

# ORANGE COUNTY ANNUAL CROP REPORT • 2018 •





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**Jeff Croy**  
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**Karen Ross**, Secretary  
California Department of Food and Agriculture  
And

The Honorable Board of Supervisors of Orange County:

**Lisa A. Bartlett** – Fifth District, Chairwoman

**Michelle Steel** – Second District, Vice Chair

**Andrew Do** – First District

**Donald P. Wagner** – Third District

**Doug Chaffee** – Fourth District

It is my pleasure to present the 2018 Orange County Crop Report as prepared pursuant to Section 2279 of the California Food and Agricultural Code. The reported total value for 2018 was **\$94,329,000** representing a 17% percent decrease compared to the 2017 overall income. Agricultural production values are based upon the free-on-board (F.O.B.) packed price at the first point of delivery, and include cost of production, harvesting, and preparation for market. Gross values, therefore, do not reflect net returns to the producer. Federal incentive, conservation and other support payments are excluded from this report.

The following are highlights of the 2018 Orange County Crop Report:

- **Low levels of rainfall coupled with record-breaking temperatures in the summer heavily challenged agricultural production in most sectors.**
- **The drought year heavily impacted the level of forage available for livestock production.**
- **Decreases in overall value were seen in the field crop, tree fruit, and berry industries.**
- **Nursery products continued to top Orange County's agricultural production, contributing 51 percent of the overall agricultural value.**

This report is produced each year with the outstanding partnership and cooperation of the nursery industry, ranchers, farmers, and Future Farmers of America education programs that represent the agricultural industry in Orange County. My appreciation goes to all of the producers, growers, and individuals in the agribusiness sector for their assistance in providing the data to make this report possible. I also extend my sincere thanks to the exceptional staff here at Orange County who help in the compilation and preparation of this report.

Respectfully submitted,

Jeff Croy  
Agricultural Commissioner/Sealer of Weights and Measures



# AGRICULTURAL PRODUCTION SUMMARY

The total value of agricultural products grown within Orange County within the calendar year of 2018 is approximately

## \$94,329,000

which represents a decrease of 17% when compared to the total value of production in 2017 of \$113,237,000.



CROP	2017	2018	CHANGE
Livestock & Apiary	\$ 2,094,000	\$ 1,425,000	-32%
Field	\$ 1,187,000	\$ 188,000	-84%
Nursery	\$ 61,670,000	\$ 48,058,000	-22%
Tree & Berry	\$ 33,935,000	\$ 27,791,000	-18%
Vegetable	\$ 14,351,000	\$ 16,867,000	+18%

## HIGHLIGHTS OF 2018

Total Agricultural Acreage

19,702

Commodity with Highest Dollar Value

Nursery Stock

Commodity with Greatest Acreage

Avocados

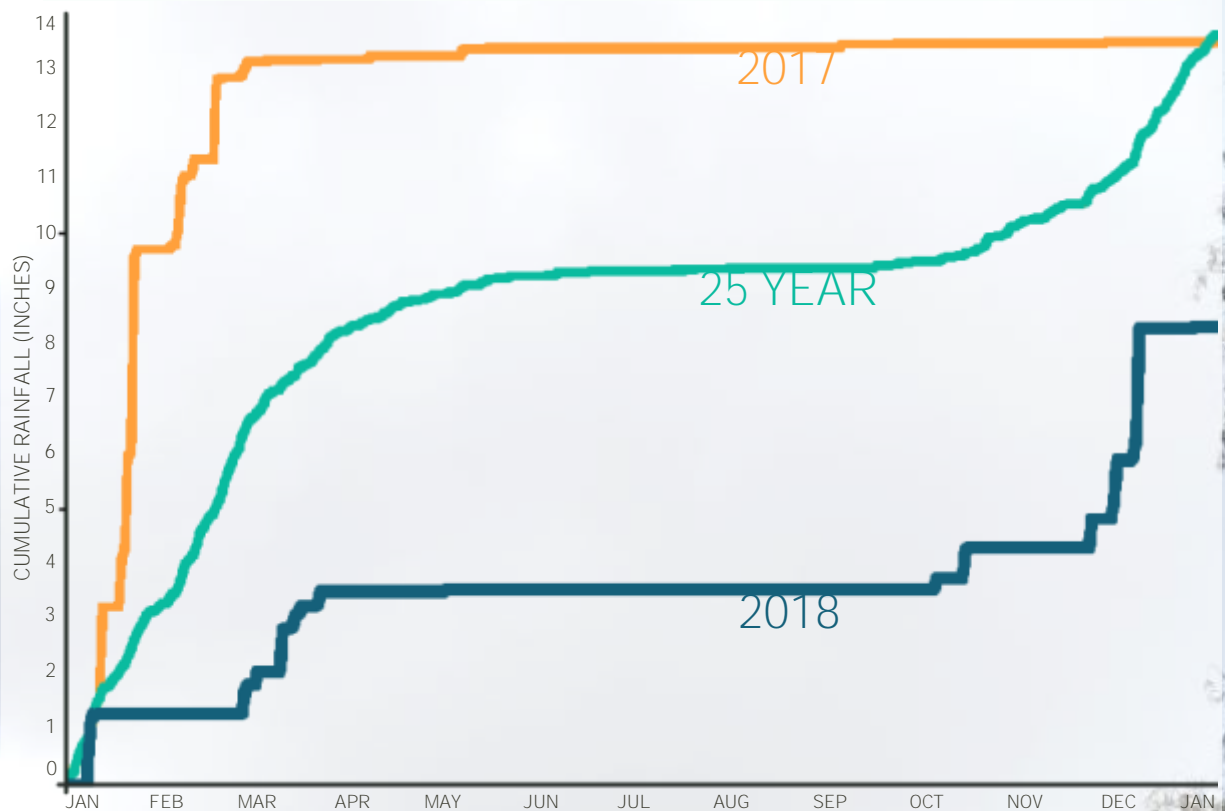
Commodity with Greatest Production (in tons)

