California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

Contra Costa County

2010-2014

Contra Costa County

2010 Annual Crop Report

Department of Agriculture
2366 A Stanwell Circle
Concord, CA 94520-4807
(925) 646-5250
FAX (925) 646-5250

Branch Office
Knightsen Farm Center
Delta Road @ Second Street
P.O. Box 241
Knightsen, CA 94548
(925) 427-8610
FAX (925) 427-8612

Contra Costa County

Vincent L. Guise
Agricultural Commissioner
Director of Weights and Measures

To: KAREN ROSS, SECRETARY
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
and
THE HONORABLE BOARD OF SUPERVISORS

I am pleased to submit the 2010 Annual Crop and Livestock Report for Contra Costa County in accordance with the provisions of Section 2279 and 2272 of the California Food and Agricultural Code. This report includes information on Organic Farming and Biological Control activities in our county.

The total gross value of agricultural crops and products in 2010 was $79,603,800, up $15,180,520 from 2009. The value of the Livestock and Livestock Products category increased sharply as ranchers received record prices for their cattle and rangeland quality improved due to good winter rainfall. Wheat and other grain acreage rebounded to pre-drought levels and prices stayed strong due to export demand and low stockpiles. Olives, which only became a separate category in the 2009 Crop Report, showed a threefold increase in harvested acreage as new orchards came into production. Apricot acreage decreased more than 75% and the average price per ton increased more than tripled when Contra Costa County's last large processing apricot grower went out of production.

Field corn acreage went up due to a strong export market and the demand for biofuel. The Miscellaneous Vegetable & Seed Crop category value more than doubled as a few large growers planted peppers. Bean acreage increased as prices remained high. There were significant decreases in the price of sweet corn and processing tomatoes due to improved water supplies that allowed increased production in other areas of California. Competition from foreign wine imports caused grape prices to decrease. Most of the remaining apple orchards were removed, causing a large drop in the Miscellaneous Fruit & Nut Crop harvested acreage.

Several crop categories exceeded $1 million in value. These categories in decreasing order include cattle and calves, sweet corn, tomatoes, grapes, field corn, rangeland pasture, cherries, alfalfa, beans, walnuts, herbaceous perennials, and irrigated pasture.

It should be emphasized the values stated in this report are gross receipts and do not include the cost of production, transportation, or marketing of the products. The economic benefit of agricultural production is generally thought to be about three times the gross production value.

I wish to thank the many individuals and organizations who supplied us with the information to complete this report. Their cooperation is truly appreciated. I also would like to thank Nancy Niemeyer and the rest of my staff for their diligent work in obtaining, compiling, and coordinating their efforts to put together our annual report.

Respectfully submitted,

Vincent L. Guise
Agricultural Commissioner

Contra Costa County
Department of Agriculture/
Weights & Measures

Agricultural Commissioner - Director of Weights & Measures
Vince Guise

Chief Deputy Agricultural Commissioner/Sealer
Cathleen M. Fisher

Deputy Agricultural Commissioner
Joe Deviney
Gene Mangini
Larry Yost

Deputy Sealer of Weights & Measures
Patrick J. Roof

Agricultural Biologist/Weights & Measures Inspector III
Ralph Fonseca
Arthur Mangonon
Ann McClure
Nancy Niemeyer
Steve Reymann
Gil Rocha
Cecilie Siegel
Beth Slate
Matthew Slattengren
Jorge Vargas

Agricultural Biologist II
Chris deNijs
Mariah deNijs
Abdoulaye Niang
Kathryn White

Agricultural Biologist I
William Schaub

Weights & Measures Inspector II
Gabriel Adebote
Patrick Bowen
Ngozi Egbuna
Keely Kirkman

Administrative Support

Executive Secretary
Roxann Crosby

Senior Clerk
Sylvia Alcantar

Information Technology
Susan Wright

Retiree Volunteer
Suzanne Maddux

Pest Detection/GWSS/Pest Management

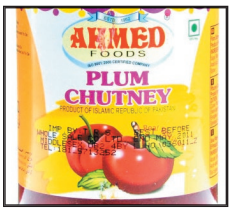
Danilo Angcla	Eric Baxter	K. C. Canario
Nancy Dennis	Oscar Dillard	Herb Gilmore
Paul Greer	Louellen Kelly	Hardy Leopando
Phyllis Lewis	Rick Mata	Betsy Montgomery
Christine O'Boyle	Richard Padfield	Eldren Prieto
Lindsay Skidmore	Susie Somers	Greg Spurlock
Samantha Tomlinson	Zsuzsa Vnagy	James Willson
	Oscar Zaldua	

Plant Quarantine Detector Canines

Bella (handler: Cecilie Siegel) Bart (handler: Mariah deNijs)

On the Cover: A local plum orchard in bloom.



Plums come in many different varieties and can be used for much more than just desserts, jams, and jellies. The national drink of Serbia is a plum brandy called Slivovitz or Slivovice. India uses plums in a traditional relish called Aloo Bukhara Chutney. In Asia, plums are prepared in many different ways; pickled, salted, dried, in sauces, and made into wine. Plum blossoms are an important symbol in Asian literature and art. In Japan, plum blossoms represent Spring. The Chinese use plum blossoms as a symbol of the new year because plums flower earlier than any other fruit tree.

Plums can be crossed with other fruits to produce hybrids. Pluots, apriums, and plumcots are hybrids of plums and apricots. There are also new hybrids that are crosses of plums with nectarines or peaches.

The United States is the third largest producer of plums in the world behind China and Serbia. In the United States, California is the top producer of plums, prunes, pluots, and other plum hybrids.

Field Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Field Corn	2010	6,380	4.09	26,100	Ton	174.00	4,541,000
	2009	4,270	4.38	18,700	Ton	182.00	3,403,000
Hay							
Alfalfa	2010	3,240	4.96	16,100	Ton	128.00	2,061,000
	2009	3,400	5.58	19,000	Ton	109.00	2,071,000
Grain	2010	1,610	2.69	4,330	Ton	68.00	294,000
	2009	1,940	2.01	3,900	Ton	69.00	269,000
Pasture							
Irrigated	2010	5,730			Acre	175.00	1,003,000
	2009	5,790			Acre	175.00	1,013,000
Rangeland	2010	169,000			Acre	18.40	3,110,000
	2009	169,000			Acre	19.60	3,312,000
Wheat	2010	2,100	2.19	4,600	Ton	135.00	621,000
	2009	85	1.29	110	Ton	161.00	17,700
Miscellaneous Field Crops*	2010	4,840					1,317,000
	2009	2,490					560,000
Total	2010	193,350					$12,947,000
	2009	186,975					$10,645,700

* Barley, Forage Hay, Hay (Wild), Rye, Safflower, Silage, Straw, Sudan Grass

Vegetable & Seed Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Beans	2010	423	3.78	1,600	Ton	1,120.00	1,792,000
	2009	302	4.07	1,230	Ton	1,070.00	1,316,000
Squash	2010	16	4.05	65	Ton	958.00	62,300
	2009	15	4.81	72	Ton	937.00	67,500
Sweet Corn	2010	3,800	9.64	36,600	Ton	362.00	13,249,000
	2009	3,470	10.20	35,400	Ton	434.00	15,364,000
Tomatoes							
Total	2010	1,660		80,557	Ton		5,911,000
	2009	1,746		94,651	Ton		8,038,000
Fresh	2010	30	11.90	357	Ton	1,280.00	457,000
	2009	36	15.30	551	Ton	925.00	510,000
Processing	2010	1,630	49.20	80,200	Ton	68.00	5,454,000
	2009	1,710	55.00	94,100	Ton	80.00	7,528,000
Miscellaneous Vegetable & Seed Crops*	2010	1,120					10,546,000
	2009**	1,015					4,449,000
Total	2010	7,019					$31,560,300
	2009	6,548					$29,234,500

* Asparagus, Artichokes, Beets, Cabbage, Cardoon, Carrots, Cauliflower, Cucumbers, Eggplant, Garlic, Ginseng, Lettuce, Okra, Onions, Greens, Herbs, Peas, Peppers, Potatoes, Pumpkins, Radishes

