

DEPARTMENT OF AGRICULTURE/WEIGHTS & MEASURES

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Karen Ross, Secretary California Department of Food and Agriculture

And

The Honorable Board of Supervisors of Sonoma County: Susan Gorin – First District David Rabbitt – Second District Shirlee Zane – Third District. Chair

James Gore – Fourth District, Vice Chair Lynda Hopkins – Fifth District

It is my pleasure to present the 2016 Sonoma County Crop Report as prepared pursuant to Section 2279 of the California Food and Agricultural Code. The reported total value for 2016 was \$898,125,200, which represents a 17% increase from our 2015 value of \$766,271,000. This report reflects only gross production values and does not represent or reflect net profit or loss experienced by individual growers or by the industry, or the costs associated with production and marketing.

Crop values are affected by market and weather conditions. In 2016, the drought conditions of the previous four years had lessened. Over six inches of rain in December 2015 combined with another 14 inches of rain in January and March 2016 significantly helped crop yields. Winegrapes, Sonoma County's primary crop, saw an increase in both tons crushed and price per ton, leading to an overall winegrape value increase of nearly \$140 million, or 24% from 2015.

The 2016 apple yield increased significantly over 2015 which had been the worst apple crop in recent history. Prices for processing apple held steady which is attributed to the continued consumer demand for organic apple products. Organic apple production accounts for 85% of Sonoma County apple acres. Overall, apple values increased 46% from 2015.

The value of livestock and poultry production decreased a modest 6% as cattle prices dropped slightly from 2015. The value of livestock and poultry products which includes eggs, milk and wool was down by nearly 3% from 2015, which is attributed to depressed egg prices throughout 2016. This decrease in egg prices was slightly offset by an increase in the value of milk products. These milk values are driven by the premium prices received for organic market and manufacturing milk as 80% of Sonoma County dairies are now organic.

Sonoma County is a beautiful place to live and farm. We are blessed to live in a county where farmers and the community alike embrace the concept of sustainable farming. This report celebrates the growers and those who support them in making sustainable farming a priority. This commitment to sustainable farming ensures that we conserve and protect our natural resources and that agriculture stays economically viable. Through these collective efforts we strive to maintain the agricultural landscape that makes Sonoma County such a desirable place for residents and visitors.

This report is our yearly opportunity to recognize farmers, ranchers, and the businesses that represent Sonoma County agriculture. As such, we would like to extend our thanks to the agricultural producers for their continued effort to provide the vital information that enables the compilation of the Sonoma County Crop Report. Without their assistance, this report would not be possible.

A sincere thank you goes out to Nathan Desjarlais and Andrew Smith who collected and compiled these statistics, as well as the outstanding staff of the Department of Agriculture/Weights and Measures who contributed to the production of this report.

Respectfully submitted,

Tony Linegar

Agricultural Commissioner / Sealer of Weights and Measures



TABLE OF CONTENTS

Letter to Board of Supervisors	. 1
Growing Winegrapes Sustainably, A Cooperative Effort	4
Winegrape Production (Reds)	. 6
Winegrape Production (Whites)	. 7
Fruit and Nut Summary .	8
Apple Production.	. 9
Million Dollar Crops and Nursery .	10
Vegetable and Apiary Production.	11
Field Crops	11
Livestock and Poultry	12
Timber and Fisheries.	13
Recapitulation, Commodity Exports	14
Agriculture Division Summary	16
Land Stewardship Division Summary.	18
Weights & Measures Division Summary .	20
Sonoma County Farmers' Markets .	21
Winning Ag Days Essay	22
Department Staff.	2 3
Seasonal Staff	24



GROWING WINEGRAPES SUSTAINABLY,

A COOPERATIVE EFFORT

Agriculture has been an integral part of Sonoma County's identity for more than 150 years, and has contributed to the culture and beauty of the county that we all enjoy. The Sonoma County Board of Supervisors and grape growers alike have demonstrated the importance of preserving this heritage and beauty for future generations.

As evidence of their commitment to the local community and preserving their farming businesses, the Sonoma County Winegrowers, under the leadership of President Karissa Kruse, made a bold commitment in 2014 to become the nation's first 100% sustainable wine region by 2019. This stake in the ground has generated headlines across the globe and established Sonoma County as the global leader for sustainable winegrowing for their triple-bottom line approach that measures grape growers' commitment to being socially responsible in how they treat their employees, neighbors, and community, environmentally conscientious with their farming and winery practices, and economically viable as a business.

The progress made over the last 36 months towards 100% sustainability has been nothing short of remarkable -- 85% of the county's vineyard acres have completed the sustainability self-assessment – the first step in achieving certification. In addition, over 60% of the vineyard acreage in the county – more than 34,000 acres – has been certified sustainable by a third-party auditor. More than 1,220 vineyard properties in Sonoma County are sustainable by either completing their sustainability self-assessment or receiving third party certification; and, close to 50 wineries are certified sustainable. In fact, as you drive through Sonoma County, be sure to look for the "Sonoma County Sustainable" signs that identify all the vineyards that are part of the program. In addition, several wineries are recognizing the value of certified sustainable grapes and have started rewarding their growers by paying a premium for those grapes, which is helping to increase the overall market value for Sonoma County winegrapes.

Growing winegrapes sustainably is a group effort that begins with individual vineyard and winery owners and managers adopting practices that conserve the land's natural resources and ensure the economic viability of grape growing in Sonoma County. In addition to the collective actions taken by these growers and vintners on their properties, there are a number of local organizations, agencies and programs that support the growers' efforts which are critical to sustainable farming. Included in these are the county Department of Agriculture/Weights and Measures, the University of California Cooperative Extension (UCCE), and the Sonoma and Gold Ridge Resource Conservation Districts (RCDs).

One of the main responsibilities of the Agricultural Commissioner is to prevent the introduction and spread of exotic pests into the county and the state. California is biologically isolated from the surrounding areas. We are protected on the east by the Sierra Nevada Mountains, the south by the Mojave Desert, the north by the Cascade Mountains, and the west by the Pacific Ocean. However, people are increasingly bypassing those barriers and bringing foreign pests with them from across the country and around the world. County inspectors are out in the field every day inspecting packages at parcel carrier terminals, such as Post Office distribution centers or at local Fed-Ex or UPS terminals. Several Agricultural Commissioner offices have trained dogs to assist in the detection of unmarked packages of plant shipments. Countless introductions of invasive pests have been stopped in this manner.

