SAN MATEO COUNTY

2017 AGRICULTURAL CROP REPORT

Pursuant to the provisions of Section 2279 and 2272 of California's Food and Agricultural Code, it is my pleasure to present the 2017 Annual Crop Report for San Mateo County. This year's agricultural production is estimated at $142.7 million, an increase of $7.2 million from the previous year. This represents the gross value of agricultural commodities produced in San Mateo County and does not account for costs associated with labor, field preparation, planting, harvesting, distribution and other production related activities.

Commodity groups and individual commodities whose value increased this year include **Indoor Floral and Nursery Crops**, which went up by $6.1M to a total of $82.7M. This was the result of higher returns on indoor potted plants, which increased by $3.6M. Bedding plants posted a significant increase of $2.7M to a total of $3.3M. This was a result of improved markets, industry diversification and the production of specialty products.

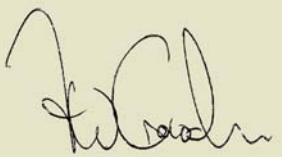
Vegetable Crops increased by $2.2M on higher returns for Brussels sprouts and pumpkins. Though acreage was down almost 20%, the per unit value for premium quality, fresh market sprouts pushed the commodity total to $13.4M, an increase of 3.7%. Growers selling pumpkins directly to consumers through agricultural tourism events such as the Half Moon Bay Pumpkin Festival pushed pumpkin totals to $1.3M, an 88.3% increase over last year.

The overall value of **Fruit and Nut Crops** improved by $464K to $3.1M. San Mateo County is a challenging grape production area and year-to-year fluctuations in yield and value are normal. With better weather, wine grapes increased by $479K to total $1.2M. Cattle and calves in the **Livestock** group fared well, increasing by 29% for a total of $2.5M with the number of head up to 1,574. Ideal weather conditions also benefited dry farm crops such as beans and grains, pushing the gross returns of **Field Crops** to $1.4M, an increase of $285K.

Commodities and commodity groups which declined this past year include **Outdoor Floral and Nursery Crops**, dropping by $1.3M to a commodity group value of $20.1M. Within this group, Ornamental Nursery Stock declined by $904K as prices for outdoor nursery crops softened. **Forest Products** declined from $4.6M to $3.7M, a 20% reduction.

In closing, I would like to thank the agricultural producers who provided the information to make this report possible. Tracking crop production is important in assessing the health of our agriculture and food production systems and grower cooperation is critical in doing so. Also, thank you to department staff, especially Kelly Mayer and Jennifer Gossett, who gathered data, crunched numbers, compiled statistics and massaged the information into both an intelligible and artful report.

Respectfully,



Fred Crowder
Agricultural Commissioner
Sealer of Weights and Measures

DEPARTMENT OF AGRICULTURE/WEIGHTS & MEASURES

728 Heller Street
Redwood City, CA 94064
(650) 363-4700

Branches

883 Sneath Lane, Suite 150
San Bruno, CA 94066
(650) 877-5762

785 Main Street, Suite C
Half Moon Bay, CA 94019
(650) 726-2514

Karen Ross, Secretary
California Department of Food & Agriculture
and
San Mateo County Board of Supervisors
Dave Pine, District 1, President
Carole Groom, District 2, Vice President
Don Horsley, District 3
Warren Slocum, District 4
David J. Canepa, District 5

Agricultural Commissioner
Sealer of Weights and Measures
Fred Crowder

STAFF

Deputy Agricultural Commissioner/Sealers
Jeremy Eide — Maria Mastrangelo — Jeremy Wagner

Biologist/Standards Specialists

John Beall
Teddy Chung
Richard Garcia
Jeff Garibaldi
Mike Garibaldi
Jennifer Gossett
Joseph Hannen
Erin Herbst
Carole Holomuzki
Grant Joo
Leonard Kuwahara
Paul Lasker
Kelly Mayer
Mark Melendez
Don Pendleton
Nancy Poss
Vicente Rodriguez
Chanpreet Sidhu
Bob Swanson
Renald Toruno
Jackie Wang
Lawrence Yang
Ione Yuen

Pest Detection Supervisor
Gerardo Ibarra Jr.