** Revised to include onions

Fruit & Nut Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Apricots	2010	109	3.12	340	Ton	2,450.00	833,000
	2009	470	4.62	2,170	Ton	677.00	1,470,000
Cherries	2010	389	2.40	934	Ton	2,870.00	2,681,000
	2009	369	2.46	908	Ton	2,940.00	2,670,000
Grapes	2010	1,930	4.81	9,280	Ton	599.00	5,559,000
	2009	1,930	4.61	8,900	Ton	748.00	6,657,000
Nectarines	2010	32	2.71	87	Ton	3,430.00	298,000
	2009	36	2.17	78	Ton	3,260.00	254,000
Olives	2010	255	0.47	120	Ton	1,360.00	163,000
	2009	86	0.89	77	Ton	1,550.00	119,000
Peaches	2010	134	2.96	397	Ton	1,860.00	738,000
	2009	134	2.75	369	Ton	1,770.00	653,000
Plums and Pluots	2010	36	3.47	125	Ton	2,920.00	365,000
	2009	34	3.56	121	Ton	2,760.00	334,000
Walnuts	2010	399	2.36	942	Ton	1,540.00	1,451,000
	2009	390	2.14	835	Ton	1,460.00	1,219,000
Miscellaneous Fruit & Nut Crops*	2010	175					1,154,000
	2009	282					1,948,000
Total	2010	3,459					$13,242,000
	2009	3,731					$15,324,000

* Almonds, Apples, Apriums, Asian Pears, Berries, Citrus, Figs, Melons, Pears, Pecans, Persimmons, Pistachios, Prunes, Pomegranates, Quinces, Strawberries

Nursery Products

Crop	Year	Production Area		Value
		House Sq. Ft.	Field Acres	Total
Bedding Plants	2010	34,900	0.50	365,000
	2009	34,900	1.10	368,000
Herbaceous Perennials	2010	52,400	1.50	1,114,000
	2009	53,400	0.50	1,092,000
Indoor Decoratives	2010	103,000	0.00	93,500
	2009	120,000	0.10	139,000
Vegetable Plants	2010	26,800	0.80	355,000
	2009	25,500	0.80	382,000
Miscellaneous Nursery Crops *	2010	3,500	29.60	699,000
	2009	0	28.80	480,000
Total	2010	220,600	32.40	$2,626,500
	2009	233,800	31.30	$2,461,000

* Christmas Trees, Cactus, Ground Covers, Propagative Materials, Ornamental Trees & Shrubs, Fruit Trees, Cut Flowers.

Organic Farming

	Apricots	Cherries	Nectarines	Peaches	Pears	Pistachios	Plums	Fruit, other	Herbs	Peas/Beans	Sweet Corn	Vegetables, leafy	Vegetables, root	Vegetables, other	Nursery products	Livestock products
No. of Farms	3	5	3	3	2	1	3	5	4	3	2	2	2	3	3	2
Estimated Acres	12.5	51	17.2	40.2	8	36.8	5.6	7.5	2.7	220	28	0.5	2.6	1.8	0.6	

Total Acres Organically Farmed 438.6 **Number of Organic Farms** 13

Livestock and Livestock Products

Item	Year	Production			Value	
		No. of Head	Total Liveweight	Unit	Per Unit	Total
Cattle & Calves	2010	27,000	196,000	Cwt	94.50	18,522,000
	2009	10,100	74,200	Cwt	81.20	6,025,000
Apiary Products*	2010					326,000
	2009					233,080
Miscellaneous Livestock and Livestock Products**	2010					400,000
	2009					500,000
Total	2010					$19,248,000
	2009					$6,758,080

* Honey, Wax, Pollination,

**Chickens, Ducks, Emus, Goats, Hogs, Llamas, Ostriches, Pigs, Rabbits, Sheep, Turkeys, Milk, Wool, Eggs

Biological Control

Pest	Agent/Mechanism	Scope of Program
Yellow Starthistle (Centaurea solstitialis)	Hairy Weevil (Eustenopus villosus)	Ongoing
	YST Flower Weevil (Larinus curtus)	Ongoing
	Rust Pathogen (Puccinia jaceae var. solstitialis)	Ongoing
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Encytrid Parasitoid Wasp (Psyllaephagus bliteus)	Ongoing

Recapitulation

Category	Gross Value/Million Dollars 2010	2009	Ranking 2010	2009
Vegetable & Seed Crops	31.6	29.2	1	1
Livestock & Livestock Products	19.2	6.8	2	4
Fruit & Nut Crops	13.2	15.3	3	2
Field Crops	12.9	10.6	4	3
Nursery Products	2.6	2.5	5	5

Category	Gross Value 2010	2009	Change
Field Crops	12,947,000	10,645,700	2,281,300
Vegetable & Seed Crops	31,560,300	29,234,500	2,325,800
Fruit & Nut Crops	13,242,000	15,324,000	-2,082,000
Nursery Crops	2,626,500	2,461,000	165,500
Livestock & Livestock Products	19,248,000	6,758,080	12,489,920
Total	$79,603,800	$64,423,280	15,180,520

Total Acres in County	482,000
Population in County January 2010	1,049,025
Land in Farms - Acres (2007 Census)	146,993
Harvested Cropland - Acres (2007 Census)	23,876

Certified Farmers' Markets

Tuesday	Concord, El Cerrito, Walnut Creek Kaiser
Wednesday	Point Richmond
Thursday	Antioch Kaiser, Concord, Danville, Lafayette, Martinez, Martinez Kaiser
Friday	Richmond, Walnut Creek Rossmoor, Walnut Creek Tice Valley
Saturday	Brentwood, Clayton, Danville, Diablo Valley, El Cerrito, Hercules, Orinda, Pinole, Pittsburg, Pleasant Hill, San Ramon
Sunday	Antioch, Kensington, Martinez, Moraga, Walnut Creek

For more information about the Certified Farmers' Markets in Contra Costa County, visit our website at www.co.contra-costa.ca.us and click on Departments, then Agriculture/Weights & Measures.

Million Dollar Crops

Category	Gross Value/Million Dollars 2010	2009	Ranking 2010	2009
Cattle & Calves	18.5	6.0	1	4
Sweet Corn	13.2	15.4	2	1
Tomatoes, All	5.9	8.0	3	2
Grapes	5.6	6.7	4	3
Field Corn	4.5	3.4	5	5
Rangeland Pasture	3.1	3.3	6	6
Cherries	2.7	2.7	7	7
Hay - Alfalfa	2.1	2.1	8	8
Beans	1.8	1.3	9	10
Walnuts	1.5	1.2	10	11
Herbaceous Perennials	1.1	1.1	11	12
Irrigated Pasture	1.0	1.0	12	13

Top 15 Crops 50 Years Ago

Crop	Value in 1960	Value in 2010 Dollars	Current Value
Asparagus	4,624,000	33,986,400	*Misc.
Walnuts	3,364,000	24,725,400	1,451,000
Cattle	2,592,000	19,051,200	18,522,000
Lettuce	2,577,000	18,940,950	*Misc.
Almonds	1,586,000	11,657,100	*Misc.
Milk	1,393,000	10,238,550	*Misc.
Apricots	1,265,000	9,297,750	833,000
Cut Flowers	1,198,810	8,811,254	*Misc.
Rangeland Pasture	683,000	5,020,050	3,110,000
Pears	658,140	4,837,329	*Misc.
Barley	637,000	4,681,950	*Misc.
Tomatoes	600,000	4,410,000	5,911,000
Sweet Corn	557,000	4,093,950	13,249,000
Alfalfa	375,000	2,756,250	2,061,000
Sugar Beets	324,000	2,381,400	None

* Combined in a Miscellaneous category due to small production or few producers.

Pest Exclusion

Asian Citrus Psyllid

Plum Cucurlio

Colorado Potato Beetle

Shipments Inspected

Mail/UPS/Fed Ex/Express Carriers	63,775
Truck shipments from within California	4,075
Truck shipments from other states	249
Household Goods	190

Total A & Q Rated Pests Found

Quarantine Rejections	***Total***	***Canine Program****
Live Pests	24	
Nursery Stock Certificate	8	
Citrus Pests	7	1
Live Animals	6	2
Japanese Beetle	5	
Plum Curculio	4	2
Cedar-Apple Rust	4	
Colorado Potato Beetle	4	
Glassywinged Sharpshooter	4	
Reasonable Cause	4	
Burrowing Nematode	3	
Asian Citrus Psyllid	2	2
European Corn Borer	2	
Hawaii Certification	2	
Caribbean Fruit Fly	1	
Origin/Markings	164	27
Total	***244***	***34***

***** Contra Costa County has two canine detection teams that work in the Bay Area. The canine program values represent finds not marked as containing plant material in Contra Costa County only.

