

Weathering the

DROUGHT



2015 Annual Report



San Luis Obispo County Department of Agriculture | Weights & Measures





**SAN LUIS OBISPO COUNTY
DEPARTMENT OF AGRICULTURE
WEIGHTS AND MEASURES**

Financial Report
Fiscal Year 2014-15

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Cover Photo Credits

Top, center photo "Surviving the Drought"
by John Busselle

Avocado stumps by Mark Battany

Lower left corner rangeland by Royce Larsen

REVENUE	\$5,720,070	
STATE FUNDS	1,811,225	32%
FEDERAL FUNDS	988,203	17%
COUNTY FUNDS	2,329,827	41%
COLLECTED FEES	590,815	10%

EXPENDITURES	\$5,720,070	
SALARIES AND BENEFITS	4,689,019	82%
SERVICES & SUPPLIES	544,728	10%
OVERHEAD	473,437	8%
EQUIPMENT	12,886	0.2%

FUNDING DISTRIBUTION BY PROGRAM AREAS:		
AGRICULTURAL RESOURCES	\$340,402	
STATE FUNDS	59,697	18%
COUNTY FUNDS	259,960	76%
COLLECTED FEES	20,745	6%

WEIGHTS AND MEASURES	\$744,495	
STATE FUNDS	9,083	1%
COUNTY FUNDS	502,831	68%
COLLECTED FEES	232,581	31%

PESTICIDE USE ENFORCEMENT	\$1,479,496	
STATE FUNDS	837,746	57%
COUNTY FUNDS	617,360	42%
COLLECTED FEES	24,390	1.6%

PEST MANAGEMENT	\$348,899	
STATE FUNDS	145,812	42%
COUNTY FUNDS	203,087	58%
COLLECTED FEES	0	0%

PRODUCT QUALITY	\$235,468	
STATE FUNDS	96,976	41%
COUNTY FUNDS	110,037	47%
COLLECTED FEES	28,455	12%

PEST PREVENTION	\$2,571,310	
STATE FUNDS	661,911	26%
FEDERAL FUNDS	988,203	38%
COUNTY FUNDS	636,552	25%
COLLECTED FEES	284,644	11%

The Department would like to thank the following staff members for their dedication and lasting contributions made during their successful careers with the Department, representing 70.5 total years of professional public service. We wish them well in their retirements.

Administrative Assistant
Debbie Schmitz 12.5 years

Agricultural Inspector/ Biologists
Judy Groat 29.5 years
John Schmitz 28.5 years



COUNTY OF SAN LUIS OBISPO 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
San Luis Obispo County

In accordance with Sections 2272 and 2279 of the California Food and Agricultural Code, I am pleased to release the 2015 Annual Crop Report for San Luis Obispo County. It is important to note that the values represented in this report do not reflect net profits for producers, but rather, the gross value of agricultural commodities produced within the county.

Overall 2015 crop values decreased from \$900,070,000 in 2014 to \$828,800,000 representing an 8% decline which is directly attributable to the cumulative impacts of the ongoing drought, growing conditions for major crops, markets, and water availability. Based on these and other less significant factors, crops responded in both positive and negative ways.

Strawberries remained the highest value crop reaching a record of \$222,604,000. Favorable growing conditions and the availability of irrigation water in strawberry growing regions allowed growers to produce abundant, high quality fruit. Increased yields also contributed to a remarkable year.

Wine grape production was hampered by the continuing drought and less than optimal growing conditions. A combination of accumulated salts in the soil due to the lack of rain, colder than normal spring temperatures, and wind negatively impacted yields bringing them to levels not seen since 1999. However, the overall quality of harvested fruit was reported to be high. Although prices were modestly higher than 2014, the decline in yields brought the overall gross value of wine grapes down 28% to \$146,435,000.

Over the past few years, the animal industry enjoyed record values, although for less than desirable reasons. Livestock values spiked in 2013 and 2014 in response to drought conditions which prompted the sell-off of cattle that could no longer be sustained on rangeland with declining forage production. Predictably, by 2015, the cattle inventory in the county was significantly depleted as indicated by a 59% drop in the number of head sold. This decline in the number of cattle sold drove a 48% difference in overall value. The animal industry ended the year at \$70,659,000.

Despite drought conditions, vegetable crops fared well ending the year 10% higher at \$214,059,000. Growers strategically planted fewer acres to address both water availability issues and labor shortages. This strategy helped growers to maximize the acreage planted and made strides towards balancing production inputs. Although this approach was successful overall, some growers were not able to harvest all acres planted as labor shortages continued to be a challenge.

This year's theme story looks at the impacts of drought in San Luis Obispo County depicting the challenges faced by our local agriculturalists. Although challenged by drought conditions, local farmers and ranchers showed their resilience by addressing adverse conditions through innovation, perseverance and a strong will to overcome obstacles the drought imposed.

My sincere appreciation goes out to all of the ag producers and businesses who provided input to this report. Without their knowledge, expertise, and desire to contribute, this report would not be possible. Also, I would like to express gratitude to my staff for their efforts in compiling and analyzing this information and for their continued dedication to our mission of protecting agriculture and ensuring consumer protection.

Respectfully submitted,
Martin Settevendemie

Agricultural Commissioner/Sealer

Weathering the Drought

What does the future hold?

San Luis Obispo County's central coast location has historically provided innovative agricultural producers with favorable weather conditions and critical rainfall for both irrigation and groundwater recharge. This, combined with close proximity to main transportation corridors, allows producers to grow and ship commodities to local, domestic and international markets.

Visible to the eye of residents and visitors alike are the seasonably lush green rolling hills that rim the county which sustain a variety of types of livestock, and flat fertile lands abounding with a vast variety of vegetables, berries and field crops. Orchards of half century old nut trees, numerous kinds of citrus and well established avocado trees consistently produce high quality fruit and nut crops. Additionally, wine grapes, planted in rows that meet the horizon, help to round out an intensely productive and diverse agricultural industry. All of this coupled with the hard work of farmers, ranchers and laborers, brings forth an abundance of food representing over 100 different crop types and results in a combined gross value of \$828,800,000 in 2015.

