



**2011 CROP STATISTICS
AND
ANNUAL REPORT**

**County of San Diego
Department of
Agriculture, Weights and Measures**



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Karen Ross, Secretary

California Department of Food and Agriculture
and

The Honorable Board of Supervisors of the County of San Diego

Supervisor Ron Roberts, Chairman, 4th District

Supervisor Greg Cox, Vice-Chairman, 1st District

Supervisor Dianne Jacob, 2nd District

Supervisor Pam Slater-Price, 3rd District

Supervisor Bill Horn, 5th District

I respectfully submit this report of acreage, yield, and value of agricultural production for San Diego County. In 2011, the value of agriculture totaled \$1,683,745,072. This represents a 2% increase from 2010's total of \$1,648,570,832. Although the value increased, the acreage devoted to commercial agriculture decreased slightly by 1,927 acres or -1%.

This report also contains detailed crop information and highlights of the many diverse programs within the Department of Agriculture, Weights and Measures that support the County's focus on kids, the environment and safe and livable communities.

Thank you to the many farmers, ranchers, nursery men and women and industry groups who provided information for this report. Additionally, I would like to express my appreciation to the dedicated Agriculture, Weights and Measures staff who continually strive to provide our customers with superior service.

Sincerely,

Lisa M. Leondis
Agricultural Commissioner/
Sealer of Weights and Measures

All reported figures represent Freight on Board (F.O.B.) values for products, these are not net values and do not reflect cost of production. Total values may not add precisely due to rounding. Gross value of farm products does not reflect the total value to the economy.

Farewell to Bob Atkins



The 2011 Crop Report is dedicated to Robert (Bob) Atkins, who retired as San Diego County's Agricultural Commissioner/Sealer of Weights and Measures in 2011, after 38 years of service to Southern California's agricultural, urban and business communities. Bob began his career with Los Angeles County in 1973 as a pest

detection trapper, where he made a name for himself when he discovered the first Mediterranean fruit fly in California. During his illustrious 33 year career with L.A. Bob fulfilled many roles, ultimately becoming L.A.'s Chief Deputy before coming to San Diego County in 2006 as our Commissioner/Sealer. His passion for consumer protection and equity in the marketplace and his zeal for control of invasive pests such

as fruit flies, Asian citrus psyllid, light brown apple moth, red imported fire ant, and glassy-winged sharpshooter have been invaluable to San Diego County's growers, businesses, and homeowners alike. Bob was active in state and federal legislation, including the Farm Bill, and he traveled to our nation's capital twice to represent our agricultural industry's interests. He is an honorary lifetime member of the Pest Control Operators of California. He completed his career after serving as president of the California Agricultural Commissioners and Sealers Association. Bob is enjoying his much-earned retirement, although he is still active in the California Invasive Species Advisory Committee and the Specialty Block Grant Technical Review Committee. Bob spends his leisure time, surfing, riding and working horses with his wife Anne, and growing cherimoyas, figs and citrus on their Fallbrook farm.

2011 Summary of Major Crops

Total Value	\$1,683,745,072			Value Per Acre
Change in Value from 2010	\$35,174,240	Highest Value Crop	Indoor Flowering & Foliage Plants	\$450,000
Percent Change	2%			
Total Acreage	300,786	Lowest Value Crop	Range	\$6
Change in Acreage from 2010	-1,927			
Percent Change	-1%			

Overview of Changes

Ornamental Trees and Shrubs remains the number one crop in San Diego County for the third year in a row, though it sustained a slight decrease in value (-8%) to \$384,433,569. Indoor Flowering and Foliage Plants on the other hand realized an increase in value (10%) to \$320,850,000, not quite enough to move it into the first place spot. The total value for all nursery products (including cut flowers and foliage) stayed above the one billion dollar mark for a grand total of \$1,092,916,550.

Fruit and Nut Crops decreased in acreage (-7%) but showed a sizable increase in value (22%) bringing the total to \$319,205,955. Avocados accounted for a large part of the overall increase in value weighing in with an increase in value (42%) for all varieties listed. The Lamb-Hass avocado variety saw the biggest increase in value (87%)! Total citrus declined both in acreage (-6%) and value (-3%).

Vegetables and Vine Fruits increased in acres (6%) and value (4%). Potatoes showed the largest increase in acreage (196%) and value (190%) resulting in \$2,574,000. Potatoes is a crop that rotates in and out of our county from year to year, 2011 was a big year for potatoes.

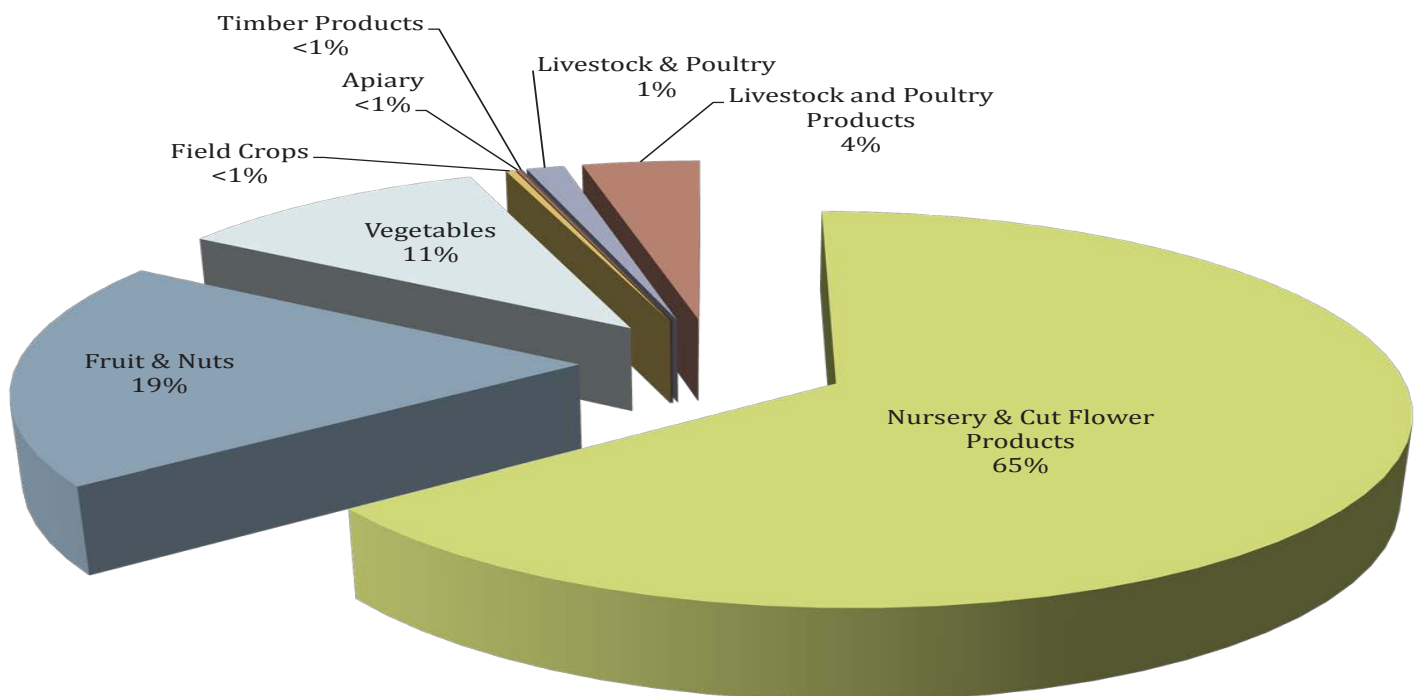
Livestock and Poultry increased slightly (3%) in value while livestock products decreased (-23%) to total \$65,550,005. Market Milk had another year of increase (21%) resulting in a total value of \$9,555,709.

