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**2018 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 2018 Annual Crop Report for San Mateo County. This year's agricultural production is estimated at \$149.2 million, an increase of \$6.5 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 \$5.3M to total \$87.9M. Though production square footage dipped from last year, prices increased slightly as operations continued to transition to higher value products. **Forest Products** increased from \$3.7M to \$5.0M due to more timber harvested, and an increase in per-unit-value. **Fruit and Nut Crops** improved by 11.7% to total \$3.4M. Though acreage for white wine grapes dropped slightly, red wine varietals and miscellaneous fruits and nuts saw modest increases in both acreage and values.

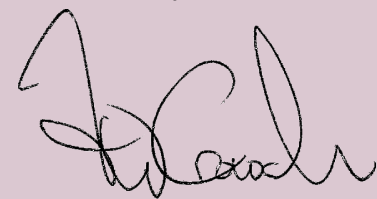
**Vegetable Crops** increased by \$590K, or about 2% overall. Though planted acreage, yield, and unit price varied depending on the respective commodity, the commodity group value increased on the strength of Brussels sprouts and Miscellaneous Vegetables. For Brussels sprouts, the per-unit-value was down, but greater acreage and increased yields boosted the commodity value. Miscellaneous Vegetables representing a variety of crops, also saw an increase in both planted acreage and overall value.

Animal production in both **Livestock** and **Livestock Products and Apiary** groups was stable, totaling \$3.2M and \$1.3M respectively. **Field Crops** increased about 4.5%, or \$64K from 2017, with all commodities performing relatively consistently. The exception to this was grain, where acres planted and yield were up significantly, but the per unit value was half the previous year.

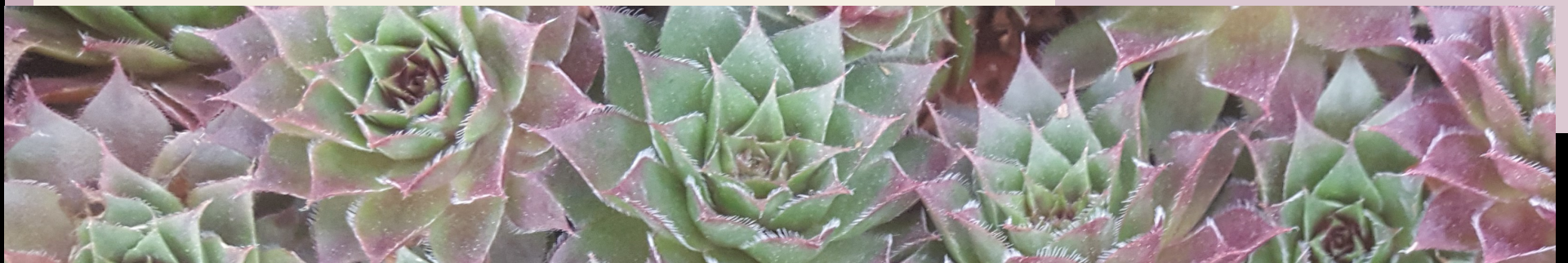
**Outdoor Floral and Nursery Crops** was down 5.6% overall, primarily as a result of global competition reducing sales and growers transitioning land to other commodities such as vegetables. Cut Flower acreage dropped by almost 25% contributing to a commodity value loss of \$1.9M. This decline was somewhat softened by a slight increase in total value for Ornamental Nursery Stock.

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, and compiled statistics to produce an illustrative report.

Respectfully,



Fred Crowder  
Agricultural Commissioner  
Sealer of Weights and Measures



## DEPARTMENT OF AGRICULTURE/WEIGHTS & MEASURES

**Agricultural Commissioner**  
**Sealer of Weights and Measures**  
Fred Crowder



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

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### STAFF

#### Deputy Agricultural Commissioner/Sealers

Jeremy Eide    Maria Mastrangelo    Jeremy Wagner

#### Biologist/Standards Specialists

Teddy Chung	Marithza Hernandez	Chanpreet Sidhu
Richard Garcia	Grant Joo	John Sorfleet
Jeff Garibaldi	Avneet Kakkar	Bob Swanson
Mike Garibaldi	Leonard Kuwahara	Renald Toruno
Jennifer Gossett	Paul Lasker	Michael Wong
Joseph Hannen	Kelly Mayer	Lawrence Yang
Erin Herbst	Mark Melendez	Ione Yuen
	Nancy Poss	

#### Pest Detection Supervisor

Gerardo Ibarra Jr.