However, the local landscape of the county looked very different in 2015 due to the four year cumulative impacts of drought and warmer than average temperatures. For twelve consecutive months in 2015, the U.S. Drought Monitor declared San Luis Obispo County, in its entirety, to be at the D-4 Exceptional Drought Stage, the most critical rating on this drought intensity scale (Figure 1). On April 1, 2015, Governor Jerry Brown issued Executive Order B-29-15 which

declared that California's water supplies continued to be severely depleted, severe drought conditions presented urgent challenges including diminished water for agricultural production, drinking water shortages in communities across the state, reduced flows in the state's rivers and shrinking supplies in groundwater basins. The order, a continuation of the Governor's January 17, 2014 State of Emergency declaration for severe drought conditions throughout California, called for all Californians to conserve water.

Rainfall in San Luis Obispo County in 2015 was well below average. Rainfall amounts across the county were as variable as the terrain and topography itself and far below the average annual range of up to 10 inches in the eastern side of the county to more than 40 inches annually in the higher coastal mountain elevations. The limited amounts of rain that fell did not arrive at the optimal time to germinate seeds of the natural forage grasses and plants, vital to the health of rangeland areas that ultimately provides food for livestock and wildlife. With diminished grazing capacity, noticeably fewer cattle were seen on rangeland in 2015. Ranchers sustained animal numbers at roughly half that of historical herd sizes. Stock ponds ran dry and water had to be delivered to the cattle to sustain herds. Wildlife competed more than ever with livestock for limited feed and water. Streams and springs that normally ran year-round disappeared. And, when the rain did arrive in mid-July, hay crops that were harvested but laying in the field to be collected were damaged by the untimely moisture.

PHOTOS: ROYCE LARSEN, UNIVERSITY OF CALIF. COOPERATIVE EXTENSION, SLO COUNTY FORAGE PRODUCTION PROJECT



Huasna, May, 2006



Hwy. 58, May, 2006



Morro Bay, May, 2006



Shandon, May, 2006



Huasna, April, 2015



Hwy. 58, April, 2015



Morro Bay, April, 2015



Shandon, April, 2015

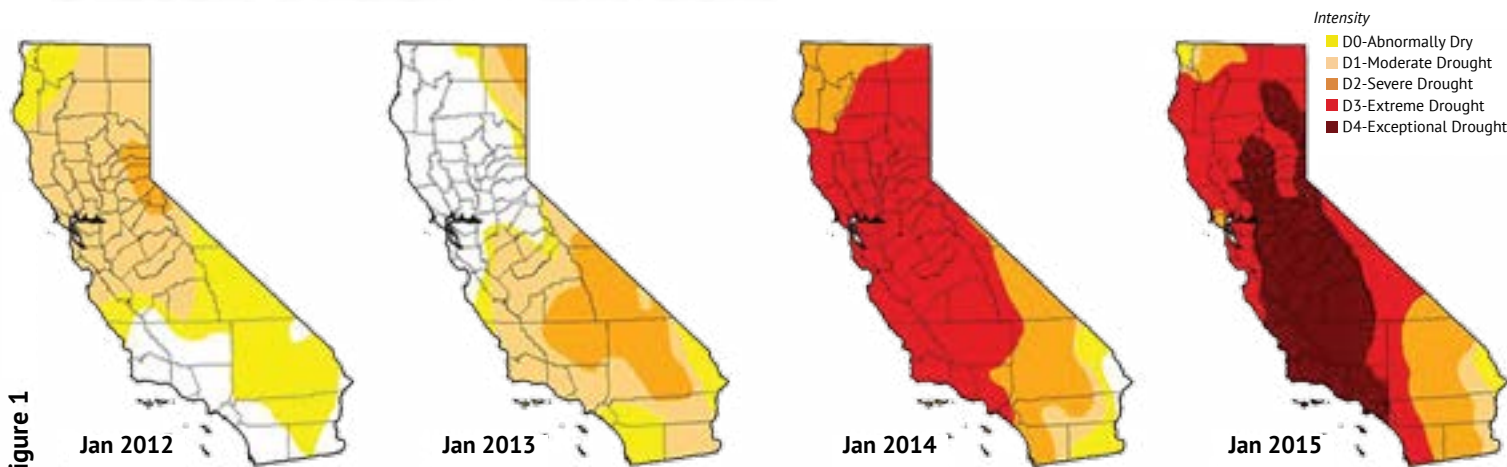
Groundwater basins are the primary sources of irrigation water in San Luis Obispo County, with minor amounts coming from local surface water. Several groundwater basins were not adequately recharged as a result of the cumulative impact of below normal rainfall for eight of the past nine years, and could not provide adequate irrigation water. Salts, which are naturally occurring dissolved minerals found in groundwater used for irrigation, tend to accumulate in the surface soil causing crop damage, reduced yields and negative impacts to crop quality. Without normally abundant rainfall and water for extra irrigation needed to flush the salts downward and away from the root zone of plants, growers faced the increased challenge of managing soil health and salinity levels.

Despite these challenges, agricultural producers conserved water while continuing to produce high quality crops. Overall, the combined value of all agricultural production in 2015 was reduced by only 8% compared to 2014.

Conversely, some nursery stock growers were positively impacted by outdoor water use restrictions called for in the Governor's Executive Order. Producers were able to meet new demands for drought tolerant plant varieties.