Lemons



# 2018 RAINFALL DATA

COURTESY OF OC WATERSHEDS - SANTA ANA SAMPLE POINT

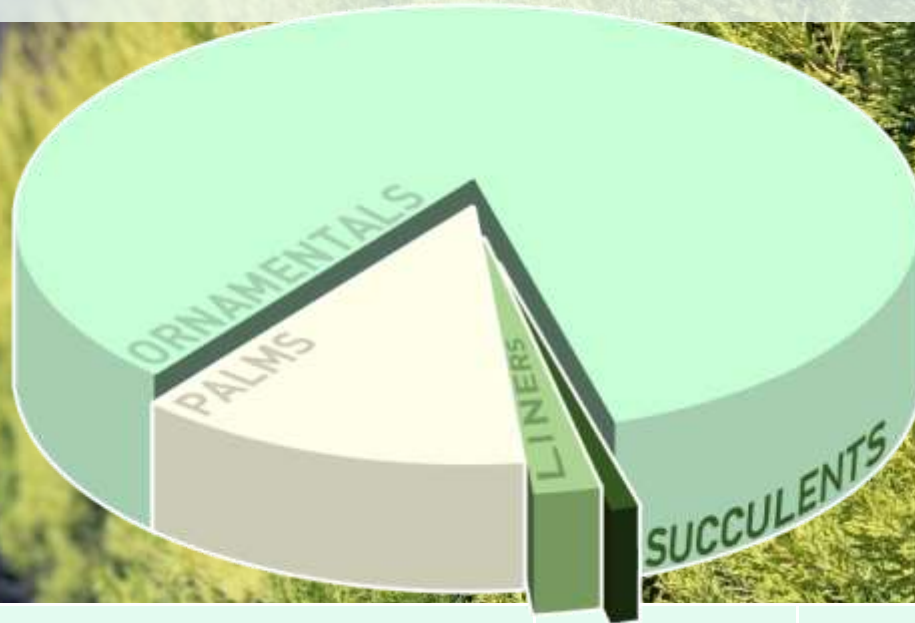


The Santa Ana rain gauge, which dates back to 1908, is one of the oldest continuous rain observation stations in central Orange County. In 2018, the Santa Ana rain gauge recorded significantly less rainfall than in 2017. In the period of January to June 2017 a total of 13.32 inches of rain were recorded. During that same period in 2018, only **3.54 inches** of rain were recorded—a **drop of 73%**.



# NURSERY STOCK PRODUCTION

Nursery stock ranked first for Orange County commodities again this year. 2018 saw a **22% decrease** in gross returns from 2017. The 2018 nursery stock income was **\$48,058,000** with 34,896,000 units sold, down from \$61,670,000 in 2017. These losses were not unexpected, as the value of land continues to increase in Orange County many growers have opted to retire or move to areas with lower lease prices.



NURSERY STOCK	YEAR	ACREAGE	TOTAL VALUE
Ornamental Trees & Shrubs	2018	600	\$ 41,093,000
	2017	819	\$ 55,181,000
Cacti & Succulents	2018	14	\$ 394,000
	2017	14	\$ 438,000
Liners, Flat Stock, Cut Flowers, & Cut Trees*	2018	38	\$ 927,000
	2017	55	\$ 862,000
Palms	2018	29	\$ 5,644,000
	2017	24	\$ 5,189,000
Total Nursery Products	2018	681	\$ 48,058,000
	2017	912	\$ 61,670,000

