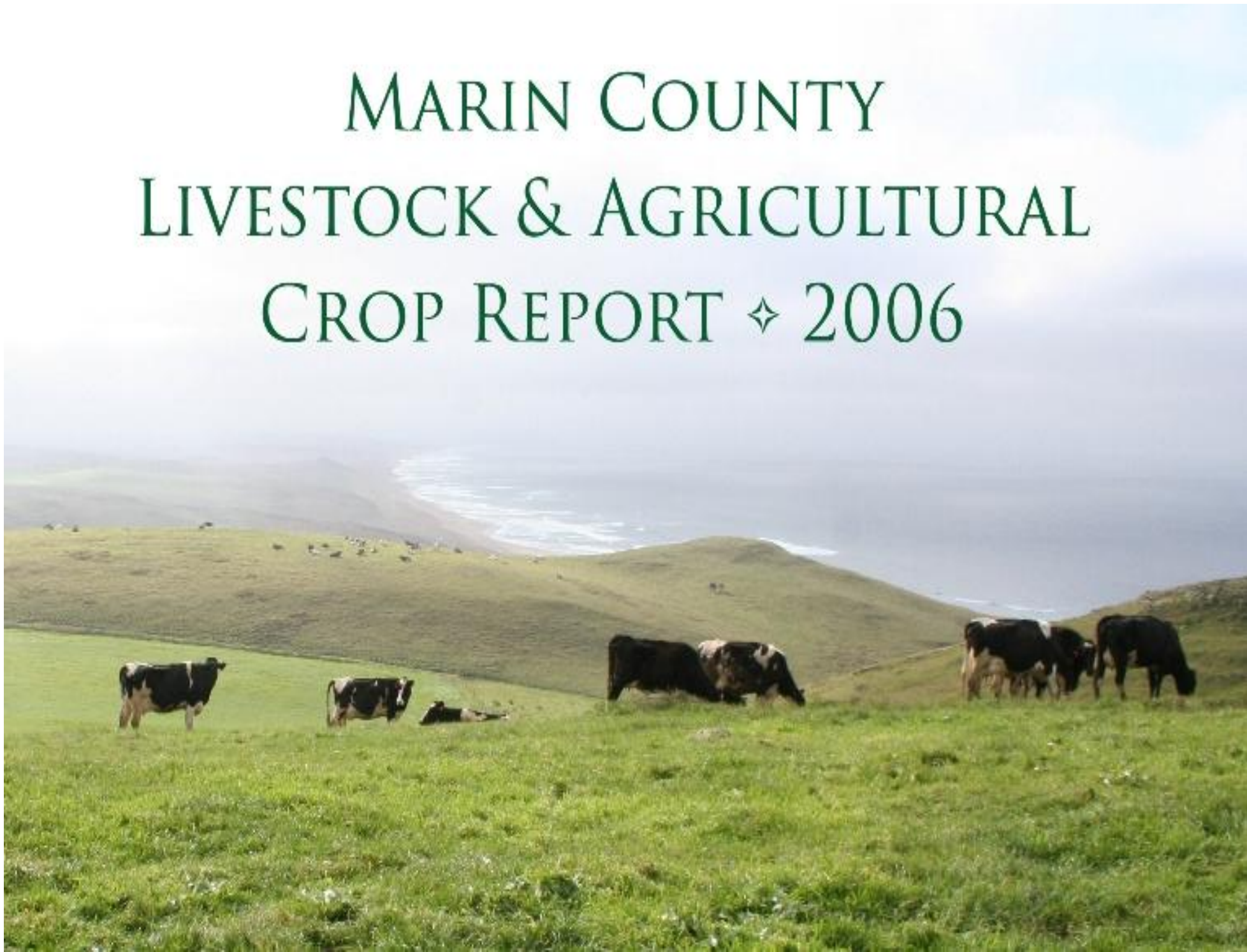


MARIN COUNTY
LIVESTOCK & AGRICULTURAL
CROP REPORT ♦ 2006



MARIN COUNTY DEPARTMENT OF AGRICULTURE • WEIGHTS AND MEASURES



STACY K. CARLSEN
COMMISSIONER/DIRECTOR

FRED W. CROWDER
DEPUTY COMMISSIONER/DIRECTOR

July 2007

A. G. Kawamura, Secretary
California Department of Food and Agriculture

And

Marin County Board of Supervisors
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In accordance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Annual Crop and Livestock Report for 2006. This report is a summary of counts, acreage, yields, and gross value of agricultural production in Marin County. The 2006 gross value of all production was \$49,474,376. This represents a decrease of \$3,348,160 or 6.3% from the 2005 total agricultural production value. The report represents gross returns to the producer and does not indicate actual net profit.