#### Pest Detection Specialists

Anderson Carlisle	John Dunsford	Jean Paul Lorrain
Ramona Cavanaugh	Jesus Garcia	Steve McDonagh
Matthew Chilton	Brent Hecht	Jackie Wang
Curtiss Coffman		Kevin Wong

#### Administrative Support

##### Fiscal Office Specialist

Mei Wong

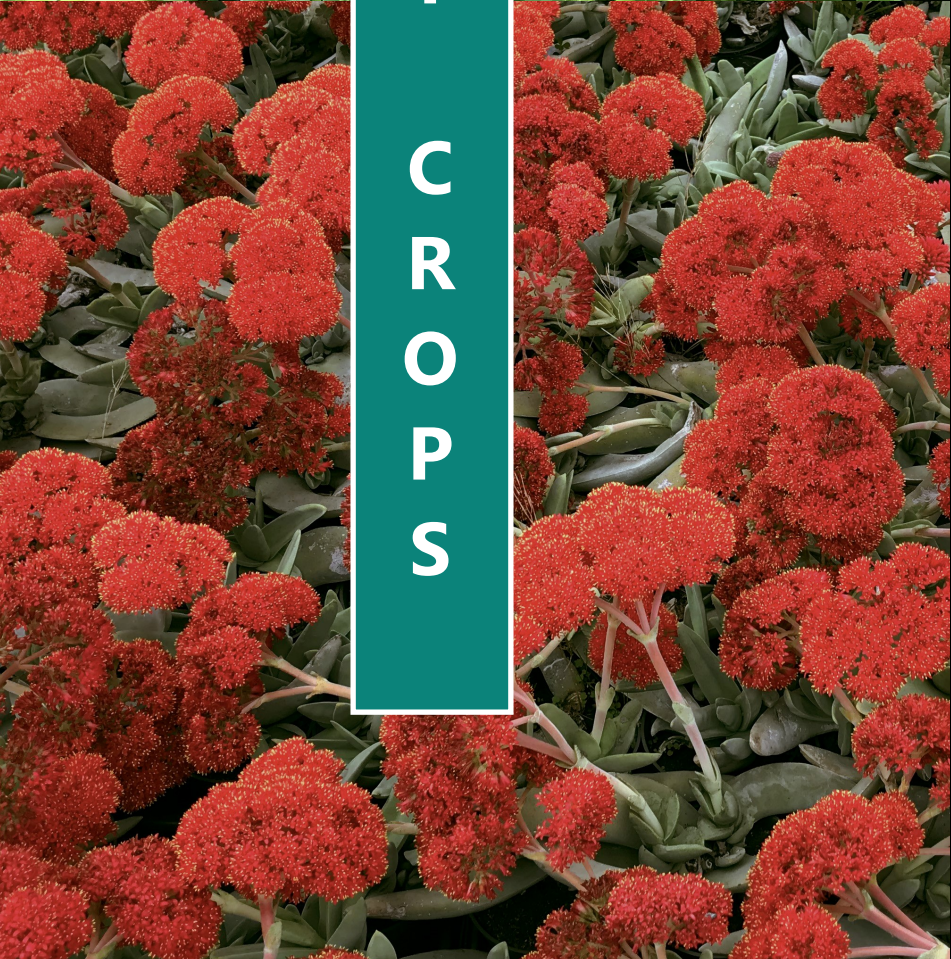
##### Office Specialist

Maria Luna

##### Management Analyst

Alberto Hernandez





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**INDOOR GROWN**

Crop	Year	Square Feet	Total Value
Potted Plants <sup>1</sup> Flowering & Foliage	2018	4,765,000	\$81,467,000
	2017	5,382,000	\$76,449,000
Cut Flowers <sup>2</sup>	2018	840,000	2,508,000
	2017	879,000	2,944,000
Bedding Plants, Cuttings and Liners <sup>3</sup>	2018	318,000	3,974,000
	2017	315,000	3,294,000
<b>TOTAL</b>	2018	5,923,000	\$87,949,000
	2017	6,576,000	\$82,687,000

