



2016 AGRICULTURAL CROP REPORT

COUNTY OF SAN MATEO

**SAN MATEO COUNTY
DEPARTMENT OF AGRICULTURE
&
WEIGHTS AND MEASURES**

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COUNTY OF SAN MATEO

DEPARTMENT OF AGRICULTURE / WEIGHTS AND MEASURES



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As specified by California Food and Agricultural Code Sections 2272 and 2279, it is a privilege to present the San Mateo County Agricultural Crop Report for 2016. Producers are not required to provide crop data for the purposes of this report; however, improved participation by growers provides a more accurate year-in-review of San Mateo County's agricultural sector. This year's report reflects an estimated gross agricultural production value of \$135 million, an increase of \$3 million from the previous year.

After dropping by almost \$24M last year, **Indoor Grown Floral and Nursery Crops** saw a small increase of \$1.3M and an estimated value of \$76.6M. Though growers continue to see decreasing volume, production shifted to include higher value products. Other commodities gaining in reported value are **Forest Products** at \$4.6M, a boost in value of 111% as a result of harvesting an additional 5.4 million board feet of timber. **Outdoor Ornamental Nursery Crops** rose \$251K to \$14.3M and **Outdoor Cut Flowers** were up \$1.5M over 2015 to total \$6.7M. This gain was due to an increase in acreage and improved reporting by growers. To correct for misreported acreage due to confusion over county line location, **Wine Grape** acreage dropped; however, total value for the commodity remained relatively constant, while the overall commodity values for **Fruit and Nut Crops** improved to \$2.6M, a 5.4% increase.

Brussels Sprouts continue as San Mateo County's premier vegetable crop, leading in both acres planted and overall value, which was \$13M, a reduction of \$2.3M from the previous year. This decrease of 17.6% was the result of increased plantings in other regions of California, which pushed prices down. Brussels sprouts were not alone as most values in the **Vegetable Crop** commodity group decreased. An exception was **Miscellaneous Vegetables** which improved by \$501K despite a reduction of 47 acres. This was accomplished by the planting of higher valued crops that were harvested multiple times.

Increased rainfall boosted production of **Grains** and **Hay**, and with gains across the group, **Field Crops** were up 28.8% to \$1.1M in 2016. Due to more forage and feed on the range, **Cattle and Calves** saw higher sales and a total value nearing \$2.0M. Overall the **Livestock Commodity** group was up 8.9% from \$2.4M in 2015 to \$2.6M in 2016.

Though many "per unit values" in this report are greater, that does not necessarily reflect higher returns to growers. Also higher are the costs of labor, seed, starts, soil amendments and other farm supplies. The dollar values reported, reflect the gross value of the agricultural commodities produced and do not account for costs associated with production, harvesting and distribution.

I would like to thank the agricultural producers who shared production information making this report possible. I would also like to thank our department staff, especially Jennifer Gossett and Kelly Mayer, who compiled and organized the data into the final report as well as took many of the beautiful photos.

Agricultural Commissioner
Sealer of Weights and Measures

FLORAL AND NURSERY CROPS INDOOR GROWN

Crop	Year	Square Feet	Total Value
Potted Plants ¹	2016	6,607,000	\$72,893,000
Flowering & Foliage	2015	6,682,000	71,121,000
Cut Flowers ²	2016	881,000	3,106,000
	2015	996,000	3,694,000
Bedding Plants, Cuttings and Liners ³	2016	176,000	555,000
	2015	163,000	451,000
TOTAL	2016	7,664,000	\$76,554,000
	2015	7,841,000	75,266,000

¹ Includes Ferns, Hydrangeas, Ivy, Lilies, Orchids, Succulents, etc.

² Includes Alstroemeria, Freesia, Lilies, Roses, Tulips, etc.

³ Includes Grasses, Herbs, Vegetables, etc.