On a final note, Apiary had an outstanding year with increases in every category! The highest increase (16%) was in the pollen category resulting in a value of \$81,200.

Summary of Major Categories

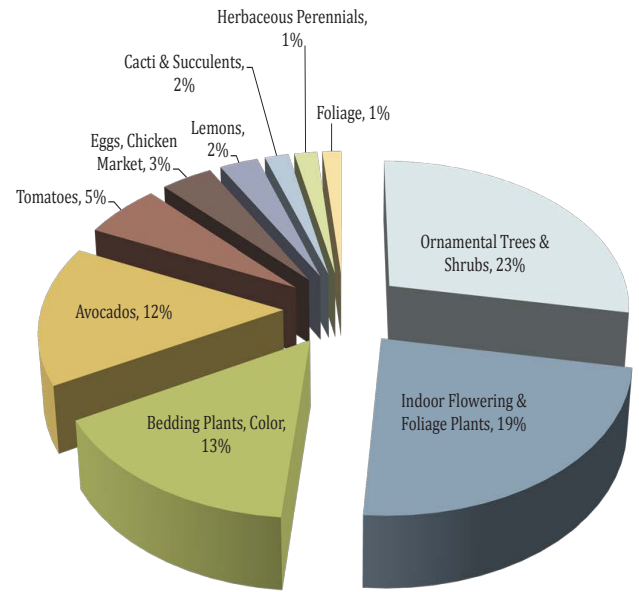
Crop	Year	Acres	Total Value
Nursery & Cut Flower Products	2011	12,173	\$1,092,916,550
	2010	12,606	\$1,107,558,336
Fruit & Nuts	2011	33,838	\$319,205,955
	2010	36,239	\$257,548,442
Vegetables	2011	6,686	\$177,013,955
	2010	6,303	\$169,803,464
Field Crops	2011	248,089	\$5,038,735
	2010	247,565	\$5,117,287
Apiary	2011		\$2,245,470
	2010		\$2,168,007
Timber Products	2011		\$777,714
	2010		\$778,527
Livestock & Poultry	2011		\$20,996,688
	2010		\$20,472,006
Livestock and Poultry Products	2011		\$65,550,005
	2010		\$85,124,763
Grand Totals	2011	300,786	\$1,683,745,072
	2010	302,713	\$1,648,570,832