Pest Detection Specialists

Anderson Carlisle
Matthew Chilton
Curtiss Coffman
Jesus Garcia
Brent Hecht
Jean Paul Lorrain
Hanford Kwong
Steve McDonagh

Administrative Support

Fiscal Office Specialist
Mei Wong

Office Specialist
Maria Luna

Management Analyst
Alberto Hernandez

www.smcgov.org/agwm • smateoag@smcgov.org

FLORAL AND NURSERY CROPS

INDOOR GROWN

Crop	Year	Square Feet	Total Value
Potted Plants[1] Flowering & Foliage	2017	5,382,000	$76,449,000
	2016	6,607,000	$72,893,000
Cut Flowers[2]	2017	879,000	2,944,000
	2016	881,000	3,106,000
Bedding Plants, Cuttings and Liners[3]	2017	315,000	3,294,000
	2016	176,000	555,000
TOTAL	2017	6,576,000	$82,687,000
	2016	7,664,000	$76,554,000

1 Includes Hydrangeas, Ivy, Lilies, Orchids, Succulents, etc.
2 Includes Alstroemeria, Freesia, Kale, Lilies, Ranunclus, etc.
3 Includes Grasses, Herbs, Vegetables, etc.

OUTDOOR GROWN

Crop	Year	Acres	Total Value
Ornamentals Nursery Stock[1]	2017	85	$13,436,000
	2016	89	$14,340,000
Christmas Trees (cut)	2017	162	296,000
	2016	158	288,000
Cut Flowers[2]	2017	265	6,351,000
	2016	295	6,740,000
TOTAL	2017	512	$20,083,000
	2016	542	$21,368,000

1 Includes herbaceous perennials, shrubs and trees.
2 Includes Dahlias, Hydrangeas, Lilies, Sunflowers, Yarrow, etc.

VEGETABLE CROPS

			PRODUCTION			VALUE	
Crop	Year	Acres	Per Acre	Total	Unit	Per Unit	Total
Artichokes	2017	63	1.34	84	Ton	$1,719	$144,000
	2016	66	2.47	163	Ton	$1,608	$262,000
Beans, Fava	2017	318	4.07	1,294	Ton	1,480	1,915,000
	2016	340	3.57	1,214	Ton	1,535	1,863,000
Beans, Snap	2017	49	3.36	165	Ton	1,860	307,000
	2016	56	3.20	179	Ton	1,848	331,000
Brussels Sprouts	2017	654	10.28	6,723	Ton	1,998	13,433,000
	2016	817	10.91	8,913	Ton	1,453	12,951,000
Leeks	2017	96	13.19	1,266	Ton	1,159	1,467,000
	2016	118	13.38	1,579	Ton	1,126	1,778,000
Peas	2017	154	1.48	228	Ton	2,242	511,000
	2016	160	1.48	237	Ton	2,362	560,000
Pumpkins	2017	167	6.77	1,131	Ton	1,165	1,318,000
	2016	173	4.59	794	Ton	882	700,000
Miscellaneous Vegetables Field and Indoor Grown [1]	2017	369					8,164,000
	2016	369					6,573,000
TOTAL	2017	1,870					$27,259,000
	2016	2,099					$25,018,000

1 Includes Cabbage, Herbs, Kale, Lettuce, Mushrooms, Potatoes, Squash, Tomatoes, etc.

FRUIT AND NUT CROPS

Crop	Year	Acres	Total Value
Wine Grapes	2017	164	$1,182,000
	2016	152	$703,000
Miscellaneous[1]	2017	109	1,899,000
	2016	109	1,914,000
TOTAL	2017	273	$3,081,000
	2016	261	$2,617,000

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

FOREST PRODUCTS

Year	Board Feet	Total Value
2017	5,176,000	$3,680,000
2016	10,083,000	$4,604,000

LIVESTOCK

Commodity	Year	Number Head Sold	Total Value
Cattle and Calves	2017	1,574	$2,548,000
	2016	1,488	$1,980,000
Other [1]	2017	9,304	642,000
	2016	7,744	626,000
TOTAL	2017	10,878	$3,190,000
	2016	9,232	$2,606,000

1 Includes Goats, Hogs, Lambs, Poultry, etc.

LIVESTOCK PRODUCTS AND APIARY

Commodity	Year	Production	VALUE Per Unit	VALUE Total
Honey	2017	37,000 lbs	$12.38	$458,000
	2016	28,000 lbs	$11.27	$316,000
Other [1]	2017			825,000
	2016			1,231,000
TOTAL	2017			$1,283,000
	2016			$1,547,000