1 Includes Campanula, Hydrangeas, Orchids, Succulents, etc.  
 2 Includes Alstroemeria, Freesia, Lilies, Ranunculus, etc.  
 3 Includes Herbs, Succulents, Vegetables, etc.



**OUTDOOR GROWN**

Crop	Year	Acres	Total Value
Ornamentals Nursery Stock <sup>1</sup>	2018	85	\$14,228,000
	2017	85	\$13,436,000
Christmas Trees (cut)	2018	151	300,000
	2017	162	296,000
Cut Flowers <sup>2</sup>	2018	199	4,431,000
	2017	265	6,351,000
<b>TOTAL</b>	2018	435	\$18,959,000
	2017	512	\$20,083,000

1 Includes herbaceous perennials, shrubs and trees.  
 2 Includes Dahlias, Larkspur, Ranunculus, Stock, etc.



## VEGETABLE CROPS

Crop	Year	Acres	PRODUCTION		Unit	VALUE	
			Per Acre	Total		Per Unit	Total
Artichokes	2018	59	2.32	137	Ton	\$1,873	\$257,000
	2017	63	1.34	84	Ton	\$1,719	\$144,000
Beans, Fava	2018	258	3.42	882	Ton	1,365	1,204,000
	2017	318	4.07	1,294	Ton	1,480	1,915,000
Beans, Snap	2018	39	3.55	138	Ton	1,658	229,000
	2017	49	3.36	165	Ton	1,860	307,000
Brussels Sprouts	2018	788	12.22	9,629	Ton	1,479	14,241,000
	2017	654	10.28	6,723	Ton	1,998	13,433,000
Leeks	2018	90	14.05	1,265	Ton	1,170	1,480,000
	2017	96	13.19	1,266	Ton	1,159	1,467,000
Peas	2018	142	1.45	206	Ton	2,200	453,000
	2017	154	1.48	228	Ton	2,242	511,000
Pumpkins	2018	186	6.64	1,235	Ton	1,075	1,328,000
	2017	167	6.77	1,131	Ton	1,165	1,318,000
Miscellaneous Vegetables Field and Indoor Grown <sup>1</sup>	2018	382					8,657,000
	2017	369					8,164,000
TOTAL	2018	1,944					\$27,849,000
	2017	1,870					\$27,259,000

<sup>1</sup> Includes Chard, Herbs, Kale, Lettuce, Mushrooms, Peppers, Squash, etc.

## FRUIT AND NUT CROPS

Crop	Year	Acres	Total Value
Wine Grapes Red Varietals	2018	126	\$1,181,000
	2017	120	\$915,000
White Varietals	2018	41	226,000
	2017	44	267,000
Miscellaneous <sup>1</sup>	2018	120	2,035,000
	2017	109	1,899,000
TOTAL	2018	287	\$3,442,000
	2017	273	\$3,081,000

<sup>1</sup> Includes Apples, Berries, Chestnuts, Pears, etc.