Occasionally these exotic pests break through California's defense system and begin to become established in the state. This 2016 crop report celebrates the eradication of such a pest, the European Grapevine Moth (EGVM). The European Grapevine Moth was first detected in the United States in a trap on September 15, 2009 in a Napa County vineyard. This find launched the start of an extensive detection program, placing orange colored traps baited with a female sex pheromone in vineyards, which was coupled with an eradication program. Proposing to eradicate an insect from the continental United States is a lofty goal to say the least and can only be achieved through a cooperative effort.

County insect trappers placed the pheromone-baited EGVM traps in vineyards throughout the county, from Cloverdale to Sears Point and Annapolis to Knight's Valley. At the peak of the quarantine, county staff placed and maintained more than 8,000 EGVM traps countywide. In 2010, Sonoma County had 59 confirmed finds of EGVM. The Department conducted extensive outreach with the industry, issuing compliance agreements to the vineyards, wineries, haulers and green waste receivers focusing on preventative treatments and restrictions on movement of the harvested grapes. By 2011, about 52,000 acres (out of 58,000 acres total) of commercial vineyard in Sonoma County were under quarantine. It was through this cooperative effort of growers, the Department, and UCCE with support from the California Department of Food and Agriculture (CDFA) and the United States Department of Agriculture (USDA) that this pest was finally declared eradicated in August 2016 after a seven year battle that many thought could not be won. Without this type of coordination and support, EGVM could have become established in Sonoma County and California, resulting in long term severe crop loss, a decrease in winegrape quality and a dramatic increase in pesticide use.

For invasive pests that have become established in parts of California, such as the Glassy Winged Sharpshooter, the goal is to prevent the spread of the pest as much as possible. The Glassy Winged Sharpshooter represents a particular threat to winegrapes because of it's ability to spread Pierce's Disease, a fatal disease of grapevines. As part of a cooperative government and industry supported program, county inspectors inspect incoming nursery stock from southern California for the presence of Glassy Winged Sharpshooters (GWSS). In Sonoma County, inspectors carefully inspect over 1,500 shipments of incoming nursery stock each year for the presence of GWSS. On average, three shipments a year are found to have viable life stages of GWSS and are either destroyed on site or denied entry into Sonoma County.

Besides the programs administered by the Sonoma County Department of Agriculture to prevent the introduction and spread of invasive pests, the Department also administers what is known as the Vineyard Erosion and Sediment Control Ordinance, or VESCO. The VESCO program is a permitting program for new vineyards and replants that focuses on erosion control to protect water quality and fish habitat. This one of a kind program in the state has robust requirements that include setbacks from streams and wetlands, protections for endangered species as well as engineering requirements for vineyard development on slopes. Since its inception in the year 2000, VESCO has protected water quality and preserved natural resources countywide.

Working closely with the County Department of Agriculture in support of the winegrape industry is the University of California Cooperative Extension (UCCE). UCCE provides growers with information that emphasizes ecology-based pest and disease management strategies. Research is conducted to provide information to growers so that they can utilize tools in an integrated pest management system and achieve a balanced approach to effectively control pests and diseases with alternative practices such as mating disruption, vegetation management, sanitation or cultural control, among others. When needed the least toxic materials and the fewest number of applications are strategically timed to preserve natural enemies and protect the environment. UCCE and other university scientists learn the life cycles of both native and introduced pests under North Coast conditions, develop monitoring practices to achieve early detection and evaluate the efficacy of control practices. By providing Sonoma County growers with optimized pest management tools, UCCE provides a strategy to remain environmentally conscientious and economically viable.

Included in the list of valuable partners supporting sustainable agriculture in Sonoma County are the local Resource Conservation Districts. The Sonoma and Gold Ridge Resource Conservation Districts (RCDs) have been supporting the sustainability efforts of vineyards and other local landowners since the 1940s. While the word sustainability has been a newer addition to traditional conservation vocabulary, the concept of the RCDs' work has always been the same: helping landowners address their most pressing land management issues so that natural resources, like water, soil, and wildlife, can thrive and the land can remain productive for generations to come. The RCD partners with vineyards on a voluntary basis on a variety of issues, such as water quality, endangered species, water quantity, soil health, and climate change. These services are all part of a regional program called LandSmart®, with the goal of supporting productive lands and thriving streams. With the support of local leaders, agencies and organizations in concert with the individual and collective commitment of the grape growers in Sonoma County, we have created a sustainable environment for grape growing that will preserve the beauty and natural resources of Sonoma County for future generations.

WINEGRAPE PRODUCTION

TOP RED VARIETIES BY VALUE

		Acrea	ge	Production			
Varietal	Year	Non-Bearing	Bearing	Total	Tons	\$/Tons	Total Value
Pinot Noir	2016 2015	385.2 750.0	13,343.1 12,850.8	13,728.3 13,600.8	42,566.3 30,667.2	\$3,680.50 \$3,525.42	\$156,665,300 \$108,114,800
Cabernet Sauvignon	2016 2015	560.0 1,014.7	12,456.7 11,808.8	13,016.7 12,823.5	41,575.7 32,947.3	\$2,964.60 \$2,724.17	\$123,255,300 \$89,754,100
Zinfandel	2016 2015	20.0 85.1	5,070.5 4,988.3	5,090.5 5,073.4	15,287.7 13,070.9	\$2,840.06 \$2,711.07	\$43,418,000 \$35,436,200
Merlot	2016 2015	24.6 43.4	4,115.7 4,108.2	4,140.3 4,151.6	13,761.0 12,031.4	\$1,818.10 \$1,717.25	\$25,018,900 \$20,661,000
Syrah - Shiraz	2016 2015	13.5 15.5	1,575.6 1,569.8	1,589.1 1,585.3	3,618.1 2,848.1	\$2,596.01 \$2,525.16	\$9,392,600 \$7,192,000
Petite Sirah	2016 2015	4.2 50.4	694.5 645.6	698.7 696.0	3,266.3 2,347.4	\$2,797.89 \$2,715.79	\$9,138,700 \$6,375,100
Malbec	2016 2015	4.7 12.9	551.5 540.5	556.2 553.4	2,960.5 1,896.3	\$2,629.78 \$2,636.24	\$7,785,500 \$4,999,200
Cabernet Franc	2016 2015	28.5 34.3	578.5 569.9	607.0 604.2	1,382.5 1,357.8	\$2,955.14 \$2,794.59	\$4,085,500 \$3,794,400
Petit Verdot	2016 2015	16.5 25.7	278.3 266.2	294.8 291.9	1,332.0 953.4	\$2,976.71 \$2,719.87	\$3,965,000 \$2,593,200
Sangiovese/ Sangioveto	2016 2015		316.9 211.3	316.9 211.3	1,091.1 929.3	\$2,314.48 \$2,244.27	\$2,525,300 \$2,085,700
Grenache	2016 2015	3.6 3.7	152.7 146.4	156.3 150.1	739.7 567.4	\$2,995.16 \$2,901.69	\$2,215,500 \$1,646,500
Mataro/ Mourvedere (a)	2016 2015	0.9	41.6 	42.5 	771.5 149.7	\$2,119.36 \$3,082.19	\$1,635,100 \$461,400
TOTAL REDS including other reds	2016 2015	1,342.0 2,679.1	39,821.4 38,917.8	41,163.5 41,596.9	130,589.3 101,800.1	\$3,008.75 \$2,819.84	\$392,910,600 \$287,060,000