1 Includes Beeswax, Eggs, Cheese, Wool, etc.

FIELD CROPS

Commodity	Year	PRODUCTION Acres	Per Acre	Total	Unit	VALUE Per Unit	Total
Beans, Dry[1]	2017	80	0.94	75	Ton	$5,932	$445,000
	2016	74	0.98	73	Ton	$5,034	$367,000
Grain[2]	2017	105	1.20	126	Ton	1,755	221,000
	2016	76	1.40	106	Ton	1,620	172,000
Hay Oat & Rye	2017	452	2.53	1,144	Ton	186	213,000
	2016	480	2.52	1,210	Ton	182	220,000
Volunteer	2017	135	1.90	257	Ton	87	22,000
	2016	128	2.31	296	Ton	81	24,000
Pasture Irrigated	2017	185				155	29,000
	2016	181				154	28,000
Other	2017	24,107				20	482,000
	2016	22,568				14	316,000
TOTAL	2017	25,056					$1,412,000
	2016	23,507					$1,127,000

1 Includes Cranberry, Fava, Romano, etc.
2 Includes Barley, Oats, Quinoa, Rye and Wheat

COMMERCIAL FISH CATCH

Species	Year	Pounds	Value
Crab, Dungeness	2017	1,644,322	$6,788,456
	2016	3,306,168	$10,722,705
Squid, market	2017	3,016,876	1,508,438
	2016	7,291,868	3,645,934
Prawn, spot	2017	46,133	712,692
	2016	36,073	556,859
Salmon, Chinook	2017	67,759	696,860
	2016	83,727	745,567
Halibut, California	2017	109,146	603,281
	2016	61,639	318,605
Sablefish	2017	197,600	297,127
	2016	86,351	253,077
Anchovy	2017	3,442,583	172,129
	2016	1,561,171	78,059
Sole, all	2017	144,502	137,327
	2016	114,265	114,820

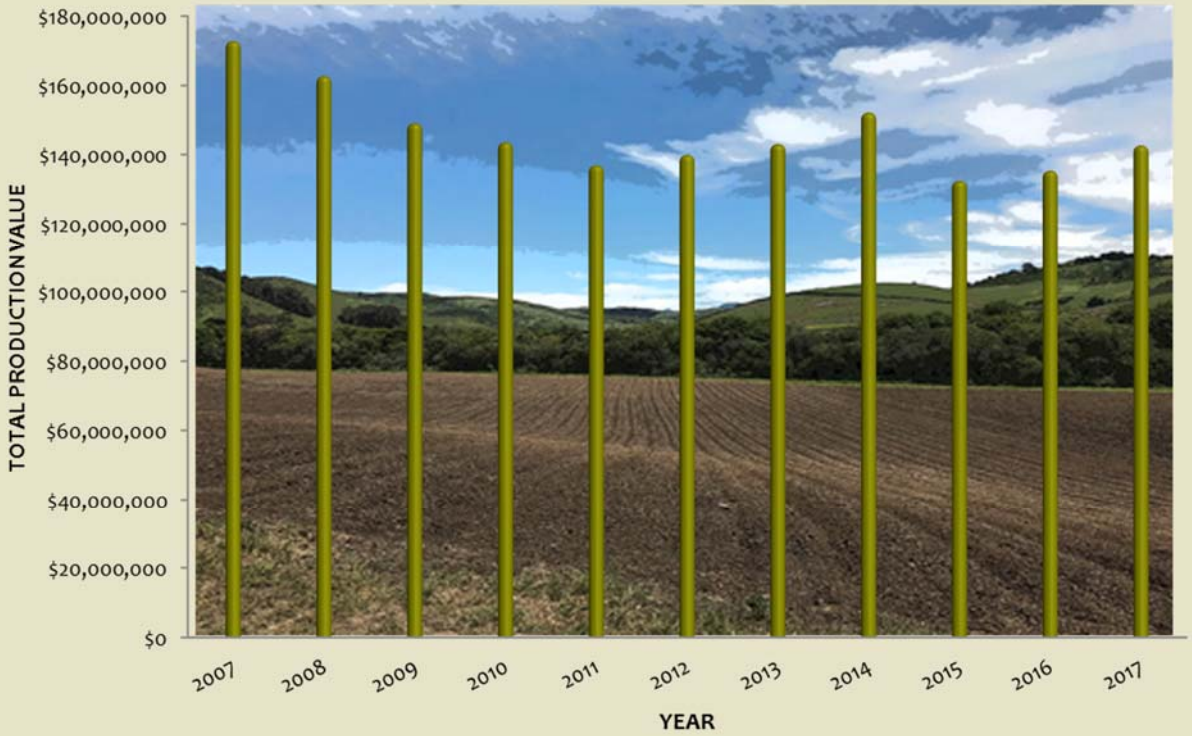
Species	Year	Pounds	Value
Sea Urchin	2017	22,230	90,446
	2016	14,835	55,810
Crab, rock unspecified	2017	29,763	78,798
	2016	4,138	15,617
Rockfish, all	2017	61,253	53,215
	2016	18,238	31,396
Sanddab	2017	54,623	27,490
	2016	54,170	27,855
Lingcod	2017	10,855	25,493
	2016	13,801	41,936
Miscellaneous	2017	15,847	17,699
	2016	27,440	21,995
Tuna, Albacore	2017	3,466	10,277
	2016	13,223	40,916
Flounder, all	2017	8,422	7,949
	2016	6,567	5,918