Milk is the long standing, premier commodity for Marin (there are 28 dairies in Marin, which includes 2 goat dairies), and this year accounts for 54.7% of the crop report's total value. Market milk prices dropped in 2006 representing a decrease in overall milk value by \$4,171,687 (13.3%).

Livestock value increased by \$695,705 or 6.5%. Prices received for sheep and beef cattle decreased, however, because of the increased number of head the overall value was up. The value of wool increased by \$14,888 or 54.5%. The increased value was a result of 18% more production and premiums paid through a local value added program.

Aquaculture experienced a value decrease of \$670,733 (20.5%) despite producers increasing production efforts. Heavy rains in December '05 and January '06 flooding caused substantial lose of seed and production.

The value of field, fruit and vegetable production, excluding wine grapes, went up by \$668,792, a 10.0% increase in value. The total value of wine grapes increased by \$340,311 or 128.1%, attributed to an increased acreage, and yields nearly double that of 2005. Nursery crops experienced a decreased value of \$235,436 or 34.2%.

My appreciation goes to the many growers, individuals and organizations for their cooperation in providing the information necessary for this report. I would like to extend special thanks to the UC Cooperative Extension and members of my staff Laurel Thomassin and Jeffrey Stiles.

Respectfully submitted,

Stacy K. Carlsen
Agricultural Commissioner

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Cover photo: Dairy Cows on Point Reyes
Photo credits: Steve Quirt

This report is available at our web site:
www.co.marin.ca.us/depts/ag/main/index.cfm

Agriculture on the Point Reyes Peninsula

This year's crop report features the Point Reyes peninsula. Recognized for their quality and sustainable production methods, agricultural commodities produced by families on the Point are marketed throughout the bay area.

Separated from the rest of Marin County by the San Andreas Fault rift zone, the Point Reyes peninsula is literally a land unto itself, drifting slowly to the northwest with the Pacific plate while the rest of Marin and the continent, moves to the southwest on the North American plate.

The cool weather, moist coastal breeze and abundant grasses on the Point Reyes peninsula are ideal for grazing animals and the peninsula has been under agricultural production since Mexican land grants established ranchos early in the 1800's. With the annexation of Alta California in the Mexican American war and the gold rush in 1849, ranchers on these expansive grasslands shared in the golden years of a booming San Francisco where the volatile populace consumed all the beef, pork, eggs, butter, cheese, artichokes, peas, and other food stuffs that producers on the Point could provide.

Over time, refrigeration, expanded transportation networks, feudal infighting between property owners, and the Great Depression ended the years of prosperity. With the completion of the Golden Gate Bridge in 1937, agriculture began to give way to tourism and recreation, and visitors came to see Kehoe or McClure beach - locations named after the families who still farm there.

Recognizing the unique features and beauty of the Point Reyes peninsula and seeing it as an ideal west coast location for a national park, Congress passed the Point Reyes Wilderness Act in 1962 creating the Point Reyes National Seashore. The Act designated 25,370 acres of the Point Reyes peninsula as wilderness and 8,003 acres as potential wilderness, with the bill highlighting the compatibility of good farming practice adjacent to wilderness areas. It is in the 8,003 acres of potential wilderness where ranchers and dairymen lease their properties back from the federal government to continue the almost 200 year tradition of agricultural production.