\*Includes Christmas Trees



# VEGETABLE PRODUCTION

VEGETABLE CROP	YEAR	ACREAGE	PRODUCTION IN TONS	TOTAL VALUE
Brassica <sup>1</sup>	2018	15	329	\$ 89,000
	2017	27	352	\$ 221,000
Cucurbits <sup>2</sup>	2018	29	196	\$ 326,000
	2017	45	663	\$ 798,000
Root Vegetables <sup>3</sup>	2018	7	11	\$ 33,000
	2017	5	11	\$ 26,000
Bulb Vegetables <sup>4</sup>	2018	6	12	\$ 17,000
	2017	3	8	\$ 17,000
Miscellaneous Vegetable Crops <sup>†</sup>	2018	947	10,971	\$ 16,402,000
	2017	942	9,006	\$ 13,289,000
Total Vegetable Value	2018	1,004	11,519	\$ 16,867,000
	2017	1,022	10,040	\$ 14,351,000

<sup>1</sup>Includes: broccoli, cabbage, cauliflower, and kale

<sup>2</sup>Includes: cucumbers, squash, pumpkins, and watermelons

<sup>3</sup>Includes: turnips, radishes, carrots, and beets

<sup>4</sup>Includes: onions, green onions, leeks, and garlic

<sup>†</sup>Per the United States Department of Agriculture National Agricultural Statistics Service, Disclosure Rules: Where there are less than three producers of one product or where one producer is responsible for 60 percent or more of the product entering the marketplace, the product total must be combined with other products to avoid disclosure of the business affairs of the firms involved.



# TREE FRUIT & BERRY PRODUCTION

TREE FRUIT & BERRY CROPS	YEAR	ACREAGE	PRODUCTION IN TONS	TOTAL VALUE
Citrus Fruits <sup>1</sup>	2018	370	10,126	\$ 7,674,000
	2017	373	10,096	\$ 7,655,000
Strawberries	2018	252	6,154	\$ 14,412,000
	2017	386	8,939	\$ 19,792,000
Miscellaneous Fruit & Berry Crops <sup>2</sup>	2018	1,038	2,435	\$ 5,705,000
	2017	1,078	2,088	\$ 6,488,000
Total Fruit & Berry Value	2018	1,660	18,715	\$ 27,791,000
	2017	1,837	21,123	\$ 33,935,000

<sup>1</sup>Includes: oranges and lemons

<sup>2</sup>Includes: avocados, miscellaneous orchard crops, and miscellaneous berry crops

## FIELD CROPS & PASTURE

FIELD & PASTURE	YEAR	ACREAGE	PRODUCTION IN TONS	TOTAL VALUE
Total Field & Pasture Value <sup>3</sup>	2018	16,357	349	\$ 188,000
	2017	16,187	1,468	\$ 1,187,000

<sup>3</sup>Includes: barley grain, garbanzo beans, lima beans, and pasture rental



# APIARY PRODUCTION

APIARY PRODUCTS	YEAR	TOTAL VALUE	
Total Apiary Value <sup>1</sup>	2018	\$	722,000
	2017	\$	529,000

<sup>1</sup>Includes: honey, beeswax, pollen, sale of bees and queens, and pollination rental

# LIVESTOCK PRODUCTION

LIVESTOCK	YEAR	UNITS SOLD	TOTAL VALUE	
Cattle & Swine	2018	325	\$	524,000
	2017	407	\$	1,375,000
Poultry <sup>2</sup>	2018	29	\$	14,000
	2017	54	\$	9,000
Misc. Livestock & Livestock Products <sup>3</sup>	2018	212	\$	165,000
	2017	217	\$	181,000
Total Livestock	2018	566	\$	703,000
	2017	678	\$	1,565,000

<sup>2</sup>Includes: chickens and turkeys

<sup>3</sup>Includes: goats, sheep, and rabbits, eggs, and dairy

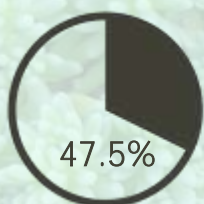


# TRADING PARTNERS & PHYTOSANITARY INSPECTIONS

In 2018, the Orange County Agricultural Commissioner's Office issued **244** Federal Phytosanitary Certificates for shipments destined for our international trading partners. Phytosanitary certificates assure that the agricultural commodities produced or processed within Orange County have been inspected and certified by an Accredited Certifying Official to be free from injurious insect pests and plant diseases as required by the importing country.