Grand Total	2017	8,875,380 lbs	$11,227,677
	2016	12,693,673 lbs	$16,677,069

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

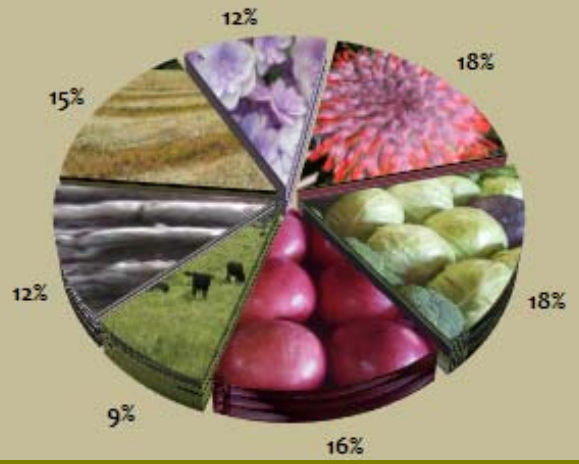
RECAPITULATION

	2017	2016	Net Difference
Floral and Nursery Crops	$102,770,000	$97,922,000	4,848,000
Vegetables	27,259,000	25,018,000	2,241,000
Forest Products	3,680,000	4,604,000	-924,000
Fruit and Nut Crops	3,081,000	2,617,000	464,000
Livestock	3,190,000	2,606,000	584,000
Livestock Products and Apiary	1,283,000	1,547,000	-264,000
Field Crops	1,412,000	1,127,000	285,000
TOTAL	**$142,675,000**	**$135,441,000**	**$7,234,000**



2017 Agricultural Production Values

- Floral & Nursery Crops Indoor Grown
- Floral & Nursery Crops Outdoor Grown
- Vegetables
- Forest Products
- Fruit & Nut Crops
- Livestock
- Livestock & Apiary Products
- Field Crops



Producers Per Commodity Group

SUSTAINABLE AGRICULTURE REPORT

Sustainable Agriculture utilizes farming practices that balance production and economic viability, with protecting and minimizing impact on the environment and human health. Early pest detection and proactive management or eradication of harmful pests protects California's agricultural industry and reduces the need for pesticides. Our Department's programs for pest detection, control and eradication, and the enforcement of quarantine laws to exclude injurious pests last year are summarized as follows. Also included are the Integrated Pest Management methods local farmers are using to balance crop production needs with those of the natural systems around them.

PEST EXCLUSION

Pest Exclusion inspections at entry points of agricultural shipments prevent the introduction and establishment of damaging pests. Exotic pests are regularly intercepted by Staff Biologists at parcel facilities, San Francisco International Airport and other ports during daily enforcement inspections. Origin certifications are also verified to confirm compliance with plant quarantines and regulations. When an infested or noncompliant shipment is found, it may be destroyed, reconditioned and released, or returned to the shipper.