"A" and "Q" Rated Pests

Pests vary as to the level of potential harm they can do, so it is necessary to have a rating system to represent the statewide importance of the pest. Of special interest are pests that are rated "A" or "Q". These organisms have the potential to cause serious harm and require enforcement action when they are found. "A" rated pests, such as the Mediterranean Fruit Fly, are known to cause serious harm. "Q" rated pests are those that are suspected to cause serious harm but their status is uncertain because of incomplete information about the species.


European Frogbit


Cycad Wax Scale


White-footed Ant


Magnolia White Scale


European Pepper Moth

A & Q Pest Interceptions

	Rating	Rejections
ANTS		
Technomyrmex albipes / White-footed Ant	Q	4
Pheidole sp. / Ant	Q	2
SCALES		
Pseudaulacaspis cockerelli / Magnolia White Scale	A	4
Pinnaspis buxi / Boxwood Scale	A	1
Pseudaulacaspis brimblecombei / Macadamia White Scale	Q	3
Aulacaspis yasumatsui / Cycad Wax Scale	Q	2
Hemiberlesia sp. / Scale	Q	1
OTHER INSECTS, MITES, & MOLLUSCS		
Dreissena bugensis / Quagga Mussel	A	3
Dreissena polymorpha / Zebra Mussel	A	2
Duponchelia fovealis / European Pepper Moth	A	1
Dysmicoccus grassii / Mealybug	A	1
Delottococcus confusus / Bougainvillea Caterpillar	Q	2
Xylosandrus sp. / Scolytid Beetle	Q	1
Ferrisia sp. / Mealybug	Q	1
Cerataphis sp. / Aphid	Q	1
PLANT DISEASES		
Phytophthora ramorum / Sudden Oak Death	Q	1
WEEDS		
Limnobium laevigatum / South American Spongeplant	A	1

Pest Eradication/ Management

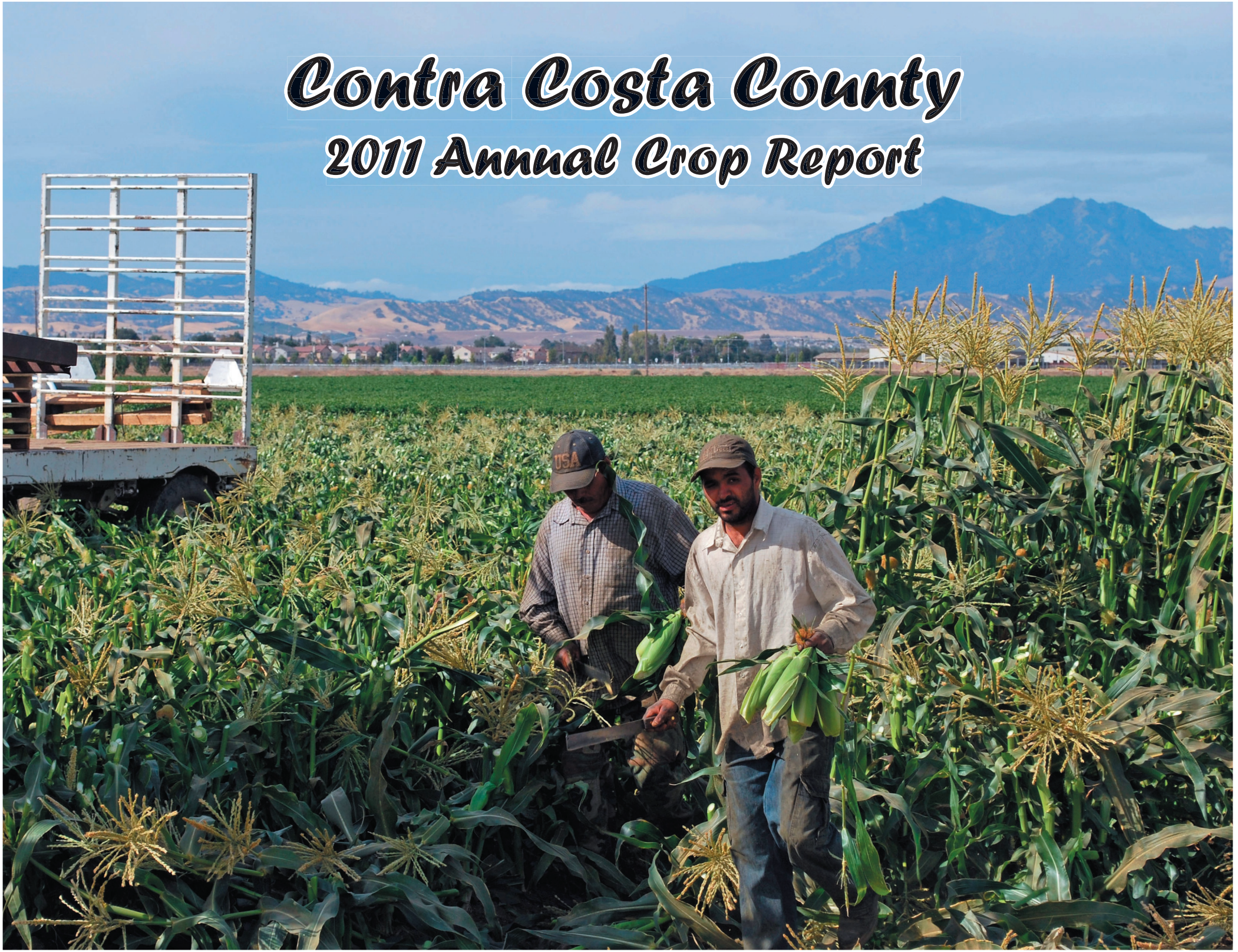
Pest	Scentific Name	Control Method	#Sites/Treated Acres
Artichoke Thistle	*Cynara cardunculus*	Chemical	Many sites/143.34 ac.
Purple Starthistle	*Centaurea calcitrapa*	Chemical	Many sites/90.92 ac.
Oblong Spurge	*Euphorbia oblongata*	Chemical	5 sites/0.72 ac.
Hoary Cress	Cardaria spp.	Chemical	3 sites/1.18 ac.
Barb Goatgrass	*Aegilops triuncialis*	Chemical/Mechanical	4 sites/4.00 ac.
Kangaroo Thorn	*Acacia paradoxa*	Mechanical	1 site/0.05 ac.
White Horsenettle	*Solanum elaeagnifolium*	Chemical	12 sites/2.44 ac.
Russian Knapweed	*Acroptilon repens*	Chemical	1 site/0.02 ac.
Purple Loosestrife	*Lythrum salicaria*	Chemical	1 watershed/0.1 ac.
Smooth Distaff Thistle	*Carthamus baeticus*	Chemical	1 site/0.09 ac.
Red Sesbania	*Sesbania punicea*	Mechanical	6 sites/1899 plants
Japanese Dodder	*Cuscuta japonica*	Mechanical	1 site/0.15 ac.
Perennial Pepperweed	*Lepidium latifolium*	Chemical	Many sites/20.47 ac. (Satellite infestations)

Pest Detection

Pest	Trap Type	# Traps	# Servicings
Mediterranean Fruit Fly	Jackson	961	10,265
Various	McPhail	886	19,753
Oriental Fruit Fly	Jackson	946	10,039
Melon Fly	Jackson	941	7,882
Glassywinged Sharpshooter	Yellow Panel	1,247	14,664
Light Brown Apple Moth	Jackson	142	2,696
Gypsy Moth	Delta	785	4,069
Japanese Beetle	Funnel	467	2,660
Pine Shoot Moth	Wing	19	102
Nantucket Pine Tip Moth	Wing	19	120
Various	Champ	67	152
Apple Maggot	Yellow Panel	16	100
Asian Citrus Psyllid	Yellow Panel	41	124
Vine Mealybug	Delta	63	235
European Grapevine Moth	Delta	217	2,105
Oriental Fruit Moth	Wing	15	837
Khapra Beetle	Trogo	20	13

Contra Costa County

2011 Annual Crop Report



Department of Agriculture
2366 A Stanwell Circle
Concord, CA 94520-4807
(925) 646-5250
FAX (925) 646-5250

Branch Office
Knightsen Farm Center
Delta Road @ Second Street
P.O. Box 241
Knightsen, CA 94548
(925) 427-8610
FAX (925) 427-8612

Contra Costa County

Vincent L. Guise
Agricultural Commissioner
Director of Weights and Measures

To: KAREN ROSS, SECRETARY
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
and
THE HONORABLE BOARD OF SUPERVISORS

I am pleased to submit the 2011 Annual Crop and Livestock Report for Contra Costa County in accordance with the provisions of Section 2279 and 2272 of the California Food and Agricultural Code. This report includes information on Organic Farming and Biological Control activities in our county.

