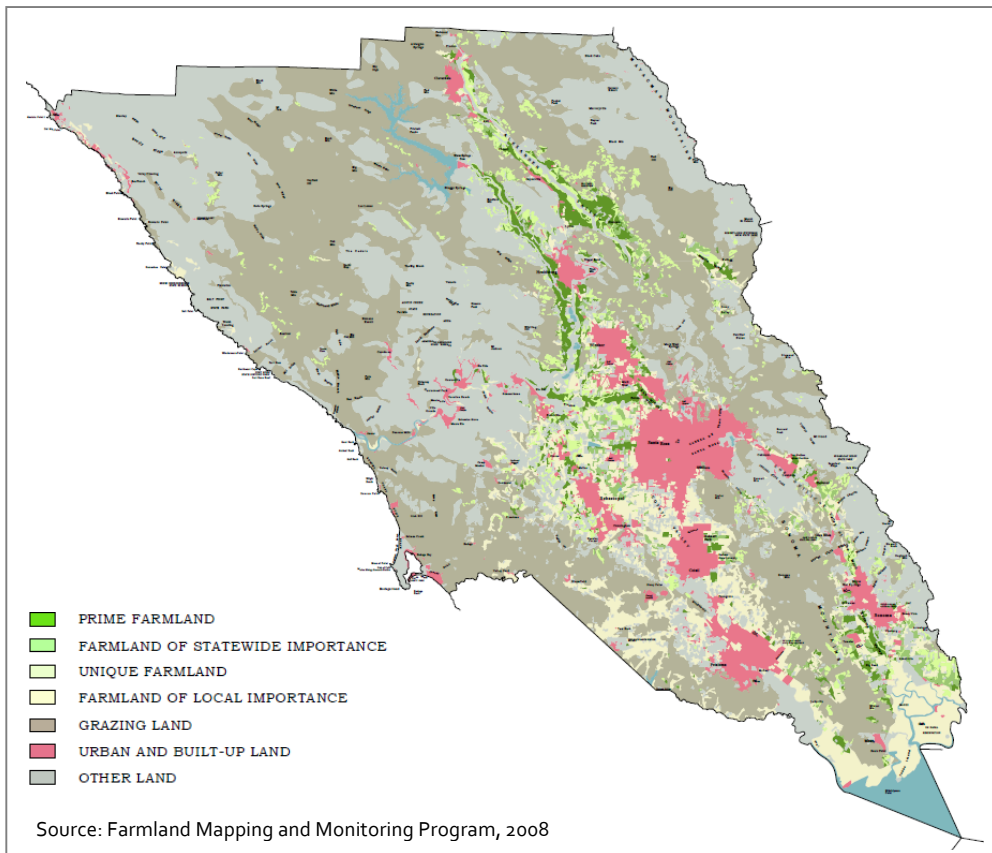
Cook Ranch. Source: Sonoma County Agricultural Preservation and Open Space District.

Sonoma County

The diverse and beautiful landscape of Sonoma County is shaped by watersheds. The Russian River, fed by creeks running through fertile side valleys, emerges into a broad plain and flows west through the cool coastal range to the ocean. Small creeks drain from the Sonoma Mountains into the Petaluma River and Valley of the Moon to fields and marshes along the San Pablo Bay.

For generations, Sonoma County ranchers and growers have used Sonoma’s varied microclimates, rolling rangeland, and rich river valleys to raise sheep, dairy and beef cattle, goats, grapes and other crops. The mild climate, beautiful vistas and rural charm have also made Sonoma County one of California’s most popular tourist destinations. About 7 million people visit Sonoma County annually to tour the vineyards, appreciate award-winning wines, hike the hills, refresh at the spas, and take part in an artisan food culture. Visitors enjoy locally made cheeses, local bakeries, fruit and vegetable stands, pastured eggs, and locally raised meats. The agricultural sector was valued at almost \$600 million in 2008, contributing to the county’s \$1.35 billion tourism industry. Wine grapes dominate Sonoma’s agricultural landscape, with milk the second highest dollar volume agricultural product in the county.