## LIVESTOCK

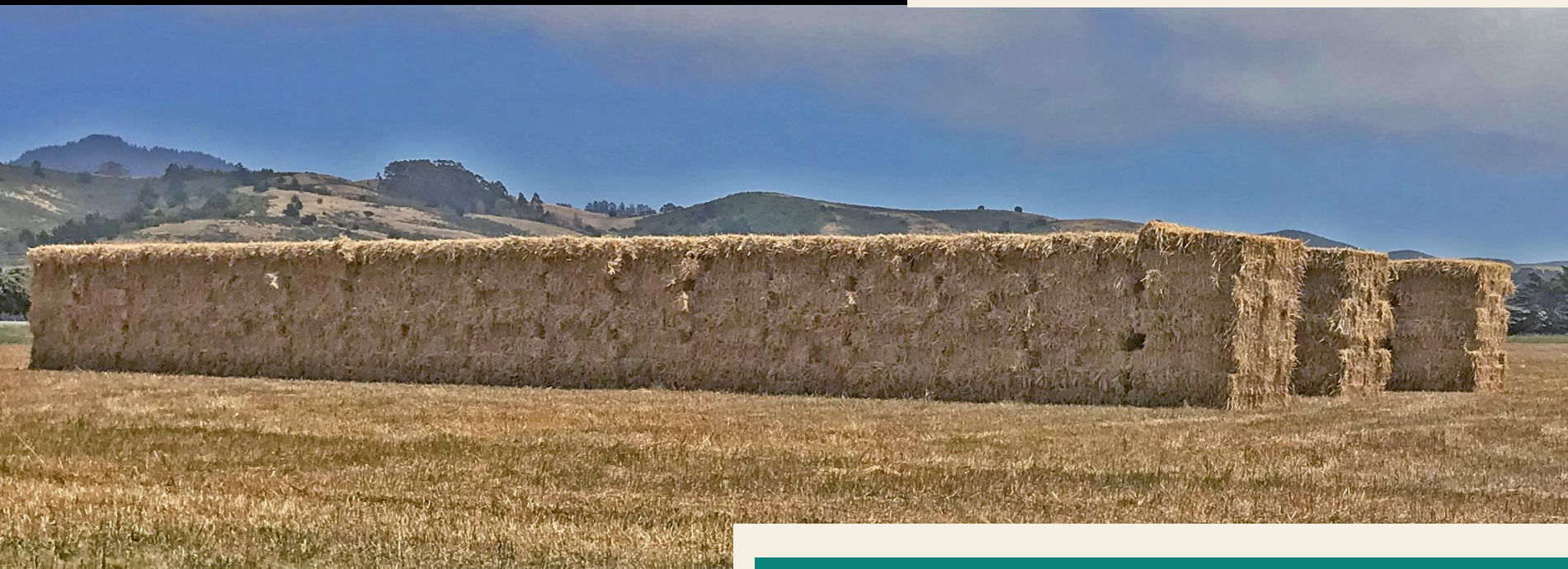
Commodity	Year	Number Head Sold	Total Value
Cattle and Calves	2018	1,706	\$2,461,000
	2017	1,574	\$2,548,000
Other <sup>1</sup>	2018	12,302	749,000
	2017	9,304	642,000
TOTAL	2018	14,008	\$3,210,000
	2017	10,878	\$3,190,000

<sup>1</sup> Includes Goats, Lambs, Pigs, Poultry, etc.

## LIVESTOCK PRODUCTS AND APIARY

Commodity	Year	Production	Per Unit	VALUE	
				Per Unit	Total
Honey	2018	36,000 lbs	\$10.94		\$394,000
	2017	37,000 lbs	\$12.38		\$458,000
Other <sup>1</sup>	2018				889,000
	2017				825,000
TOTAL	2018				\$1,283,000
	2017				\$1,283,000

<sup>1</sup> Includes Beeswax, Eggs, Cheese, Wool, etc.



## FIELD CROPS

Commodity	Year	PRODUCTION			VALUE	
		Acres	Per Acre	Total Unit	Per Unit	Total
Beans, Dry <sup>1</sup>	2018	83	0.99	82 Ton	\$5,868	\$481,000
	2017	80	0.94	75 Ton	\$5,932	\$445,000
Grain <sup>2</sup>	2018	153	1.90	291 Ton	858	250,000
	2017	105	1.20	126 Ton	1,755	221,000
Hay Oat & Rye	2018	491	2.34	1,149 Ton	187	215,000
	2017	452	2.53	1,144 Ton	186	213,000
Volunteer	2018	138	1.85	255 Ton	112	29,000
	2017	135	1.90	257 Ton	87	22,000
Pasture Irrigated	2018	185			155	29,000
	2017	185			155	29,000
Other	2018	23,604			20	472,000
	2017	24,107			20	482,000
TOTAL	2018	24,654				\$1,476,000
	2017	25,064				\$1,412,000

<sup>1</sup> Includes Cranberry, Fava, Romano, etc.