The total gross value of agricultural crops and products in 2011 was $92,919,600, up $13,295,800 from 2010. Severe drought and heat throughout the central states during 2010 and 2011 boosted the price of many California farm commodities. Hay, cattle, wheat, and field corn prices went up in response to strong demand from both domestic and foreign markets. The high prices led to a sharp increase in the planted acreage for grain hay and field corn. Wheat acreage dropped when some growers chose to plant hay instead.

The stormy winter weather helped some Contra Costa County crops and hurt others. Plentiful winter rains led to record high wheat yields. Cherry orchards benefited from good winter chilling and fruit set, leading to large harvests. Local cherry prices jumped sharply when other cherry growing areas in the state suffered crop losses due to storm damage. Apricot yields and price dropped when spring storms during bloom and early development damaged fruit. Walnut prices continued to climb as world demand stayed strong. Olive yields went up as young orchards matured.

Several crop categories exceeded $1 million in value. These categories in decreasing order include cattle and calves, sweet corn, tomatoes, field corn, grapes, cherries, rangeland pasture, alfalfa, beans, walnuts, and irrigated pasture.

It should be emphasized the values stated in this report are gross receipts and do not include the cost of production, transportation, or marketing of the products. The economic benefit of agricultural production is generally thought to be about three times the gross production value.

I wish to thank the many individuals and organizations who supplied us with the information to complete this report. Their cooperation is truly appreciated. I also would like to thank Nancy Niemeyer and the rest of my staff for their diligent work in obtaining, compiling, and coordinating their efforts to put together our annual report.

Respectfully submitted,

Vincent L. Guise
Agricultural Commissioner

Contra Costa County
Department of Agriculture/
Weights & Measures

Agricultural Commissioner - Director of Weights & Measures
Vince Guise

Deputy Agricultural Commissioner
Joe Deviney
Gene Mangini
Larry Yost

Deputy Sealer of Weights & Measures
Steve Reymann

Agricultural Biologist/Weights & Measures Inspector III
Ralph Fonseca
Arthur Mangonon
Ann McClure
Nancy Niemeyer
Steve Reymann
Gil Rocha
Cecilie Siegel
Beth Slate
Matthew Slattengren
Jorge Vargas

Agricultural Biologist II
Chris deNijs
Mariah deNijs
Abdoulaye Niang

Agricultural Biologist I
William Schaub

Weights & Measures Inspector II
Gabriel Adebote
Patrick Bowen
Ngozi Egbuna
Keely Kirkman

Administrative Support

Executive Secretary
Roxann Crosby

Senior Clerk
Sylvia Alcantar

Information Technology
Susan Wright

Retiree Volunteer
Suzanne Maddux

Pest Detection/GWSS/Pest Management

Danilo Angcla	Erik Baxter	Ann Bloxsom
Christine Buelna	K. C. Canario	Nancy Dennis
Oscar Dillard	Herb Gilmore	Paul Greer
Louellen Kelly	Hardy Leopando	Phyllis Lewis
Rick Mata	Betsy Montgomery	Christine O'Boyle
Richard Padfield	Eldren Prieto	Craig Shoener
Lindsay Skidmore	Susie Somers	Greg Spurlock
Alison Stewart	Tom Wright	Oscar Zaldua

Plant Quarantine Detector Canines

Bella (handler: Cecilie Siegel)

Bart (handler: Mariah deNijs)

On the Cover: Field workers harvesting sweet corn

Field workers in California play an important part in the cultivation and harvest of many of the state's crops. California has a huge demand for crop labor and, according to a 2003-2004 National Agricultural Worker Survey, employs an estimated 36 percent of the nation's field workers.

California's worker safety regulations help protect field workers who work in fields that have been treated with a pesticide. Field worker employers are required to manage their workers and fields to prevent unacceptable levels of exposure to pesticide residues and drift. Employers are required to provide employee training, prior notification, protective equipment, and decontamination facilities. County Agricultural Biologists perform field worker safety inspections to ensure that employers are protecting their employees and complying with California law.

Field Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Field Corn	2011	8,150	4.18	34,100	Ton	197.00	6,718,000
	2010	6,380	4.09	26,100	Ton	174.00	4,541,000
Hay							
Alfalfa	2011	3,220	5.10	16,400	Ton	214.00	3,510,000
	2010	3,240	4.96	16,100	Ton	128.00	2,061,000
Grain	2011	2,400	2.44	5,860	Ton	135.00	791,000
	2010	1,610	2.69	4,330	Ton	68.00	294,000
Pasture							
Irrigated	2011	5,450			Acre	195.00	1,063,000
	2010	5,730			Acre	175.00	1,003,000
Rangeland	2011	169,000			Acre	20.90	3,532,000
	2010	169,000			Acre	19.60	3,312,000
Wheat	2011	1,050	2.90	3,050	Ton	209.00	637,000
	2010	2,100	2.19	4,600	Ton	135.00	621,000
Miscellaneous Field Crops*	2011	4,060					1,520,000
	2010	4,840					1,317,000
Total	2011	193,330					$17,771,000
	2010	193,350					$12,947,000

* Barley, Forage Hay, Hay (Wild), Rye, Safflower, Silage, Straw, Sudan Grass

Vegetable & Seed Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Beans	2011	410	4.13	1,690	Ton	1,180.00	1,994,000
Fresh Market	2010	423	3.78	1,600	Ton	1,120.00	1,792,000
Squash	2011	19	3.04	58	Ton	1,200.00	69,600
	2010	16	4.05	65	Ton	958.00	62,300
Sweet Corn	2011	3,580	9.86	35,300	Ton	396.00	13,979,000
	2010	3,800	9.64	36,600	Ton	362.00	13,249,000
Tomatoes							
Total	2011	1,945		90,473	Ton		6,948,000
	2010	1,660		80,557	Ton		5,911,000
Fresh	2011	35	13.50	473	Ton	1,370.00	648,000
	2010	30	11.90	357	Ton	1,280.00	457,000
Processing	2011	1,910	47.10	90,000	Ton	70.00	6,300,000
	2010	1,630	49.20	80,200	Ton	68.00	5,454,000
Miscellaneous Vegetable & Seed Crops*	2011	1,360					13,284,000
	2010	1,120					10,546,000
Total	2011	7,314					$36,274,600
	2010	7,019					$31,560,300

* Asparagus, Artichokes, Beets, Cabbage, Cardoon, Carrots, Cauliflower, Cucumbers, Eggplant, Garlic, Ginseng, Lettuce, Okra, Onions, Greens, Herbs, Peas, Peppers, Potatoes, Pumpkins, Radishes

Fruit & Nut Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Apricots	2011	97	2.64	256	Ton	1,930.00	494,000
	2010	109	3.12	340	Ton	2,450.00	833,000
Cherries	2011	413	3.08	1,270	Ton	4,570.00	5,804,000
	2010	389	2.40	934	Ton	2,870.00	2,681,000
Grapes	2011	1,950	4.35	8,480	Ton	704.00	5,970,000
	2010	1,930	4.81	9,280	Ton	599.00	5,559,000
Nectarines	2011	35	2.88	101	Ton	3,650.00	369,000
	2010	32	2.71	87	Ton	3,430.00	298,000
Olives	2011	206	1.07	220	Ton	1,190.00	262,000
	2010	255	0.47	120	Ton	1,360.00	163,000
Peaches	2011	140	2.84	398	Ton	1,860.00	740,000
	2010	134	2.96	397	Ton	1,860.00	738,000
Plums and Pluots	2011	34	3.36	114	Ton	2,510.00	286,000
	2010	36	3.47	125	Ton	2,920.00	365,000
Walnuts	2011	402	1.99	800	Ton	2,030.00	1,624,000
	2010	399	2.36	942	Ton	1,540.00	1,451,000
Miscellaneous Fruit & Nut Crops*	2011	195					2,101,000
	2010	175					1,154,000
Total	2011	3,472					$17,650,000
	2010	3,459					$13,242,000

* Almonds, Apples, Apriums, Asian Pears, Berries, Citrus, Figs, Melons, Pears, Pecans, Persimmons, Pistachios, Prunes, Pomegranates, Quinces, Strawberries

Nursery Products

Crop	Year	Production Area		Value
		House Sq. Ft.	Field Acres	Total
Bedding Plants	2011	35,000	0.50	492,000
	2010	34,900	0.50	365,000
Herbaceous Perennials	2011	40,000	2.00	719,000
	2010	52,400	1.50	1,114,000
Indoor Decoratives	2011	84,800	0.25	95,000
	2010	103,000	0.00	93,500
Vegetable Plants	2011	27,000	0.80	406,000
	2010	26,800	0.80	355,000
Miscellaneous Nursery Crops *	2011	3,700	32.20	781,000
	2010	3,500	29.60	699,000
Total	2011	190,500	35.75	$2,493,000
	2010	220,600	32.40	$2,626,500

* Christmas Trees, Cactus, Ground Covers, Propagative Materials, Ornamental Trees & Shrubs, Fruit Trees, Cut Flowers.