^{*}Data from CDFA Grape Crush Report

⁽a) New to top varieties for 2016, included in "Other" in 2015



WINEGRAPE PRODUCTION

			Acre	age			Production	
	Varietal	Year	Non-Bearing	Bearing	Total	Tons	\$/Tons	Total Value
_	Chardonnay	2016 2015	505.5 706.7	16,078.1 15,669.8	16,583.6 16,376.5	74,954.2 64,208.9	\$2,162.97 \$2,084.79	\$162,123,700 \$133,862,100
>	Sauvignon Blanc	2016 2015	144.9 179.8	2,709.6 2,553.1	2,854.5 2,732.9	16,144.4 12,537.1	\$1,687.23 \$1,611.31	\$27,239,300 \$20,201,200
B≺	Pinot Gris/ Pinot Grigio (a)	2016 2015	0.0 8.6	472.2 463.6	472.2 472.2	1,496.3 1,363.9	\$1,744.00 \$1,704.28	\$2,609,500 \$2,324,500
S	Viognier	2016 2015	6.2 5.8	236.0 235.7	242.2 241.5	545.9 564.1	\$2,433.54 \$2,371.21	\$1,328,500 \$1,337,600
=	Semillon	2016 2015	0.0 0.0	102.7 102.7	102.7 102.7	407.9 376.1	\$2,256.90 \$2,370.14	\$920,600 \$891,400
Е	Sauvignon Musque (b)	2016 2015	3.7 	105.9 	109.5 	480.9 411.8	\$1,638.37 \$1,636.63	\$787,900 \$674,000
2	White Riesling/ Johannisberg (c)	2016 2015		63.3 35.7	63.3 35.7	317.7 240.6	\$2,263.02 \$2,145.99	\$719,000 \$516,400
X	Pinot Blanc	2016 2015	1.1	66.0 65.0	66.0 66.1	230.6 187.6	\$2,017.30 \$1,825.03	\$465,200 \$342,400
ш	Gewürztraminer	2016 2015	4.7 7.1	116.4 113.9	121.1 121.0	284.2 202.5	\$1,599.07 \$1,803.12	\$454,500 \$365,200
H	Muscat Blanc/ Muscat Canelli	2016 2015	1.0	15.0 14.3	15.0 15.3	165.6 154.8	\$2,373.82 \$2,202.96	\$393,100 \$341,100
≱	TOTAL WHITES including other whites	2016 2015	759.3 1221.5	20,187.1 19,317.7	20,946.3 20,539.2	95,852.3 80,984.4	\$2,018.90 \$2,010.35	\$193,516,200 \$162,807,000
О								
F	TOTAL WINEGRAPES	2016 2015	2101.3 3900.6	60,008.5 58,235.5	62,019.8 62,136.1	226,441.60 182,784.50	\$2,590.15 \$2,442.98	\$586,517,700 \$446,538,900

^{*}Data from CDFA Grape Crush Report

⁽c) 2015 acreage did not include Johannisberg Riesling,



⁽a) Corrected acreage values from 2015 crop report

⁽b) New to top varieties for 2016, included in "Other" in 2015

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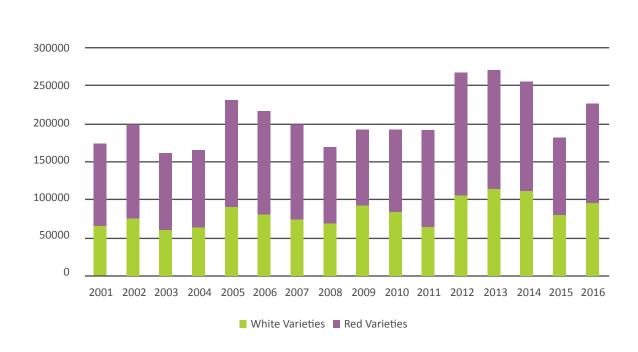
FRUIT AND NUT SUMMARY

Product	Year	Bearing Acres	Tons/ Acre	Total Tons	\$/Ton	Total
Apples (all)	2016 2015	2,193 2,229	6.80 4.29	14,913 9,559	\$367 \$393	\$5,466,800 \$3,752,400
Fresh	2016 2015					\$711,700 \$720,100
Processed (a)	2016 2015					\$4,755,000 \$3,032,400
Grapes (wine)	2016 2015	60,009 58,235	3.77 3.14	226,442 182,785	\$2,590 \$2,443	\$586,517,700 \$446,538,900
Olives	2016 2015	381 427				\$701,000 \$521,500
Miscellaneous (b)	2016 2015					\$599,500 \$329,400
TOTAL	2016 2015					\$593,285,000 \$451,142,200

- (a) includes canned, juice/cider, vinegar
- (b) includes bush-berries, cane-berries, stone fruits, pears, kiwi, tree nuts, strawberries, figs, etc.

TONS OF SONOMA COUNTY RAPES CRUSHED*, 2001-2016

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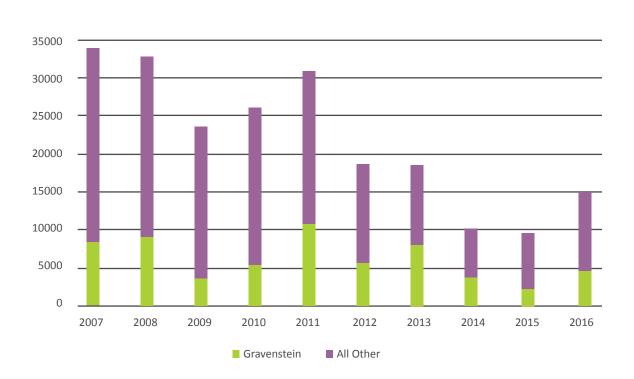