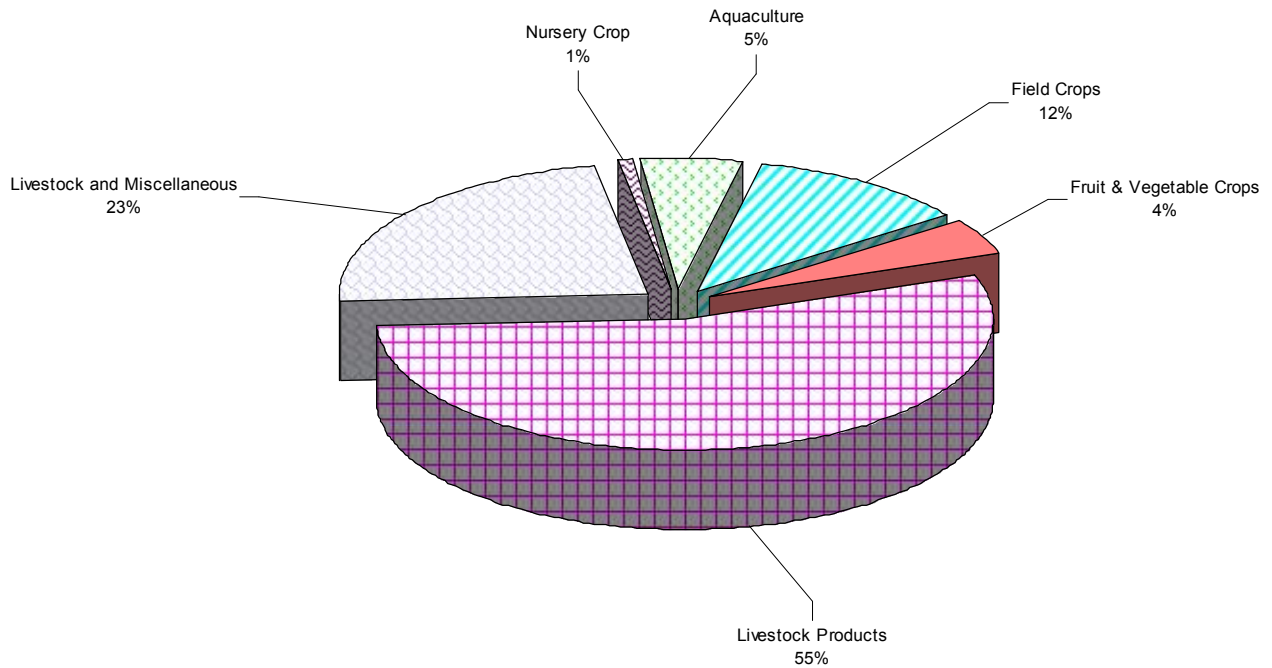
The agricultural leases on the Point Reyes peninsula constitute approximately 30% of the acreage in pasture production in Marin County, and today produce a variety of agricultural commodities such as hay, silage, beef, oysters, chicken, eggs, and milk.

The families of the Point Reyes peninsula share a unique history and rely on each other to provide the community and infrastructure to carry on their agricultural traditions and allow them to productively and responsibly continue to farm on the edge.