Type of Shipment	Inspections	Rejections	Pests Intercepted
Parcel Carriers	19,678	78	15
Truck	1,198	11	6
Air	2,666	42	28
Sea Containers	40	0	0
Household Goods (Gypsy Moth)	43	0	0
Nursery Stock (GWSS)	1,974	1	0

EXOTIC PESTS INTERCEPTED

Pest or Disease	Rating	Number of Interceptions	Pest or Disease	Rating	Number of Interceptions
Aspidiotus destructor coconut scale	A	1	***Zachrysia provisoria*** Cuban brown scale	A	2
Ceroplastes rusci fig wax scale	A	2			
Dysmicoccus grassii mealybug	A	1	**Ants** (7 species)	Q	10
Pinnaspis buxi boxwood scale	A	3	**Aphids** (2 species)	Q	2
Pinnaspis strachani lesser snow scale	A	3	**Leafhoppers & Planthoppers** (3 species)	Q	4
Planococcus minor citrus mealybug	A	1	**Mealybugs** (various species)	Q	6
Pseudaonidia trilobitiformis trilobe scale	A	1	**Moths & Butterflies** (2 species)	Q	2
Pseudaulacaspis cockerelli magnolia white scale	A	2	**Scales** (various species)	Q	6
Pseudococcus jackbeardsleyi mealybug	A	1	**Thrips** (2 species)	Q	2
Psychidae bayworm moth	A	1	**Whiteflies** (Aleyrodidae)	Q	1
Spodoptera latifascia velvet armyworm	A	1	**Other**	Q	3

"A" rated pests or diseases are of known economic significance requiring containment, eradication and rejection.
"Q" rated pests and diseases are suspected to cause economic significance requiring containment, eradication and rejection.

PEST DETECTION

The Pest Detection staff are responsible for placing and monitoring exotic insect traps throughout San Mateo County. In 2017, 4,600 traps were placed in host plants and checked 57,600 times resulting in two separate Mediterranean Fruit Fly (*Ceratitis capitata*) finds in Half Moon Bay. This is the first time this pest has been found in San Mateo Country since 1994. Genetic testing indicates a genotype consistent with a Hawaiian origin, and may have been brought back by a traveler on smuggled fruit. Medfly is considered the most important agricultural pest in the world, and the findings prompted an emergency quarantine and flooding the area with additional traps in a five mile radius around the find to delimit the extent of the infestation. These traps are serviced weekly for any "wild" populations of Medfly, providing an indicator as to the progress of the eradication project. Kudos to the Pest Detection staff for finding these flies so quickly and preventing these introductions from blooming into a regional infestation.

The following are pests of significant concern for agriculture and the environment for which the department routinely surveys:

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 *Bactrocera, Dacus, Ceratitis* and *Anastrepha*

PEST ERADICATION

San Mateo County pest eradication efforts have previously been focused on invasive, introduced weed species; however, in response to finding Mediterranean Fruit Fly in the Half Moon Bay area, this pest has become the primary focus of the department's eradication efforts. Because of its wide range of hosts and ability to tolerate cooler climates, Medfly is first among economically important fruit flies. Although a major pest of citrus, it is a more serious pest of deciduous fruits, such as peach, pear and apple. The larvae feed on and tunnel through fruit, reducing it to a sloppy, inedible mass. In some of the Mediterranean countries, only the early season varieties of citrus are grown, as Medfly reproduces so quickly that late season fruits are too heavily infested to be marketable, with some areas having almost 100% infestation in stone fruits.

In addition to community outreach, the department has been working with agricultural producers to comply with, but minimize the impacts of federal quarantines. Eradication treatments include twice weekly aerial releases of millions of sterile male Medflies over the infested area, and ground treatments with an organic formulation of Spinosad, an insecticide from naturally-occurring bacteria. If no additional "wild" Medflies are found, the eradication effort is projected to end in September.

Photograph by Scott Bauer, USDA.

WEED MANAGEMENT

The San Mateo County Weed Management Area (WMA) Group coordinates, educates and funds invasive species projects including removal, destruction and monitoring of noxious weeds. In 2017, detection, mapping and control projects included the following weeds:

Fertile Capeweed • *Arctotheca calendula*

A-Rated*

- Perennial rosettes with daisy-like yellow flowers
- Open or disturbed sites; growing in at least 14 parcels 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, focused on 257 acres near Pescadero Creek Road, as well as ongoing population control at Pillar Point Bluff.
- 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 and herbicide treatment

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

INTEGRATED PEST MANAGEMENT

Integrated Pest Management (IPM) 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, 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 agriculture production in San Mateo County continues to gain in acreage and value. In 2017, organic production went up to 726 acres from 689 acres, an increase of 5.4%. The estimated gross production value of organic commodities for 2017 is $10,025,000, a 47.1% increase over the previous year.