Figure 9.1. Sonoma County, Important Farmland 2008



Sonoma County Agriculture Today

Table 9.1 Sonoma County Agricultural Statistics

Acres of Agricultural Land	1990	2008	% Δ
Cropland	170,905	160,218	-6%
Grazing	445,236	419,003	-6%
Number of Farms	1997	2007	% Δ
Total	2,745	3,429	25%
Producing \$10,000 or Less Per Year	1,281	1,479	15%
Regionally Serving Agriculture	1997	2007	% Δ
Farm Products Sold Directly to Consumers (\$ Thousand)	\$3,862	\$4,803	24%
Annual Value of Production at Farm Gate (Inflation Adjusted)	2000	2008	% Δ
Total	\$723,937,491	\$593,407,000	-18%
Fruit & Vegetable Crops	\$494,506,271	\$398,792,800	-19%
Other Production	\$117,159,742	\$82,608,500	-29%
Livestock Products	\$112,271,477	\$112,005,700	0%
Leading Production, 2008	Value	Acres	
Wine Grapes	\$381,092,000	55,431	
Livestock & Poultry Products	\$112,005,700	n/a	
Livestock & Poultry	\$45,665,400	n/a	
Nursery Production	\$28,794,500	n/a	
Vegetables Crops	\$9,058,000	543	

Sources: County Agricultural Commissioner's Crop Report, 2000 & 2008; California Farmland Mapping and Monitoring Program, 2008; USDA Census of Agriculture, 1997, 2002, & 2007.

Production, Producers, and Places

Sonoma's 3,429 farms and ranches cover almost 580,000 acres, about 56 percent of Sonoma County. Of this total acreage, 345,000 acres are dedicated to rangeland, 55,000 acres to wine grapes, 17,000 acres to pasture and field crops, 3,500 acres to other fruit crops, and over 500 acres to vegetable crops. Most vegetable and fruit producers are located near urban areas. Primarily located between Healdsburg and Sebastopol, most of these farms are small-scale operations that grow produce for nearby urban niche markets. Sonoma's "dairy belt" represents the majority of the county's rangeland, and includes ranching and dairy operations located mostly in the grassy coastal areas of western Sonoma, an area also rich with biodiversity. Sonoma's renowned high-quality wines are produced by about 200 wineries located on terraced hills in both the eastern and western portions of the county.

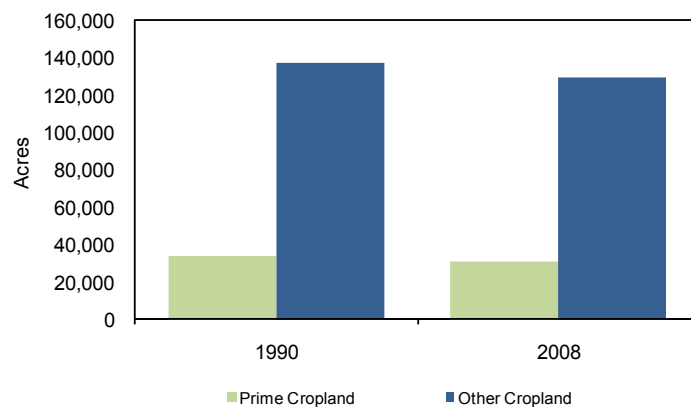
Between 2000 and 2008, the value of the county's overall agricultural production decreased by 18 percent. Valued at \$724 million in 2000, Sonoma's total agricultural output fell to \$593 million by 2008 (adjusted for inflation). With the exception of a 20 percent increase in the production value of vegetable crops, all other crops have seen a decline. The overall production value of fruit crops decreased by 20 percent due primarily to lower yields in wine grapes. Although the production value of wine grapes declined by 21 percent, land dedicated to this crop is steadily growing with a 31 percent increase in acreage from 2000 to 2008. Other notable declines in value during this period, were in livestock and poultry (32 percent) as well as nursery production (30 percent).

Though yields have declined, Sonoma’s top producing crop is still wine grapes, valued at over \$381 million in 2008, and representing 64 percent of the county’s agricultural value. Milk is the second highest value agricultural product and makes up 16 percent (\$95,630,800) of the county’s total agricultural value. Poultry birds have the third highest value, representing almost 6 percent (\$33,448,500) of the county’s total agricultural value.