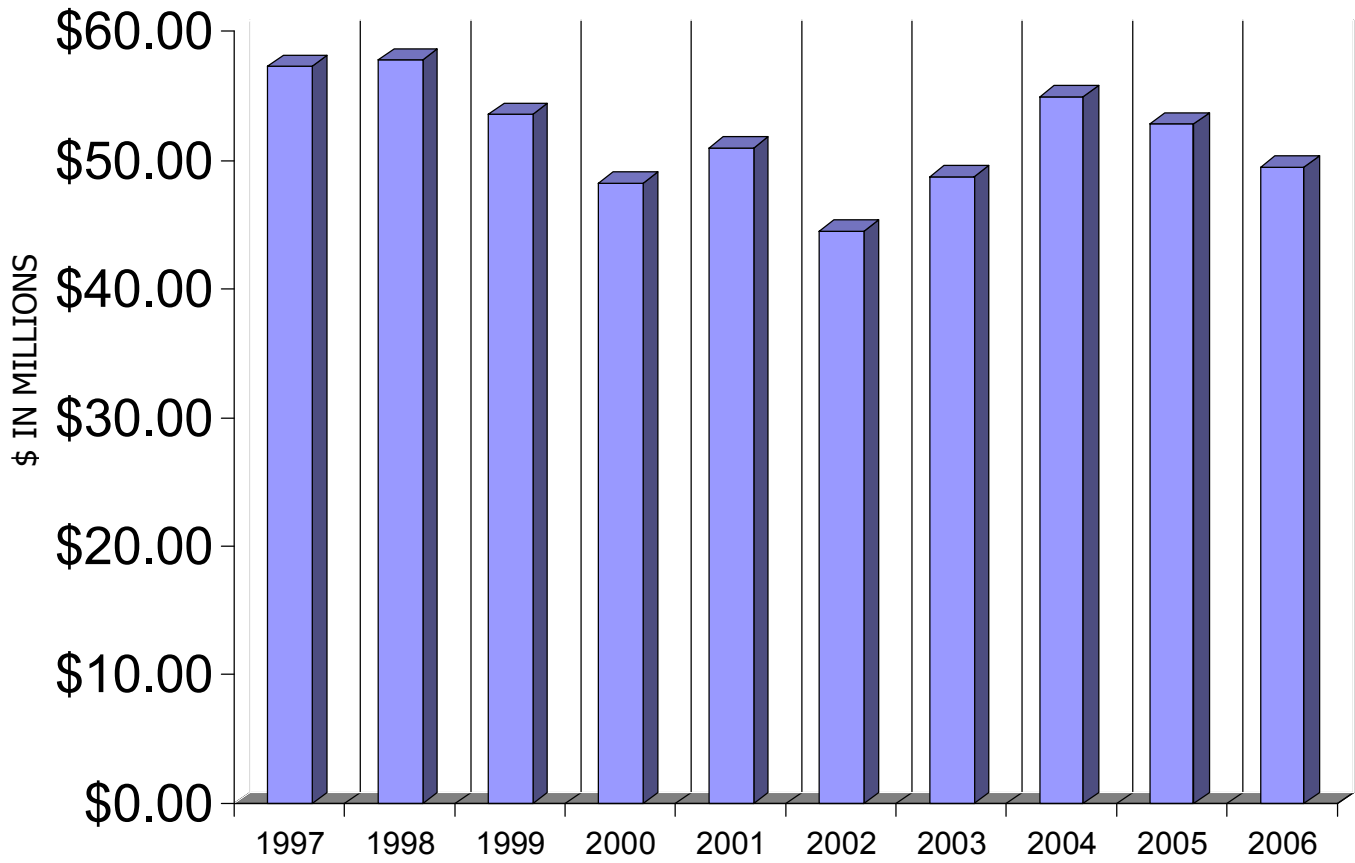
Summary of Production

	<u>2006</u>	<u>2005</u>
Livestock Products	\$ 27,125,530	\$ 31,282,329
Livestock & Misc.	\$ 11,327,378	\$ 10,631,673
Field Crops	\$ 5,787,648	\$ 5,516,400
Fruit & Vegetable Crops	\$ 2,185,988	\$ 1,438,133
Aquaculture	\$ 2,594,177	\$ 3,264,910
Nursery Crops	\$ 453,655	\$ 689,091
TOTAL	\$ 49,474,376	\$ 52,822,536

2006 Production Summary



Agricultural Production Gross Value A Ten Year Summary



Livestock and Aquaculture

Item	Year	No. of Head	Live Weight	Unit	Dollar Value	
					\$/Unit	Total
Cattle & Calves	2006	16,616	96,958	cwt	\$ 81.02	\$ 7,855,537
	2005	15,577	91,869	cwt	\$ 84.20	\$ 7,735,679
Sheep & Lambs	2006	13,702	14,798	cwt	\$ 71.82	\$ 1,062,897
	2005	10,320	11,146	cwt	\$ 85.06	\$ 948,023
Miscellaneous†	2006	1,096				\$ 84,675
	2005	128,375				\$ 1,947,971
Poultry*	2006	90,330				\$ 2,324,269
Aquaculture	2006		Oysters, Mussels, & Clams			\$ 2,594,177
	2005		Oysters, Mussels, & Clams			\$ 3,264,910
Total	2006					\$ 13,921,555
	2005					\$ 13,896,583

† Miscellaneous 2005 includes poultry fryers, chicken eggs for consumption, hogs, and rabbits.
Miscellaneous 2006 includes goats (mohair), hogs, honey, and rabbits.