<sup>2</sup> Includes Barley, Oats, Quinoa, Rye and Wheat

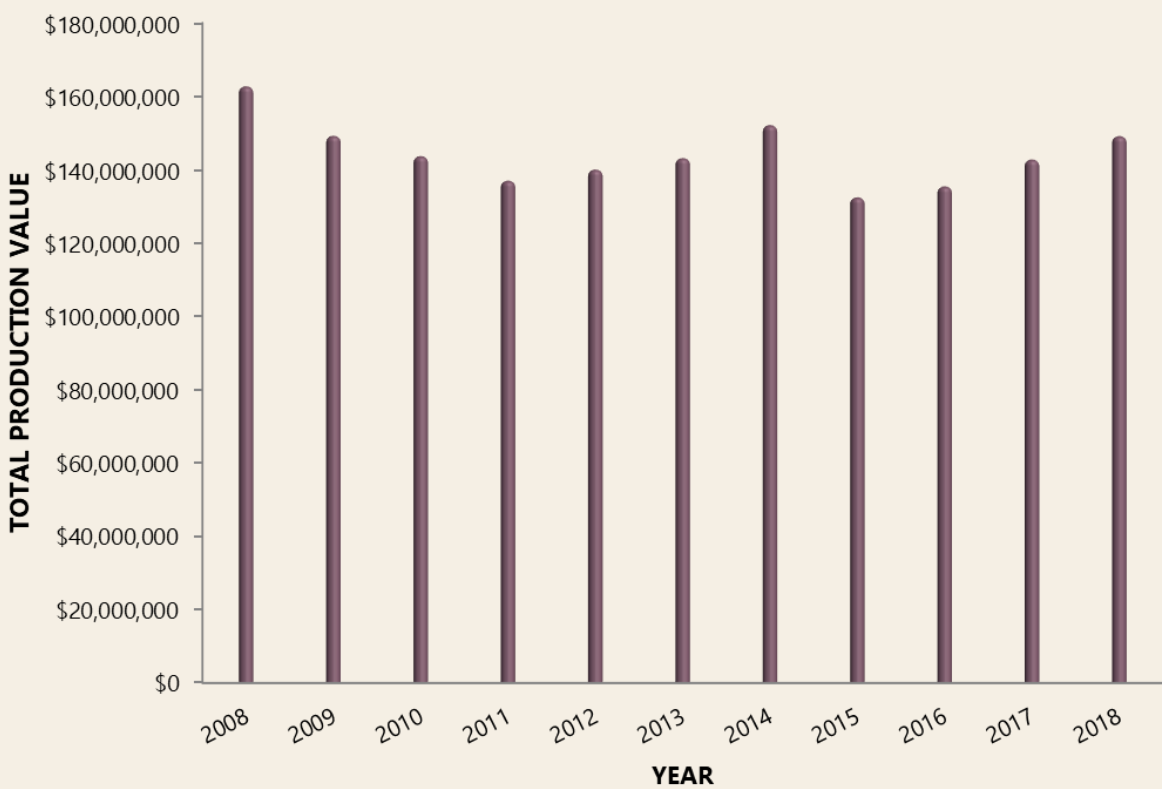
## FOREST PRODUCTS

Year	Board Feet	Total Value
2018	5,661,000	\$4,989,000
2017	5,176,000	\$3,680,000