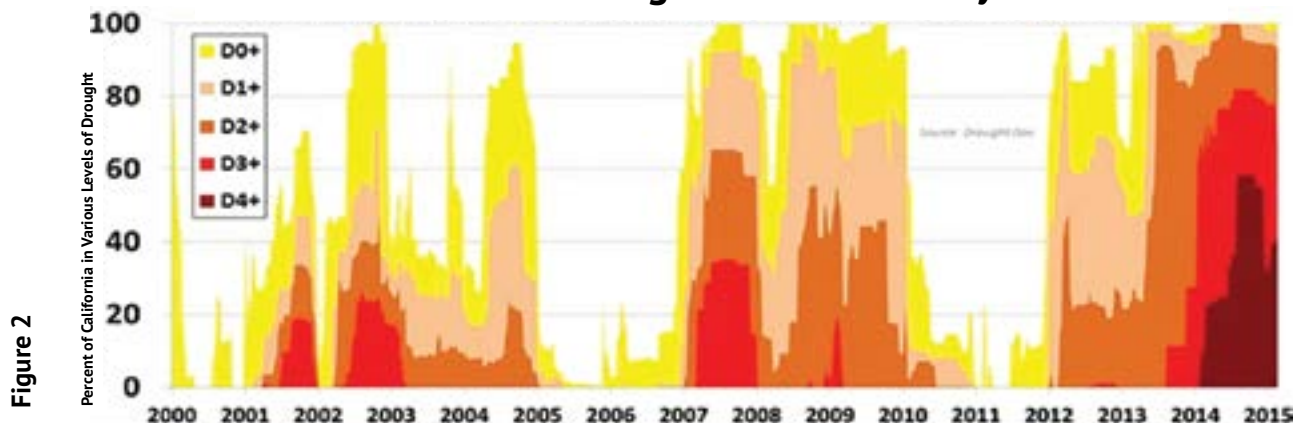
The drought impacts felt in 2015 brought many changes to both the agricultural areas as well as the urban setting. Many producers estimate that it will take three to five years to recover from the impacts of the prolonged drought. Groundwater and soil health management will remain a key challenge. And the question remains, will the changes to the climate experienced in 2015 become the new reality for the future, or simply a continuation of drought cycles seen in the past? (Figure 2). Agricultural producers are already planning for the future and will weather what the future will bring.

DROUGHT INTENSITY MONITORING



Source: US Drought Monitor, National Drought Mitigation Center

Three Waves of Drought in 21st Century California



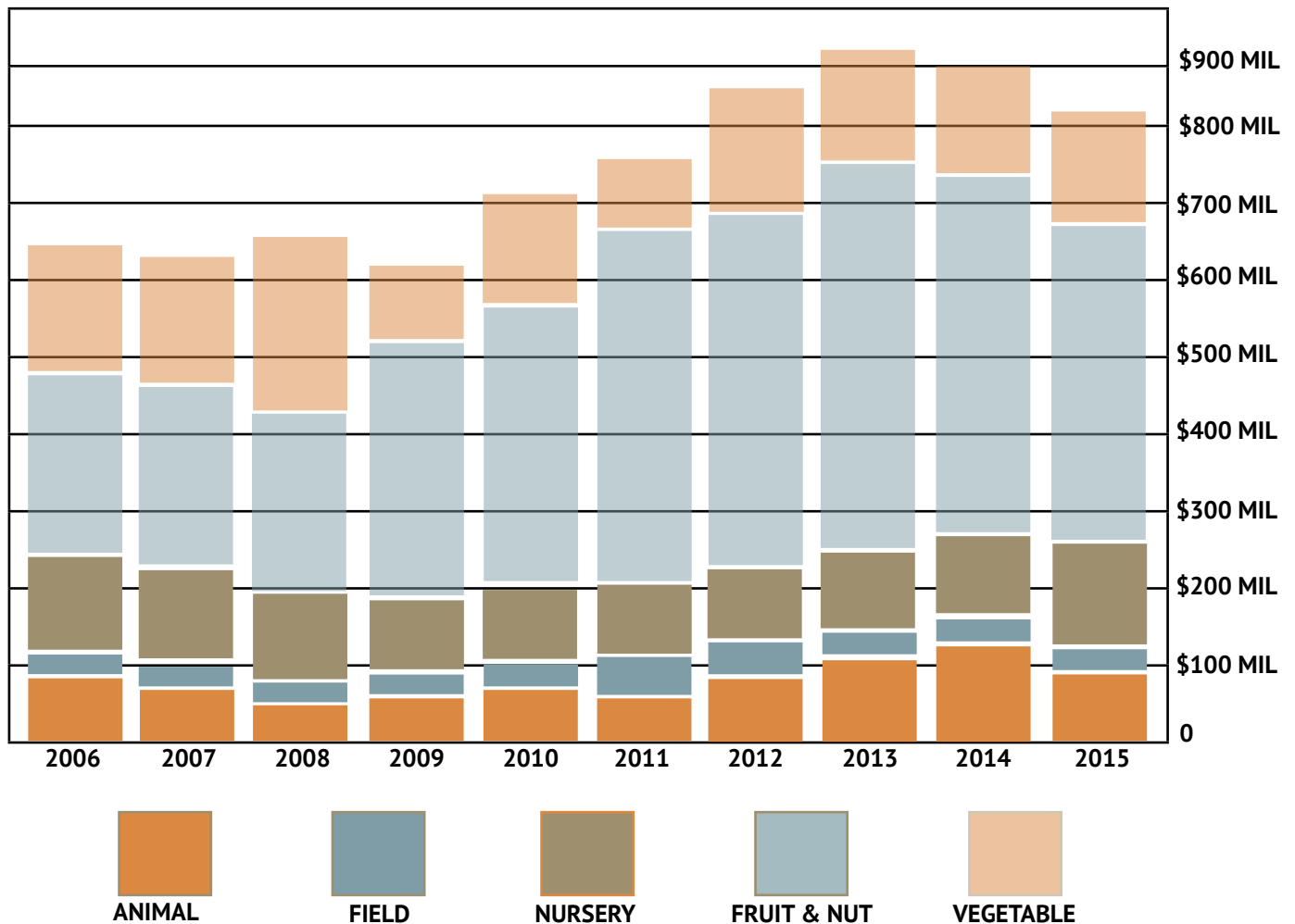
Source: US Drought Monitor, National Drought Mitigation Center

Top 10 Value Crops



#	Crop	\$ Value	%
1	Strawberries	222,604,000	27%
2	Wine Grapes all	146,435,000	18%
3	Cattle and Calves	66,000,000	7%
4	Broccoli	47,759,000	6%
5	Vegetable Transplants	38,730,000	5%
6	Cut Flowers	27,629,000	3%
7	Head Lettuce	25,485,000	3%
8	Leaf Lettuce	16,893,000	2%
9	Avocados	16,613,000	2%
10	Lemons	16,417,000	2%
11	All Other Crops	204,235,000	25%