* Figures for 2005 are listed under Miscellaneous. Figures for 2006 includes poultry fryers, chicken eggs for consumption, eggs for turkey breeding stock, and ballute.

Livestock Products

Item	Year	Production	Unit	Dollar Value	
				\$/Unit	Total
Milk (Market)	2006	2,208,436	cwt	\$12.25	\$ 27,053,341
	2005	2,124,848	cwt	\$14.69	\$ 31,215,000
Milk (Manufacturing)	2006	2,560	cwt	\$11.72	\$ 30,003
	2005	2,581	cwt	\$15.51	\$ 40,031
Wool	2006	71,560	lbs	\$ 0.59	\$ 42,186
	2005	60,662	lbs	\$ 0.45	\$ 27,298
Total	2006				\$ 27,125,530
	2005				\$ 31,282,329

Inventories of Livestock and Poultry

ITEM	HEAD	NUMBER
All Cattle†		31,000*
Milk cows and heifers 2 years and over	11,500	
Beef cows and heifers 2 years and over	9,000	
Sheep and Lambs, all†	8,945	
Poultry	90,330	
Miscellaneous**		1,096

† Number of Head as of January 1, 2007.

* Includes cows, heifers, calves, and bulls.

** Miscellaneous 2006 include goats, hogs, and rabbits.



Field, Fruit and Vegetable Crops

Item	Year	Harvested Acreage	Ton/ Acre	Total Tons	Unit	Dollar Value	
						\$/Unit	Total
Hay, Grass	2006	912	2.55	2,326	ton	\$ 62.00	\$ 144,212
	2005	1,950	1.8	3,510	ton	\$ 57.50	\$ 201,825
Hay, Oat	2006	115	1.7	196	ton	\$ 100.00	\$ 19,600
	2005	1,525	2.5	3,813	ton	\$ 75.00	\$ 285,975
Silage	2006	1,705	13.5	23,018	ton	\$ 24.20	\$ 557,036
	2005	2,000	9.9	19,800	ton	\$ 24.00	\$ 475,200
Hay, Grain	2006	100	1.5	150	ton	\$ 180.00	\$ 27,000
	2005	40	1.0	40	ton	\$ 160.00	\$ 6,400
Pasture, Irrigated	2006	810				\$ 100.00	\$ 81,000
	2005	810				\$ 100.00	\$ 81,000
Pasture, Other	2006	154,000				\$ 32.20	\$ 4,958,800
	2005	154,000				\$ 29.00	\$ 4,466,000
Fruits & Vegetables	2006	228					\$ 1,570,051
	2005	204					\$ 1,172,507
Grapes, Wine*	2006	171		258.5	ton		\$ 605,937
	2005	108		111.8	ton		\$ 265,626
Total	2006						\$ 7,963,636
	2005						\$ 6,954,533

* Varieties: Cabernet Sauvignon, Chardonnay, Gewurztraminer, Merlot, Pinot Noir, Shiraz, and Riesling.



Nursery Products

Item	Year	Production Acres	Dollar Value Total
Nursery	2006	42	\$ 453,655
Stock, All	2005	40	\$ 689,091



Marin County Department of Agriculture/Weights & Measures

Departmental Mission Statement

Our mission is to serve the public's interest by ensuring equity in the market place, promoting and protecting agriculture, protecting environmental quality and the health and welfare of Marin County's residents.

Following is a description of the department's activities:

Pest Prevention

Pest prevention encompasses several activities aimed to prevent the introduction and spread of exotic pests in Marin County. Pest exclusion focuses on preventing the entry and establishment of exotic pests and limiting the intrastate movement of newly discovered pests. Marin County inspectors monitor all avenues of pest entry into the county. Pest detection is the systematic search for exotic pests outside of a known infested area. The goal is to find infestations of harmful exotic pests and eradicate them before it becomes biologically or economically unfeasible.

Protection of the Environment

Over the years Marin County has developed a program of Pesticide Use Enforcement that includes all the facets that are needed to comply with Federal and State laws and to ensure proper, safe, and efficient use of pest control methods and pesticides for the production of food and fiber and for the protection of public health, safety and welfare, and the environment. This is accomplished by a permit process and monitoring the use of pesticides, investigating pesticide incidents and complaints, continuous enforcement of pesticide use and records associated with that use, collecting and reviewing of pesticide use data, and educating and assisting users of pesticides.