Major Crops By Overall Percentage

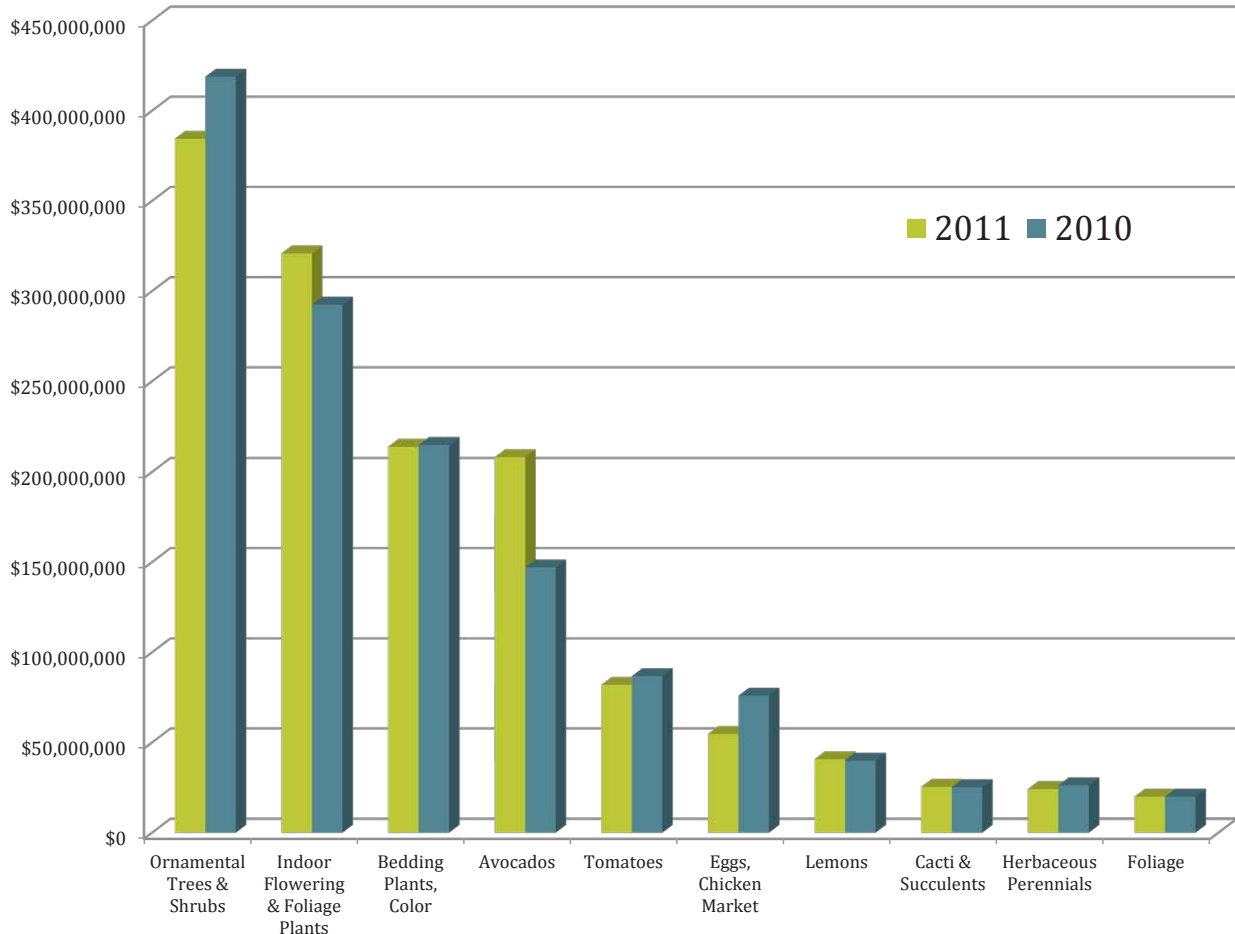


2011 Top Ten Crop Values and Percent

Crop	2011 Value	2010 Value
Ornamental Trees & Shrubs	\$384,433,569	\$418,841,523
Indoor Flowering & Foliage Plants	\$320,850,000	\$292,500,000
Bedding Plants, Color	\$213,900,000	\$214,941,018
Avocados	\$208,131,027	\$147,051,864
Tomatoes	\$81,899,165	\$86,774,565
Eggs, Chicken Market	\$54,665,626	\$75,904,920
Lemons	\$40,718,400	\$39,885,636
Cacti & Succulents	\$25,333,188	\$25,153,520
Herbaceous Perennials	\$24,125,273	\$26,235,355
Foliage	\$19,938,534	\$19,986,120



Two Year Comparison of Top Ten Crops



San Diego County's Unique Agriculture

San Diego County is the most southwestern county in the continental United States with a geographic area of 4,200 square miles, approximately the size of Connecticut, and a population of more than 3 million.



The National Weather Service describes the San Diego climate as the most nearly perfect in America, characterized as Mediterranean, with warm winters and cool summers.

San Diego County's varied topography creates a wide fluctuation of microclimates resulting in nearly 30 different types of vegetation communities. This diversity allows for San Diego to grow over 200 different agricultural commodities - from strawberries along the coast, apples in the mountain areas, to palm trees in the desert.



San Diego County has the 5th highest population among counties in the United States, and the 18th largest agricultural economy in the U.S.

Agriculture in San Diego County covers 303,889 acres and is a key contributor to San Diego County's economy, along with defense, manufacturing, tourism and biotechnology.

San Diego County has 6,687 farms, more than any other county in the United States. 68% of San Diego County farms are 1-9 acres. Nearly 27% of farms in San Diego County are operated by women.

San Diego County produces the highest dollar value per acre (\$450,000) of any county in California!

The median size farm is just 4 acres and yet our county's farmers rank number one in both California and the nation in the production value of nursery, floriculture and avocados.

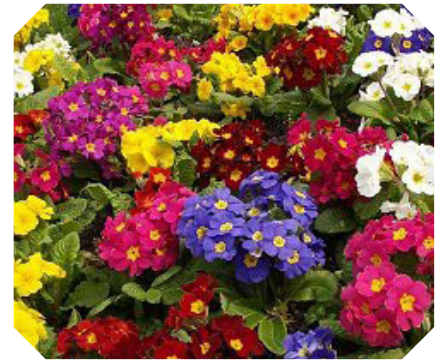


Statewide, San Diego County is in the top five counties for Nursery Products, Flowers & Foliage, Tomatoes (Fresh Market), Lemons, Avocados, Eggs (Chicken), Mushrooms, and Grapefruit.

San Diego County farmers produce 43 crops, that are valued at over \$1 million dollars each annually.

Nursery and Cut Flower Crops

Crop	Year	Acres	Total
Bedding Plants, Color	2011	930	\$213,900,000
	2010	937	\$214,941,018
Bulbs, Corms, Rhizomes, Roots, Tubers	2011	41.5	\$346,525
	2010	58	\$5,842,456
Cacti & Succulents	2011	282	\$25,333,188
	2010	280	\$25,153,520
Citrus, Avocado, & Subtropical Fruit Trees	2011	280	\$15,406,825
	2010	280	\$15,351,996
Herbaceous Perennials	2011	343	\$24,125,273
	2010	373	\$26,235,355
Indoor Flowering & Foliage Plants	2011	713	\$320,850,000
	2010	650	\$292,500,000
Ornamental Trees & Shrubs	2011	4,849	\$384,433,569
	2010	5,283	\$418,841,523
Poinsettia	2011	154	\$19,250,000
	2010	155	\$19,375,000
Turf and Cut Christmas Trees	2011	692	\$11,712,271
	2010	709	\$12,000,000
Total Nursery Products	2011	8,285	\$1,015,357,650
	2010	8,725	\$1,030,240,868



Bedding Plants



Cactus

Crop	Year	Acres	Total
Leptospermum	2011	399	\$2,988,510
	2010	398	\$2,984,016
Proteas	2011	572	\$4,446,728
	2010	571	\$4,436,233
Wax Flowers	2011	779	\$4,679,453
	2010	780	\$4,685,460
Other Cut Flowers	2011	1,300	\$45,505,675
	2010	1,292	\$45,225,640
Foliage	2011	838	\$19,938,534
	2010	840	\$19,986,120
Total Flower Products	2011	3,889	\$77,558,900
	2010	3,881	\$77,317,469



Pitcher Plant



Protea - Pincushion

Total Nursery & Cut Flower Products	2011	12,173	\$1,092,916,550
	2010	12,606	\$1,107,558,336

Fruit and Nut Crops

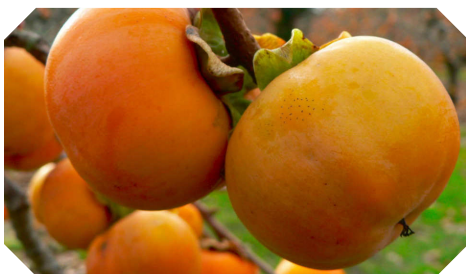
	Year	Acres Harvested	Tons/ Acre	Tons Total Production	US \$/ Ton	Total
Apples	2011	266	2	452	\$728	\$329,202
	2010	286	1	372	\$730	\$271,414
Total Avocados	2011	17,673	4	65,188		\$208,131,027
	2010	19,133	4	81,467		\$147,051,864
Hass	2011	16,201	4	60,564		\$195,356,160
	2010	17,621	4	77,637	\$1,806	\$140,190,413
Lamb-Hass	2011	1,031	4	3,775		\$11,496,627
	2010	1,031	3	3,088	\$1,994	\$6,156,152
Other	2011	441	2	849		\$1,278,240
	2010	481	2	742	\$951	\$705,298
Berries, Misc.	2011	298	7	2,086	\$5,357	\$11,174,702
	2010	369	7	2,399	\$4,615	\$11,069,078
Total Citrus	2011	13,487	95	188,004		\$76,481,631
	2010	14,287	93	194,559		\$78,482,839
Total Grapefruit	2011	1,457	21	30,597		\$12,231,151
	2010	1,750	21	36,750		\$14,332,500
Fresh Market	2011		18	22,948	\$515	\$11,818,091
	2010		18	27,563	\$502	\$13,836,375
Byproduct	2011		3	7,649	\$54	\$413,060
	2010		3	9,188	\$54	\$496,125
Kumquats	2011	110	6	660	\$4,000	\$2,640,000
	2010	137	6	822	\$3,500	\$2,877,000
Total Lemons	2011	3,992	18	71,856		\$40,718,400
	2010	4,456	16	71,288		\$39,885,636
Fresh Market	2011		16	63,872	\$625	\$39,920,000
	2010		14	62,377	\$625	\$38,985,625
Byproduct	2011		2	7,984	\$100	\$798,400
	2010		2	8,911	\$101	\$900,011
Total Limes	2011	400	10	3,724		\$1,376,760
	2010	408	10	3,876		\$1,378,224
Fresh Market	2011		7	2,800	\$462	\$1,293,600
	2010		7	2,856	\$454	\$1,296,624
Byproduct	2011		3	924	\$90	\$83,160
	2010		3	1,020	\$80	\$81,600
Total Oranges, Navel	2011	1,178	17	19,184		\$5,544,260
	2010	1,175	17	19,740		\$5,879,935
Fresh Market	2011		11	12,369	\$370	\$4,576,530
	2010		11	12,925	\$379	\$4,898,575
Byproduct	2011		6	6,815	\$142	\$967,730
	2010		6	6,815	\$144	\$981,360