Water for food production is limited in Sonoma County due to local shortages and competition with urban consumers. In response to over-drafting, there is now a mandatory ground-water extraction monitoring program in place throughout the Russian River Valley area. The County also encourages, and California law allows, the use of reclaimed water for irrigation, including irrigation of food crops. However, the county’s growers have chosen to primarily rely on groundwater due to concerns over public perception of reclaimed water quality. As a result, this supplemental water source is primarily used for crops that feed livestock.

In 2008, the California Farmland Mapping and Monitoring Program inventoried Sonoma County’s agricultural land and reported a loss of over 10,000 acres of cropland, a 6 percent decrease since 1990. Over the same period, the county saw a 9 percent drop in prime cropland acreage. Grazing land lost 6 percent during this time. Many of the changes were due to development of housing, commercial areas, and golf courses. During this same time, thousands of acres of farmland were added or upgraded due to new vineyards, primarily in the valleys and lowland areas of the county. This conversion to vineyards has resulted in the widespread loss of apple orchards and vegetable crops.

Figure 9.2 Sonoma County Agricultural Land Trends



Source: California Farmland Mapping and Monitoring Program, 2008.

Markets and Value-Added Activities

Value-added activities are significant in Sonoma County’s agricultural sector. Organic and fresh food products have bolstered the food-processing industry in the county, helping it to become a key regional industry. Dairy and poultry products are among the primary foods processed in the county. There are significantly fewer vegetable- and fruit-based processing operations.

Currently, the majority of Sonoma’s vegetable and fruit growers (with the exception of wine grape growers) operate by selling direct to farmers’ markets, community-supported agriculture (CSA), and roadside farm stands. The county was once home to a significant number of apple processing facilities. Most fruit producers today engage in small-scale processing for direct market sales rather than selling to local processing operations. However, since Sonoma’s food processors largely utilize local and regional sales outlets, the infrastructure for value-added activities and local distribution is strong and has the potential to provide farmers and ranchers increased opportunities for new markets.

Even though the majority of Sonoma’s fruit and vegetable growers rely on farmers’ markets, CSAs and farm stands to sell their products, direct market sales still represents only one percent of the value of

the County's food crops. This low percentage is due to the fact that overall, fruits and vegetables, which are the majority of direct market sales, represent less than five percent of Sonoma's agricultural output. Between the years of 1997 and 2007, the value of direct market sales grew by only 24 percent (from \$3,862,000 to \$4,803,000, adjusted for inflation), and the number of farms (362 farms) selling direct to market grew by only a dozen.

One niche activity that some producers and processors are trying to revive is the 100-year-old tradition of sheep ranching, which was once a leading agricultural industry in Sonoma. With the help of companies like Field to Family which offers centralized sales and merchandising support, ranchers have pursued aggressive marketing and branding to distinguish locally produced lamb from imported lamb meat and have been successful in cultivating new markets such as Bay Area and Reno Whole Foods and restaurants.

Organic fruit and vegetable operations have shown tremendous growth in Sonoma. Within five years (2002 to 2007) the market value of organic production rose from \$6.6 million to \$58.2 million. The number of new and organic farms grew by only nine percent, indicating a significant increase in the number of existing farms that have transitioned to organic production. This transition is particularly true among Sonoma's dairy farmers.

Value-capture from the region's ecosystem services also lends opportunities to Sonoma's agricultural industry. Sonoma's UC Cooperative Extension office (UCCE) is exploring the potential for carbon sequestration to provide increased income to ranchers while maintaining livestock as a viable industry and improving the health of rangelands in the county. Grassland ecosystems managed for livestock production represent a large portion of the county's landmass and play a crucial role in the storage of carbon in soil and vegetation. The UCCE is conducting research to understand carbon sequestration potential in rangeland soil on local dairies and ranches. The goal is to determine which "best management practices" will improve carbon sequestration, giving landowners options to maximize revenues through connections with a local carbon economy, while contributing significantly to the sustainability of local agriculture.