Integrated Pest Management

Integrated pest management (IPM) is a common-sense approach to pest management that uses a variety of methods to control pests. Pesticides may be part of an IPM program, however, effort is focused towards preventing pest problems by controlling conditions which may attract and support pests. Marin County's IPM program is designed to ensure that County departments and everyone applying pesticides to property owned and/or managed by the County of Marin utilize IPM practices, eliminate or reduce pesticide applications where ever possible and take reasonable measures to ensure that long-term prevention or suppression of pest problems has minimal negative impact on human health, non-target organisms, and the environment. The goal of the County IPM Ordinance was to reduce countywide total yearly pesticide use by 75% by weight, as compared to the total pesticide use in 1997. The county has exceeded that goal with current estimates showing a greater than 80% pesticide use reduction.

Product Quality

Marin County inspectors are protecting consumers by inspecting agricultural products for compliance with laws, regulations, and standards and ensuring that businesses are afforded a fair and equitable opportunity to market their products. Inspections are conducted at horticultural nurseries, farmers markets, and organic farms, as well as locations selling wholesale and retail eggs.

Weights and Measures

The Weights and Measures program protects the interests of the consumer and market place to ensure honesty and integrity of routine transactions when products are sold by weight, measure, count or time. This is accomplished through continuous and systematic inspection of all equipment that is used to weigh or measure a commodity. Weights and Measures inspectors test taximeters, scales in stores, gasoline pumps, fabric and cordage meters, electric meters, water meters, livestock and animal scales, vehicle scales, scanner systems for pricing accuracy, and packaged products for stated net contents. Every transaction involving the exchange of goods by volume, count, or weight is affected in a very vital way by some form of weights and measures.



Summary of the Sustainable Agricultural Activities

Sustainability is a method of balancing resource use in such a manner that it provides for current needs while ensuring such resources will be available to meet the needs of future generations.

Organic Food Production, Registration, and Certification

Organic production systems strive to achieve agro-ecosystems that are ecologically, socially, and economically sustainable. Organic farming emphasizes a greater cooperation with nature without reliance on synthetic inputs.

All California organic producers register in their principal county of operation. There are 46 registered organic producers in Marin County, farming 17,420 acres which includes 16,946 acres in pasture, producing a total gross value of \$4,349,124.

Organic crop production in Marin County include pasture, silage, milk, dairy products, hay, fruits, vegetables, cut flowers, eggs, herbs, livestock, vegetable starts, olive trees, and nursery stock. In 2006 the number of dairies producing certified organic milk in Marin County doubled to 6 operations.

Marin Organic Certified Agriculture (MOCA)

The Marin County Agricultural Commissioner's Office is accredited by the USDA as an official organic certification agency. MOCA serves the local community who are promoting sustainable farming practices.

Locally and word wide consumer demand for certified organic products is increasing with an expectation by consumers that organic products are verifiable. MOCA was developed to provide a professional service to local individual and business operations engaged in the production and distribution of organically grown commodities. The main duty of MOCA is to uphold the standards of the USDA National Organic Program, and document operations practices of sustainable agricultural. One of the most important benefits of the MOCA program is a local service that promotes productions of organic value added products by Marin's family farms. In 2006 the number of MOCA certified operations increased 21% to 44 operators and 2 processors in Marin and Sonoma Counties.

Biological Control

Biological pest control is the use of natural enemies to help suppress pest populations to economically and environmentally acceptable levels. Once the agent becomes established, control is self perpetuating, potentially reducing the need to use pesticides. The following are pests found in Marin and some of the methods being used to control them.

Pest

Gorse
Bull Thistle
Yellow Star Thistle
Scotch Broom
Ash White Fly
Italian Thistle
Purple Star Thistle
Klamath Weed
Canada Thistle
Plumeless Thistle
Eucalyptus Red Gum Lerp Psyllid

Biological Agent/Mechanism

Gorse Mite, Seed Weevil
Bull Thistle Gall Fly
Seed Head Weevil, Gall Fly, Hairy Weevil, Peacock Fly
Seed Weevil, Stem Boring Moth
Parasitic Wasp
Seed Weevil
Seed Weevil
Beetle
Mechanical and chemical removal
Mechanical and chemical removal
Parasitic Wasp

Grass Fed Livestock & Livestock Protection

We also developed and now manage a sustainable livestock protection program that provides cost sharing for non-lethal methods of predator control. This includes property improvements such as cross fencing; deterrents like electric fencing and management practices such as guard animals.