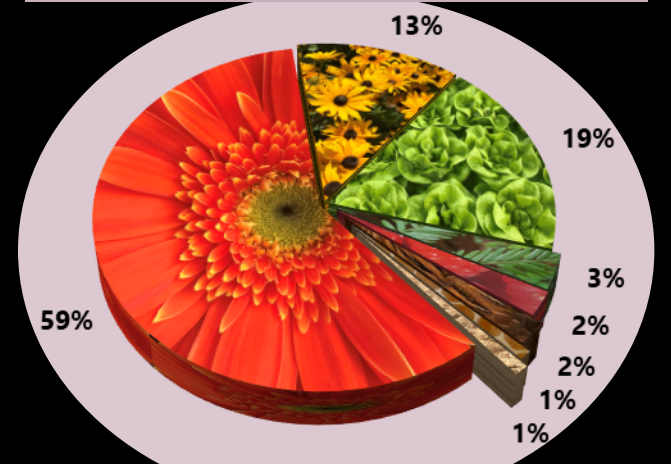


## RECAPITULATION

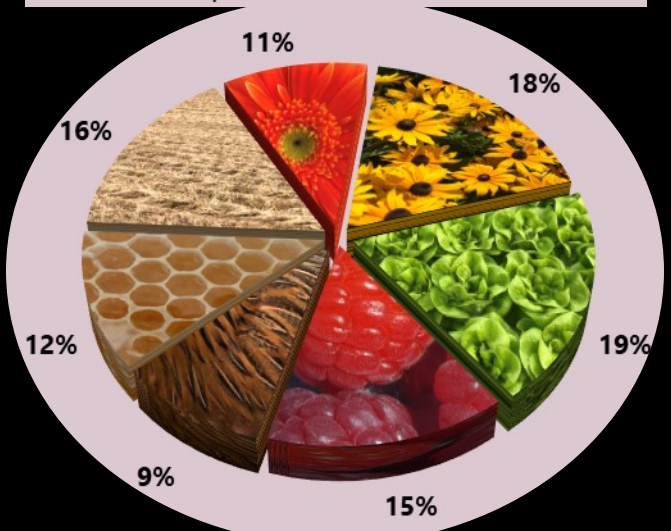
Commodity Group	2018	2017	Net Difference
Floral and Nursery Crops	\$106,908,000	\$102,770,000	\$4,138,000
Vegetables	27,849,000	27,259,000	590,000
Forest Products	4,989,000	3,680,000	1,309,000
Fruit and Nut Crops	3,442,000	3,081,000	361,000
Livestock	3,210,000	3,190,000	20,000
Livestock Products and Apiary	1,283,000	1,283,000	0
Field Crops	1,476,000	1,412,000	64,000
<b>Total</b>	<b>\$149,157,000</b>	<b>\$142,675,000</b>	<b>\$6,482,000</b>



## 2018 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

## COMMERCIAL FISH CATCH

Species	Year	Pounds	Value
Crab, Dungeness	2018	801,607	\$3,730,364
	2017	1,644,322	\$6,788,456
Salmon, Chinook	2018	278,786	\$3,323,821
	2017	67,759	\$696,860
Squid, Market	2018	2,512,684	\$1,249,492
	2017	3,016,876	\$1,508,438
Halibut, California	2018	46,191	\$263,121
	2017	109,146	\$603,281
Prawn, Spot	2018	12,716	\$216,815
	2017	46,133	\$712,692
Sole, all	2018	190,722	\$174,480
	2017	144,502	\$137,327
Anchovy	2018	3,157,224	\$157,861
	2017	3,442,583	\$172,129
Sablefish	2018	45,910	\$143,596
	2017	197,600	\$297,127

Species	Year	Pounds	Value
Rockfish, all	2018	209,067	\$136,572
	2017	61,253	\$53,215
Crab, rock unspecified	2018	32,077	\$68,853
	2017	29,763	\$78,798
Sea Urchin	2018	9,659	\$66,942
	2017	22,230	\$90,446
Lingcod	2018	18,297	\$35,799
	2017	10,855	\$25,493
Sanddab	2018	91,461	\$32,666
	2017	54,623	\$27,490
Miscellaneous	2018	18,365	\$22,528
	2017	15,847	\$17,699
Flounder, all	2018	3,921	\$3,327
	2017	8,422	\$7,949
Tuna, Albacore	2018	1,723	\$2,670
	2017	3,466	\$10,277