Organic Farming

	Apricots	Cherries	Nectarines	Peaches	Pears	Pistachios	Plums	Fruit, other	Herbs	Peas/Beans	Sweet Corn	Vegetables, leafy	Vegetables, root	Vegetables, other	Nursery products	Livestock products
No. of Farms	3	5	3	3	2	1	3	5	4	3	2	2	3	3	5	2
Estimated Acres	27.5	49	14.2	39.2	18	38	12.6	13	2.7	110	32	2.6	1.8	3.9	1.3	

Total Acres Organically Farmed 366.0 **Number of Organic Farms** 14

Livestock and Livestock Products

Item	Year	Production			Value	
		No. of Head	Total Liveweight	Unit	Per Unit	Total
Cattle & Calves	2011	26,000	147,000	Cwt	111.00	16,317,000
	2010	27,000	196,000	Cwt	94.50	18,522,000
Apiary Products*	2011					514,000
	2010					326,000
Miscellaneous Livestock and Livestock Products**	2011					1,900,000
	2010					400,000
Total	2011					$18,731,000
	2010					$19,248,000

* Honey, Wax, Pollination,

**Chickens, Ducks, Emus, Goats, Hogs, Llamas, Ostriches, Pigs, Rabbits, Sheep, Turkeys, Milk, Wool, Eggs

Biological Control

Pest	Agent/Mechanism	Scope of Program
Yellow Starthistle (Centaurea solstitialis)	Hairy Weevil (Eustenopus villosus)	Ongoing
	YST Flower Weevil (Larinus curtus)	Ongoing
	Rust Pathogen (Puccinia jaceae var. solstitialis)	Ongoing
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Encytrid Parasitoid Wasp (Psyllaephagus bliteus)	Ongoing

Recapitulation

Category	Gross Value/Million Dollars 2011	2010	Ranking 2011	2010
Vegetable & Seed Crops	36.2	31.6	1	1
Livestock & Livestock Products	18.9	13.2	2	2
Field Crops	17.8	12.9	3	4
Fruit & Nut Crops	17.7	15.3	4	3
Nursery Products	2.5	2.6	5	5

Category	Gross Value 2011	2010	Change
Field Crops	17,771,000	12,947,000	4,824,000
Vegetable & Seed Crops	36,274,600	31,560,300	4,714,300
Fruit & Nut Crops	17,650,000	13,242,000	4,408,000
Nursery Crops	2,493,000	2,626,500	-133,500
Livestock & Livestock Products	18,731,000	19,248,000	-517,000
Total	$92,919,600	$79,623,800*	13,295,800

*2010 value adjusted

Total Acres in County	482,000
Population in County July 2011	1,061,132
Land in Farms - Acres (2007 Census)	146,993
Harvested Cropland - Acres (2007 Census)	23,876

Certified Farmers' Markets

Tuesday	Concord	El Cerrito	Martinez	Walnut Creek Kaiser	
Wednesday	Point Richmond				
Thursday	Antioch Kaiser	Concord	Martinez	Martinez Kaiser	San Ramon
Friday	Richmond	Walnut Creek Rossmoor			
Saturday	Brentwood	Clayton	Danville	Diablo Valley	El Cerrito
	Hercules	Orinda	Pinole	Pittsburg	Pleasant Hill
	San Ramon				
Sunday	Antioch	Kensington	Martinez	Moraga	Walnut Creek

For more information about the Certified Farmers' Markets in Contra Costa County, visit our website at www.co.contra-costa.ca.us and click on Departments, then Agriculture/Weights & Measures.

Million Dollar Crops

Category	Gross Value/Million Dollars 2011	2010	Ranking 2011	2010
Cattle & Calves	16.3	18.5	1	1
Sweet Corn	14.0	13.2	2	2
Tomatoes, All	6.9	5.9	3	3
Field Corn	6.7	4.5	4	5
Grapes	6.0	5.6	5	4
Cherries	5.8	2.7	6	7
Rangeland Pasture	3.5	3.3	7	6
Hay - Alfalfa	3.5	2.1	8	8
Beans	2.0	1.8	9	9
Walnuts	1.6	1.5	10	10
Irrigated Pasture	1.1	1.0	11	12

Top 15 Crops 50 Years Ago

Crop	Value in 1961	Value in 2011 Dollars	Current Value
Cattle	4,080,000	29,988,000	16,317,000
Lettuce	2,079,000	15,280,650	*Misc.
Walnuts	1,945,000	14,295,750	1,624,000
Asparagus	1,853,000	13,619,550	*Misc.
Cut Flowers	1,612,400	11,851,140	*Misc.
Almonds	1,445,000	10,620,750	*Misc.
Apricots	1,362,900	10,017,315	494,000
Milk	1,335,200	9,813,720	*Misc.
Tomatoes	1,178,000	8,658,300	6,948,000
Barley	713,000	5,240,550	*Misc.
Pears	688,540	5,060,769	*Misc.
Rangeland Pasture	650,000	4,777,500	3,532,000
Sweet Corn	483,000	3,550,050	13,979,000
Field Corn	355,000	2,609,250	6,718,000
Alfalfa	340,000	2,499,000	3,510,000

* Combined in a Miscellaneous category due to small production or few producers.

Pest Exclusion

Asian Citrus Psyllid

Plum Cucurlio

Japanese Beetle

Shipments Inspected

Mail/UPS/Fed Ex/Express Carriers	50,957
Truck shipments from within California	1,037
Truck shipments from other states	233
Household Goods	110

Total A & Q Rated Pests Found

Quarantine Rejections	***Total***	***Canine Program****
Live Pests	16	
Japanese Beetle	9	
Citrus Pests	7	2
Reasonable Cause	4	
Plum Curculio	3	1
Burrowing Nematode	3	
Live Animals	2	3
Cedar-Apple Rust	2	
Glassywinged Sharpshooter	2	
Nursery Stock Certificate	2	
Asian Citrus Psyllid	1	
Cereal Leaf Beetle	1	
European Pine Shoot Moth	1	
Golden Nematode	1	
Hawaii Certification	1	
Persimmon Root Borer	1	
Origin/Markings	96	12
Total	***152***	***18***

***** Contra Costa County has two canine detection teams that work in the Bay Area. The canine program values represent finds not marked as containing plant material in Contra Costa County only.

"A" and "Q" Rated Pests

Pests vary as to the level of potential harm they can do, so it is necessary to have a rating system to represent the statewide importance of the pest. Of special interest are pests that are rated "A" or "Q". These organisms have the potential to cause serious harm and require enforcement action when they are found. "A" rated pests, such as the Mediterranean Fruit Fly, are known to cause serious harm. "Q" rated pests are those that are suspected to cause serious harm but their status is uncertain because of incomplete information about the species.