Sonoma's growing agritourism offers other opportunities for boosting on-farm income. In 2007, 46 Sonoma farmers reported agritourism income totaling over \$1.9 million. The Sonoma County Farm Trails Association, with over 100 members, is one of the most vibrant farm trails associations in the Bay Area. Its membership includes farms, wineries, markets, inns, and related businesses. The Association promotes both on-farm experiences and activities in rural towns. The county's agritourism offerings include events steeped in tradition, such as the Gravenstein Apple Fair and innovative activities such as Land Path's farm-to-farm walking trail.

Policy Influences on Farmland and Agriculture

In some ways, Sonoma County appears to have a model of sound anti-sprawl land-use policy. Over the past two decades, Sonoma voters have approved urban growth boundaries around all nine of the county's cities, a policy tool to help concentrate growth in existing urban communities.⁴ Two other components that comprise the County's growth policies include the Community Separators policy, which aims to avoid corridor-style urbanization, and the Scenic Landscape Units policy, which maintains scenic resource areas to provide important visual relief from urban densities. The combined goal for these policies is to keep the visual identity and rural character of the communities by promoting low-

⁴ *Preventing Sprawl, Farmers and Environmentalist Working Together*. Greenbelt Alliance & Sonoma County Farm Bureau. 2004

density development in between urban centers. However, while the goals of these policies deserve merit, pressures of urban development and rural ranchettes continue to threaten agricultural production in some areas. Additionally, although urbanization has historically been the primary cause for the loss of agricultural lands, vineyard development has increasingly been the cause of diminished grazing lands and vegetable production.

Sonoma is one of the few jurisdictions in the nation to use a sales tax for the purchase of conservation easements to protect agricultural lands and preserve open space. In 1990, county residents voted to create the Sonoma County Agricultural Preservation and Open Space District, which has used funds raised from a local sales tax to acquire or protect 75,000 acres of land. In 2008, residents voted to continue this tax.

While land-use and growth policies have been successful in managing urban growth, the County lacks economic development policies that support the economic viability of agriculture. The General Plan outlines several goals that aim to promote the county's agricultural sector; however it does not offer a comprehensive set of policies or implementation programs to address the varied needs of the county's diverse agricultural operations. The UCCE office, the Agricultural Commissioner's office, and the Sonoma Farm Bureau have been working together to address the policy gaps, but have not yet received adequate financial or political support.

Challenges and Opportunities

Like many other Bay Area counties, land values and the cost of living in Sonoma County have escalated over the past decades. As wine grapes became the predominate crop in the 1980s, as the tourism industry boomed around successful wineries, and as the Bay Area's commute shed reached further north, many of the large food crops that were once common in Sonoma have shrunk or disappeared in lieu of higher-value economic activities. The agriculture that remains in Sonoma County reflects two distinct characteristics: one that is centered on the wine industry and tourism; and one that remains rooted in the production of food for local and regional markets. For the latter, several challenges pose risks to future existence. Land values have risen so high that producers are unable to compete for land. Many have sold their land or entered into long-term contracts for grape production. Furthermore, with the cost of living among the highest in the Bay Area, Sonoma has lost young farmers and ranchers, many of whom find it too expensive to expand their operations and have opted to farm in more affordable areas of the state. In other cases, as older generation farmers and ranchers pass away, family members have opted to sell the land and cease farming altogether, a risk to Sonoma's farming future that some believe overshadows all others.

Despite the County's strong land-use policies, the county has lost an alarming number of local producers due to high land values as well as the lack of a solid agricultural infrastructure and support for innovation and business expansion. Sonoma's producers would benefit from economic development support such as innovative financing to expand operations and take advantage of agritourism. Additionally, with the food processing industry taking a major role in the county's economy, there is potential for small producers to diversify their own operations with added-value products.

Initiatives and Goals

The Sonoma County Agricultural Preservation and Open Space District remains one of the primary proponents supporting the county's agriculture land base as well as the sector's economic viability. Local farmers benefit from an immediate injection of funds into their operations when the District purchases conservation easements. Annual operating revenue also improves due to reduced property

taxes resulting from the easement. This model provides tremendous economic development potential. The Sonoma Land Trust and the Bodega Land Trust are other local conservation organizations that have worked collaboratively with the District to protect agricultural lands with easements.