^{*} Data from CDFA Grape Crush Report

APPLE PRODUCTION

	Year	Bearing Acres	Tons/ Acres	Total Tons	\$/Tons	Dollar Value	Total
Gravenstein	2016 2015	704 704	6.72 3.87	4,730 2,725	\$337 \$409		\$1,595,000 \$1,115,000
Fresh	2016 2015			43 126	\$1,873 \$2,014	\$79,991 \$253,794	
Processed (a)	2016 2015			4,687 2,559	\$323 \$331	\$1,514,980 \$861,161	
Late Apples	2016 2015	1,489 1,524	6.84 4.48	10,183 6,834	\$380 \$386		\$3,871,800 \$2,637,400
Fresh	2016 2015			251 273	\$2,522 \$1,709	\$631,739 \$466,241	
Processed (a)	2016 2015			9,933 6,562	\$326 \$331	\$3,240,054 \$2,171,194	
TOTAL	2016 2015	2,193 2,229	6.80 4.29	14,913 9,559	\$367 \$393		\$5,466,800 \$3,752,400

⁽a) includes canned, juice, vinegar, cider



MILLION DOLLAR CROPS

MILLION DOLLAR CROPS NURSERY PRODUCTS

1	Winegrapes - All	\$586,517,700
2	Market Milk	\$146,475,400
3	Miscellaneous Poultry	\$40,823,200
4	Misc. Livestock and Poultry Products	\$31,298,600
5	Cattle and Calves	\$20,561,900
6	Nursery - Ornamentals	\$14,321,700
7	Nursery - Miscellaneous	\$13,001,700
8	Vegetables	\$9,961,300
9	Sheep and Lambs	\$8,480,600
10	Oat and Rye Silage Crops	\$4,016,500
11	Nursery - Cut Flowers	\$3,894,400
12	Apples - Late Varieties	\$3,871,800
13	Apples - Gravenstein	\$1,595,000
14	Nursery - Bedding Plants	\$1,245,300

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Product	Year	Quanity	Unit	Total
Ornamentals	2016 2015	1,849,031 496,074	plant plant	\$14,321,700 \$10,638,100
Bedding Plants	2016 2015	445,668 524,437	flat flat	\$1,245,300 \$4,005,800
Christmas Trees	2016 2015	4,775 6,409	unit unit	\$236,000 \$325,000
Cut Flowers	2016 2015			\$3,894,400 \$4,548,400
Miscellaneous Products (a)	2016 2015			\$13,001,700 \$1,3067,700
TOTAL VALUE	2016 2015			\$32,699,100 \$32,585,000

(a) includes grapevines, deciduous fruit and nut trees, liners, bulbs, forest seedlings, house plants, orchids, cacti, herbaceous perennials, dry flowers, turf and wreaths



EGETABLE / APIARY PRODUCTION FIELD CROPS

APIARY PRODUCTS

TOTAL VALUE (a)	2016	\$263,200
	2015	\$97,400

(a) includes honey, wax and hives rented for pollination

CROP

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VEGETABLES

Crop	Year	Harvested Acregae	Dollar Value
Miscellaneous	2016	482	\$9,961,300
Vegetables (a)	2015	498	\$12,390,100

(a) includes crucifers, squash, melons, mushrooms, potatoes, peppers, tomatoes, sprouts, lettuces, etc.

Crop	Year	Harvested Acreage	Tons/Acre	Total Tons	Unit	Per Unit	Total
Hay, Rye and Oat	2016 2015	5,489 4,064	2.8 2.4	15,387 9,845	ton ton	\$61.00 \$135.97	\$938,562 \$1,338,700
Hay, Volunteer	2016 2015	1,739 253	2.2 1.3	3,861 340	ton ton	\$132.22 \$112.06	\$510,500 \$38,100
Green Chop (a)	2016 2015	1,130 1,327	14.2 2.5	16,030 3,277	ton ton	\$27.21 \$26.40	\$436,100 \$86,500
Oats, Grain	2016 2015	521 528	0.9 0.8	451 419	ton ton	\$243.24 \$285.54	\$109,700 \$119,700
Silage, Corn (a)	2016 2015	184 174	20.2 12.0	3,724 2,085	ton ton	\$48.82 \$58.80	\$181,800 \$122,600
Silage, Rye and Oat (a)	2016 2015	8,462 5,039	12.1 15.4	102,605 77,463	ton ton	\$39.15 \$41.68	\$4,016,500 \$3,228,900
Straw	2016 2015						\$83,000 \$60,300
Miscellaneous (b)	2016 2015						\$277,700 \$430,800
Pasture (c)	2016 2015	8,258 6,521			acre acre	\$90.92 \$100.00	\$750,800 \$652,100
Rangeland (c)	2016 2015	318,598 321,816			acre acre	\$20.28 \$20.00	\$6,461,200 \$6,436,300
TOTAL	2016 2015	344,381 339,722					\$13,765,900 \$12,514,000

- (a) much of the green chop and silage is not sold but used on the farm value is determined by its feed equivalent
- (b) includes alfalfa, barley, safflower, wheat, vetch, Sudan, etc.
- (c) Average potential grazing value per acre of forage

LIVESTOCK AND POULTRY

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Livestock	Year	Number of Head	Live Weight	Unit	\$/Unit	Total
Cattle/Calves	2016 2015	31,336 30,013	160,302 153,306	cwt. cwt.	\$128.27 \$140.22	\$20,561,900 \$21,496,600
Sheep/Lambs	2016 2015	46,651 41,615	56,275 50,200	cwt. cwt.	\$150.70 \$139.30	\$8,480,600 \$6,992,900
Hogs	2016 2015	1,479 1,245	3,768 3,424	cwt. cwt.	\$71.82 \$76.82	\$270,600 \$263,100
MIscellaneous (a)	2016 2015					\$40,823,200 \$46,124,100
TOTAL	2016 2015					\$70,136,300 \$74,876,700

⁽a) includes chicks, ducks, turkey poults, fryers, roasters, turkeys, goats, etc.