Fruit and Nut Crops

	Year	Acres Harvested	Tons/Acre	Tons Total Production	US \$/Ton	Total
Total Oranges, Valencia	2011	5,280	9	47,538		\$9,718,880
	2010	5,282	9	47,538		\$9,681,906
Fresh Market	2011		7	36,974	\$238	\$8,799,812
	2010		7	36,974	\$237	\$8,762,838
Byproduct	2011		2	10,564	\$87	\$919,068
	2010		2	10,564	\$87	\$919,068
Total Tangerines, Tangelos	2011	1,070	14	14,445		\$4,252,180
	2010	1,079	14	14,545		\$4,447,638
Fresh Market	2011		12	12,305	\$320	\$3,937,600
	2010		12	12,948	\$319	\$4,130,412
Byproduct	2011		2	2,140	\$147	\$314,580
	2010		2	2,158	\$147	\$317,226
Grapes, Wine	2011	416	2	832	\$1,086	\$903,552
	2010	447	2	760	\$1,033	\$784,977
Macadamia Nuts	2011	67	1	67	\$2,400	\$160,800
	2010	67	1	67	\$2,397	\$160,599
Misc. Fruit & Nuts*	2011	980				\$7,189,280
	2010	982				\$7,203,952
Persimmons	2011	421	4	1,789	\$599	\$1,071,761
	2010	421	4	1,768	\$600	\$1,060,920
Total Strawberries**	2011	222	31	6,882		\$13,764,000
	2010	247	31	7,657		\$11,462,800
Fresh Market	2011		31	6,882	\$2,000	\$13,764,000
	2010		31	7,000	\$1,600	\$11,200,000
Processing	2011			0	0	0
	2010			657	\$400	\$262,800
Total Fruit & Nuts	2011	33,838				\$319,205,955
	2010	36,239				\$257,548,442

*Includes: apricots, cherimoyas, guavas, peaches, pears, walnuts, and others.

**Correction made to total strawberries for 2010.



Persimmons



Oranges



Macadamia Nuts

Vegetable and Vine Crops

Crop	Year	Acres Harvested	Tons/Acre	Tons Total Production	US \$/Ton	Total
Beans, Snap	2011	281	6	1,574	\$1,344	\$2,114,918
	2010	299	5	1,615	\$1,400	\$2,260,440
Bunch Vegetables*	2011	483				\$4,257,645
	2010	462				\$4,072,530
Corn, Sweet	2011	148	3	459	\$1,020	\$467,976
	2010	153	3	497	\$1,000	\$497,250
Cucumbers	2011	242	17	4,114	\$732	\$3,011,448
	2010	266	22	5,847	\$582	\$3,405,528
Herbs	2011	375	11	4,200	\$4,028	\$16,917,600
	2010	380	11	4,256	\$4,028	\$17,143,168
Lettuce	2011	575	13	7,475	\$336	\$2,511,600
	2010	575	11	6,095	\$412	\$2,511,140
Melons	2011	174	4	696	\$450	\$313,200
	2010	204	4	816	\$400	\$326,400
Mushrooms	2011	28	137	3,836	\$3,220	\$12,351,920
	2010	28	155	4,296	\$2,861	\$12,291,628
Oriental Vegetables**	2011	13				\$106,626
	2010	12				\$98,424
Peppers	2011	162	19	3,119	\$1,000	\$3,118,500
	2010	173	18	3,114	\$1,000	\$3,114,000
Potatoes	2011	600	13	7,800	\$330	\$2,574,000
	2010	203	15	3,045	\$291	\$886,095
Squash	2011	430	9	3,655	\$600	\$2,193,000
	2010	486	11	5,249	\$390	\$2,047,032
Tomatoes	2011	2,167	42	90,797	\$902	\$81,899,165
	2010	2,296	42	96,202	\$902	\$86,774,565
Misc. Vegetables***	2011	1,008				\$45,176,357
	2010	767				\$34,375,264
Total Vegetables	2011	6,686				\$177,013,955
	2010	6,303				\$169,803,464

*Includes: collards, green onions, mustard and turnip greens, parsley, radishes, and spinach

**Includes: bok choy and asian greens

***Includes: cauliflower, celery, chayote, tomatillos, and others



Mushrooms



Field bins with tomatoes



Collards

Field and Specialty Crops

Crop	Year	Acres Harvested	Tons/Acre	Tons Total Production	US \$/Ton	Total
Barley, Grain	2011	530	0.55	291.5	\$192	\$55,968
	2010	670	0.5	335	\$170	\$56,950
Greenchop	2011	38	18	684	\$33	\$22,572
	2010	24	20	480	\$48	\$23,040
Hay, Oat	2011	5,443	1	5,443	\$166	\$903,538
	2010	4,793	1	4,793	\$200	\$958,600
Pasture, Irrigated	2011	1,422				\$2,647,385
	2010	1,422				\$2,674,127
Range	2011	240,630				\$1,395,653
	2010	240,630				\$1,395,653
Silage	2011	26	20	520	\$26	\$13,619
	2010	26	13	338	\$26	\$8,917
Total Field Crops	2011	248,089				\$5,038,735
	2010	247,565				\$5,117,287

Timber Crops

Crop	Year	Total
Timber	2011	\$9,254
	2010	\$8,527
Firewood	2011	\$768,460
	2010	\$770,000
Total Timber Products	2011	\$777,714
	2010	\$778,527