The District has also recently launched a Small Farms Initiative. Recognizing that vegetable farms provide a valuable benefit to the community and the local economy, this program focuses on the economic viability of small-scale agriculture. With the Small Farms Initiative, the District leases land to farmers who grow vegetables, flowers, herbs, and berries. These leases keep lands that are zoned for agriculture in production and allow access for experienced farmers who may not otherwise be able to find land. Another goal of this initiative is to support land for secondary services that producers depend on such as distribution, aggregations, and processing.

In addition to the UCCE's carbon sequestration project, the UCCE office developed a pilot project called the Sonoma County Meat Buying Club. This Club worked with local livestock and poultry producers, to create a three-tier system for consumers to purchase local meat. Similar to a vegetable community-supported agriculture (CSA), this Club offered local consumers options for buying meats, highlighting and strengthening the local food economy in the county. The club, which no longer operates, acquired over 400 members, enhancing local marketing opportunities for the county's livestock producers and generating supplemental income streams that have helped keep ranching operations viable.

Insights and Analysis

Sonoma County boasts many of the factors that make it an ideal setting for agriculture. Its urban growth boundaries around the cities provide some of the strongest land-use protection in the Bay Area. Community support for agricultural preservation is strong, with a sustained local funding mechanism in place through a countywide sales tax. The tourism industry offers many opportunities to farmers and ranchers. The availability of recycled water for crop production provides a boost to the water-strapped region. However, land values and competition from distant and more fertile agricultural regions, has created a competitive disadvantage for many of Sonoma County's food producers, driving them to seek niche crops and more relationship-based local markets.

Wine production and tourism will continue to be major contributors to Sonoma's future. As land values escalate and wine grape growers, rural estate homes, and Bay Area commuters increasingly consume grazing land and fertile farmland, the land available for food production in Sonoma County is likely to continue to diminish in future decades. The County needs to assess its interest and willingness in continuing its history of local food production. Sustaining the county's food producers will require that land-use protection policies must be supplemented with economic development support that encourages value-added production, agritourism, and the crediting of ecosystem services. As Sonoma and Bay Area residents increasingly seek out sustainable and locally grown food, demand for Sonoma's agricultural bounty will increase, and with it the value of food production in the county. However, given Sonoma's current agricultural economics, it remains to be seen if Sonoma County farmers will be able to continue to meet the demand for local food.

Toward a Bay Area Agricultural Sustainability Strategy

What emerges from this reconnaissance of Bay Area agriculture is a landscape that enjoys significant protection from urban sprawl, with some notable and troubling exceptions. What also emerges is an initial understanding of a farm and ranch industry that is struggling to compete in the global marketplace at the same time that segments of it are experiencing a renaissance by taking advantage of regional and local markets for food and agritourism. While some producers will continue to do well in global markets, it seems clear that for many of the region's farmers and ranchers – both established and nascent – the greater opportunity lies in capitalizing on the potential competitive advantage of their proximity to seven million Bay Area consumers, many of whom take pride in their region and its unique quality of life, who are sympathetic with the idea of preserving family farms, and many who have embraced the idea of eating locally.

To help agricultural producers meet the challenges they face, a regional strategy to sustain agriculture into the future is needed — a strategy that focuses on helping the industry in the Bay Area transform itself into one that can take better advantage of regional and local markets, while attempting to expand those markets themselves. Such a strategy might include the following objectives:

- Conserve the maximum amount of remaining agricultural land
- Maximize the amount of food being produced locally that is sold in regional and local markets
- Maximize farm income potential of local agricultural producers from regional and local markets (including agritourism)
- Increase access to affordable local food to all residents of the region
- Maximize the ability of regional agriculture to “produce” environmental quality and ecosystem services

To achieve these objectives, a regional agricultural sustainability strategy must address what appear to be the most significant challenges farmers and ranchers in the area:

- High cost of farmland and competition with rural estates
- The need to balance the water needs of urban and agricultural users, as well as water for wildlife
- Inadequate regional food distribution system infrastructure
- Inadequate processing facilities due to regulations that discourage them
- Inadequate financing for all of the above

In early 2011, the sponsors of the Bay Area Agricultural Sustainability Project plan to bring together leaders from agriculture, government, and other stakeholders groups to discuss these and other ideas. Our hope is that this gathering will be the beginning of a process to design a comprehensive strategy that will best serve Bay Area agriculture and everyone who benefits from it. Meanwhile, as the Association of Bay Area Governments begins to formulate its Sustainable Communities Strategy under SB 375, we invite others to join us in attempting to assure that it recognizes the importance of agricultural land – and the health of the enterprise that defines it – to the overall livability and sustainability of the region.