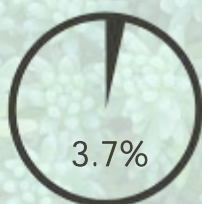
## NORTH AMERICA

116 Shipments  
Top Commodity:  
LUMBER



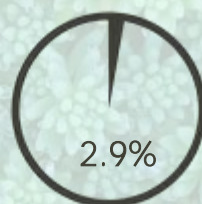
## SOUTH AMERICA

9 Shipments  
Top Commodity:  
SEEDS/NUTS



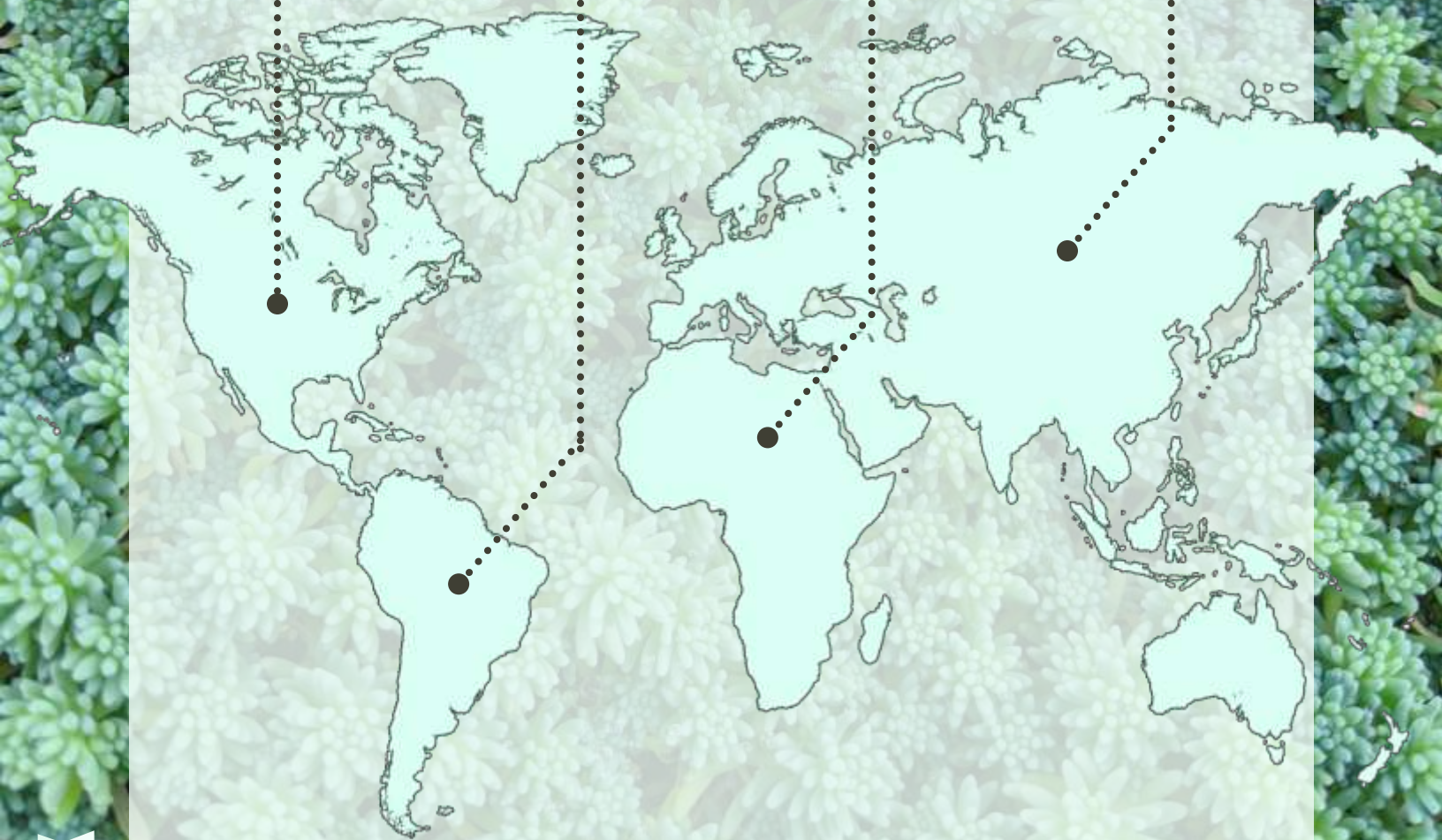
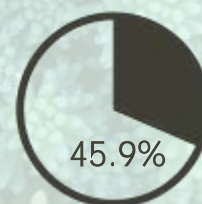
## AFRICA

7 Shipments  
Top Commodity:  
NURSERY STOCK



## ASIA

112 Shipments  
Top Commodity:  
NURSERY STOCK





# CERTIFIED FARMERS' MARKETS

Certified Farmers' Markets (CFMs) are not only fun community events but also allow consumers to purchase fresh and seasonal produce directly from local growers. At CFMs, farmers may only sell produce they grow themselves. This is enforced through semiannual inspections at each market and annual commodity inspections at each production site within the county.

A total of **38** certified producer certificates were issued to local growers and a total of **35** farmers markets were certified in 2018. Market schedules may change, visit [www.ocagcomm.com](http://www.ocagcomm.com) for the most recent updates.