Stacked firewood



Honey bee with pollen



Queen honey bee



Honey bees

Apiary Crops

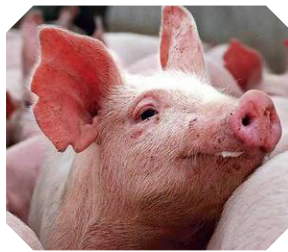
Crop	Year	Total
Honey	2011	\$856,496
	2010	\$800,464
Bees Wax	2011	\$50,078
	2010	\$45,943
Bees & Queens	2011	\$107,696
	2010	\$101,600
Pollen	2011	\$81,200
	2010	\$70,000
Pollination	2011	\$1,150,000
	2010	\$1,150,000
Total Apiary	2011	\$2,245,470
	2010	\$2,168,007

Livestock and Poultry

	Year	Number of Head	Weight CWT	US \$/CWT	Total
Cattle and Calves	2011	16,500	148,500	\$113	\$16,780,500
	2010	17,000	153,000	\$107	\$16,248,600
Hogs and Pigs	2011	653	1,633	\$55	\$89,788
	2010	640	1,600	\$55	\$87,840
Chickens & Misc.	2011		86,200	\$47	\$4,051,400
	2010		86,378	\$47	\$4,059,765
Lambs and Sheep	2011	1,000	1,000	\$75	\$75,000
	2010	1,000	1,000	\$76	\$75,800
Total Livestock & Poultry	2011				\$20,996,688
	2010				\$20,472,006



Chickens



Pigs



Lambs

Livestock and Poultry Products

	Year	Number	Weight CWT	US \$/Unit	Total
Milk, Market	2011		515,967	\$19	\$9,555,709
	2010		536,724	\$15	\$7,889,843
Eggs, Chicken Market	2011	70,994,320	dz	\$0.77	\$54,665,626
	2010	83,412,000	dz	\$0.91	\$75,904,920
Ratite Products Total	2011	1,000	gal		\$1,328,670
	2010	1,000	gal		\$1,330,000
Ratite Oil	2011	1,000	gal		\$1,328,670
	2010	1,000	gal	\$1,330	\$1,330,000
Total Livestock and Poultry Products	2011				\$65,550,005
	2010				\$85,124,763



Milk

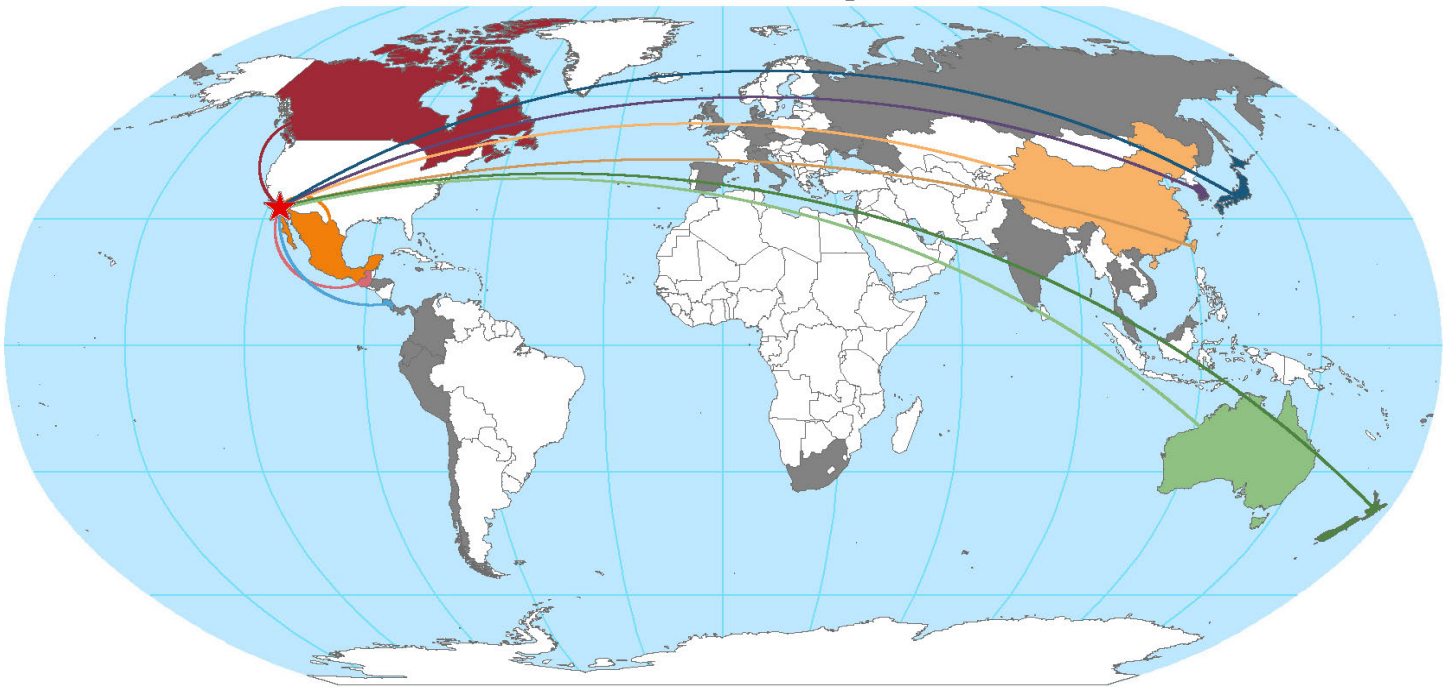


Eggs



Emu Oil

County of San Diego International Trading Partners



45 Countries - 7,720 Shipments

Mexico	5,118	Vietnam	9	Seychelles	3
Canada	1,523	Netherlands	8	Bahamas	2
Japan	659	Barbados	7	Ecuador	2
New Zealand	68	Colombia	7	Jamaica	2
South Korea	46	Singapore	7	Malaysia	2
China	42	Honduras	5	Martinique	2
Taiwan	34	Israel	5	Switzerland	2
Australia	28	Italy	5	Czech Republic	1
Guatemala	22	Granada	4	French Polynesia	1
Costa Rica	17	Peru	4	Fiji	1
Germany	16	South Africa	4	India	1
Trinidad and Tobago	15	United Kingdom	4	Panama	1
Hong Kong	12	Bermuda	3	Qatar	1
Thailand	10	Chile	3	Spain	1
Denmark	9	Russian Federation	3	Ukraine	1

Sustainable Agriculture

Sustainable Agriculture promotes the economic viability of agriculture while preserving natural resources and the environment. Pest prevention activities are essential to inhibiting the spread of exotic pests and ensuring a sustainable agricultural industry in California.

The Department of Agriculture, Weights and Measures administers programs for the detection, control and eradication of insect pests, plant diseases and invasive weeds, as well as for the enforcement of quarantines to prevent the spread of invasive pests.