Comparison of Valuation of Major Groups During the Past Ten Years



COMPARISON OF VALUATION of Major Groups During the Past Ten Years

YEAR	ANIMAL	FIELD	NURSERY	FRUIT & NUT	VEGETABLE	TOTAL VALUE
2015	70,659,000	15,600,000	100,138,000	428,344,000	214,059,000	\$828,800,000
2014	135,017,000	16,812,000	84,394,000	*468,518,000	195,329,000	*900,070,000
2013	100,865,000	16,365,000	97,651,000	468,355,000	237,896,000	921,132,000
2012	73,857,000	24,612,000	95,155,000	463,296,000	204,900,000	861,820,000
2011	71,479,000	22,929,000	96,454,000	366,570,000	174,981,000	732,413,000
2010	57,139,000	18,545,000	94,708,000	365,750,000	176,666,000	712,808,000
2009	55,375,000	15,178,000	93,759,000	271,474,000	187,309,000	623,095,000
2008	53,848,000	17,790,000	101,845,000	229,661,000	199,778,000	602,922,000
2007	60,078,000	15,462,000	107,674,000	235,135,000	219,746,000	638,095,000
2006	64,244,000	17,477,000	108,066,000	236,491,000	204,336,000	630,614,000

*Revised

2015 Trading Partners

In 2015 staff inspected and certified 2,809 shipments of agricultural products for export.

EUROPE

- Albania
- Azerbaijan
- Belgium
- Italy
- Netherlands
- Spain
- Turkey
- United Kingdom

ASIA

- China
- Iraq
- Israel
- Japan
- Jordan
- Korea
- Lebanon
- Oman
- Pakistan
- Republic of Kuwait
- Saudi Arabia
- Singapore
- Sri Lanka
- Syrian Arab
- Taiwan
- Thailand
- United Arab Emirates
- Vietnam
- Yemen

NORTH AND CENTRAL AMERICA

- Canada
- Dominican Republic
- Jamaica
- Trinidad and Tobago
- El Salvador
- Guatemala
- Honduras
- Mexico

AFRICA

- Algeria
- Egypt
- Kenya
- Libya
- Morocco
- Mozambique
- South Africa
- Tanzania
- Tunisia

AUSTRALIA

- New Zealand
- French Polynesia

SOUTH AMERICA

- Argentina
- Bolivia
- Brazil
- Chile
- Colombia
- Costa Rica
- Ecuador
- Peru

Animal Industry

The impact of the fourth consecutive year of drought on cattle production was dramatic. Severe drought conditions forced the sale of cattle beginning in 2013 and spiking to a record high by 2014. By 2015, herd sizes had been significantly reduced as evidenced by the sharp decrease in sales recorded by year end. The number of head of cattle sold in 2015 was less than half the number sold in 2014. Demand and prices for the limited inventory of cattle were strong, a reflection of the negative impact of the drought on cattle production areas throughout California. The total value of the animal category plunged 48% compared to 2014.

COMMODITY	YEAR	NUMBER OF HEAD	PRODUCTION	UNIT	\$ PER UNIT	GROSS VALUE
Cattle and Calves	2015	55,000	440,000	Cwt	150.00	\$66,000,000
	2014	120,000	1,080,000	Cwt	120.00	129,600,000
*Miscellaneous	2015					4,659,000
	2014					5,417,000
TOTAL ANIMAL INDUSTRY	2015					\$70,659,000
	2014					\$135,017,000

* Aquaculture, Eggs, Goats, Lambs, Sheep, Wool, Chickens, Pigs, Bees, Honey, Milk



Field Crops

Grain and hay growers who ventured to plant a crop amidst a severe drought were rewarded with solid yields as late spring rains helped to maintain production. However, prices were down, a reflection of the decreased demand for feed due to the reduction in livestock numbers statewide. The total value for field crops dropped 7% below 2014 values.

CROP	YEAR	ACREAGE		PRODUCTION			GROSS VALUE	
		PLANTED	HARVESTED	PER ACRE	TOTAL	UNIT	\$ PER UNIT	\$ TOTAL
Alfalfa Hay	2015	1,691	1,682	5.65	9,503	Ton	225.00	2,138,000
	2014	2,455	2,441	6.06	14,792	Ton	284.00	4,201,000
Barley	2015	8,576	5,950	0.62	3,689	Ton	191.00	705,000
	2014	8,068	5,194	0.19	987	Ton	265.00	262,000
++Grain Hay	2015	13,284	11,673	1.80	21,011	Ton	168.00	3,530,000
	2014	7,252	5,998	1.67	10,017	Ton	255.00	2,554,000
Grain Stubble	2015		4,094			Acre	17.00	70,000
	2014		2,966			Acre	13.00	39,000
Rangeland, Grazed	2015		1,015,000			Acre	7.00	7,105,000
	2014		1,015,000			Acre	7.00	7,105,000
*Miscellaneous	2015	3,028	**4,122					2,052,000
	2014	2,438	**3,475					2,651,000
TOTAL FIELD CROPS	2015	26,579	1,042,521					\$15,600,000
	2014	20,213	1,035,074					\$16,812,000

* Irrigated Pasture, Green Chop, Oats, Safflower, Sudan Grass, Wheat, Seed, Dried Beans, Straw, Teff

++ Includes winter forage

** Harvested acres includes irrigated pasture

Fruit & Nut Crops

For the second year in a row, the strawberry industry was the top valued crop for 2015. Strawberries benefitted from the dry weather conditions that plagued other crops. Over 3,400 acres were planted, meeting the high demand for fresh berries for processing. Mild temperatures and limited rainfall resulted in good production levels, low disease pressure and high quality fruit. Growers continued to diversify by planting blackberries, raspberries and blueberries. The plastic hoop greenhouses visible primarily in the south county area are evidence of this expansion.