<b>ANAHEIM KAISER PERMANENTE</b> 3400 E La Palma Ave Friday 9am - 2pm	<b>BUENA PARK FARMER'S MARKETPLACE</b> La Palma x Stanton Sears Parking Lot Saturday 9am - 2pm	<b>CORONA DEL MAR</b> Marguerite x PCH Saturday 9am - 1pm	<b>COSTA MESA</b> Orange County Fairgrounds Thursday 9am - 1pm
<b>COSTA MESA PACIFIC ARTS PLAZA</b> Anton x Bristol Friday 10am - 2pm	<b>CYPRESS</b> Katella x Lexington Saturday 10am - 2pm	<b>DOWNTOWN ANAHEIM</b> 205 Center St Promenade Thursday 11am - 4pm	<b>FOUNTAIN VALLEY MARKET IN THE PARK</b> Fountain Valley Rec Center Thursday 5pm - 8pm
<b>FULLERTON</b> Independence Park Euclid x Valencia Wednesday 8am - 1pm	<b>FULLERTON DOWNTOWN</b> Fullerton x Wilshire Thursday 4pm - 8:30pm <b>April—October</b>	<b>GREAT PARK</b> Sand Canyon x Marine Way Sunday 10am - 2pm	<b>HUNTINGTON BEACH</b> Pier Plaza 6th x PCH Friday 1pm - 5pm
<b>IRVINE</b> Mariners Church Parking Lot Saturday 8am - 12pm	<b>IRVINE CONCOURSE MARKETPLACE</b> 2030 Main Street Thursday 10am - 2pm	<b>IRVINE KAISER PERMANENTE</b> Alton Pkwy x Sand Canyon Wednesday 9am - 1pm	<b>IRVINE REGIONAL PARK</b> Irvine Park Rd in Orange Tuesday 8am - 12pm <b>No park admission fee</b>
<b>IRVINE TOWERS</b> Von Karman x Michelson Tuesday 10am - 2pm	<b>LA PALMA KAISER PERMANENTE</b> #5 Centerpointe Drive Friday 10am - 2pm	<b>LADERA RANCH NIGHT MARKET</b> Sienna x Mercantile Way Friday 4pm - 8pm once a month, see schedule <b>March—October</b>	<b>LAGUNA BEACH</b> Lumberyard Parking Lot near City Hall Saturday 8am - 12pm
<b>LAGUNA HILLS</b> El Toro Road x Avenida de la Carlota Friday 9am - 1pm	<b>LAGUNA NIGUEL</b> 27241 La Paz Road Sunday 8am - 12pm	<b>LAKE FOREST</b> 28000 Rancho Pkwy Wednesday 4pm—8pm	<b>LIDO MARINA VILLAGE</b> 3434 Via Lido x Newport Wednesday 1pm—5pm
<b>LOCAL HARVEST GARDEN GROVE</b> Main x Garden Grove Blvd Sunday 9am - 2pm	<b>NEWPORT BEACH</b> McFadden Square The Newport Pier Sunday 9am - 1pm	<b>ORANGE HOMEGROWN &amp; ARTISANS MARKET</b> 304 N Cypress Ave Saturday 9am - 1pm	<b>PLACENTIA</b> Placentia Town Center Tuesday 4pm - 8pm
<b>SAN CLEMENTE VILLAGE</b> Avenida Del Mar x Seville Sunday 9am - 1pm	<b>SEAL BEACH VILLAGE</b> Westminster x Seal Beach Tuesday 9am - 1pm	<b>SOCO</b> Sunflower x Hyland Saturday 9am - 2pm	<b>SURF CITY NIGHTS DOWNTOWN STREET FAIR</b> Main x Olive Huntington Beach Tuesday 5pm - 9pm
<b>THE NEW DANA POINT</b> Golden Lantern x PCH Saturday 9am - 1pm	<b>TUSTIN</b> 3rd x El Camino Wednesday 9am - 1pm	<b>YORBA LINDA OLD TOWN</b> 4861 Main Street Sunday 10am - 2pm	



# PEST PREVENTION & DETECTION PROGRAMS



A LARVA OF THE LIGHT BROWN APPLE MOTH

## LIGHT BROWN APPLE MOTH

Orange County's newest threat is the Light Brown Apple Moth (*Epiphyas postvittana*), an invasive pest that was first detected in California in 2007. This leaf-rolling moth is native to Australia where it causes significant crop damage across a variety of plant species. In order to prevent the spread of this pest and its potentially severe economic impact to our agribusinesses, County inspectors conduct monthly inspections at production agricultural grounds within the quarantine zone to monitor, detect, and destroy this pest when it is discovered.