And lastly, there is the Marin County Agriculture Department Grass Fed Livestock Certification program whose purpose is to provide local grass fed livestock producers with a program which will provide the local livestock industry with the incentive to pursue innovative and sustainable animal agriculture principles, encourage sustainable agricultural and land management practices, increase marketing opportunities, and promote more natural animal management practices.



Marin/Sonoma Weed Management Area

A weed management area group was formed for Marin and Southern Sonoma Counties in early 1999. The Weed Management Area (WMA) unites landowners and public agencies, provides an opportunity to share resources in mapping, planning information, and helps control weeds across land ownership boundaries. The WMA has performed a number of weed control projects made possible by the state legislature passing AB 1168 and SB 1740 which provide funding to WMA's. With this funding, the WMA has removed woolly distaff thistle (*Carthamus lanatus*), and purple star thistle (*Centaurea calcitrapa*). Mapped all Marin County roads for certain invasive weeds determined by the WMA, produced an educational brochure, and developed a 'Don't Plant a Pest' program centered on the nursery industry. The WMA works with all landowners to determine the best method of control of each individual landowner's requirements. Where there are sites potentially harboring endangered or threatened species of plants and animals, hand removal is the method of choice. Mechanical and chemical removal of weeds is utilized at other sites. The WMA conducts hand weed pulling field days. Anyone is welcome to come to the meetings and everyone is welcome to help control weeds.

Pest Exclusion

In 2006, Marin County personnel conducted 6,044 incoming plant quarantine inspections. Plant shipments were monitored at Federal Express, UPS, nurseries, ethnic markets, aquatic supply stores, and post entry quarantine. 55 gypsy moth inspections of household goods from eastern states were conducted, as well as 1,466 Glassy-Winged Sharp Shooter inspections on plant material from infested California counties.

30 rejections of plant material were made. Rejected plant material was either destroyed or reconditioned and released.

A total of 5 pests were intercepted. Of those, 2 were "Q" rated, 1 was "C" and 2 were "D" rated.

The following is a list of the significant pest interceptions:

Scientific Name	Common Name	Rating
Hemiberlesia lataniae	Latania Scale	C
Hymenoptera	Endoparasitoid	D
Miridae	A True Bug	Q
Pheidole sp	An Ant	Q

Q – rating: Quarantine Action

A – rating: State Action

B – rating: County Action

C – rating: County Action at Discretion of the Agricultural Commissioner

D – rating: No action



Pest Detection

919 traps were serviced for exotic insect pests (including Mediterranean and Oriental Fruit Flies, Mexican Fruit Fly, Olive Fruit Fly, Gypsy Moth, Japanese Beetle, Melon fly, Vine Mealy Bug, Asian Longhorn Beetle, and Glassy-Winged Sharpshooter). Of the 919 traps, 211 traps were placed for the Glassy-Winged sharpshooter in nurseries and vineyards areas throughout the county, 211 Mediterranean Fruit Fly traps were placed in fruit trees and 183 Gypsy Moth traps were placed on hardwood.

Glassy-Winged Sharpshooter

The Glassy-Winged Sharpshooter (GWSS) (*Homalodisca coagulata*) is a serious pest in California. This insect was first observed in California in 1990 and is now found throughout Southern California and portions of the San Joaquin Valley. It is a particular threat to vineyards due to its ability to spread *Xylella fastidiosa*, the bacterium that causes Pierce's disease. Pierce's disease kills grapevines and there are no effective treatments for it. The Glassy-Winged Sharpshooter also spreads other diseases to a variety of agricultural and ornamental plants, having the potential to substantially impact California's agriculture and environment if left unchecked.

To prevent the introduction of this leafhopper into Marin County, staff inspects all incoming nursery plant shipments from infested California counties. In 2006 a total of 1,466 shipments were inspected for GWSS. Detection traps placed throughout the county are also monitored.