Unusually cool spring temperatures and strong winds caused wine grape blossoms to shatter before the fruit was set on the vines in many areas, resulting in a 31% drop in yields for wine grapes, compared to 2014. Further impacting production was salt accumulation in the soil. Well below normal seasonal rainfall hindered salts, (minerals naturally found in ground water), from leaching out of the root zone, causing increased stress to vines and reduced production. Despite prices remaining favorable, the value for all wine grapes decreased 28% compared to 2014.

Avocado trees continued to be severely pruned or stumped throughout the county in 2015. Stumping is a cultural practice aimed at reducing the leaf canopy and water demands of trees in response to lack of water for irrigation. Ongoing drought conditions created salt build up in the soil from lack of leaching rains, negatively affecting production levels and impacting overall fruit size. Total production yields for avocados decreased by 10% over 2014. It will take several years for avocado trees to rebound once normal amounts of rainfall returns to the avocado growing regions.

Dryland farmed walnut trees were especially hard hit by the continued drought. Loss of half century old trees, limb dieback and low yields contributed to an overall 25% reduction in value compared to 2014. The drought impacts and low prices forced some orchards to be left unharvested.

The total value for the fruit and nut category decreased 9% compared to 2014.

CROP	YEAR	ACREAGE		PRODUCTION		UNIT	GROSS VALUE	
		PLANTED	BEARING/ HARVESTED	PER ACRE	TOTAL		\$ PER UNIT	\$ TOTAL
Avocados	2015	4,308	^4,107	2.208	9,068	Ton	1,832.00	16,613,000
	**2014	4,297	^4,031	2.495	10,057	Ton	1,968.00	19,793,000
Grapes, Wine (All)	2015	46,865	39,017		98,781	Ton		146,435,000
	2014	44,754	37,408		142,649	Ton		203,785,000
Chardonnay	2015		3,248	3.854	12,518	Ton	1,397.00	17,487,000
	2014		3,318	5.105	16,938	Ton	1,327.00	22,477,000
Sauvignon Blanc	2015		605	6.147	3,719	Ton	1,299.00	4,831,000
	2014		727	9.102	6,617	Ton	1,220.00	8,073,000
White Wine (Other)	2015		2,061	2.372	4,889	Ton	1,398.00	6,834,000
	2014		2,012	3.496	7,034	Ton	1,293.00	9,095,000
Cabernet Sauvignon	2015		14,043	2.183	30,656	Ton	1,545.00	47,363,000
	2014		12,895	3.761	48,498	Ton	1,465.00	71,050,000
Merlot	2015		5,100	3.444	17,564	Ton	1,053.00	18,495,000
	2014		4,887	4.367	21,342	Ton	1,057.00	22,558,000
Pinot Noir	2015		2,350	1.692	3,976	Ton	2,990.00	11,888,000
	2014		2,399	2.677	6,423	Ton	2,683.00	17,233,000
Syrah	2015		3,285	1.994	6,550	Ton	1,413.00	9,256,000
	2014		3,264	3.312	10,810	Ton	1,364.00	14,745,000
Zinfandel	2015		2,857	2.251	6,431	Ton	1,480.00	9,518,000
	2014		2,826	2.613	7,384	Ton	1,407.00	10,390,000
Red Wine (Other)	2015		5,468	2.282	12,478	Ton	1,664.00	20,763,000
	2014		5,080	3.465	17,602	Ton	1,600.00	28,164,000
Lemons	2015	1,645	1,412	16.126	22,770	Ton	721.00	16,417,000
	2014	1,656	1,423	13.612	19,370	Ton	819.00	15,864,000
Strawberries (All)	2015		3,412		140,683	Ton		222,604,000
	2014		3,470		135,143	Ton		205,765,000
Fresh	2015			31.032	105,881	Ton	1,800.00	190,586,000
	2014			29.640	102,851	Ton	1,735.00	178,446,000
Processed	2015			10.200	34,802	Ton	920.00	32,018,000
	2014			9.306	32,292	Ton	846.00	27,319,000
English Walnuts	2015	2,015	2,015	0.157	316	Ton	2,795.00	884,000
	2014	2,062	2,062	0.190	392	Ton	3,001.00	1,176,000
*Misc.	2015	2,794	2,406					25,391,000
	2014	2,608	2,279					22,135,000
Total Fruit & Nut Crops	2015	57,627	52,369					\$428,344,000
	2014	55,377	50,673					\$468,518,000

* Apples, Apricots, Asian Pears, Blueberries, Caneberries, Feijoas, Figs, Grapefruit, Kiwis, Limes, Mandarin Oranges, Navel Oranges, Olives, Passion Fruit, Peaches, Persimmons, Pistachios, Pomegranates, Specialty Citrus, Table Grapes, Valencia Oranges

** Revised

^ Includes stumped acreage



PHOTO CREDIT: BY MARK BATTANY

Nursery Products

Vegetable and perennial ornamental plant seedling transplants were in high demand in 2015. Vegetable growers transitioned from traditional direct field seeding to planting transplants. By utilizing transplants, growers were able to reduce the amount of irrigation water required to germinate seeds.

Water use restrictions that went into place across California in 2015 created mixed results for nursery stock producers. Succulents and other drought tolerant plants remained popular throughout 2015. A slight rebound in housing construction created an increased demand for drought tolerant ornamental landscape plants.

However, consumer interest shifted from thirsty bedding plants and lawns to permanent landscape plants. The resulting 19% rebound in value restored production values to historic levels, compared to 2014.