Positive LBAM detections	57
Production Nurseries Surveyed	47
Total Nursery Acres Inspected	332

## PIERCE'S DISEASE CONTROL PROGRAM

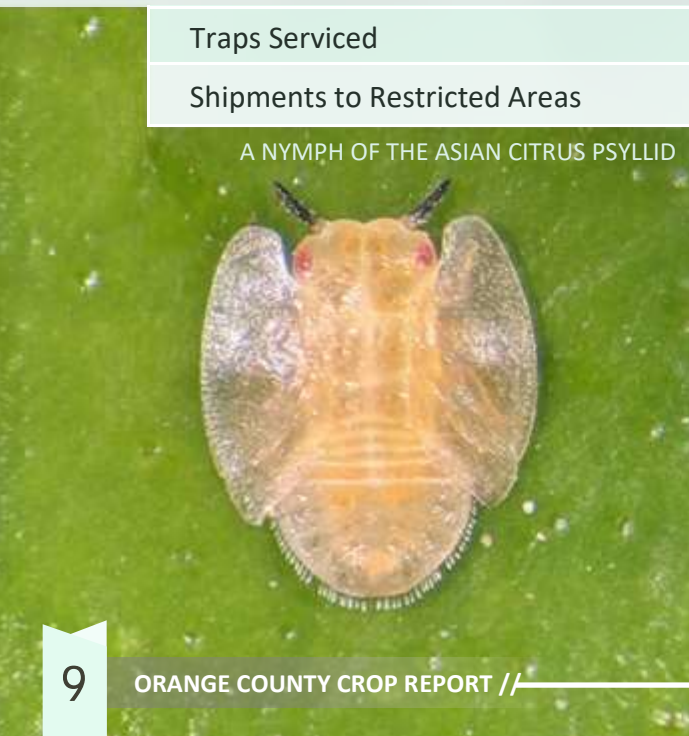
The Glassy-winged sharpshooter (GWSS) is a leafhopper insect and a vector for *Xylella fastidiosa*, a bacterium that causes Pierce's Disease in grapevines. This disease has no known cure and is fatal to the vine, so restricting the movement of the Glassy-winged sharpshooter is the most effective way of keeping the spread of this disease under control. County inspectors install monitoring traps and inspect all host plant material leaving our county to ensure the safety of our agricultural neighbors in Central and Northern California.



AN ADULT GLASSY-WINGED SHARPSHOOTER

Traps Serviced	63
Shipments to Restricted Areas	880

A NYMPH OF THE ASIAN CITRUS PSYLLID



## ASIAN CITRUS PSYLLID & HLB

The Asian Citrus Psyllid (ACP) vectors a bacterial pathogen *Candidatus Liberibacter* that causes a citrus disease known as Huánglóngbìng (HLB). This disease has no known cure and is ultimately fatal to the infected tree. The Orange County Agricultural Commissioner's office is working with the State to contact local governments, businesses, and residents to share information and ask that they cooperate with detection and eradication efforts. Any trees that are discovered to be positive for HLB are immediately removed to help eliminate the immediate threat of HLB in the surrounding area and protect California's citrus industry.



# PEST EXCLUSION PROGRAMS

Orange County Inspectors work with the California Department of Food and Agriculture and Federal regulatory agencies to inspect all possible methods of plant entry and intercept dangerous exotic pests that can threaten our urban landscapes and agriculture. Orange County Inspectors monitored plant shipments at major UPS and FedEx terminals and conducted inspections on incoming air and sea freight, truck shipments, and at destination nurseries.

Shipments Profiled	53,477
Shipments Inspected	21,330
Noticed of Rejection Issued	73

Pests intercepted during these inspections were submitted to Entomology, Plant Pathology, Nematology, and Botany labs for identification and rating. In 2018 a total of **24** A-rated pests and **88** Q-rated pests were submitted to a State laboratory in Sacramento for identification. Notable finds are listed below.

SCIENTIFIC NAME	COMMON NAME	RATING	<b>A-rated pests</b> are organisms of known economic importance and subject to state enforcement actions such as eradication, quarantine, or rejection.
<i>Pinnaspis strachani</i>	Lesser snow scale	A	
<i>Pinnaspis buxi</i>	Boxwood scale	A	
<i>Pseudaulacaspis pentagona</i>	White peach scale	A	
<i>Aspidiotus destructor</i>	Coconut scale	A	
<i>Frankliniella tritici</i>	Flower thrips	A	
<i>Parmarion martensi</i>	Semi-slug	A	<b>Q-rated pests</b> are organisms that require a temporary "A" action pending determination of a permanent rating. The pest is suspected to be of economic importance but its status is uncertain because of incomplete identification or inadequate information.
<i>Coccus viridis</i>	Green scale	A	
<i>Ceroplastes rusci</i>	Fig wax scale	A	
<i>Pseudaulacaspis cockerelli</i>	Magnolia white scale	A	
<i>Kilifia acuminata</i>	Acuminate scale	A	
<i>Ceroplastes rubens</i>	Red wax scale	A	
<i>Solenopsis invicta</i>	Red imported fire ant	A	
<i>Pseudaonidia trilobitiformis</i>	Trilobite scale	A	
<i>Ischnaspis longirostris</i>	Black thread scale	A	
<i>Aulacaspis yasumatsui</i>	Cycad aulacaspis scale	A	
<i>Dynaspidiotus sp.</i>	Holly scale	A	
<i>Tetranychus sp.</i>	Tetranychid mite	Q	
<i>Chrysodeixis includens</i>	Soybean looper	Q	