FLORAL AND NURSERY CROPS OUTDOOR GROWN

Crop	Year	Acres	Total Value
Ornamentals	2016	89	\$14,340,000
Nursery Stock ¹	2015	95	14,089,000
Christmas Trees (cut)	2016	158	288,000
	2015	158	309,000
Subtotal	2016	247	\$14,628,000
	2015	253	14,398,000
Cut Flowers ²	2016	295	\$6,740,000
	2015	289	5,290,000
TOTAL	2016	542	\$21,368,000
	2015	542	19,688,000

¹ Includes herbaceous perennials, shrubs and trees.

² Includes Dahlias, Hydrangeas, Lilies, Statice, Yarrow, etc.

VEGETABLE CROPS

Crop	Year	Acres	PRODUCTION		Unit	VALUE	
			Per Acre	Total		Per Unit	Total
Artichokes	2016	66	2.47	163	Ton	\$1,608	\$262,000
	2015	66	2.92	193	Ton	\$1,708	330,000
Beans, Fava	2016	340	3.57	1,214	Ton	1,535	1,863,000
	2015	292	3.42	999	Ton	1,913	1,911,000
Beans, Snap	2016	56	3.20	179	Ton	1,848	331,000
	2015	45	4.20	189	Ton	1,668	315,000
Brussels Sprouts	2016	817	10.91	8,913	Ton	1,453	12,951,000
	2015	784	10.26	8,044	Ton	1,894	15,235,000
Leeks	2016	118	13.38	1,579	Ton	1,126	1,778,000
	2015	150	13.07	1,961	Ton	1,408	2,761,000
Peas	2016	160	1.48	237	Ton	2,362	560,000
	2015	165	1.70	281	Ton	2,242	630,000
Pumpkins	2016	173	4.59	794	Ton	882	700,000
	2015	187	5.05	944	Ton	667	630,000
Miscellaneous Vegetables Field and Indoor Grown ¹	2016	369					6,573,000
	2015	416					6,072,000
TOTAL	2016	2,099					\$25,018,000
	2015	2,105					27,884,000

¹ Includes Broccoli, Herbs, Lettuce, Mushrooms, Potatoes, Squash, Tomatoes, etc.



FRUIT AND NUT CROPS

Crop	Year	Acres	Total Value
Wine Grapes	2016	152	\$703,000
	2015	165	677,000
Miscellaneous ¹	2016	109	1,914,000
	2015	112	1,807,000
TOTAL	2016	261	\$2,617,000
	2015	277	2,484,000

¹ Includes Apples, Berries, Chestnuts, Stone Fruit, etc.



FIELD CROPS

Commodity	Year	PRODUCTION			Unit	VALUE	
		Acres	Per Acre	Total		Per Unit	Total
Beans, Dry Edible ¹	2016	74	0.98	73	Ton	\$5,034	\$367,000
	2015	69	1.04	72	Ton	4,849	349,000
Grain ²	2016	76	1.40	106	Ton	1,620	172,000
	2015	83	0.78	65	Ton	494	32,000
Hay Oat & Rye	2016	480	2.52	1,210	Ton	182	220,000
	2015	452	1.90	859	Ton	168	144,000
Volunteer	2016	128	2.31	296	Ton	81	24,000
	2015	114	3.41	389	Ton	48	19,000
Pasture Irrigated	2016	181				154	28,000
	2015	114				155	18,000
Other	2016	22,568				14	316,000
	2015	22,365				14	313,000
TOTAL	2016	23,507					\$1,127,000
	2015	23,197					875,000

¹ Includes Cranberry, Fava, Romano, etc.

² Includes Barley, Oats, Quinoa, Rye and Wheat

FOREST PRODUCTS

Year	Board Feet	Total Value
2016	10,083,000	\$4,604,000
2015	4,691,000	2,183,000

LIVESTOCK

Commodity	Year	Number Head Sold	Total Value
Cattle and Calves	2016	1,488	\$1,980,000
	2015	1,306	1,719,000
Other ¹	2016	7,744	626,000
	2015	7,430	673,000
TOTAL	2016	9,232	\$2,606,000
	2015	8,736	2,392,000

¹ Includes Goats, Poultry, Sheep, Swine, etc.