“Q” Rated	Common Name	Finds
Allium subhirsutum	hairy garlic	1
Hosta Virus X	virus	1
Hydrocotyle sp.	pennywort	1
Rotylenchulus sp.	nematode	1
Uromyces transversalis	gladiolus rust	2
Volutaria canariensis	Canary Island knapweed	1
Allopeas gracile	graceful awl snail	1
Family Hydrobiidae	freshwater snail	1
Family Lymnaeidae	freshwater snail	1
Meghimatium bilineatum	land slug	1
Coccidae	wax scale	1
Maconellicoccus hirsutus	pink hibiscus mealybug	1
Paracoccus sp.	mealybug on agave	7
Pseudococcus sp.	mealybug on agave	3
Pseudococcus jackbeardsleyi	Jack Beardsley mealybug	1
Homalodisca sp.	sharpshooter	1
Harmalia anacharsis	delphacid planthopper	3
Paraponyx sp.	aquatic pyralid moth larva	1
Lepidoptera	Tortricidae	1
Pheidole megacephala	bigheaded ant	4
Camponotus abdominalis floridanus	Florida carpenter ant	1
Odontomachus ruginodis	rough-node snapping ant	1
Bostrichidae	wood boring beetle	4
Unknown	insect eggs	1



Hairy garlic



Reniform nematode

“A” Rated	Common Name	Finds
Fusarium oxysporum f. sp. canariensis	palm wilt	5
Rotylenchulus reniformis	reniform nematode	2
Anastrepha striata	new world guava fruit fly	1
Ceroplastes rusci	fig wax scale	2
Pinnaspis strachani	lesser snow scale	5
Pseudaulacaspis cockerelli	magnolia white scale	14
Epiphyas postvittana	light brown apple moth	4
Solenopsis invicta	red imported fire ant	2



Delphacid planthopper

Sustainable Agriculture

High Risk Pest Exclusion Activities

- 3,130 shipments inspected
- 59 Notices of Rejection issued
- 83 pests found (15 A-rated, 23 B-rated, 13 Q-rated, and 32 other)
- 8 international border operations with Homeland Security, Customs and Border Protection and U.S. Department of Agriculture



Root sampling

Dog Teams

- The dogs alerted on 6,550 packages
- 1,034 packages were not labeled as containing plant material
- 992 contained plant material (95.93% combined accuracy rate)
- 628 Notices of Rejection were issued
- 25 pests were found (1 A-rated, 3 B-rated, 3 Q-rated, and 18 other)



Drake

Top 10 Organic Crops Acres

1. Avocados	2,551
2. Oranges	1,277
3. Lemons	967
4. Grapefruit	499
5. Tangelos/ Tangerines	183
6. Chard	136
7. Cucumbers	69
8. Blueberries	63
9. Beans, Fresh Market	58
10. Persimmons	43

Organic Farming



Blueberries



Lemons



Beans, fresh market

San Diego is at the forefront of organic farming with 347 registered organic producers. In 2011, San Diego organic growers produced over 150 different crops, from squash and tomatoes to jujube. The USDA's National Organic Standards Board defines "organic agriculture" as an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain, and enhance ecological harmony.

Invasive Weed Control

Weed	Rating	Removal Method	Scope of Treatment
Spotted knapweed, <i>Centaurea maculosa</i>	A	Hand	1 site, .2 acres
Purple loosestrife, <i>Lythrum salicaria</i>	B	Herbicides/Hand	1 site, .25 acre
Perennial pepperweed, <i>Lepidium latifolium</i>	B	Herbicides	51 sites, 130 acres
Tamarisk, <i>Tamarix parviflora</i>	B	Herbicides	0 site, 0 acres
Yellow starthistle, <i>Centaurea solstitialis</i>	C	Herbicides/Hand	14 sites, 35 acres

Working Together to Keep Pests Out

Protecting Our Border

San Diego County Agriculture, Weights and Measures (AWM) staff participated in eight interagency operations together with staff from Homeland Security, Customs and Border Protection (CBP) and the United States Department of Agriculture (USDA).



The operations took place at the Cargo Facility at the US/Mexico Otay Mesa port of entry. Produce and plant material entering the U.S. from Mexico was inspected to ensure that no pests or plant diseases were brought into the country that could affect local crops. Notable finds from the operations included common citrus scab (*Elsinoe fawcetti*) and sweet orange scab (*Elsinoe australis*). Both diseases have distinct signs and symptoms and can cause significant damage on their respective hosts. The biggest find from one of the operations were Mexican fruit fly larvae found in a sapote fruit being transported in a traveler's luggage. The Mexican fruit fly has many crop hosts grown in both commercial and residential locations. An infestation could render fruit unsalable and unusable which may cause significant economic loss. These operations were a prime example of AWM working cooperatively with other agencies in order to protect U.S. grown produce from invasive pests and devastating plant diseases.

South American Palm Weevil Threatens Palm Trees in the County

In 2011, thirteen South American palm weevils (SAPW) were found in traps in the San Ysidro area of San Diego. This was the first time this pest has been found in the United States. Following these interceptions, AWM staff assisted the California Department of Food and Agriculture and the USDA in a survey of production nurseries within a 6.2 mile area surrounding the initial finds. Thankfully, no weevils were found, nor were any signs of weevil damage observed within the nurseries. SAPW is considered a major pest of palms because infestations often result in the death of the tree. SAPW causes damage when the larvae feed on the crown of the tree. As few as 30 larvae can kill an entire palm. The weevil can carry red ring nematode which spreads a disease that is also deadly to palms. CDFA reported that all thirteen of the SAPW found in San Diego tested negative for the nematode. County, state, and federal personnel are continuing to monitor the county for signs of



this pest that could have a significant impact on the nursery industry as well as the environment. San Diego County is the number one county in the state and the nation for the production value of nursery stock, including palms.

San Diego County Continues Battle to Save Citrus Fruits from Pests and Diseases

Agriculture in San Diego County is extremely diverse, including over 200 varieties of fruits and vegetables, as well as many kinds of nursery stock. With an annual agricultural production value of \$1.7 billion, some of the most important crops grown in the county are citrus fruits, including: oranges, lemons, tangerines, grapefruit, and limes. In recent years, local citrus growers have been faced with a looming risk to their groves: the disease Huanglongbing, considered the most serious disease of citrus in the world. The disease is transmitted by a tiny insect, the Asian citrus psyllid (ACP). In August, two ACP were caught in County pest detection traps in the North County area; one in Pauma Valley and one in Valley Center. AWM is assisting crews from CDFA with surveys of the areas to ensure no other ACP are in the area and all nearby citrus trees are properly treated to eradicate any ACP that might otherwise go undetected.