Banana Mealybug

Cycad Wax Scale

White-footed Ant

Magnolia White Scale

A & Q Pest Interceptions

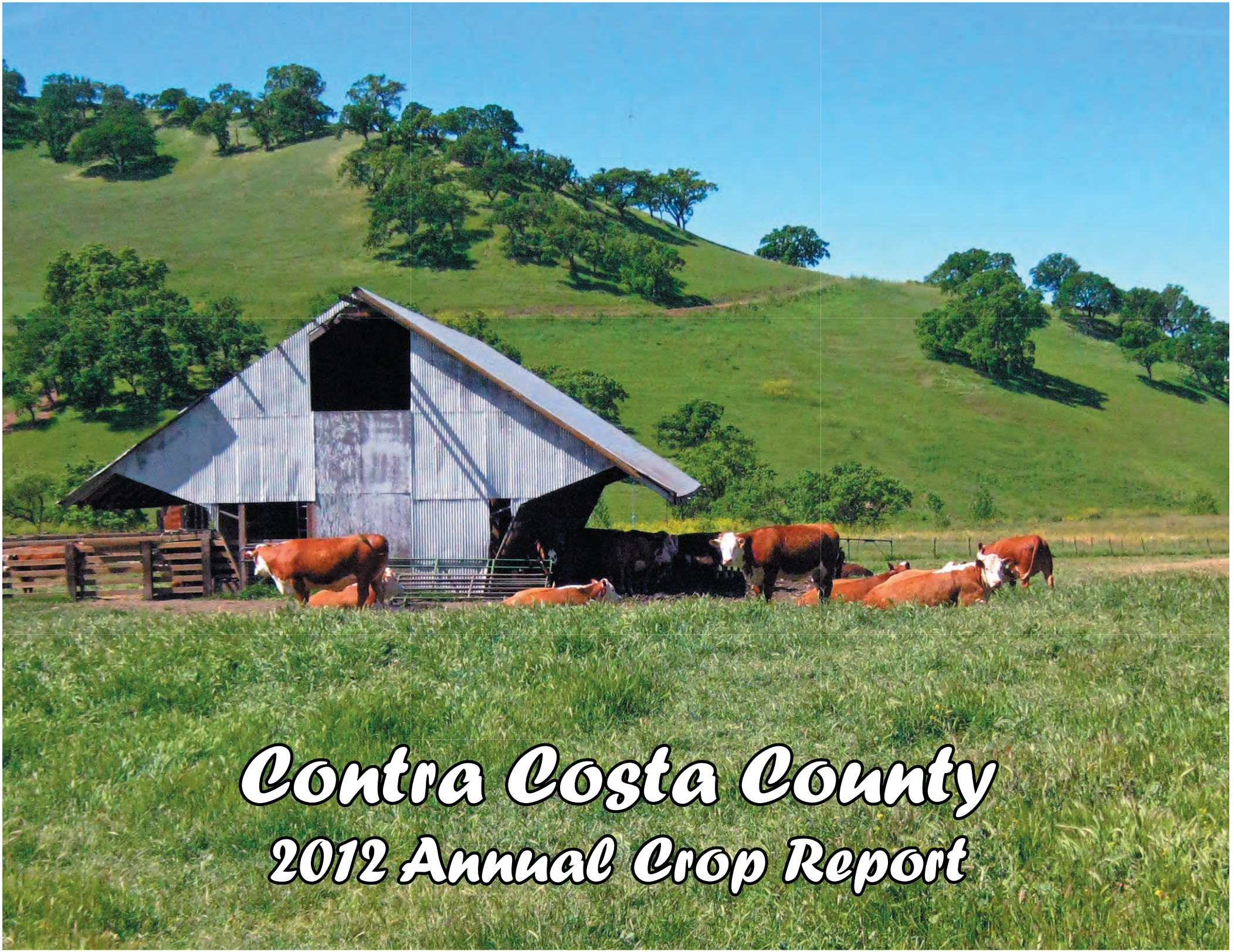
	Rating	Rejections
ANTS		
Technomyrmex albipes / White-footed Ant	Q	2
Pheidole megacephala / Bigheaded Ant	Q	2
Pheidole sp. / Ant	Q	1
SCALES		
Pseudaulacaspis cockerelli / Magnolia White Scale	A	2
Pinnaspis buxi / Boxwood Scale	A	1
Pseudaulacaspis brimblecombei / Macadamia White Scale	Q	1
Aulacaspis yasumatsui / Cycad Wax Scale	Q	1
Milviscutulus mangiferae / Mango Shield Scale	Q	1
OTHER INSECTS, MITES, & MOLLUSCS		
Dreissena bugensis / Quagga Mussel	A	1
Mytilopsis leucophaeta / False Dark Mussel	Q	1
Pseudococcus elisae / Banana Mealybug	Q	1

Pest Eradication/ Management

Pest	Scentific Name	Control Method	#Sites/Treated Acres
Artichoke Thistle	*Cynara cardunculus*	Chemical	Many sites/205.5 ac.
Purple Starthistle	*Centaurea calcitrapa*	Chemical	Many sites/152.93 ac.
Oblong Spurge	*Euphorbia oblongata*	Chemical	5 sites/0.78 ac.
Hoary Cress	Cardaria spp.	Chemical	6 sites/0.37 ac.
Barb Goatgrass	*Aegilops triuncialis*	Chemical/Mechanical	5 sites/2.28 ac.
Kangaroo Thorn	*Acacia paradoxa*	Mechanical	1 site/0.01 ac.
White Horsenettle	*Solanum elaeagnifolium*	Chemical	12 sites/0.61 ac.
Russian Knapweed	*Acroptilon repens*	Chemical	3 sites/18.41 ac.
Purple Loosestrife	*Lythrum salicaria*	Chemical	1 watershed/0.13 ac.
Smooth Distaff Thistle	*Carthamus baeticus*	Chemical/Mechanical	1 site/0.08 ac.
Red Sesbania	*Sesbania punicea*	Mechanical	12 sites/2838 plants
Japanese Dodder	*Cuscuta japonica*	Mechanical	46 sites/0 in 2011
Perennial Pepperweed	*Lepidium latifolium*	Chemical	Many sites/13.35 ac. (Satellite infestations)

Pest Detection

Pest	Trap Type	# Traps	# Servicings
Mediterranean Fruit Fly	Jackson	943	9,912
Various	McPhail	858	18,889
Oriental Fruit Fly	Jackson	930	9,749
Melon Fly	Jackson	885	6,784
Glassywinged Sharpshooter	Yellow Panel	1,200	14,144
Light Brown Apple Moth	Jackson	54	183
Gypsy Moth	Delta	711	3,497
Japanese Beetle	Funnel	462	2,643
Pine Shoot Moth	Wing	6	57
Nantucket Pine Tip Moth	Wing	9	74
Various	Champ	40	222
Apple Maggot	Yellow Panel	8	32
Asian Citrus Psyllid	Yellow Panel	41	369
Vine Mealybug	Delta	61	476
European Grapevine Moth	Delta	299	3,567
Oriental Fruit Moth	Wing	15	765
Khapra Beetle	Trogo	4	21



Contra Costa County

2012 Annual Crop Report

Department of Agriculture
2366 A Stanwell Circle
Concord, CA 94520-4807
(925) 646-5250
FAX (925) 646-5250

Branch Office
Knightsen Farm Center
Delta Road @ Second Street
P.O. Box 241
Knightsen, CA 94548
(925) 427-8610
FAX (925) 427-8612

Contra Costa County

Vincent L. Guise
Agricultural Commissioner
Director of Weights and Measures

To: KAREN ROSS, SECRETARY
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
and
THE HONORABLE BOARD OF SUPERVISORS

I am pleased to submit the 2012 Annual Crop and Livestock Report for Contra Costa County in accordance with the provisions of Section 2279 and 2272 of the California Food and Agricultural Code. This report includes information on Organic Farming and Biological Control activities in our county.

The total gross value of agricultural crops and products in 2012 was $90,971,700, down $1,947,900 from 2011. In general, demand and prices have remained strong for agricultural crops in Contra Costa County.

Brentwood and Byron sweet corn is recognized nationwide for having superior quality and flavor. Acreage and prices have remained relatively stable for Contra Costa County's most revered crop. Fresh market green beans continued to show an increase in acreage due to strong demand while providing an ideal companion buffer crop between sweet corn and urban areas. Plant diseases resulted in dramatic losses for fresh market tomatoes, and the cherry crop in the East County growing areas had in lower yields due to poor fruit set. Cattle stocking numbers were lower in 2012 due to drought that lowered native forage in our range land areas.

Organic production has shown an increase in acreage due to increased consumer demand. Farmers markets are expanding in numbers as consumer demand continues to shift toward high quality locally produced fruits, nuts and vegetables. In 2012 Contra Costa County certified farmers markets increased to a total of 36 markets.

Several crop categories exceeded $1 million in value. These categories in decreasing order include cattle and calves, sweet corn, tomatoes, field corn, grapes, rangeland pasture, alfalfa, cherries, walnuts, peaches, beans and irrigated pasture.

It should be emphasized the values stated in this report are gross receipts and do not include the cost of production, transportation, or marketing of the products. The economic benefit of agricultural production is generally thought to be about three times the gross production value.

I wish to thank the many individuals and organizations who supplied us with the information to complete this report. Their cooperation is truly appreciated. I also would like to thank Ralph Fonseca and the rest of my staff for their diligent work in obtaining, compiling, and coordinating their efforts to put together our annual report.