LIVESTOCK PRODUCTS AND APIARY

Commodity	Year	Production	Unit	Per Unit	<u>VALUE</u>	Total
Honey	2016	28,000	lbs	\$11.27		\$316,000
	2015	26,000	lbs	9.09		236,000
Beeswax	2016	879	lbs	5.16		4,500
	2015	846	lbs	6.48		5,500
Other ¹	2016					1,226,000
	2015					1,445,000
TOTAL	2016					\$1,546,500
	2015					1,686,500

¹ Includes Eggs, Cheese, Wool, etc.

COMMERCIAL FISH CATCH

Species	Year	Pounds	Value
Crab, Dungeness	2016	3,306,168	\$10,722,705
	2015	376,842	2,098,148
Squid, market	2016	7,291,868	3,645,934
	2015	9,675,046	2,945,838
Salmon, Chinook	2016	83,727	745,567
	2015	82,578	650,003
Prawn, spot	2016	36,073	556,859
	2015	39,902	611,304
Halibut, California	2016	61,639	318,605
	2015	60,210	279,370
Sablefish	2016	86,351	253,077
	2015	175,819	303,139
Sole, all	2016	114,265	114,820
	2015	104,207	108,256
Anchovy	2016	1,561,171	78,059
	2015	0	0
Sea Urchin	2016	14,835	55,810
	2015	9,673	38,916
Lingcod	2016	13,801	41,936
	2015	15,920	54,030
Tuna, Albacore	2016	13,223	40,916
	2015	15,158	40,547
Rockfish, all	2016	18,238	31,396
	2015	47,268	59,438
Sanddab	2016	54,170	27,855
	2015	47,602	23,801
Miscellaneous	2016	27,440	21,995
	2015	81,573	27,455
Crab, rock unspecified	2016	4,138	15,617
	2015	11,659	33,675
Flounder, all	2016	6,567	5,918
	2015	9,568	10,718
Grand Total	2016	12,693,673 lbs	\$16,677,069
	2015	10,753,025 lbs	\$7,284,638

Source: California Department of Fish and Game Poundage Value of Landings
Princeton-Half Moon Bay. Informational only, value not included in Annual Report

RECAPITULATION

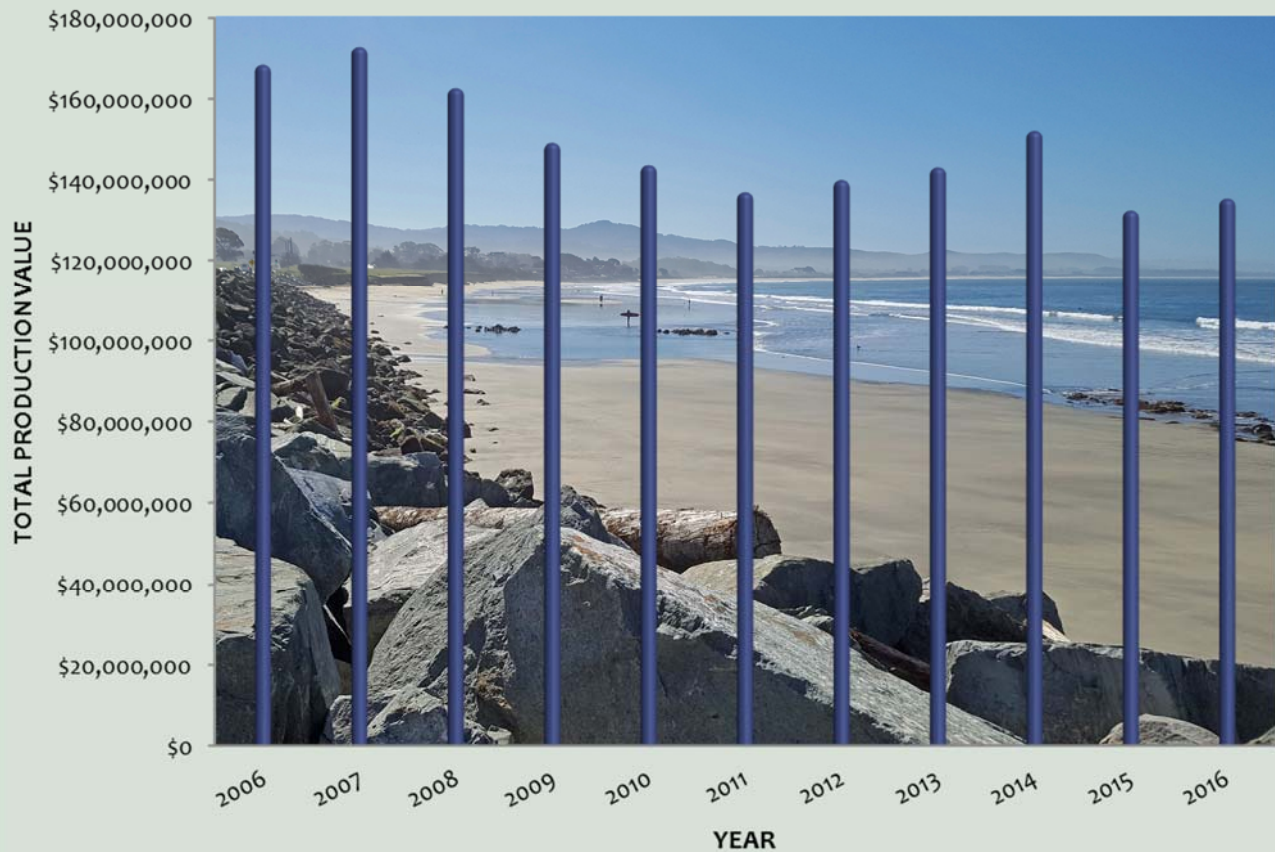
	2016	2015	Net Difference
Floral and Nursery Crops	\$97,922,000	\$94,954,000	2,968,000
Vegetables	25,018,000	27,884,000	-2,866,000
Forest Products	4,604,000	2,183,000	2,421,000
Fruit and Nut Crops	2,617,000	2,484,000	133,000
Livestock	2,606,000	2,392,000	214,000
Livestock Products and Apiary	1,546,500	1,686,500	-140,000
Field Crops	1,127,000	875,000	252,000
TOTAL	\$135,440,500	\$132,458,500	\$2,982,000