LIVESTOCK AND POULTRY PRODUCTS

Item	Year	Production	Unit	\$/Unit	Total
Milk, Market	2016 2015	4,904,417 4,871,205	cwt. cwt.	\$29.87 \$26.50*	\$146,475,400 \$129,087,000*
Milk, Manufacturing	2016 2015	4,083 6,202	cwt. cwt.	\$32.23 \$29.30*	\$131,600 \$181,700*
Wool	2016 2015	115,700 111,149	lb. lb.	\$0.94 \$0.95	\$108,800 \$105,600
MIscellaneous (a)	2016 2015				\$31,298,600 \$53,291,300
TOTAL	2016 2015				\$178,014,400 \$182,665,600*

(a) includes market duck eggs, turkey hatching eggs, chicken eggs for consumption, and egg by-products

LIVESTOCK AND POULTRY INVENTORY

Item	Number
Cattle and Calves (all)*	74,536
Milk Cows and Heifers (2 years and older)	30,500
Beef Cow and Heifers (2 years and older)	12,700
Sheep and Lambs (all)	35,600
Hogs	1,507
Laying Hens, Pullets, and Broilers	2,286,607
Goats	2,883

^{*} Number of Head as of January 1, 2017



^{*} Revised from 2015 - weighted average

TIMBER AND FISH

Value

TIMBER 1ARVEST

FISH LANDINGS*

COMMERCIAL

Species

Year	Production	Unit	Value (a)
2016	9,510,000	board feet	\$3,417,223
2015	13,722,000	board feet	\$4,604,208

(a) value of timber immediately before cutting - Informational only Source: www.boe.ca.gov/proptaxes/timbertax.htm

Species	Year	Pounds	Value
Crab, Dungeness	2016 2015	3,932,567 345,891	\$12,184,460 \$1,813,703
Salmon, Chinook	2016 2015	103,638 84,132	\$790,271 \$573,103
Rockfish, all	2016 2015	9,004 11,978	\$16,711 \$25,526
Halibut, California	2016 2015	2,965 4,900	\$19,245 \$29,994
Miscellaneous	2016 2015	234,356 1,495,171	\$217,655 \$680,473
Sablefish	2016 2015	176,056 170,074	\$620,185 \$558,080
Lingcod	2016 2015	8,532 10,215	\$33,568 \$35,598
Tuna, Albacore	2016 2015	5,109 0	\$9,752 \$0
Cabezon	2016 2015	25 804	\$202 \$3,250
TOTAL	2016 2015	4,472,252 2,123,165	\$13,892,049 \$3,719,727

^{*} Most recent figures provided by California Department of Fish and Game. Source: www.dfg.ca.gov/marine/landings/landings12.asp Informational only



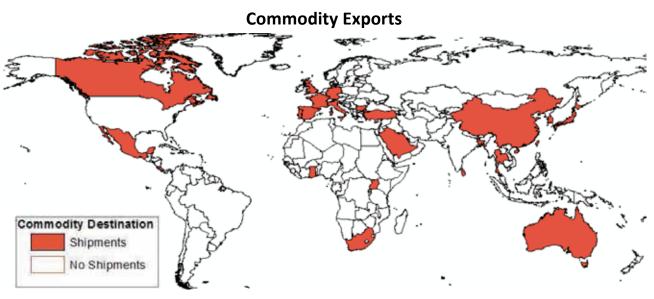
RECAPITULATION

RECAPITULATION

	2015	2016	% Change
Apiary Products	\$97,400	\$263,200	170.2%
Field Crops	\$12,514,000	\$13,765,900	10.0%
Vegetable Crops	\$12,390,100	\$9,961,300	-19.6%
Nursery Products	\$32,585,000	\$32,699,100	0.4%
Livestock and Poultry	\$74,876,700	\$70,136,300	-6.3%
Livestock and Poultry Products	\$182,665,600*	\$178,014,400	-2.5%
Fruit and Nut Crops	\$451,142,200	\$593,285,000	31.5%
TOTAL VALUE	\$766,271,000*	\$898,125,200	17.2%

^{*} Revised from 2015





COMMODITY EXPORTS

In 2016, the Sonoma County Department of Agriculture/Weights & Measures issued 137 Federal Phytosanitary Certificates for international shipments to 24 countries, and 7 State Phytosanitary Certificates for shipments within the United States. These certificates were issued by staff to promote Sonoma County's agricultural industry and ensure products produced or processed in Sonoma County meet the necessary import requirements. Phytosanitary certificates document that materials to be shipped have been inspected and certified free from pests as required by the importing state or country.

Destination	Number of Certificates	Destination	Number of Certificates
China	46	Turkey	2
Mexico	22	Bulgaria	1
Australia	17	Costa Rica	1
Japan	11	Germany	1
Spain	6	Ghana	1
Korea, Republic o	of 5	Saudi Arabia	1
Italy	4	Singapore	1
Bangladesh	3	South Africa	1
Canada	3	Sri Lanka	1
United Kingdom	3	Taiwan	1
France	2	Thailand	1
Portugal	2	Uganda	1

Commodities Exported	
Animal Feed	Lumber & Logs
Bird Seed	Nursery Stock
Flower & Vegetable Seed	Oak Pieces for Winemaking
Grapevines	Oak Wine Barrels
Herbs/Spices	Oak Wood Chips

SUSTAINABLE AGRICULTURAL REPORT

Agriculture is one of the main industries in Sonoma County and it provides a very significant base to the county's economy. The department accomplishes the promotion and protection of agriculture through educational outreach and enforcement of state and county regulations.

Since 2010 Sonoma County has been working to eradicate the European Grapevine Moth. There were no European Grapevine Moths detected in 2016. The quarantine boundary had been shrinking the past several years and in August of 2016 the pest was officially declared eradicated from North America by the United States Department of Agriculture.

PEST DETECTION TRAPPING

Our Pest Detection trappers search for pests outside of a known infested area or for pests not known to occur in California to detect pests before they become established over an area so large that eradicating the pest is no longer feasible. In 2016, we placed 8,341 traps for the detection of exotic insect pests including Mediterranean, Oriental and Melon Fruit Flies, Gypsy Moth, Japanese beetle, European Grapevine Moth, Light Brown Apple Moth, and Asian Citrus Psyllid. These traps were serviced 106,465 times.

Our trappers detected one Oriental Fruit Fly (Bactrocera dorsalis) in a trap in Cotati in 2016, necessitating a 9-mile delimination area around the find. In excess of 230 fruit and vegetable crops are hosts of this exotic pest. Heavy infestations can cause complete losses of crops and severe economic damage. No additional Oriental Fruit Flies were found in Sonoma County in 2016. We are continuing to trap for this pest in 2017.

There were 490 traps placed in nurseries and urban areas for the detection of Glassy-Winged Sharpshooter (GWSS), which were serviced 4,617 times. There were no GWSS detected in our traps in 2016.

PESTICIDE USE ENFORCEMENT PROGRAM

Performed 126 inspections related to commercial and agricultural pesticide use in the County. These inspections included in-progress inspections of the applicator and application equipment, post-application field worker safety inspections, and employee safety inspections at headquarters to review records and storage areas.

Issued 177 Private Applicator Certificates, 623 Operator Identification Numbers and Restricted Material Permits for agricultural pesticide use and reviewed 187 Notices of Intent for Restricted Materials, registered 288 Agricultural or Structural Pest Control Businesses, 68 Pest Control Advisors, and 99 Farm Labor Contractors, completed 30 investigations for suspected pesticide illnesses or complaints.