Bibliography

Alameda County

Studies, Reports, Articles

Alameda County Foodshed Report. University of California Sustainable Agriculture Research and Education Program. University of California, Davis. Shauna Cozad, Shawn King, Henry Krusekopf, Sarah Prout and Gail Feenstra. 2002.

Blueprint for the Tri-Valley Agriculture Enhancement Plan. The Agriculture Subcommittee of Vision 2010. April 20, 2001.

"Farmers Fear Loss of Tax Breaks—and Land," *The Bay Citizen*. July 22, 2010.

Tri-Valley Agriculture Enhancement Program. Water, Agriculture, and Markets: Phases I, II & III. Submitted to: Tri-Valley Business Council. Agland Investment Services, Inc. December 5, 2002.

Urban Agriculture in Alameda County, CA: Characteristics, Challenges and Opportunities for Assistance. University of California Small Farm Program. Kristin Reynolds, Program Representative. 2009.

Policies and Plans

Alameda County East County Area Plan. November 2000.

City of Livermore, Guide to the Agricultural Mitigation Program. Revised 2002.

Contra Costa County

Studies, Reports, Articles

Contra Costa Agricultural Marketing Plan. Brentwood Agricultural Land Trust and Contra Costa Wine Grape & Olive Growers, January 2007.

Contra Costa County: Smart Growth or Sprawl. Greenbelt Alliance, 2003.

City of Brentwood Agricultural Enterprise Report. August 28, 2001.

Policies and Plans

City of Brentwood Agricultural Enterprise Ordinance. Adopted in 2002.

City of Brentwood Agricultural Preservation Program Implementation Plan. Adopted July 22, 2008.

Contra Costa County Winery and Olive Processing Zoning. 2004.

Contra Costa County Roadside Stand and Value-Added Zoning.

Marin County

Studies, Reports, Articles

Alternative Livestock Markets Research Stage III: Preliminary Results, Marin. University of California, Cooperative Extension, Marin County. 2006.

Alternative Livestock Production & Marketing. University of California, Cooperative Extension, Marin County. 2005.

Amazing But True Fact About Marin County Agriculture. University of California, Cooperative Extension, Marin County.

The Changing Role of Agriculture in Point Reyes National Seashore. Ellie Rilla, Director, University of California Cooperative Extension, Marin County and Lisa Bush, Agricultural Ombudsman, County of Marin. 2009.

Hidden Bounty of Marin. Documentary film produced by University of California, Cooperative Extension, Marin County and Novato Public Access Television. 2008.

Meat Industry Capacity and Feasibility Study of the North Coast Region of California. Mendocino County Economic Development and Financing Corporation. 2009.

The Status of Marin County Agriculture: A Profile of Current Practices and Needs. Ellie Rilla, Director, UCCE Marin County and Lisa Bush, Agricultural and Range Management Consultant. 2003.

What the Marin Countywide Plan Update Means to Agricultural Landowners and Operators: How to Retain Your Rights Under the New Plan. Marin County Farm Bureau. 2007.

Policies and Plans

Marin County Planning and Agriculture (factsheet). Marin County Community Development Agency. 2009.

Marin Countywide Plan, 2007. Chapter 2.1 Agriculture and Food.

Marin Local Coastal Programs I & II.

Napa County

Studies, Reports, Articles

Napa Local Food Forum. Various documents found on August 17, 2010 at:
<<http://www.countyofnapa.org/Pages/DepartmentContent.aspx?id=4294971589>>

Comprehensive Planning for the Napa County Food System: A Preliminary Study of Problems and Possibilities. Joanna Winter. 2009.