MILLION DOLLAR CROPS

	2016	2015
Flowering & Foliage Potted Plants (Indoor Grown)	\$72,893,000	\$71,121,000
Ornamental Nursery Stock	14,340,000	14,089,000
Brussels Sprouts	12,951,000	15,235,000
Cut Flowers (Outdoor Grown)	6,740,000	5,290,000
Vegetables (Miscellaneous)	6,573,000	6,072,000
Forest Products	4,604,000	2,183,000
Cut Flowers (Indoor Grown)	3,106,000	3,694,000
Cattle and Calves	1,980,000	1,719,000
Fruit & Nut Crops (Miscellaneous)	1,914,000	1,807,000
Fava Beans	1,863,000	1,911,000
Leeks	1,778,000	2,761,000
Livestock Products	1,226,000	1,445,000

AGRICULTURAL PRODUCTION VALUE OVER THE DECADE

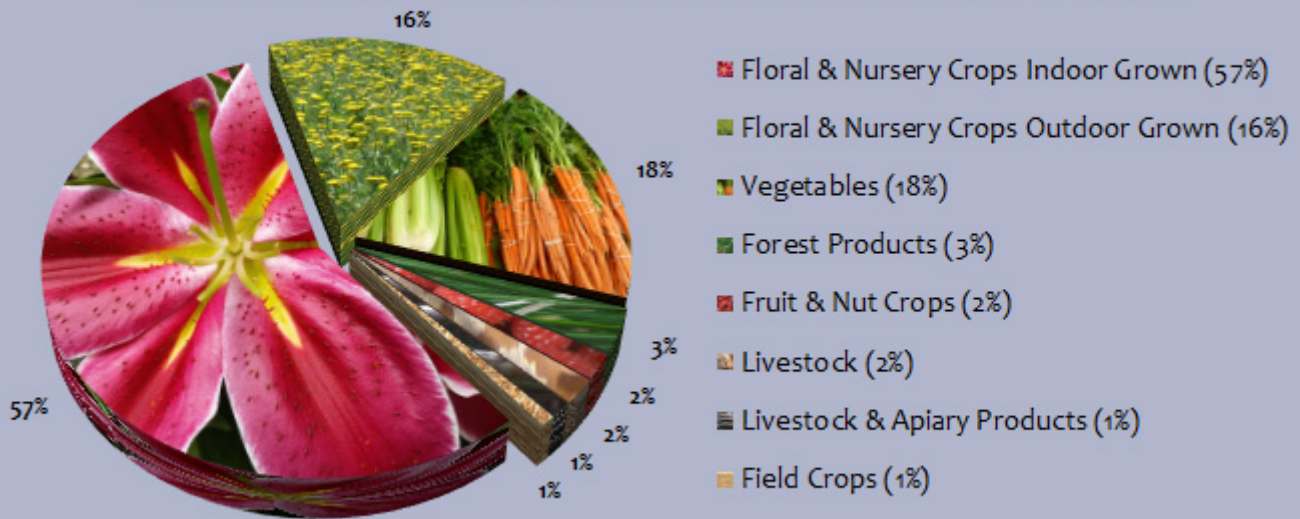


50 YEARS AGO...

Top Ten Agricultural Commodities in 1966

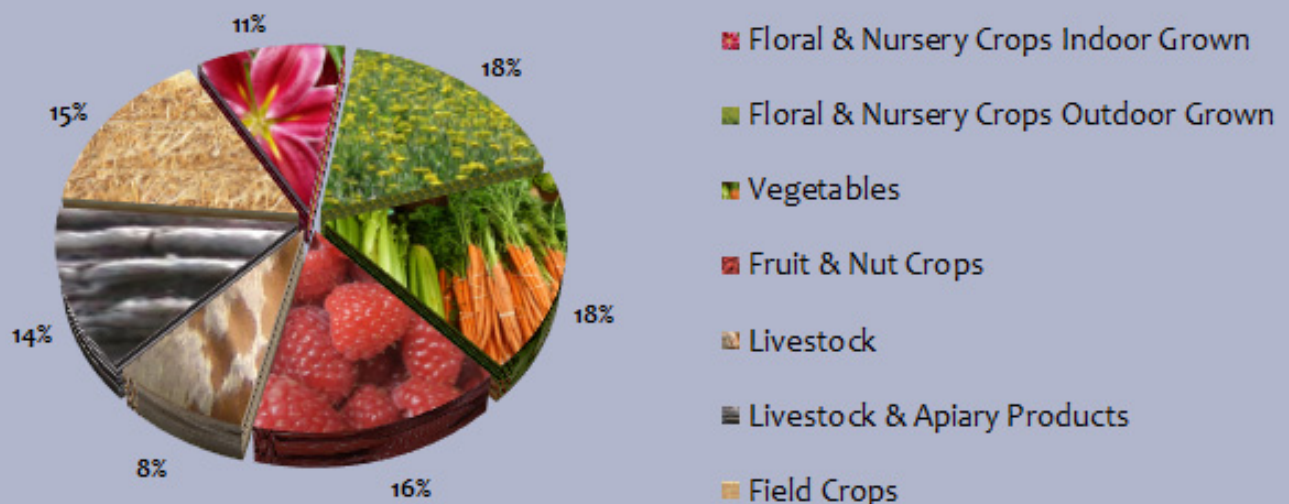
1	Carnations (Indoor Grown)	2,502,000 Square Feet	\$3,109,000
2	Flowering Potted Plants (Indoor Grown)	1,430,000 Square Feet	2,321,000
3	Miscellaneous Vegetables	455 Acres	2,113,000
4	Brussels Sprouts	1,350 Acres	1,726,000
5	Ornamental Nursery Stock (Outdoor Grown)	Not Available	1,175,000
6	Ornamental Nursery Stock (Indoor Grown)	359,000 Square Feet	922,000
7	Cattle and Calves	5,100 Head	784,000
8	Chrysanthemums (Indoor Grown)	1,780,000 Square Feet	748,000
9	Milk (Market)	125,000 Hundredweight	588,000
10	Strawflowers (Outdoor Grown)	112 Acres	574,000

2016 AGRICULTURAL PRODUCTION TOTAL VALUES



In 2016, there were slow but steady increases by most agricultural producers, but no notable changes to overall total production values. The chart above shows most of the industry value for San Mateo County is in Floral & Nursery crops. Note that this does not reflect earnings as these industries have high labor and input costs. The lower chart provides an indication as to the number of producers in each commodity group which shows an industry that is more balanced.