<b>Grand Total</b>	2018	<b>7,430,410 lbs</b>	<b>\$9,628,907</b>
	2017	<b>8,875,380 lbs</b>	<b>\$11,227,677</b>

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



# SUSTAINABLE AGRICULTURE REPORT

Sustainable Agriculture utilizes farming practices that conserve resources and plant health, and ensures the economic vitality of the farm. Early pest detection and proactive management of invasive pests facilitates these goals to safeguard California's agricultural industry and reduces the need for pesticide use. Our Department's programs promoting sustainable agriculture are summarized as follows. Also included are the Integrated Pest Management methods local farmers use to balance crop protection needs with those of surrounding natural systems.

## PEST DETECTION

The Pest Detection staff place and monitor insect traps throughout San Mateo County. In 2018, 4,250 traps were placed in host plants and checked 55,000 times. Our county was fortunate that no pests of agricultural and environmental concern (see target pest list below) were introduced in the County and found on these traps in 2018.

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 EXCLUSION

Pest Exclusion inspections of agricultural shipments at entry points prevent the introduction and establishment of damaging pests. Exotic pests are regularly intercepted by Staff Biologists at parcel facilities, San Francisco International Airport, nurseries and other entry points during daily inspections. Origin certifications are also verified to confirm compliance with plant quarantines, regulations and entry requirements. 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	23,987	93	25
Truck	1,282	14	17
Air	2,528	39	40
Sea Containers	34	1	1
Household Goods (Gypsy Moth)	33	0	0
Nursery Stock (GWSS)	2,013	0	0

## EXOTIC PESTS INTERCEPTED

Pest or Disease	Rating	Number of Interceptions	Pest or Disease	Rating	Number of Interceptions
<i>Ceroplastes floridensis</i> Florida wax scale	A	1	<i>Zachrysia provisorica</i> Cuban brown snail	A	2
<i>Ceroplastes stellifer</i> stellate scale	A	2	<b>Ants</b> (5 species)	Q	5
<i>Coccus viridis</i> green coffee scale	A	2	<b>Aphids</b> (various species)	Q	7
<i>Ischnaspis longirostris</i> black thread scale	A	2	<b>Mealybugs</b> (various species)	Q	11
<i>Pinnaspis buxi</i> boxwood scale	A	5	<b>Moths &amp; Butterflies</b> (4 species)	Q	4
<i>Pinnaspis strachani</i> lesser snow scale	A	3	<b>Scales</b> (various species)	Q	13
<i>Planococcus lilacinus</i> coffee mealybug	A	1	<b>Spider mites</b> (Tetranychus sp.)	Q	4
<i>Pseudaulacaspis pentagona</i> white peach scale	A	2	<b>Thrips</b> (2 species)	Q	2
<i>Radopholus similis</i> burrowing nematode	A	1	<b>Whiteflies</b> (2 species)	Q	2
<i>Selenaspis articulatus</i> rufous scale	A	1	<b>Other</b>	Q	6
<i>Thrips setosus</i> Japanese flower thrips	A	2			

"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.

## WEED MANAGEMENT

In 2018, Pest Eradication efforts focused on introduced, regulated weed species. Our Department leads the San Mateo County Weed Management Area (WMA) Group, a collaboration that coordinates, educates and funds invasive weed projects including removal, destruction and monitoring of noxious weeds. Members of the WMA include government, non-profit and private stakeholders, which updated a strategic plan for prioritizing weed species to control. Various projects were underway to preserve sensitive native habitats from cape ivy, Canary Island hypericum, slender false brome, and other invasive weeds endangering endemic species and agricultural lands. Along with hand pulling stinkwort (*Dittrichia graveolens*), the county funded the following projects:



### Fertile Capeweed • *Arctotheca calendula*

A - Rated\*

- Perennial rosettes with daisy-like yellow flowers, dark center
- 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\*\*\*