CERTIFIED FARMERS' MARKETS

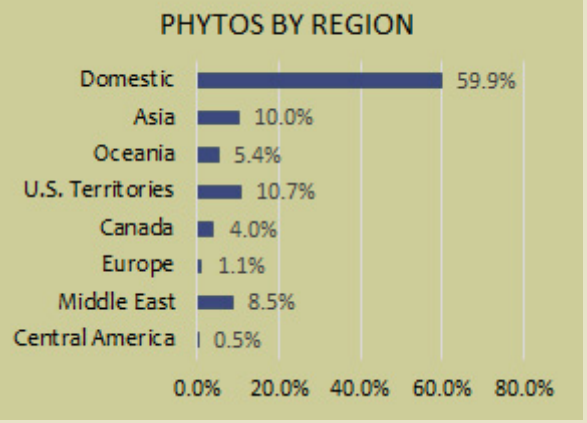
Certified Farmers' Markets benefit both producers and consumers. At these markets, farmers are exempt from costly packing, sizing and labeling regulations, and consumers benefit from access to fresh, locally grown in-season products. San Mateo County increased the number of inspections at certified farmers' markets to verify compliance with direct marketing and organic production laws and regulations; this is to ensure a level playing field among all participating farmers and to protect farmers and consumers interests. This year San Mateo County Department of Agriculture Biologists coordinated investigations and responded to complaints alongside staff from the California Department of Food and Agriculture to verify that producers selling at Certified Farmers' Markets were selling agricultural products that they produced, and not supplementing purchased products that were grown by someone else.

AGRICULTURAL EXPORTS

The hustle and bustle of agricultural import/export businesses is centered around the San Francisco International Airport (SFO), Golden Gate Produce Terminal, and nearby seaports. Fresh fruits, vegetables, grains and plants travel from the Bay Area to points all over the world requiring inspection and certification to ensure harmful pests are intercepted and entry requirements are met. Our department issued a total of 437 Federal Phytosanitary Certificates for agricultural shipments to 26 countries, and 1,068 State Phytosanitary Certificates accompanied agricultural products to 13 states.

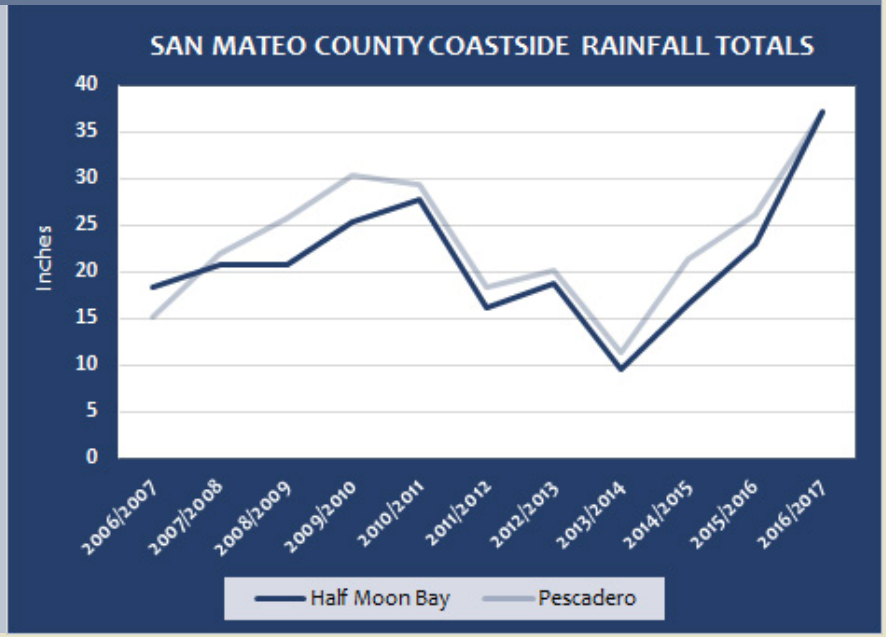
COUNTRIES RECEIVING AGRICULTURAL COMMODITIES

Australia	Japan	Singapore
Cambodia	Kuwait	South Korea
Canada	Micronesia	Taiwan
China	Monaco	Thailand
Costa Rica	Norway	Tonga
Honduras	Oman	United Arab Emirates
Hong Kong	Palau	United Kingdom
Indonesia	Philippines	Viet Nam
Italy	Saudi Arabia	



RAIN STATION TOTALS

Year	Half Moon Bay inches	Pescadero inches
2016/2017	37.07	37.10
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



COUNTY OF SAN MATEO
DEPARTMENT OF AGRICULTURE/WEIGHTS & MEASURES
728 Heller Street ● P.O. Box 999
Redwood City, California 94064-0999