# PESTICIDE USE ENFORCEMENT

The Pesticide Use Enforcement division of the Agricultural Commissioner's office enforces pesticide use laws and regulations to protect the urban and agricultural environment as well as those individuals who work with and around pesticides. Orange County Inspectors work with the Department of Pesticide Regulation and the Structural Pest Control Board to enforce proper pesticide use through active inspections, illness investigations, annual registrations of pest control businesses, and monitoring of pesticide use reports.

In 2018 the Pesticide Use Enforcement division completed the following inspections:

Inspection Type	Number of Inspections
Full Structural Fumigations	981
Partial Structural Fumigations	2,866
Structural Application & Mix/Loads	139
Pesticide Use Monitoring & Mix/Loads	285
Headquarters Inspections	254
Field Fumigations	25
Field Worker Safety	25

## WEED ABATEMENT ACTIVITIES

Orange County's Weed Abatement program is responsible for the removal of hazardous vegetation and maintenance of fire breaks along structures and roadways in the county's unincorporated areas to increase fire safety and protect Orange County residents against the loss of life and property.

In 2018 the OC Weed Abatement crew removed weeds and dried brush from 121 parcels of land. **1,791,800** square feet (over 41 acres) of weeds were removed by either cutting or discing.

Legal authority for the Weed Abatement Program is derived through state and local law, including Health and Safety Code Sections 14875-14931. The Board of Supervisors directs OC Public Works to send written notices in March of each year to all affected property owners instructing them to remove weeds and combustible vegetation identified as a public nuisance and fire hazard. Of the approximately 2,200 affected property owners, roughly 90% voluntarily act to remove weeds and fire hazards from their properties demonstrating a consistently high level of community participation in the Weed Abatement Program.



# WEIGHTS & MEASURES

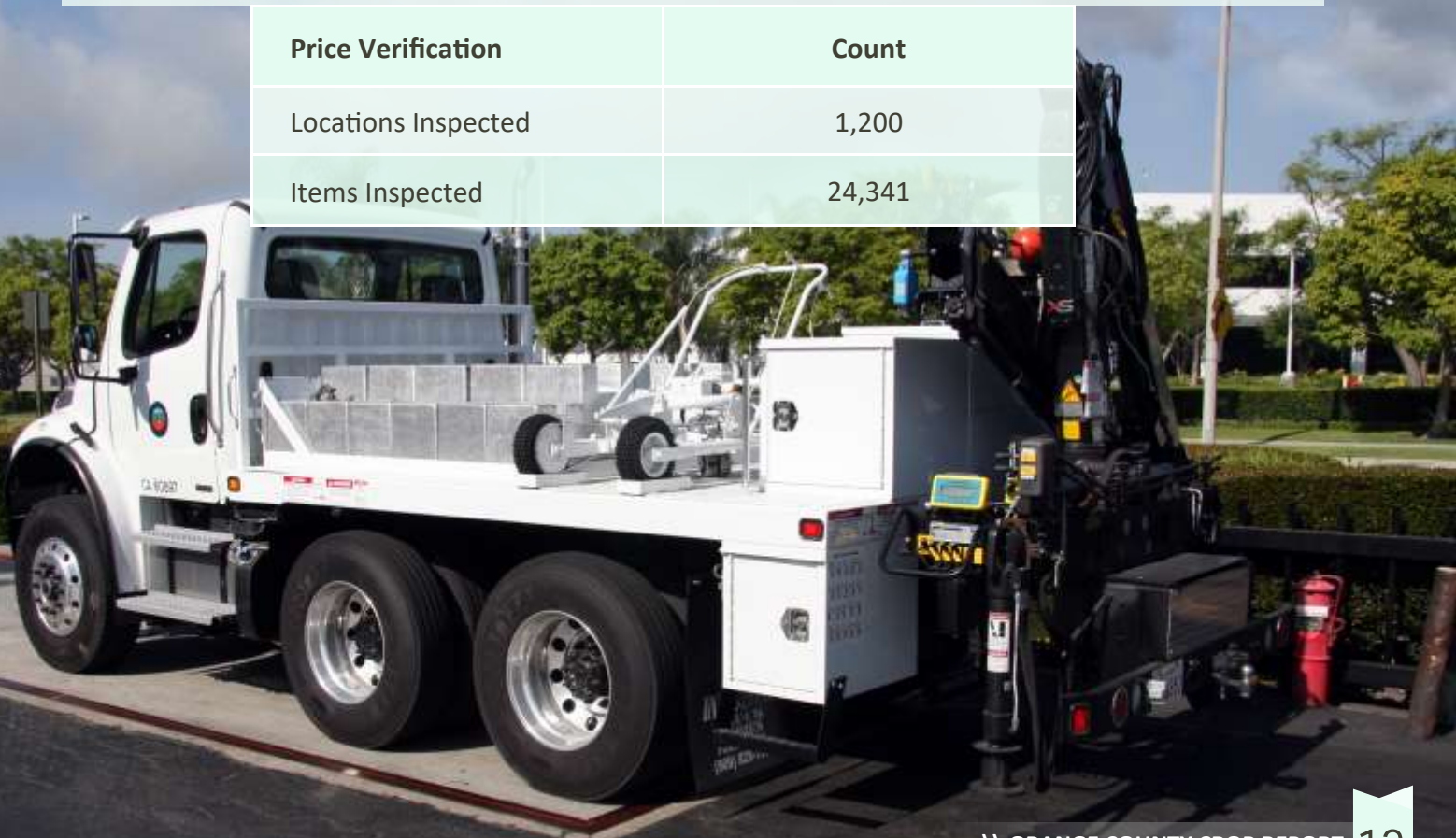
The primary responsibility of the Orange County Weights & Measures department is to ensure consumer protection along with fair competition and practices in the market place. These practices are enforced by routinely inspecting and certifying commercial weighing and measuring devices for their accuracy. Some of these devices include: gas station fuel pumps, grocery store scales, and submeters at apartment complexes and mobile homes.