PRODUCERS PER COMMODITY GROUP



SAN MATEO COUNTY SUSTAINABLE AGRICULTURE REPORT

Sustainable Agriculture is the implementation of agricultural practices that promote production and economic viability, while balancing the impact of those practices on resources and the environment. This report includes information on San Mateo County's programs for the eradication, control or detection of pests, as well as the enforcement of quarantines to exclude such pests. Early detection and eradication of harmful pests protects California's agricultural industry as well as home gardens and reduces the need for pesticides. Also included is information on organic farming and alternative pest control measures employed by the agricultural industry.

PEST EXCLUSION

Pest Exclusion is a key first step in pest management. Our Pest Exclusion program requires shippers to hold shipments of agricultural commodities at points of entry to prevent the introduction of destructive pests. Every day Staff Biologists are at SFO, UPS, nurseries and other points of entry inspecting agricultural packages to ensure they are free of pests, as well as verify compliance with regulations and applicable quarantines. If a shipment is found to contain pests, or does not meet entry requirements, it may be destroyed, reconditioned or returned to the origin shipper.

Type of Shipment	Inspections	Rejections	Pests Intercepted
Parcel Carriers	19,719	64	21
Truck	1,002	6	6
Air	2,876	76	25
Sea Containers	12	18	0
Household Goods (Gypsy Moth)	50	0	0
Nursery Stock (GWSS)	1,791	0	0
Other	1	0	0

EXOTIC PESTS INTERCEPTED

Pest or Disease	Rating*	Number of Interceptions	Pest or Disease	Rating**	Number of Interceptions
<i>Aulacaspis yasumatsui</i> cycad aulacaspis scale	A	2	Aphids (various species)	Q	2
<i>Bactrocera zonata</i> peach fruit fly	A	1	Beetles (various species)	Q	2
<i>Ceroplastes floridensis</i> Florida wax scale	A	1	Boxwood Blight (<i>Calonectria pseudonaviculata</i>)	Q	2
<i>Pinnaspis buxi</i> boxwood scale	A	2	Leaf & Plant hoppers (various species)	Q	1
<i>Pinnaspis strachani</i> lesser snow scale	A	1	Mealybugs (various species)	Q	4
<i>Pseudaonidia trilobitiformis</i> trilobe scale	A	2	Mites (<i>Tetranychus</i> sp.)	Q	8
<i>Pseudaulacaspis cockerelli</i> magnolia white scale	A	2	Moths & Butterflies (various species)	Q	8
<i>Pseudococcus jackbeardsleyi</i> mealybug	A	3	Scales (various species)	Q	1
California State Noxious Weed			True bugs (various species)	Q	1
<i>Cuscuta</i> sp. Dodder plant	W	1	Whiteflies (<i>Orchamoplatus mammaeferus</i>)	Q	1
			Other (various species)	Q	8

*"A" pest ratings denote pests and diseases of known economic significance requiring containment, eradication and rejection.

** "Q" pest ratings are given to pests and diseases of suspected economic significance requiring containment, eradication and rejection.