CROP	YEAR	FIELD PRODUCTION (Acres)	GREENHOUSE PRODUCTION (sq ft)	GROSS VALUE
Cut Flowers and Greens	^2015	64	6,638,024	\$27,629,000
	^2014	129	2,794,974	27,043,000
Outdoor Ornamentals	2015	71	57,210	10,173,000
	2014	69	75,980	10,306,000
Vegetable and Ornamental	2015	30	1,713,820	38,730,000
	2014	28	1,763,990	33,679,000
*Miscellaneous	2015	107	1,996,220	23,606,000
	2014	136	1,989,570	13,366,000
TOTAL NURSERY PRODUCTS	2015	272	10,405,274	\$100,138,000
	2014	362	6,624,514	\$84,394,000

* Aquatic, Bedding plants, Bulbs, Cacti, Christmas Trees, Fruit-Nut trees, Ground Cover, Herbs, Indoor Decorative, Propagative plants, Scion wood, Flower seed, Sod, Specialty plants, Succulents

^ Includes cut flowers grown in greenhouse and field

Vegetable Crops

Vegetable crops were in high demand in 2015, due to reduced production throughout California's drought stricken vegetable production areas. This is reflected in the strong prices for most vegetable varieties. Broccoli, cabbage, cauliflower, celery, head and leaf lettuces and spinach enjoyed particularly strong demand and prices. However, an overall 6% reduction in harvested acreage was reported, as growers left fields fallow due to lack of irrigation water and insufficient farm labor. Crop damage and reduced yields due to increased soil salinity from the fourth consecutive year of drought was widely reported. Overall, the value for all vegetables increased 10% compared to 2014.



PHOTO CREDIT: SURENDRA DARA

CROP	YEAR	HARVESTED ACREAGE	PRODUCTION		UNIT	GROSS VALUE	
			PER ACRE	TOTAL		\$ PER UNIT	\$ TOTAL
Bell Peppers	2015	710	12.459	8,846	Ton	639.74	5,659,000
	2014	877	12.089	10,602	Ton	677.94	7,188,000
Bok Choy	2015	267	16.066	4,290	Ton	503.83	2,161,000
	2014	**					
Broccoli	2015	7,398	5.120	37,878	Ton	1,260.86	47,759,000
	2014	9,878	6.350	62,725	Ton	911.25	57,158,000
Cabbage	2015	582	21.232	12,357	Ton	436.71	5,396,000
	2014	720	20.358	14,658	Ton	327.82	4,805,000
Cauliflower	2015	1,920	7.966	15,295	Ton	849.99	13,000,000
	2014	1,725	13.061	22,530	Ton	598.20	13,478,000
Celery	2015	826	23.832	19,685	Ton	605.56	11,921,000
	2014	**					
Lettuce, Head	2015	3,290	14.835	48,807	Ton	522.16	25,485,000
	2014	3,588	15.830	56,798	Ton	360.57	20,480,000
Lettuce, Leaf	2015	1,852	13.435	24,882	Ton	678.95	16,893,000
	2014	881	12.270	10,810	Ton	637.68	6,893,000
Peas Edible Pod	2015	211	2.519	532	Ton	2,083.14	1,107,000
	2014	333	1.545	514	Ton	2,414.54	1,242,000
Squash	2015	260	26.281	6,833	Ton	324.19	2,215,000
	2014	131	26.414	3,460	Ton	378.49	1,310,000
*Miscellaneous	2015	10,024					82,463,000
	2014	9,273					68,768,000
TOTAL VEGETABLE CROPS	2015	27,340					\$214,059,000
	2014	28,977					\$195,329,000

*Anise, Artichokes, Arugula, Basil, Beans, Beets, Brussel Sprouts, Carrots, Chard, Chili Peppers, Cilantro, Collards, Cucumbers, Daikon, Dandelion, Dill, Endive, Escarole, Fennel, Garlic, Green Onions, Green Garbanzo Beans, Herbs, Kale, Leeks, Melons, Mushrooms, Mustard Greens, Napa Cabbage, Onions, Parsley, Potatoes, Pumpkins, Radishes, Spinach, Sweet Corn, Tomato, and Tomatillo

**Miscellaneous

Sustainable Ag Report

PEST DETECTION PROGRAM ACTIVITIES

The Pest Detection Program's focus is the search for targeted insect pests outside of a known infested area or insects not known to occur in California. Most traps are placed in residential settings where the risk of the inadvertent introduction of pests is the greatest. The detection of pests at their lowest population level is essential to the success of eradication efforts.



INSECT	HOSTS	NUMBER OF TRAPS DEPLOYED	NUMBER OF TRAP SERVICINGS	RESULTS
Asian citrus psyllid, <i>Diaphorina citri</i>	Citrus Trees	1,763	36,196	78 adults trapped at multiple residential properties (hosts treated)
Various Exotic Fruit Flies	Fruits and Vegetables	752	14,628	1 sterile male found
Glassy-winged sharpshooter <i>Homalodisca vitripennis</i>	Ornamental and Commercial Crops	398	5,150	1 adult trapped at residential property (hosts treated)
Light brown apple moth <i>Epiphyas postvittana</i>	Ornamental and Commercial Crops	316	4,581	147 adult male moths found*
Gypsy moth <i>Lymantria dispar</i>	Ornamental Trees	133	599	none found
Japanese beetle <i>Popillia japonica</i>	Turf and Ornamental Plants	125	575	none found
European Grapevine Moth <i>Lobesia bontrana</i>	Grape Vines	93	791	none found
European Corn Borer <i>Ostrinia nubilalis</i>	Corn and Sorghum	17	175	none found
European Pine Shoot Moth <i>Rhyacionia buoliana</i>	Pine Trees	5	18	none found

*Monitoring and quarantine restrictions are in place.

THE SEARCH FOR ASIAN CITRUS PSYLLID: PEST DETECTION AND CONTROL EFFORTS UNDERWAY

The Asian Citrus Psyllid (ACP) is an insect that feeds on citrus. ACP is the primary vector of Huanglongbing, also called citrus greening, a plant disease that is fatal to all types of citrus trees. Although Huanglongbing does not occur in San Luis Obispo County, the disease has been identified at several residential sites in Los Angeles County. The disease does not affect human or animal health, but it has devastated the citrus industry in Florida. Citrus trees commonly planted in residential landscapes are affected by this plant disease as well.

Asian Citrus Psyllid has been found within San Luis Obispo County on residential citrus trees. The California Department of Food & Agriculture (CDFA), with support from the County Department of Agriculture/Weights and Measures, has responded with targeted insecticide applications to citrus trees in an effort to eradicate this pest. There are no known established populations of ACP within San Luis Obispo County.