LBAM Quarantine Ends for County

In October 2011, AWM declared victory in its most recent battle with the light brown apple moth (LBAM). AWM received official word from the CDFA that quarantine regulatory constraints related to the LBAM program were lifted for San Diego County. The battle was won by the cooperative efforts of the public, affected growers and regulatory staff. While the State quarantine has been lifted, international trading partners such as Canada and Mexico continue to impose shipping restrictions related to LBAM. In 2011, San Diego crop, accounting for 65% of the \$1.7 billion total agricultural value. AWM is actively working with local industry through trapping, inspections, and certifications of shipments to support continued export of plant products for this vital sector of the local agricultural economy.



Programs & Services

Agricultural Water Quality performs inspections at nurseries, greenhouses, golf courses, cemeteries, and pest control businesses ensuring compliance with the County's Stormwater Permit, mandated by the San Diego Regional Water Quality Control Board. Inspections, education, and investigations are aimed at stopping the potential for discharging pollutants such as fertilizers, pesticides, and sediment into local waterways.

Highlights for 2011 include:

- 333 inspections completed
- 17 complaints investigated

Civil Actions advocates for the department on actions brought against a person or businesses due to violations found through inspections.

Number of cases for 2011:

- 16 Certified Farmers' Markets
- 348 Weights & Measures (including scanners)
- 36 Agricultural and 29 Structural Pesticides
- 1 Quarantine Compliance

Integrated Pest Control works under the Board of Supervisors' policy mandating an integrated pest management (IPM) approach when using pesticides at all county facilities. Mechanical methods are used whenever possible in the control of invasive weeds and structural pest control.

Highlights for 2011:

- 3,369 acres of weed control performed on county roadside right of ways, airports, landfills, parks, water pollution control facilities, and flood control sites
- 161 net acres of invasive weeds treated with herbicides
- 8 net acres of manual/mechanical weed removal
- 1,351 gross acres surveyed for invasive weeds
- American Recovery and Reinvestment Act funding (ARRA) provided for the treatment of 68 exotic invasive weed sites within the county
- 165 County facilities treated for structural pests
- 15,434 pounds of rodent bait manufactured

Entomology and Plant Pathology Labs provide rapid insect and plant disease identification allowing a quick response in the fight against pests.

Highlights for 2011:

- Entomology Lab performed 31,421 determinations
- Plant Pathology Lab processed 6,958 samples

Pesticide Regulation enforces state laws and regulations. Inspections, complaint and illness investigations, and evaluations of restricted material permits all serve to ensure pesticides are used in a safe and effective manner while protecting human and animal health and the environment.

Highlights for 2011 include:

- Hosted the San Diego Structural Fumigation Enforcement Committee meetings
- Implemented CalAgPermits System, an online pesticide use reporting and pesticide permitting system and conducted user training sessions
- Prevented residents from consuming illegal pesticide residue by collaborating with DPR on the quarantine and reconditioning of tejocote fruit with illegal residue
- Implemented the use of new technology in undercover inspections of structural fumigation companies

Environmental Services prepares crop information, provides agricultural expertise for land use projects, performs verification of agriculture inspections for farm worker housing, coordinates media and outreach, facilitates Fish and Wildlife Advisory Commission meetings, and maintains AWM's website.

Plant Health and Pest Prevention is the first line of defense in keeping unwanted pests out of our county. Incoming and outgoing plant shipments and all production nurseries are inspected for pests harmful to agriculture.

Highlights for 2011:

- 714 nurseries, comprising 8,802 acres, inspected
- 3,130 incoming plant shipments inspected with 51 actionable pest finds
- 1,034 unmarked parcels intercepted by Dog Teams containing plant material, 7 with actionable pests
- 315 nurseries, comprising 5,129 acres, inspected for sudden oak death disease, *Phytophthora ramorum*

Pest Detection is a critical component of our statewide pest prevention network and is our county's second line of defense against the introduction and spread of insect pests, such as exotic fruit flies, Japanese beetle, and Gypsy moth. 261,050 trap inspections were conducted in 2011, resulting in the detection of 1 new world guava fruit fly and 2 light brown apple moths.

Standards Enforcement protects consumers by testing commercial weighing and measuring devices, performing price verification on Point-of-Sale systems (scanners), inspecting certified producers and farmers' markets and conducting organic registrations and shell egg quality inspections.

Highlights for 2011:

- 46,080 commercial weighing and measuring devices inspected with a 94% compliance rate
- 51 active farmers' markets and 198 local growers certified in San Diego County
- 347 growers registered as organic
- 611 egg lots inspected at 224 locations
- 371 consumer complaints investigated regarding commercial meters, petroleum, and price overcharges

Sustainable Building

In August of 2011, San Diego County Department of Agriculture, Weights & Measures moved to a new building just outside the east gate entrance to the County Operations Center (COC). This move was part of a larger overall project of rebuilding the COC following a sustainable design. The project has a goal of earning LEED® Gold Certification from the United States Green Building Council.

Construction highlights include:

- Control and mitigation of storm water run-off
- Water efficient plantings and irrigation to reduce water usage
- Energy efficient roofing and glazing systems to reduce heat gain and improve interior day lighting
- High efficiency lighting and mechanical ventilation systems to reduce energy consumption and improve occupant comfort
- Recycling of construction materials
- The project includes photovoltaic systems in partnership with SDG&E. A 400 kW photovoltaic system has been completed on the nearby multilevel parking structure.



San Diego County
 Department of Agriculture, Weights & Measures
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Program	Services	Number
Agricultural Water Quality	Stormwater; agricultural hazardous material storage	(858) 694-8980
Entomology	Insect identification; apiary registration; pest surveys	(858) 614-7738
Environmental Services	Crop statistics; land use issues; public information	(858) 614-7770
Integrated Pest Control	Invasive weed control; structural pest control for county owned buildings	(858) 614-7750
Plant Health & Pest Prevention	Licenses to sell nursery products, flowers, & foliage; shipping certificates;	(760) 752-4700
	Inspections: incoming/outgoing shipments; nursery; glassy-winged sharp-shooter; sudden oak death Inspection Request Line	(760) 752-4713
Pest Detection	Exotic insect trapping/eradication	(858) 614-7770 (800) 300-TRAP
Pesticide Regulation	Voluntary compliance inspections; registration; operator identification numbers; pesticide use reporting; restricted materials permits; employee pesticide training requirements; pesticide complaints	(858) 694-8980
Plant Pathology	Plant disease diagnostic services; plant disease surveys	(858) 614-7734
Standards Enforcement	Certified farmers' markets; certified producer certificates; organic handler/producer; egg producer/handler; scanner registration; commercial weighing & measuring devices; device serviceperson; weighmaster	(858) 694-2778

The 2011 Crop Statistics and Annual Report was produced by Supervising Agricultural/Standards Inspector Vince Acosta and Senior Agricultural/Standards Inspector Colleen Carr with assistance from GIS Analyst John Taylor. Cover photo by Agricultural/Standards Inspector Nicole Goss.