EXOTIC PEST SPECIES INTERCEPTED

Light Brown Apple Moth

Epiphyas postvittana

Sudden Oak DeathPhytophthora ramorum

Oriental Fruit Fly
Bactrocera dorsalis

Glassy-Winged Sharpshooter Homalodisca vitripennis

Magnolia White Scale Pseudaulacaspis cockerelli

Sri Lankan Weevil

Myllocerus undecimpustulatus undatus

Quack Grass Elymus repens **Coconut Scale**Aspidiotus destructor

Vine Mealybug
Planococcus ficus



SUSTAINABLE AGRICULTURE SUMMARY:

- Profiled over 11,000 incoming shipments and inspected approximately 6,507 shipments of plant material at nurseries and shipping terminals for exotic, invasive, and agricultural pests
- Issued 154 Certified Producer Certificates and 26 Farmers' Market certificates for Certified Farmers' Markets
- Registered 22 organic producers, conducted 11 organic producer inspections, 5 organic handler inspections, and
 27 organic retail or Certified Farmers' Market inspections.
- Inspected 39 shipments of household articles for the presence of Gypsy Moth, which includes thoroughly examining outdoor items such as BBQs, boats, cars, firewood, recreational vehicles, patio furniture, and other articles originating from portions of the United States infested with Gypsy Moth.

IN 2016, THE AGRICULTURE DIVISION:

- Inspected over 2 million chicken eggs for defects via representative sampling
- To promote the movement of Sonoma County agricultural commodities, we issued 137 federal phytosanitary documents for international shipments and nine state phytosanitary documents for domestic shipments.
- Diverted 16,000 pounds of plastic containers from the landfill through the division's two recycling events with approximately 107 growers participating
- Surveyed over 1,100 Sonoma County producers in preparation for the 2016 Agricultural Crop Report
- Conducted 13 continuing education sessions, with over 960 attendees
- Verified compliance with the California Seed Law for all seed producers in Sonoma County
- Inspected 91 nursery growing areas, totaling more than 290 acres
- Placed traps surveying for the newly introduced Brown Marmorated stink bug in the Sonoma Valley

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ORGANIC FAI STATISTI) 1 (-) - ,

Commodity Reg	gistrants	Units	Value
Eggs	11	280,100 Birds	\$20,479,024
Fruits/Nuts	193	2,108 Acres	\$4,910,922
Grapes (Wine and Table)	64	1,405 Acres	\$13,635,624
Field Crops	64	13,701 Acres	\$1,559,699
Pasture/Rangeland	55	27,162 Acres	\$197,800
Meat (poultry, beef, goat, lamb, pork)	15	1,056,600 Animals	\$133,891,883
Dairy	19	8,278 Animals	\$13,202,205
Nurseries	32	19 Acres	\$1,083,794
Vegetables	68	353 Acres	\$2,775,120

^{*} Values as reported to California Department of Food and Agriculture Organic program by registrants Please note: Due to a change in California Law, this table will not be available in future years

LAND STEWARDSHIP DIVISION SUMMARY

The Sonoma County Department of Agriculture established the Land Stewardship Division at the beginning of 2015 to consolidate enforcement of several local County environmental programs under one team in an effort to more effectively serve the public. This Division oversees the issuance of vineyard and orchard development permits (VESCO), agriculture grading and drainage permits, frost protection system registrations (within the Russian River watershed), Hazardous Materials Storage and Waste Generator Permits, and enforces County-wide riparian corridor protections. The Land Stewardship Division is also working with local Regional Water Quality Control Boards to help the agricultural community meet upcoming State Water Board requirements by leveraging ongoing practices designed to protect water quality. To further these efforts, Land Stewardship was able to obtain a grant from the California Department of Food and Agriculture's Specialty Crop Block Grant Program. This grant project is designed to increase vineyard and orchard operators' abilities to comply with the emerging storm water runoff regulations through education and by providing resources necessary to achieve compliance. The creation of the Land Stewardship Division enhances the Department's responsiveness to the increased emphasis on the environmental impacts of agriculture while maintaining support for the economic sustainability of agriculture in Sonoma County.

IN 2016, THE LAND STEWARDSHIP DIVISION:

- Regulated over 350 Agricultural facilities which store or generate Hazardous materials.
- Conducted several County-wide informational workshops to explain the impacts of the County Riparian Corridor Ordinance to the agricultural community.
- Reviewed a total of 145 vineyard/orchard development projects (110 Level I and 35 Level II) which included 60 new projects (38 level I and 22 level II) and 85 replant projects, (72 level I and 13 Level II) representing 18% increase in projects from 2015.
- Regulated 493 Frost Protection systems within the Russian River watershed including registering 3 new systems

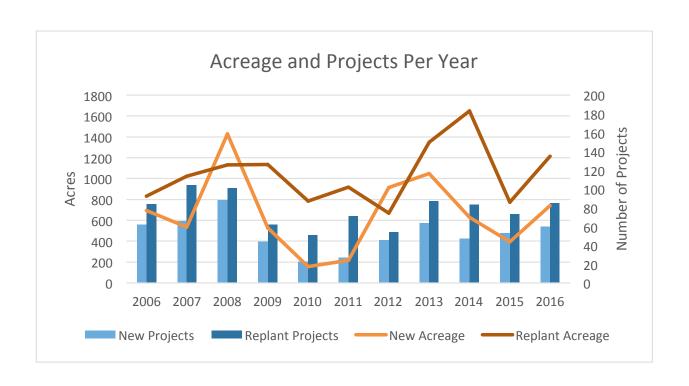
VINEYARD AND ORCHARD DEVELOPMENT

Under a County ordinance originally adopted by the Sonoma County Board of Supervisors in 2000, prior to developing and planting, or replanting a vineyard an application and plans are reviewed for approval by the Department of Agriculture/Weights & Measures. The purpose of the ordinance is to assist in preventing soil erosion and protect water quality and other natural resources. In 2008, the Vineyard Erosion and Sediment Control Ordinance (VESCO) was updated to include requirements and review of orchard planting and agricultural grading and drainage. During 2012 the Ordinance was further enhanced by adding standards to address potential erosion when projects involve the removal of trees. These standards incorporate an engineering geologist review for areas of instability and use of Universal Soil Loss Equation or Revised Universal Soil Loss Equation to ensure no net increase in erosion from pre-development. The environmental review for vineyard and orchard development expanded further in 2014 with the requirement that projects have a biological assessment completed, which focuses on mitigating impacts to endangered species as well as sensitive aquatic habitats such as streams, wetlands and vernal pools.