In 2015, staff deployed 1,763 traps designed for the early detection of ACP, and serviced those traps over 36,000 times. This trapping protocol led to the early detection of ACP and enabled CDFA to respond while the population levels were still low. This response is an important step in preserving citrus trees found in landscapes and protecting the future of our local citrus industry, which produced approximately \$17,900,000 in gross revenue in 2015.



Top: Asian Citrus Psyllid
Right: Trap in Citrus Tree

PEST SPECIES INTERCEPTED IN SAN LUIS OBISPO COUNTY IN 2015

Pest Exclusion Program Activities:

In order to protect local agriculture and the environment from the introduction of pests that do not currently occur in San Luis Obispo County, incoming plant shipments originating from across the United States and the world were inspected by Agricultural Commissioner staff. Certain intrastate shipments (shipments originating from within California) were inspected as well, depending on quarantine restrictions. During 2015, staff visually inspected 5,417 shipments of incoming plant material and found 38 separate instances of live pests. These shipments were rejected, and then either destroyed, returned, or reconditioned prior to release.

PEST SPECIES COMMON NAME - SCIENTIFIC NAME	NUMBER OF SHIPMENTS REJECTED OR DESTROYED	HOST PLANT/ IMPACTED CROPS	DETECTION METHOD
INSECTS			
Ant, big-headed <i>Pheidole megacephala</i>	1	Listed as one of the "World's 100 Worst Invaders"	Common Carrier Shipment
Ant - <i>Pheidole sp.</i>	1	Displaces native ants	Airfreight Shipment
Ant - unidentifiable	1	Unknown	Airfreight Shipment
Armored scale - <i>Pinnaspis sp.</i>	1	Nursery plants and ornamentals	Common Carrier Shipment
Boxwood scale - <i>Pinnaspis buxi</i>	1	Ornamental plants	Common Carrier Shipment
Bush cricket - <i>Tettigoniidae sp.</i>	1	Unknown	Airfreight Shipment
Glassy-winged sharpshooter - <i>Homalodisca vitripennis</i>	3	Winegrapes and ornamentals	Intrastate Shipment, Airfreight Shipment
Jack Beardsley Mealybug - <i>Pseudococcus jackbeardsleyi</i>	1	Nursery plants and subtropical crops	Airfreight Shipment
Lesser Snow scale - <i>Pinnaspis strachani</i>	2	Palms and other nursery plants	Common Carrier Shipment, Airfreight Shipment
Light Brown Apple Moth - <i>Epiphyas postvittana</i>	2	Berries and other fruit crops	Intrastate Shipment
Magnolia White Scale - <i>Pseudaulacapsis cockerelli</i>	1	Nursery plants and ornamentals	Intrastate Shipment
Mango Shield Scale - <i>Milviscutulus mangiferae</i>	1	Mango and avocado	Common Carrier Shipment
Mealybug - <i>Pseudococcidae family</i>	3	Citrus; nursery plants and ornamentals	Common Carrier Shipment
Mite - <i>Tetranychus sp.</i>	2	Vegetables and nursery plants	Airfreight Shipment
Mite - Unidentifiable	1	Vegetables and nursery plants	Common Carrier Shipment
Pandanus halimococcia scale - <i>Thysanococcus pandani</i>	1	Nursery plants and ornamentals	Common Carrier Shipment
Pyriiform scale - <i>Protospulvinaria pyriformis</i>	2	Nursery plants and ornamentals	Airfreight Shipment
Red Wax scale - <i>Ceroplastes rubens</i>	1	Citrus; nursery plants and ornamentals	Airfreight Shipment
Sanseveria scale - <i>Parlatoria proteus</i>	1	Nursery plants and ornamentals	Airfreight Shipment
Stellate scale - <i>Ceroplastes stellifer</i>	1	Citrus; nursery plants and ornamentals	Airfreight Shipment
Thrips - <i>unidentifiable</i>	3	Vegetables and nursery plants	Interstate Shipment, Airfreight Shipment
OTHER: FUNGI, MOLLUSCA, & PATHOGENS			
Fungus - <i>Phoma sp.</i>	1	Nursery plants	Intrastate Shipment
Slug - <i>unidentifiable</i>	1	General agricultural pest	Airfreight Shipment
Snail - <i>Bradybaena similaris</i>	1	General agricultural pest	Interstate Shipment
Snail - <i>Zachrysis sp.</i>	1	Citrus; nursery plants and ornamentals	Interstate Shipment
WEEDS			
Hairy Crabweed - <i>Fatoua villosa</i>	3	General agricultural and garden pest	Interstate Shipment

Organic Crops



San Luis Obispo County ranked twelfth out of the 58 California counties for the number of organic registrants in 2015 with one hundred seventeen growers registering San Luis Obispo County as their primary county for organic crop production. This included

18 new organic producers. (Eight former registrants did not reregister in 2015). An additional eight registered producers were based in other counties with production sites located within San Luis Obispo County. Compared to 2014, more acreage was utilized to produce a wider variety of vegetable crops.

ACRES REGISTERED AS ORGANIC

Year	Acres
2015	*50,899
2014	*50,636
2013	*13,128
2012	*14,127
2011	*14,114
2010	11,784
2009	10,124
2008	11,037
2007	7,167

*includes rangeland for organic livestock, fallow land and mushrooms

TOP 10 ORGANIC CROPS GROWN IN SLO COUNTY

Rank	Crop	Harvested/Registered Acres
1	*Rangeland	42,113
2	Carrots	1,603
3	Grains	1,063
4	Walnuts	959
5	Wine Grapes	895
6	**Table Grapes	530
7	Onions/Garlic	229
8	Tomato	174
9	Kale	160
10	Spinach	147

*Does not include fallow land.

**Revised tabulation method.



Commercial Fishing

Central coast commercial fishing operators, located in Port San Luis and Morro Bay, brought ashore a wide variety of fish for residents, visi-

tors and consumers around the world to enjoy. Over one hundred species of fish were caught and recorded by the California Department of Fish and Wildlife.