Respectfully submitted,

Vincent L. Guise
Agricultural Commissioner

Contra Costa County
Department of Agriculture/
Weights & Measures

Agricultural Commissioner - Director of Weights & Measures
Vince Guise

Chief Deputy Agricultural Commissioner /Sealer
Joseph Deviney

Deputy Agricultural Commissioner
Gene Mangini
Matt Slattengren
Larry Yost

Deputy Sealer of Weights & Measures
Steve Reymann

Agricultural Biologist/Weights & Measures Inspector III
Chris deNijs
Mariah deNijs
Ralph Fonseca
Abdoulaye Niang
Arthur Mangonon
Ann McClure
Nancy Niemeyer
Gil (Joel) Rocha
Cecilie Siegel
Beth Slate
Jorge Vargas

Agricultural Biologist II
Ivan Godwyn

Agricultural Biologist I
William Schaub

Weights & Measures Inspector II
Gabriel Adebote
Patrick Bowen
Ngozi Egbuna
Keely Kirkman

Administrative Support

Executive Secretary
Roxann Crosby

Senior Clerk
Sheree Nuxall

Information Technology
Susan Wright

Retiree Volunteer
Suzanne Maddux

Pest Detection/GWSS/Pest Management

Danilo Angcla	Erik Baxter	Ann Bloxsom
Christine Buelna	Nancy Dennis	Herb Gilmore
Louellen Kelly	Hardy Leopando	Phyllis Lewis
Rick Mata	Betsy Montgomery	Mortay Mendoza
Christine O'Boyle	Lucas Pattie	Eldren Prieto
Craig Shoener	Lindsay Skidmore	Susie Somers
Greg Spurlock	Tom Wright	Oscar Zaldua

Plant Quarantine Detector Canines

Bella (handler: Cecilie Siegel) Bart (handler: Mariah deNijs)

Cattle ranching has been an important part of Contra Costa County's economy since the days of the first Mexican land grants. By the mid 19th century, much of the county was owned by ranchers such as Francisco Castro, Ignacio Martinez, Felipe Briones, Juana Pacheco, and Joaquin Moraga. Although their rancheros are gone, they are remembered in many local place names.

Ranching is still an important part of our economy today. In 2012, cattle and calves were the number one agricultural commodity in Contra Costa County with a gross value of nearly $16 million. Another valuable product of ranching is managed grazing. Agencies that maintain open space lands use livestock grazing to reduce wildfires, control exotic weed populations, and improve habitat for wildlife, including endangered and threatened species. Ranchers who graze their livestock on public lands often maintain roads, fences, gates, etc. as a part of their lease agreements. This benefits the public and the environment by increasing public access and helping to fund park improvements and conservation projects.

On the Cover: cattle at a barn owned by Jeff and Nancy Weideman in the Tassajara Valley

Field Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Field Corn	2012	8,150	4.21	34,300	Ton	220.00	7,546,000
	2011	8,150	4.18	34,100	Ton	197.00	6,718,000
Hay							
Alfalfa	2012	3,510	5.24	18,400	Ton	205.00	3,772,000
	2011	3,220	5.10	16,400	Ton	214.00	3,510,000
Grain	2012	2,100	2.84	5,960	Ton	144.00	858,000
	2011	2,400	2.44	5,860	Ton	135.00	791,000
Pasture							
Irrigated	2012	5,450			Acre	230.00	1,254,000
	2011	5,450			Acre	195.00	1,063,000
Rangeland	2012	169,000			Acre	23.10	3,904,000
	2011	169,000			Acre	20.90	3,532,000
Wheat	2012	556	2.36	1,310	Ton	208.00	272,000
	2011	1,050	2.90	3,050	Ton	209.00	637,000
Miscellaneous Field Crops*	2012	5,900					2,431,000
	2011	4,060					1,520,000
Total	2012	194,666					$20,037,000
	2011	193,330					$17,771,000

* Barley, Forage Hay, Hay (Wild), Rye, Safflower, Silage, Straw, Sudan Grass

Vegetable & Seed Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Beans	2012	457	3.58	1,640	Ton	1,178.00	1,932,000
Fresh Market	2011	410	4.13	1,690	Ton	1,180.00	1,994,000
Squash	2012	41	3.95	162	Ton	850.00	138,000
	2011	19	3.04	58	Ton	1,200.00	69,600
Sweet Corn	2012	3,420	8.83	30,200	Ton	452.00	13,650,000
	2011	3,580	9.86	35,300	Ton	396.00	13,979,000
Tomatoes							
Total	2012	2,152		106,231	Ton		7,801,000
	2011	1,945		90,473	Ton		6,948,000
Fresh	2012	32	7.23	231	Ton	1,190.00	275,000
	2011	35	13.50	473	Ton	1,370.00	648,000
Processing	2012	2,120	50.00	106,000	Ton	71.00	7,526,000
	2011	1,910	47.10	90,000	Ton	70.00	6,300,000
Miscellaneous Vegetable & Seed Crops*	2012	1,018					6,824,000
	2011	1,360					13,284,000
Total	2012	7,088					$30,345,000
	2011	7,314					$36,274,600

* Asparagus, Artichokes, Beets, Cabbage, Cardoon, Carrots, Cauliflower, Cucumbers, Eggplant, Garlic, Ginseng, Lettuce, Okra, Onions, Greens, Herbs, Peas, Peppers, Potatoes, Pumpkins, Radishes

Fruit & Nut Crops

Crop	Year	Production				Value	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Apricots	2012	91	4.56	415	Ton	2,990.00	1,241,000
	2011	97	2.64	256	Ton	1,930.00	494,000
Cherries	2012	561	1.84	1,030	Ton	3,370.00	3,471,000
	2011	413	3.08	1,270	Ton	4,570.00	5,804,000
Grapes	2012	1,800	5.36	9,650	Ton	782.00	7,546,000
	2011	1,950	4.35	8,480	Ton	704.00	5,970,000
Nectarines	2012	36	4.46	161	Ton	3,930.00	633,000
	2011	35	2.88	101	Ton	3,650.00	369,000
Olives	2012	183	2.12	388	Ton	1,060.00	411,000
	2011	206	1.07	220	Ton	1,190.00	262,000
Peaches	2012	146	4.78	698	Ton	3,020.00	2,108,000
	2011	140	2.84	398	Ton	1,860.00	740,000
Plums and Pluots	2012	35	5.88	206	Ton	3,160.00	651,000
	2011	34	3.36	114	Ton	2,510.00	286,000
Walnuts	2012	390	2.54	991	Ton	2,180.00	2,160,000
	2011	402	1.99	800	Ton	2,030.00	1,624,000
Miscellaneous Fruit & Nut Crops*	2012	161					1,386,000
	2011	195					2,101,000
Total	2012	3,403					$19,607,000
	2011	3,472					$17,650,000

* Almonds, Apples, Apriums, Asian Pears, Berries, Citrus, Figs, Melons, Pears, Pecans, Persimmons, Pistachios, Prunes, Pomegranates, Quinces, Strawberries

Nursery Products

Crop	Year	Production Area		Value
		House Sq. Ft.	Field Acres	Total
Bedding Plants	2012	45,500	1.40	504,000
	2011	35,000	0.50	492,000
Herbaceous Perennials	2012	50,000	3.40	921,000
	2011	40,000	2.00	719,000
Indoor Decoratives	2012	69,800	0.10	51,700
	2011	84,800	0.25	95,000
Vegetable Plants	2012	27,300	0.80	410,000
	2011	27,000	0.80	406,000
Miscellaneous Nursery Crops *	2012	11,600	21.60	542,000
	2011	3,700	32.20	781,000
Total	2012	204,200	27.30	$2,428,700
	2011	190,500	35.75	$2,493,000

* Christmas Trees, Cactus, Ground Covers, Propagative Materials, Ornamental Trees & Shrubs, Fruit Trees, Cut Flowers.