In 2014 the Board of Supervisors approved the creation of the Land Stewardship Division at the Department of Agriculture / Weights & Measures. The VESCO program now resides within this new Division along with other local environmental protection programs. Through VESCO, the dedicated staff of the Land Stewardship Division strive to support our significant winegrape and orchard industry while protecting the beautiful and vital natural resources of Sonoma County.

PROJECTS SUBMITTED

	New						Replants						To	tal
	Lev	el 1	Lev	el 2	Project	Acreage	Lev	el 1	Lev	el 2	Project	Acreage		
Year	Projects	Acreage	Projects	Acreage	Total	Total	Projects	Acreage	Projects	Acreage	Total	Total	Projects	Acreage
2006	49	544	13	151	62	695	78	785	6	47	84	832	146	1,527
2007	45	419	21	115	66	534	100	1,001	4	22	104	1,023	170	1,557
2008	61	1,157	27	272	88	1,429	97	1,110	4	22	101	1,132	189	2,561
2009	24	150	20	377	44	527	57	1,046	5	88	62	1,134	106	1,661
2010	10	82	13	75	23	157	51	783	0	0	51	783	74	940
2011	19	132	8	86	27	218	67	769	4	150	71	919	98	1,137
2012	35	327	11	589	46	916	50	633	4	35	54	668	100	1,584
2013	41	580	23	467	64	1,047	80	1,242	7	108	87	1,350	151	2,397
2014	25	307	22	321	47	628	76	1,546	7	103	83	1,649	130	2,277
2015	38	278	15	117	53	395	68	680	5	94	73	774	126	1,169
2016	38	434	22	306	60	740	72	1,128	13	301	85	1,213	145	1,953



WEIGHTS & MEASURES DIVISION SUMMARY

The Weights and Measures Division is committed to protecting the economic health of Sonoma County by preserving and maintaining confidence in the accuracy of weighing and measuring instruments, product standards, and business practices in our local economy. County Weights and Measures officials enforce California weights and measures laws as outlined in the California Business and Professions Code.

Through registration, inspection and verification services, the economic interest of Sonoma County buyers and sellers are protected through the following programs:

Device Inspection Program: The device inspection program regulates "commercial devices" used for buying and selling goods and services. Commercial devices are defined by law as any approved "device used in the determination of the weight, measure, or count of any commodity or thing which is sold on the basis of weight, measure, count or thing upon which determination of a charge for service is based". This includes devices consumers use daily such as motor fuel pumps, grocery store scales, taxi meters and mobile home park utility meters.

In 2016 the Weights & Measures Division registered over 37,892 commercial devices used in the local economy and inspected over 7,074 of these devices which included the following:

- 2,266 retail motor fuel meters
- 1,289 grocery store scales
- 647 utility electric meters
- 475 utility gas meters

- 1,128 utility water meters
- 105 vehicle scales
- 76 taxi meters
- 46 liquid propane meters (LPG)

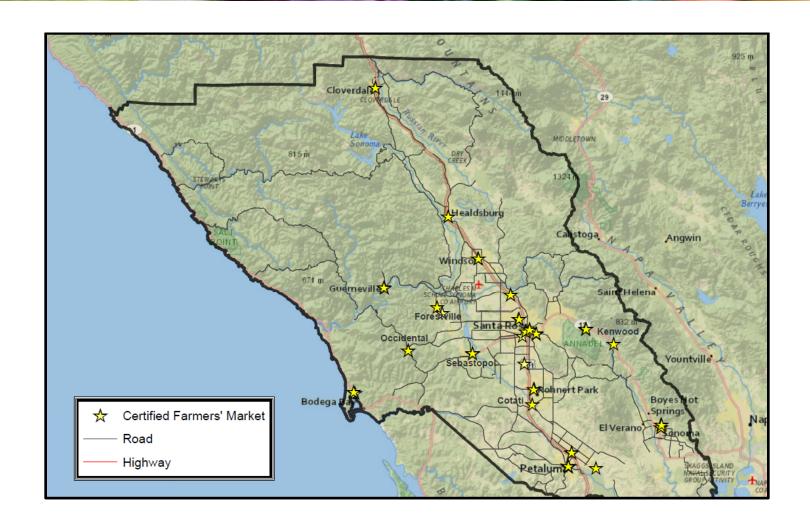
Price Verification Program: Through the authority of a local ordinance, the Price Verification Program enforces price accuracy standards at local businesses. Retailers using an automated "price look-up" system, a price-file database, to charge a price for commodities offered for sale, must register their systems with county Weights and Measures and undergo annual price verification inspections.

In 2016, over 744 local retailers were registered and inspected for pricing accuracy standards. Over 21,428 items offered for sale were scanned and verified for pricing accuracy. Businesses failing their initial inspection were re-inspected until they received a passing accuracy score. Repeat violations are addressed through issuance of administrative penalties. In 2016, over 153 re-inspections were performed that resulted in 40 Administrative Civil Actions issued to local businesses for failing to meet pricing accuracy standards.

Petroleum Inspection Program: Under the Petroleum Program, Weights and Measures officials inspect and verify petroleum advertisements requirements, dispenser labeling, underground fuel tank storage requirements, product labeling, and disabled driver assistance requirements. Fuel contamination and fuel specification complaints are also investigated in order to ensure that locally sold fuels meet required automotive product specifications.

Package Inspection Program: Under the Package Inspection Program, Weights and Measures Inspectors verity labeling requirements under the Federal Fair Package and Labeling Act which governs labeling requirements for consumer commodities sold to consumers. Items found labeled incorrectly are removed from sale.

Consumer Complaints: Weights and Measures also investigates and assists consumers with any complaints dealing with false advertisement claims, deceptive packaging issues, improper product labeling, short measure firewood sales, fuel contamination and utility sub-meter complaints. In a given calendar year, Weights and Measures logs and investigates over 100 consumer complaints related to a wide range of consumer.