The figures presented originated from the California Department of Fish and Wildlife and reflect the overall 2014 valuation of commercial fishing in San Luis Obispo County. We acknowledge Ecological Assets Management, LLC, for contributing to this report. (Note: commercial fishing values representing 2014 data are not included in the overall agricultural values).

COMMERCIAL FISHING LANDINGS (2014)

Species	Pounds	\$ Value
Crab, Dungeness	737,137	3,748,980
Sablefish	726,401	2,066,392
Squid, market	4,322,495	1,403,679
Thornyhead, shortspine	115,042	490,785
Hagfishes	440,926	386,748
Rockfish, gopher	40,882	311,720
Rockfish, brown	43,078	295,647
Prawn, spot	15,379	212,567
Cabazon	34,526	196,513
Lingcod	62,434	158,240
*Other Species	647,164	1,186,989
TOTAL	\$7,185,464	\$10,458,260

*includes 90 species. Data Source: California Department of Fish and Wildlife.



Weights and Measures



The San Luis Obispo County Weights and Measures Program promotes fair and equitable business practices while providing protection to consumers and businesses in transactions involving weight, measure, or count. Inspectors enforce regulations during the inspection of various weighing and measuring devices throughout the year.

local retail markets to ensure customers are getting what they pay for.

Examples of inspections performed include verification of consumer goods, packaging for compliance with labeling requirements and net content statements; price verification inspections to ensure customers are charged the lowest advertised price as required by law, undercover test sales at local recyclers to verify customers are accurately compensated for material that is sold, and test purchases at

Through their inspections, Weights and Measures Inspectors also verify compliance of petroleum sign requirements and fuel standards at gas stations and the labeling of other automotive fluids such as oils, coolants, and transmission fluids, ensuring each meet quality standards. These inspections safeguard consumers from potential automotive failures and unsafe driving conditions.

2015 WEIGHTS & MEASURES INSPECTIONS PERFORMED

Measuring Device Inspections		Weighing Device Inspections	
Device Type	Number of Inspections Completed	Device Type	Number of Inspections Completed
Retail Motor Fuel Dispensers / Compressed Natural Gas	2,450	Retail Computing Scales	464
Propane Meters	52	Counter Scales	225
Taximeters	34	Hanging Scales	80
Vehicle Tank Meters	30	Crane Scales	5
Water Vending Machines	110	Hopper Scales	16
Electric Submeters	237	Livestock Scales	74
Gas Vapor Submeters	120	Platform Scales	252
Water Submeters	111	Vehicle Scales	62
Wire/Rope/Cordage Meters	38	Monorail/Meatbeam Scales	7
Misc. Measuring Devices	7	Prescription Scales	1

Quantity Control Inspections					
Price Verification Inspections			Package Audits & Package Inspections		
Retail Locations Inspected	Packages Inspected for Price Accuracy	Overall Compliance	Lots Inspected	Packages Inspected	Overall Compliance
151	3,430	97.7%	920	978	91.3%

Test Purchase & Test Sale Inspections		
Locations Inspected	Test Sales & Purchases Made	Overall Compliance
16	35	77.1%



Petroleum Signs & Labeling Inspections	Weighmaster Audit Inspections
Number of Stations Inspected	Number of Sites Audited
116	6

Certified Farmers Markets

San Luis Obispo is home to 17 weekly Certified Farmers' Markets. These markets offer consumers the ability to sample some of the county's agricultural bounty of fresh fruits, vegetables, nuts, ornamental plants and flowers directly from the producer. Residents and visitors alike have the opportunity to meet many of the county's 120 certified producers and enjoy the fruits of their labor year round.



*SAN LUIS OBISPO COUNTY CERTIFIED FARMERS' MARKETS 2015	
MONDAY	BAYWOOD/LOS OSOS 2:00 PM to 4:30 PM
TUESDAY	PISMO BEACH 8:30 AM to 11:30 AM PASO ROBLES 3:00 PM to 6:00 PM SAN LUIS OBISPO 3:00 PM to 6:00 PM
WEDNESDAY	ARROYO GRANDE 8:30 AM to 11:00 AM PISMO BEACH 2:00 PM to 6:00 PM ATASCADERO 3:00 PM to 6:00 PM
THURSDAY	MORRO BAY 2:30 PM to 5:00 PM SAN LUIS OBISPO 6:00 PM to 9:00 PM
FRIDAY	AVILA BEACH 4:00 PM to 8:00 PM (March 29 to Sept 27) CAMBRIA 2:30 PM - 5:00 PM CAYUCOS 10:00 AM to 12:30 PM (Memorial Day thru Labor Day)

SATURDAY	
ARROYO GRANDE	12:00 PM to 2:30 PM
MORRO BAY	2:00 PM to 6:00 PM (summer) 2:00 PM to 5:00 PM (winter)
PASO ROBLES	9:00 AM to 1:00 PM
SAN LUIS OBISPO	8:00 AM to 10:45 AM
TEMPLETON	9:00 AM to 12:30 PM

SUNDAY	
NIPOMO	11:30 AM to 2:30 PM
GROVER BEACH/RAMONA GARDENS PARK	3:00 PM to 6:00 PM (June-September)
SAN LUIS OBISPO	10:00 AM to 2:00 PM

*VISIT WWW.SLOCOUNTY.CA.GOV/AGCOMM FOR LOCATION ADDRESSES.



COUNTY OF SAN LUIS OBISPO
**DEPARTMENT OF AGRICULTURE/
 WEIGHTS AND MEASURES**
 2156 SIERRA WAY, SUITE A
 SAN LUIS OBISPO, CALIFORNIA 93401-4556



Our Mission:

THE DEPARTMENT OF AGRICULTURE/
 WEIGHTS AND MEASURES IS COMMITTED
 TO SERVING THE COMMUNITY BY
 PROTECTING AGRICULTURE, THE
 ENVIRONMENT, AND THE HEALTH AND
 SAFETY OF ITS CITIZENS, AND BY ENSURING
 EQUITY IN THE MARKETPLACE.