Commercial Devices	Number of Devices Inspected
Retail Motor Fuel Meters	19,382
Electric Submeters	31,146
Vapor Submeters	32,986
Water Submeters	72,804
Small Scales	6,843



The department also performs Price Verification inspections to enforce price accuracy standards at businesses by minimizing fraud and the misrepresentation of advertised prices. The Quantity Control program also provides inspections that determine the proper weight, volume, count and tare given to consumers during the time of sale. Such places include: groceries stores, frozen yogurt shops, candy stores, and mailing centers.

Price Verification	Count
Locations Inspected	1,200
Items Inspected	24,341





# DEPARTMENT STAFF

## OUR MISSION

To provide quality leadership and service in State enforcement programs that include agricultural services, weights and measures, and pesticide regulation.

---

### **AGRICULTURAL COMMISSIONER /SEALER OF WEIGHTS & MEASURES**

Jeff Croy

### **DEPUTY AGRICULTURAL COMMISSIONERS/SEALERS OF WEIGHTS & MEASURES**

Damara Trumbauer | Seth Birenbaum | Anthony Bong Lee

### **SENIOR WEIGHTS AND MEASURES INSPECTORS**

Denis Whitfill | Juan Lopez

### **WEIGHTS AND MEASURES INSPECTORS**

Gary Smith | Mark Johnson | Mike West | David Skorupski

Dugan Fauth | Shane Johnson | Zach Kelly | Jared Munoz

Jeremiah Hopson | Omar Quiroz | Fernando Lopez

### **SENIOR AGRICULTURAL STANDARDS INSPECTORS**

Mark Nestor | Janet Rivas | Abel Castillo | Jana Gibbs | Kathy Kilar

Otto Rieger

### **AGRICULTURAL STANDARDS INSPECTORS**

Nagy Mikhail | Rebekah Ban | Candice Skorupski

Jordan Petersen | Albert Bustamante | Emily Hesselgrave | Pete Sandoval

Charizma Mendoza | Ngoc-Kieu Tran | Sophia Yun | Ryan Hays

Karen Hernandez Jimenez | Shannon Clafford | Peter Nguyen

### **PUBLIC WORKS MAINTENANCE SUPERVISORS**

Brian Glenn | Bob Mackie

### **SENIOR INTEGRATED PEST MANAGEMENT TECHNICIANS**

Matthew Dolan | Oscar Cerda | Miguel Barajas

John Hussey | Daniel Kane

### **INTEGRATED PEST MANAGEMENT TECHNICIANS**

Mark Martinez | Heriberto Zavala | Edgar Garcia | Joshua Dresser

Mario Perez | Luis Avila | Salvador Palacios | Corey Graham

### **ADMINISTRATIVE SERVICES**

Christine Knapp | Anna Watts | Nolidad Zielinski

Shannon Santistevan | Ryane Staley



# Public Works

The Orange County Agricultural Commissioner/Sealer of Weights and Measures Office is a division of Orange County Public Works.  
For more information about our office and a list of our services please visit us at:

[www.ocpublicworks.com](http://www.ocpublicworks.com)

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