Sonoma County Certified Farmers' Markets (CFMs)	Market Locations	Days	Times	Season
BODEGA BAY COMMUNITY	2255 HIGHWAY 1, BODEGA BAY	SUNDAY	10:00AM - 2:00PM	MAY - OCT
CLOVERDALE	NORTH CLOVERDALE BLVD: W 1ST & W 2ND ST.	FRIDAY	6:00PM - DUSK	JUNE - SEPT
COTATI COMMUNITY	LA PLAZA PARK: W. SIERRA AVE & OLD REDWOOD HWY	THURSDAY	4:30PM-7:30PM	JUNE - AUG
DETURK WINERY VILLAGE	DONAHUE STREET, SANTA ROSA	SUNDAY	9:30AM - 4:00PM	APR - DEC
FORESTVILLE	6990 FRONT STREET @ 116 NORTH	TUESDAY	4:00PM-7:30PM	JUN - OCT
HEALDSBURG	VINE ST & NORTH ST	SATURDAY	9:00AM - 12:00PM	MAY - DEC
		WEDNESDAY	3:00PM - 6:00PM	JUN - NOV
KENWOOD COMMUNITY	ST. PATRICKS CHURCH: 9000 SONOMA HWY @ COFFIN	SUNDAY	11:00PM-3:00PM	JUN - SEPT
OAKMONT	OAKMONT DR & WHITE OAK DR.	SATURDAY	9:00AM - 12:00PM	JAN - DEC
OCCIDENTAL BOHEMIAN	MAIN ST. & SECOND ST.	FRIDAY	4:00 - DUSK	JUN - OCT
PETALUMA WALNUT PARK	WALNUT PARK: PETALUMA BLVD S. & D ST.	SATURDAY	2:00PM - 5:30PM	MAY - NOV
PETALUMA EAST SIDE	LUCCHESI PARK: 320 NORTH MCDOWELL BLVD.	TUESDAY	10:00AM-1:30PM	JAN - DEC
PETALUMA WEDNESDAY EVENING	THEATER SQUARE: 2ND ST. BETWEEN B & D ST.	WEDNESDAY	4:30PM - 8:00PM	JUN - AUG
PETALUMA KAISER	KAISER MEDICAL OFFICE: 3900 LAKEVILLE HIGHWAY	WEDNESDAY	10:00 AM-3:00PM	MAR - DEC
ROHNERT PARK	500 CITY CENTER DR	FRIDAY	2:00PM - 8:00PM	JUN - AUG
		FRIDAY	1:00PM - 5:00PM	SEPT - MAY
RUSSIAN RIVER	16290 FIFTH STREET, GUERNEVILLE	THURSDAY	3:00PM -7:00PM	MAY- SEPT
SANTA ROSA COMMUNITY @ THE VETERANS BUILDING	1351 MAPLE DR. @ BROOKWOOD	WED & SAT	8:30AM-1:00PM	JAN - DEC
SANTA ROSA DOWNTOWN MARKET	E ST. BETWEEN 4TH & 3RD ST.	WEDNESDAY	5:00PM - 8:30PM	MAY - AUG
SANTA ROSA ORIGINAL	50 MARK WEST SPRINGS ROAD	WED & SAT	8:30AM-1:00PM	JAN - DEC
SANTA ROSA ORIGINAL -WIC	1450 GUERNEVILLE ROAD, SANTA ROSA (WIC OFFICE)	THURSDAY	8:30AM-1:00PM	JULY - SEPT
SEBASTOPOL	6901 MCKINLEY ST @ WEEKS WY	SUNDAY	10:00AM - 1:30PM	JAN - DEC
SONOMA VALLEY	ARNOLD FIELD PARKING LOT: 280 1ST ST W	FRIDAY	9:00AM - 12:30PM	JAN - DEC
VALLEY OF THE MOON	SONOMA PLAZA: BROADWAY @ E NAPA ST	TUESDAY	5:30PM - DUSK	MAY - OCT
WEST END	RAILROAD SQUARE: #9 4TH STREET	SUNDAY	9:30AM - 2:00PM	APR - NOV
WINDSOR	TOWN GREEN: MARKET ST & MCCLELLAND DR.	SUNDAY	10:00PM - 1:00PM	APR - DEC
		THURSDAY	5:00PM - 8:00PM	JUN - AUG

WINNING AG DAY ESSAY

Ag Days is a Sonoma County tradition. The Sonoma County Farm Bureau annually sponsors the two-day event, which is a celebration of Sonoma County Agriculture and the rich heritage that continues to define a way of life for Sonoma County residents. Ag Days offers an opportunity for thousands of school children to learn more about farming and where their food comes from, allowing them to connect with the farms and ranches that blanket the county. An essay writing contest is one of many farm-themed contests held each year, which also include posters, murals, scarecrow building, and farm photography. Following is the winning Ag Days Essay. The theme this year is "100 Years of Sonoma County Bounty".





100 Years of Sonoma County Bounty

Colbie Piehl, 1st Grade St. Rose School

If I were a farmer 100 years ago I would have a big barn full of cows, chickens and sheep. Everyday I would drive a tractor and pick some apples from my apples trees.

Today if I were a farmer I would still have a big barn with apples from my apple trees. Today if I were a famer I would still have a big barn with animals, but it would have a

computer and my tractor would be bigger and faster.

DEPARTMENT STAFF



VISION

A thriving agricultural industry, healthy community, environment, and economy

MISSION To promote and protect agriculture, the health and safety of our community, environment and the economy through education and the enforcement of laws and regulations

AGRICULTURAL COMMISSIONER/SEALER OF WEIGHTS AND MEASURES Tony Linegar

ASSISTANT AGRICULTURAL COMMISSIONER Lisa Correia

CHIEF DEPUTY AGRICULTURAL COMMISSIONER
Sue Ostrom

CHIEF DEPUTY SEALER OF WEIGHTS AND MEASURES
Fernando Vasquez

DEPUTY AGRICULTURAL COMMISSIONERPete Albers | Dan Curtin | Priscilla Lane

SENIOR AGRICULTURAL BIOLOGIST / STANDARD SPECIALIST
Michael Barrett | Alex McVicker | Andrew Smith
Paul Turano

AGRICULTURAL BIOLOGIST / STANDARDS SPECIALIST
Colleen Boe | Gayle Carter | Jessica Cassatt
Nathan Desjarlais | John Guardino | Travis Howard
David Jagdeo | Thomas LeClere | Katy McCoy

WILDLIFE SPECIALIST
Jeff Furlong | Justin Felton

AG & VINEYARD CONSERVATION COORDINATOR Andy Casarez

VINEYARD EROSION ENGINEERING TECHNICIAN
John Bishop

ENVIRONMENTAL SPECIALIST Shelley Janek

ADMINISTRATIVE SERVICES OFFICERGina Lehl

ADMINISTRATIVE AIDE Michelle Johnson

DEPARTMENT ANALYSTEsther Martinez

ADMINISTRATIVE SUPPORT STAFF
Jen Charter | Sue Fellbaum | Mary Halasz
Nina Reeser

SENIOR AGRICULTURAL PROGRAM ASSISTANTMaggie Furlong

AGRICULTURAL PROGRAM ASSISTANT

Jordan Ash | Anna Ashbeck | Pierpaolo Aymar

Kyle Bradford | David Burtis | Kristina Cassidy

Kim Covington | Kelly Dabney | Beverly Hammond

Brian O'Malley | Tim Van Deren | Ben Walker

Cody Wilson





DEPARTMENT STAFF