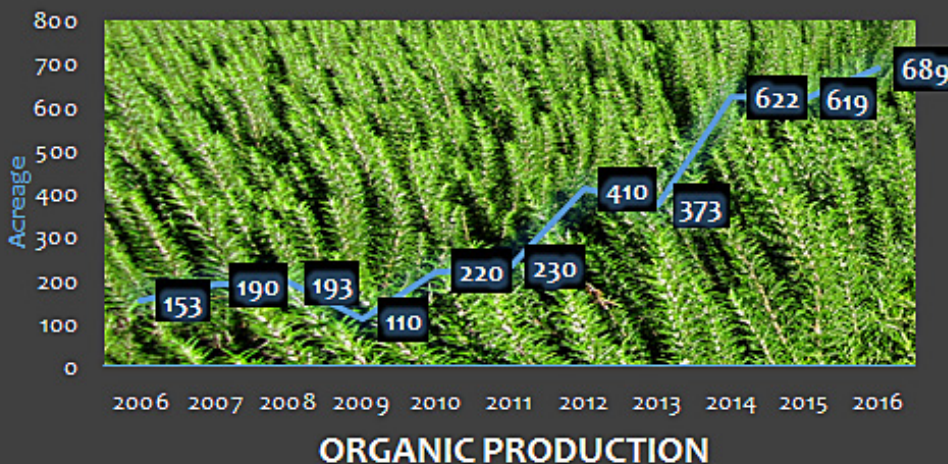
SAN MATEO COUNTY SUSTAINABLE AGRICULTURE REPORT

INTEGRATED PEST MANAGEMENT

Integrated Pest Management (IPM), sometimes called “intelligent pest management”, is a systematic approach to managing destructive pests and keeping them below economic thresholds. IPM begins with identification and monitoring of target pests and uses multiple control strategies including natural enemies, biological controls, reduction of pest habitat, sanitation, host-free periods, traps and pheromones to disrupt reproduction. IPM is not exclusive of chemical use, but when needed, the chemical applied is the least toxic, effective material. IPM methods used by San Mateo County producers include:

Bee & Bird Netting	Insecticidal Soaps	Refined Oils
Botanical Extracts	Lacewings	Row Covers
Companion Planting	Ladybird Beetles	Sticky Traps
Cover Crops	Mowing	Soil Steam Sterilization
Crop Rotation	Mulching	Temperature/Humidity Control
Deer Fencing	Owl Boxes	Torching Weeds
Diatomaceous Earth	Parasitic Wasps	Weed Covers
Field Sanitation	Parasitic Nematodes	Vacuum
Hedgerows	Pheromone Disruptors & Traps	Vertebrates as Predators
Insect Growth Regulators	Predatory Mites	Vertebrate Traps

ORGANIC FARMING



Organic production in San Mateo County has increased substantially over the past 10 years. Since 2006, the number of registered organic producers has increased from 8 to 29, and production is up to 689 acres, an increase of 350%. The estimated gross production value of organic commodities for 2016 is \$6,815,000, a 7.4% increase over the previous year.

CERTIFIED FARMERS' MARKETS

Growing in popularity, Certified Farmers' Markets in California are experiencing a renaissance. Buying fresh produce, nuts, eggs, honey, and flowers direct from the farmer has become a community event that benefits both farmers and consumers. Producers selling at Certified Farmers' Markets are exempt from costly sizing, labeling, and standardized container requirements, while shoppers have access to the freshest, in-season, locally grown crops. In 2016, our office issued 63 Certified Producer Certificates to San Mateo County growers selling at any of the 23 markets in the County or other markets throughout California. Department Biologists inspect each San Mateo County producer at the market and their farm to verify they only are selling crops that they grew. Shopping at San Mateo County Certified Farmers' Markets is a great way to support our local farmers and agricultural economy.



For an up-to-date market list visit: www.smcgov.org/agwm

SAN MATEO COUNTY SUSTAINABLE AGRICULTURE REPORT

PEST DETECTION

The San Mateo County Pest Detection staff places insect traps throughout the County to detect the presence of introduced insect pests that are destructive to agriculture and the environment. Throughout the growing season, traps are placed in fruit and other host trees that may attract exotic insects. In 2016, program staff placed, inspected and maintained 5,257 traps in San Mateo County, checking them 59,160 times. In September, a Peach Fruit Fly (*Bactrocera zonata*) was found in a Jackson trap on a residential apple tree in the City of San Mateo. Delimitation traps were set out in a 1- mile radius to determine if there was an infestation and if so, limit the extent of spread. Fortunately, no additional quarantined flies were found.