"Forum plants the seed for more food to be grown in valley," *Napa Valley Register*. May 4, 2010.

"Grow local: A forum on food and local farming," *Napa Valley Register*. March 1, 2010.

How 40 years of Agricultural Preservation Transformed Napa Valley. Napa Valley Vintners. Paul Fransen. Date unknown.

"More than grapes in Napa Valley?" *Napa Valley Register*. February 20, 2010.

Policies and Plans

Napa County General Plan, 2009.

San Mateo County

Studies, Reports, Articles

Agricultural Summit Final Report, 2003.

The Pond Project Report. Sustainable Conservation. 2008.

San Mateo County Agricultural Industry Profile & Strategic Farmland Maps. Submitted by American Farmland Trust to Peninsula Open Space Trust. August, 2004.

"Withering away: Why the Peninsula's agricultural land keeps disappearing" *San Francisco Chronicle*, April 18, 2003.

Policies and Plans

Local Coastal Program Policies, June 1998. Agricultural Component.

General Plan, Rural Land Use Element, 1984.

San Mateo County Zoning Code, Chapter 21A, Planned Agricultural District (PAD).

San Mateo County Local Agency Formation Commission (LAFCO) Coastal Spheres of Influence.

San Mateo Agricultural Awareness Ordinance, October 2007.

Santa Clara County

Studies, Reports, Articles

Coyote Valley Greenbelt Report. June 2005. Prepared by SAGE for the City of San Jose. Includes interviews with a wide diversity of stakeholders.

Getting It Right: Preventing Sprawl in Coyote Valley. Greenbelt Alliance, SAGE, 2003.

Policies and Plans

City of Gilroy. *Agricultural Mitigation Policy*, adopted May 3, 2004.

City of Morgan Hill. *Agricultural Policies Study and General Plan Amendment: Recommended Approaches to Agricultural Preservation*. February 18, 2009 Prepared by Economic & Planning Systems and House Agricultural Consultants.

City of San Jose. *General Plan Land Use Task Force Recommendations*.

Santa Clara Local Agency Formation Commission. *Agricultural Mitigation Policy*, adopted April 4, 2008.

Solano County

Studies, Reports, Articles

Agriculture in Solano County: Current Patterns and Recommendations. Agricultural Issues Brief. Alvin D. Sokolow and Kurt R. Richter, University of California Agricultural Issues Center. 2007.

Agricultural Conservation Easement Plan, Prepared by Stott Planning Associates for Solano Land Trust 2002.

The Solano County Ag Futures Project. *Report 1: What Farmers and Ranchers Say About the Future of Solano Agriculture. Report 2: The Economic Roots of Solano County Agriculture. Report 3: Regulating, Protecting and Promoting Local Agriculture: Lessons for Solano from other Counties. Report 4: Final Report and Recommendations.* Alvin D. Sokolow and Kurt R. Richter, University of California Agricultural Issues Center. 2007.

The Solano County Ag Futures Project. *The Future of Solano County Agriculture: What County Government Can Do. Final Report and Recommendations.* Alvin D. Sokolow and Kurt R. Richter, University of California Agricultural Issues Center. 2007.

Summit on Agriculture Project Report, Report to the Solano Board of Supervisors. 2000.

Policies and Plans

Solano County General Plan, Chapter 3. Agriculture. November 2008.

Suisun Valley Strategic Plan, Chapter 3. Agricultural Economics and Marketing.

Suisun Valley Marketing Plan. Prepared by lauracolerowe consulting and L.L. Consulting for the Suisun Valley Fund Advisory Committee (SVFAC). 2008.

Sonoma County

Studies, Reports, Articles

2009 Food Processing Industry Report. Sonoma County Economic Development Board.

Preventing Sprawl: Farmers and Environmentalist Working Together. Greenbelt Alliance and Sonoma County Farm Bureau. 2004.

Sonoma County University of California Cooperative Extension Annual Report 2007-2008.

Toward a Bright Future: Updating Sonoma County's General Plan. Greenbelt Alliance. 2004.

Policies and Plans

Sonoma County General Plan 2020. Agricultural Resources Element. Adopted 2008.

Sonoma County General Plan 2020. Land Use Element. Adopted 2008.