Department Personnel 2011

Lisa Leondis

Agricultural Commissioner/Sealer of Weights & Measures

Sandy Parks
Assistant Director

Nganha Dang
Deputy Director

Administration

Veronica Allen, Prin Admin Analyst	Cirila Pieper, Account Clerk
Armando Belenzo, Accounting Technician	Marci Powell, Admin Sec IV
Shirley Chin, Senior HR Officer	Belinda Rushton, HR Specialist
Erlinda Espiritu, Purchasing Clerk	Paul Rushton, Office Assistant
Aida Foronas, Senior Accountant	Sutjipto Widjaja, Office Assistant
Linda Goff, Admin Trainee	Doris Chen, Temp
Cynthia Lerma-Chavira, Admin Analyst III	

Plant Health & Pest Prevention

Karen Melvin Deputy Commissioner & Sealer	Jim Wynn Deputy Commissioner & Sealer
Jose Arriaga, Supv ASI	Tracy Ellis, Ag Scientist
Delores Brandon, Supv ASI	Pat Nolan, Ag Scientist
Katie Dobbins, Supv ASI	Charity McGuire, Admin Sec II
Megan Moore, Supv ASI	Robin Royall, Office Asst
Robert Roma, Supv ASI	Avery Throop, Student

Agricultural/Standards Inspectors

Tony Avina	Robert MacGregor	Mark Rondeau
Warren Bacon	Narriman McNair	Jason Sapp
Chris Betschart	Ted Matsumoto	Andrea Savage
Kristi Conway	Adrienne Moss	Kristina Scott
Robert Delaval	Jorge Olivares	Ann Sixtus
Manige Farhoomand	Ted Olsen	Greg Terhall
Mike Feeley	Elizabeth Onan	Ryan Wann
Jaime Garza	Lynn Parker	Lindsay Worcester
Kahsai Ghebretseha	Jeremy Partch	Daniel Wristen
Nicole Goss	Vicente Rodriguez	Muluneh Wube
Saiqa Javed	Alex Romo	Priscilla Yeane

Insect Detection Specialists

Sulpicio Agnes, Jr.	Evelyn Hill	Chuck Rowe
Rishi Avila	Ryan Joynt	Gene Seeby
Randy Arrera	Joyce Mangan	Joan Thewlis
Michael Duchek	Daniel Oluwasakin	Armando Torres
Robert Heredia	Steve Robinson	Ivonne Torres

Information Technology/GIS

Vince Acosta, Supv ASI

John Taylor, GIS Analys Jeff Westrick, Sr ASI

Civil Actions

Sally Lorang, Civil Actions Investigator

Sandra Murphy, Office Support Specialist

LaTrice Hemphill, Student

Laura Schencker, Student

Pesticide Regulation

Megan Moore, Lead Supervisor

Tim Holbrook, Supv ASI	Sabumon Joseph, Office Asst
Marco Mares, Supv ASI	Suzanne Raymond, Office Asst
Stasi Redding, Supv ASI	Tina Thomas, Office Asst
Gemma Bilog, Sr Office Asst	

Agricultural/Standards Inspectors

Abdel Amador	Travis Elder	Kathryn Springer
Veronica Anzaldo	Dinna Estrella	Nancy Syzonenko
Jose Arriaga	Jennifer Jones-Fox	Rick Walsh
Tony Avina	Chase Goodman	Kara Roskop-Waters
Nick Basinski	Rowena Harteis	
Daniel Desserich	Nestor Silva	

Farm & Home Advisor

Terri Barratt, Office Support	Roland Hills, Office Assistant
Barbara Henderson, Office Support	
Colleen Tschumperlin, Volunteer Services	

Standards Enforcement

Jim Byers, Deputy Commissioner & Sealer

Nancy Appel, Supv ASI	Mark Roughton, Sr Office Asst
Cindy Davis, Supv ASI	Ris Burton, Office Asst
Rick Williams, Supv ASI	Renee Roux, Temp

Agricultural/Standards Inspectors

Dennis Blackman	Mark Griffin	Quang Ong
Tom Bloomer	Lee Guidry	Kevin Porter
Glenn Braaten	Edith Heaton	Robert Roma
Robert Bryant	Tim Holbrook	Brad Shipley
Neil Connelly	Atlaw Kebede	Annie Silva
Janice Deguzman	John Kinkaid	Mazen Stevens
Louis Deneau	Craig Lawson	Claudia Verdugo
Paula Dewall	Mark Lyles	
Lynn Gordon	Jennepher Tate-Murphy	

Environmental Services

Dawn Nielsen, Deputy Commissioner & Sealer

Colleen Carr, Sr ASI

Pest Detection

Dawn Nielsen, Deputy Commissioner & Sealer

Tim Breuninger, Sr IDS	David Kellum, Ag Scientist
Linda Feeley, Sr IDS	George Jones, Ent/Apiary
Charles Gross, Sr IDS	Tina Duh, Student
Merle Van Cleve, Sr IDS	Leah Taylor, Student
Cameron Guyot, Dept Clerk	Christine Thomas, Student

Insect Detection Specialists

Luis Alarid	Peter Egea	Belinda Moss
Orlando Alfaro	Jorge Fregoso	Kirk Neuroth
Guy Allingham	Rob Greenwell	Ivan Robles
Richard Arne	Alberto Hernandez	Mary Rowin
Linda Blank	Kim Hock	George Shanto
Brian Burkman	Mohamed Jama	Alan Sharon
Raul Burquez	Roy Joseph	John Velardi
Mark Buttner	Bill Leech	Fran Wade
Manuel Casillas	Linda McCombs	Valerie Wagner
Casey Choate	Bob Miller	

Integrated Pest Control

Dawn Nielsen, Deputy Commissioner & Sealer

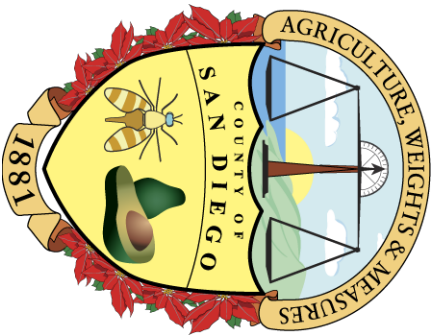
Mark Martinez, Supv PM Tech	Bill Winans, Sr ASI
Walter Graves, Env Planner	Julia Kard, Student
Pauline Longmire, GIS Tech	William Sholan, Student

Pest Management Technicians

Paul Cadena	Marshall Randol	Gabriel Hernandez
James Daly	Heath Sada	Dustin Hylton
Gabriel Hernandez	Ray Wood	

Wildlife Services

Joe Albee	Terry Cox	Paul Martin
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