Asian Citrus Psyllid	Japanese Beetle
European Corn Borer	Khapra Beetle
European Grape Vine Moth	Mediterranean Fruit Fly
European Pine Shoot Moth	Melon Fly
Glassy-winged Sharpshooter	Mexican Fruit Fly
Gypsy Moth	Oriental Fruit Fly
Fruit Fly Species of <i>Bactrocera</i> , <i>Dacus</i> , <i>Ceratitis</i> and <i>Anastrepha</i>	

PEST ERADICATION

The San Mateo County Weed Management Area (WMA) Group is a collaborative effort engaging many stakeholders, to prevent the establishment and spread of invasive weeds. The WMA meets every other month to discuss respective efforts, provide updates, educate on successful approaches, and prioritize management efforts. Fertile Capeweed was a focus in 2016 as this very invasive weed was found on several new properties adjacent to the initial site. New technologies, such as the Calflora Observer Pro App, are being used to map and monitor the population, track progress, and share information regarding this and other weeds.

Fertile Capeweed
Arctotheca calendula
A-Rated*

Perennial rosettes with daisy-like yellow flowers
Open or disturbed sites; spread from one to thirteen sites in the county near Bean Hollow and Hwy 1
Mapped, hand pulled, and treated with herbicides

Jubata Grass
Cortaderia jubata
C-Rated***

Perennial grass, long leaves from base w/ plumed panicles maturing violet to white
Mostly along coast in bare/sandy soil; found in thousands of acres throughout the County
Mapped, mechanical methods, and treated with herbicides

Purple Loosestrife
Lythrum salicaria
B-Rated**

Perennial clumps up to 3 meters tall w/ spikes of purple flowers
Wetlands; found in and around Reflection Lake in La Honda
Mapped and hand pulled

Skeletonweed
Chondrilla juncea
A-Rated*

Perennial or biennial, basal rosettes w/ wiry stems and small yellow flowers
Disturbed land; San Carlos, near Caltrain tracks, Edgewood Road/Hwy 280 and Edgewood Park
Mapped, hand pulled, herbicide treatment and 2 biocontrol agents released: gall mite, *Eriophyes chondrillae*, and rust fungus, *Puccinia chondrillina*

*A - Rated pests are highly invasive, considered detrimental to agriculture and the environment, and regulated for eradication.

**B - Rated pests may be detrimental to agriculture and eradication is subject to the discretion of the local Agricultural Commissioner.

***C - Rated pests are at the discretion of the county Agricultural Commissioner.

SAN MATEO COUNTY AGRICULTURAL EXPORTS

The San Francisco International Airport (SFO), Golden Gate Produce Terminal, and many nearby ports makes San Mateo County a bustling center for exports. Agricultural products transported through these sites require inspection and certification to ensure they are free of soil and pests and meet the entry requirements of the destination country or state. In 2016, Department staff issued 794 Federal Phytosanitary Certificates for agricultural goods going to 24 countries, and 1,146 State Phytosanitary Certificates for agricultural products going to 15 states.

COUNTRIES RECEIVING AGRICULTURAL COMMODITIES

Australia	Kuwait	Singapore
Brazil	Micronesia	South Korea
Canada	Netherlands	Taiwan
China	Norway	Thailand
Germany	Palau	Tonga
Hong Kong	Philippines	United Arab Emirates
Indonesia	Qatar	United Kingdom
Japan	Saudi Arabia	Viet Nam

PHYTOS BY REGION



RAINFALL TOTALS

Much needed rainfall brought some relief to agricultural producers that have been losing ground due to drought conditions over the past few years. As our producers continue to adjust to ever increasing climatic changes, they prove time and time again resiliency when faced with known and unknown adversity.

RAIN STATIONS

	<u>Half Moon Bay</u>	<u>Pescadero</u>
Year	inches	inches
2015/2016	22.93	26.18
2014/2015	16.45	21.38
2013/2014	9.44	11.25
2012/2013	18.78	20.11
2011/2012	16.16	18.32
2010/2011	27.75	29.38
2009/2010	25.34	30.28
2008/2009	20.74	25.69
2007/2008	20.65	21.86
2006/2007	18.29	15.13
2005/2006	35.58	30.30

SAN MATEO COUNTY COASTSIDE RAINFALL TOTALS



COUNTY OF SAN MATEO

DEPARTMENT OF AGRICULTURE/WEIGHTS & MEASURES

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