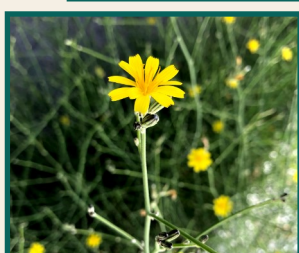
- Perennial grass, long leaves from base w/ plumed panicles maturing violet to white
- Mostly along coast in bare/sandy soil; found in thousands of acres throughout the County, focused on 257 acres near Pescadero Creek Road, and ongoing control at Pillar Point Bluff.
- Mapped, mechanical methods and 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 interactive control strategies including: natural enemies, biological controls, 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 growers in San Mateo County contributed 7.1% of the total agricultural commodity production value. In 2018, organic production decreased to 671 from 726 acres, with better production totals across the land. The estimated gross production value of organic commodities for 2018 is \$10,592,000, a 5.7% increase over the previous year.

## CERTIFIED FARMERS' MARKETS

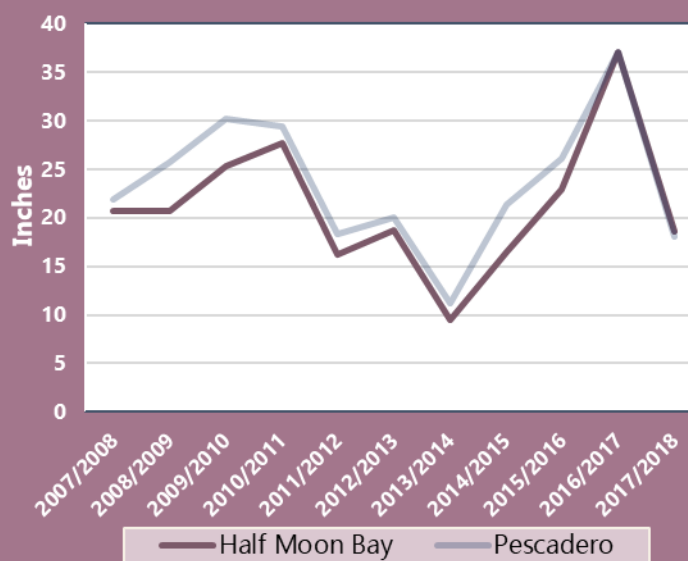
What is a Certified Farmers Market (CFM)? Agricultural products are inspected at production sites and a Certified Producer's Certificate is issued. Then our county biologists inspect the markets to verify that products being sold were grown by the producer. Everything sold in a CFM must be grown in California and by the producer selling it. Certified Farmers' Markets benefit both consumers and the agricultural community. Consumers have access to high quality, fresh picked in-season produce. Farmers benefit by being exempt from packing, sizing and labeling requirements while getting a higher share of each "food dollar" by selling directly to consumers. Our Department recently refreshed the website with a section that not only lists all of the certified farmers' markets throughout the Peninsula, but also includes information on what you need to know to sell at a farmers' market.



## RAIN STATION TOTALS

Year	Half Moon Bay	Pescadero
	inches	inches
2017/2018	18.62	18.12
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

## COASTSIDE RAINFALL TOTALS



## AGRICULTURAL EXPORTS

Biologists from our Department issue phytosanitary certificates for entry of regulated agricultural commodities into other states and countries. Shipments are sent directly from our county's growers as well as products from all over passing through the San Francisco International Airport (SFO), Golden Gate Produce Terminal, and nearby seaports. After agricultural shipments met inspection and certification requirements, our department issued a total of 486 federal phytosanitary certificates to 23 countries, and 927 state phytosanitary certificates to 16 states and U.S. territories in 2018.

### COUNTRIES RECEIVING AGRICULTURAL COMMODITIES

Canada	Japan	Saudi Arabia
China	Kuwait	Singapore
Dominican Republic	Lebanon	South Korea
France	Micronesia	Taiwan
French Polynesia	Myanmar	Thailand
Hong Kong	Netherlands	United Arab Emirates
Indonesia	Palau	Viet Nam
Italy	Philippines	

### PHYTOS BY REGION