Sudden Oak Death

The history of Sudden Oak Death in Marin County began in 1995 with the observation of large numbers of tanoaks dying in Mill Valley. Mortality of coast live oak and black oaks was also noticed, here in Marin and other coastal counties. In 2000 UC researchers identified the cause of SOD as a previously unknown fungal-like pathogen, *Phytophthora ramorum*. Currently SOD has been confirmed as naturally occurring in 14 northern and central coastal California counties.

In 2001 the California Department of Food and Agriculture initiated a state quarantine establishing restrictions against *P. ramorum* and its hosts to control the spread of SOD. Federal regulations established by the United States Department of Agriculture are also in place regulating interstate movement of host material.

P. ramorum hosts include many native trees and understory plants associated with oaks and tanoaks in the native woodland. SOD has also been found in nurseries (within and outside of the quarantined counties where it occurs naturally) on ornamental plants such as camellia and rhododendron. Currently there are over 100 native and ornamental hosts, and new hosts continue to be found and added to the quarantines.

P. ramorum manifests in two ways depending on the host. On oaks it causes potentially lethal trunk cankers; on other hosts it causes a foliar or twig blight which is rarely lethal. Tanoaks are susceptible to both trunk cankers and foliar dieback. Foliar hosts, unlike the canker trunk hosts, are not a dead end for the pathogen. Instead these hosts act as a vector for the disease, allowing build up of inoculum on leaves, which can spread through natural or artificial means (rainwater, soil, infested nursery stock) under moist conditions.

In 2006 regulatory officials continued to find *P. ramorum* in nurseries within and outside of the quarantined counties; protocols were implemented to isolate the infested plants. SOD also continues to be found in the native oak and tanoak populations in Marin, with increased finds in West Marin. Tree mortality occurs in wildland and urban/wildland interface areas, resulting in dramatic changes in the landscape, affecting ecosystems, increasing fire and safety hazards, and decreasing property values.

Marin County's public works department removed 770 roadside trees over the 3 years it was part of the state-funded SOD Hazardous Tree Removal Program. This program assessed dead and dying trees along roadways and trails to determine the presence of *P. ramorum*, and subsequently removed them to ensure public safety. Various state and county parks and open space areas also removed numerous trees under this program.

The California Oak Mortality Task Force (COMTF) was established in 2000 to research and understand SOD in an effort to manage the spread of *P. ramorum*. More information, including diagnostic guides and management recommendations may be found at www.suddenoakdeath.org.

Farmers Markets of Marin County

The purpose of farmers markets is to allow local producers to sell their certified commodities direct to the public. There are 25 certified producers that have been issued certificates in Marin County. The following 9 Farmers Markets (Civic Center has two, Thursday and Sunday) have been certified by the Agricultural Commissioner to market local produce in Marin County.

Civic Center Farmers Markets

Civic Center, San Rafael
Thursdays – 8:00 am – 1:00 pm
Sundays – 8:00 am – 1:00 pm
Open All Year

Fairfax Farmers Market

Bolinas Park, Downtown Fairfax
Wednesdays – 4:00 pm – 8:00 pm
May – September

Old Town Novato Farmers Market

Down Town, Novato
Tuesdays – 4:00 pm – 8:00 pm
April – October

Downtown San Rafael Farmers Mkt.

Fourth St., San Rafael
Thursdays – 6:00 pm – 9:00 pm
April - September

Sausalito Farmers Market

Sausalito Ferry Landing
Fridays – 4:00 pm – 8:00 pm
May – October

Corte Madera Farmers Market

Corte Madera Town Center
1554 Redwood HWY
Wednesdays – 12:00 pm - 5:00 pm
Open All Year

Pt. Reyes Farmers Market

Toby's Feed Barn
11250 Hwy 1, Pt. Reyes Station
Saturdays – 9:00 am – 1:00 pm
June - October

Larkspur Farmers Market

Larkspur Landing Circle
Saturdays – 10:00 am - 2:00 pm
May - October



Current Department Staff

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Director of Weights and Measures**

Stacy K. Carlsen



**Deputy Agricultural Commissioner
Deputy Director of Weights and Measures**

Fred W. Crowder



**Supervising Agricultural/Weights and Measures
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