Livestock and Livestock Products

Item	Year	Production			Value	
		No. of Head	Total Liveweight	Unit	Per Unit	Total
Cattle & Calves	2012	19,100	129,000	Cwt	124.00	15,967,000
	2011	26,000	147,000	Cwt	111.00	16,317,000
Apiary Products*	2012					687,000
	2011					514,000
Miscellaneous Livestock and Livestock Products**	2012					1,900,000
	2011					1,900,000
Total	2012					$18,554,000
	2011					$18,731,000

* Honey, Wax, Pollination,

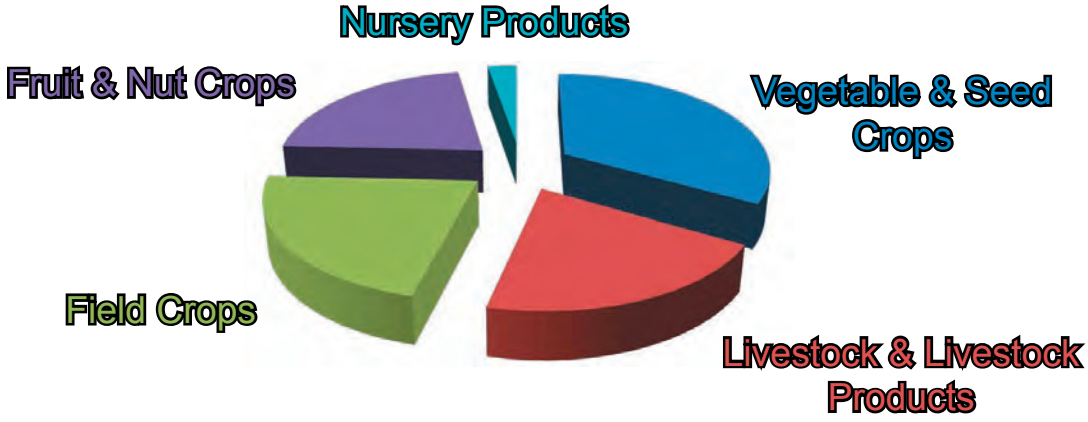
**Chickens, Ducks, Emus, Goats, Hogs, Llamas, Ostriches, Pigs, Rabbits, Sheep, Turkeys, Milk, Wool, Eggs

Recapitulation

Category	Gross Value/Million Dollars 2012	2011	Ranking 2012	2011
Vegetable & Seed Crops	30.3	36.3	1	1
Field Crops	20.0	17.8	2	3
Fruit & Nut Crops	19.6	17.7	3	4
Livestock & Livestock Products	18.6	18.7	4	2
Nursery Products	2.4	2.5	5	5

Category	Gross Value 2012	2011	Change
Vegetable & Seed Crops	30,345,000	36,274,600	-5,929,600
Livestock & Livestock Products	18,554,000	18,731,000	-177,000
Field Crops	20,037,000	17,771,000	2,266,000
Fruit & Nut Crops	19,607,000	17,650,000	1,957,000
Nursery Crops	2,248,700	2,493,000	-64,300
Total	$90,971,700	$92,919,600	

Total Acres in County	482,000
Population in County July 2012	1,069,803
Land in Farms - Acres (2007 Census)	146,993
Harvested Cropland - Acres (2007 Census)	23,876



Million Dollar Crops

Category	Gross Value/Million Dollars 2012	2011	Ranking 2012	2011
Cattle & Calves	16.0	16.3	1	1
Sweet Corn	13.7	14.0	2	2
Tomatoes, All	7.8	6.9	3	3
Field Corn	7.5	6.7	4	4
Grapes	7.5	6.0	5	5
Rangeland Pasture	3.9	3.5	6	7
Hay - Alfalfa	3.8	3.5	7	8
Cherries	3.5	5.8	8	6
Walnuts	2.2	1.6	9	10
Peaches	2.1	0.7	10	
Beans	1.9	2.0	11	9
Irrigated Pasture	1.3	1.1	12	11

Top 15 Crops 50 Years Ago

Crop	Value in 1962	1962 Value Adjusted For Inflation	2012 Value
Cattle	5,390,000	40,532,800	15,967,000
Lettuce	4,394,000	33,042,880	*Misc.
Walnuts	2,951,000	22,191,520	2,160,000
Apricots	2,820,900	21,213,168	1,241,000
Asparagus	2,008,000	15,100,160	*Misc.
Almonds	2,000,000	15,040,000	*Misc.
Milk	1,662,200	12,347,840	*Misc.
Cut Flowers	1,327,000	9,979,040	*Misc.
Tomatoes	1,242,000	9,339,840	7,801,000
Rangeland Pasture	975,000	7,332,000	1,254,000
Barley	898,000	6,752,960	*Misc.
Field Corn	489,000	3,677,280	7,546,000
Pears	469,800	3,532,896	*Misc.
Alfalfa	341,000	2,564,320	3,772,000
Irrigated Pasture	297,000	2,233,440	1,254,000

* Combined in a Miscellaneous category due to small production or few producers.

Plum Cucurlio

Red Imported Fire Ant

Japanese Beetle

Pest Exclusion

Every day, shipments of plant material and live animals are brought into California by way of package delivery services such as UPS, Fed-Ex, and others. These shipments can contain nursery stock, fruit, vegetables, cut flowers, seeds, bulbs, firewood, hay, soil, etc. They also can contain exotic plant pests, diseases and weeds that threaten California's agriculture and natural environment. The Contra Costa County Department of Agriculture sends biologists daily to local UPS, Fed-Ex, and others that receive these types of shipments from other states and counties.

Shipments Inspected	
Mail/UPS/Fed Ex/Express Carriers	54,888
Truck shipments from within California	1,622
Truck shipments from other states	221
Household Goods	39

Quarantine Rejections	***Total***	***Canine Program****
Live Pests	17	2
Japanese Beetle	13	
Burrowing Nematode	12	
Citrus Pests	9	3
Colorado Potato Beetle	9	
Plum Curculio	7	
Cedar-Apple Rust	5	
Ozonium Root Rot	3	
Reasonable Cause	3	
Live Animals	2	1
European Corn Borer	1	
Glassywinged Sharpshooter	1	
Gypsy Moth	1	
Nursery Stock Certificate	1	
Origin/Markings	137	11
Total	***221***	***17***

***** Contra Costa County has two canine detection teams that work in the Bay Area. The canine program values represent finds not marked as containing plant material in the Contra Costa County portion of the program only.

A & Q Pest Interceptions

White-footed Ant

Magnolia White Scale

Cycad Wax Scale

Banana Mealybug

"A" and "Q" Rated Pests

While inspecting plant material shipments, Contra Costa County biologists may find live plant pests that are especially dangerous to California's agriculture and environment. Pests vary as to the level of potential harm they can do, so it is necessary to have a rating system to represent the statewide importance of the pest. Of special interest are pests that are rated "A" or "Q". These organisms have the potential to cause serious harm and require enforcement action when they are found. "A" rated pests, such as the Mediterranean Fruit Fly, are known to cause serious harm. "Q" rated pests are those that are suspected to cause serious harm but their status is uncertain because of incomplete information about the species.

	Rating	***Rejections***
ANTS		
Technomyrmex albipes / White-footed Ant	Q	1
Pheidole megacephala / Bigheaded Ant	Q	1
Pheidole sp. / Ant	Q	3
SCALES		
Coccus viridis / Green Scale	A	1
Pinnaspis strachani / Lesser Snow Scale	A	1
Pseudaulacaspis cockerelli / Magnolia White Scale	A	1
Aulacaspis yasumatsui / Cycad Wax Scale	Q	1
Ceroplastes sp. / Wax Scale	Q	1
Milviscutulus sp. / Scale	Q	1
OTHER INSECTS, MITES, & MOLLUSCS		
Pseudococcus jackbeardsleyi / Jack Beardsley Mealybug	A	1
Delottococcus confusus / Bougainvillea Caterpillar	Q	2
Pseudococcus elisae / Banana Mealybug	Q	2

Pest Detection

Medfly

Mexican Fruit Fly

Oriental Fruit Fly

Infestations of exotic pests are a serious concern to both California and to the Federal Government. Exotic plant pests that became established in California could spread into other states and threaten their agriculture industries and environment. California and the rest of the nation could face enormous losses in export markets as a result of quarantines established by our international trading partners. These quarantines can restrict or eliminate the ability of local growers to market and ship their agricultural commodities.

It is important to detect exotic plant pest infestations as soon as possible. The longer a pest population exists, the greater the chance it will spread and become permanently established. Small populations can also be controlled and eradicated more successfully than large ones. Contra Costa County Pest Detection trappers monitor insect traps throughout the county to find these pests before they grow into infestations that can cost California hundreds of millions of dollars to eradicate.

Pest	Trap Type	# Traps	# Servicings
Mediterranean Fruit Fly	Jackson	867	11,080
Various	McPhail	822	22,447
Oriental Fruit Fly	Jackson	866	11,017
Melon Fly	Jackson	875	8,661
Glassywinged Sharpshooter	Yellow Panel	829	7,669
Light Brown Apple Moth	Jackson	44	91
Gypsy Moth	Delta	538	1,122
Japanese Beetle	Funnel	312	554
Pine Shoot Moth	Wing	11	16
Nantucket Pine Tip Moth	Wing	3	24
Various	Champ	42	112
Apple Maggot	Yellow Panel	2	21
Asian Citrus Psyllid	Yellow Panel	85	4,614
Vine Mealybug	Delta	54	54
European Grapevine Moth	Delta	206	545
Oriental Fruit Moth	Wing	15	651
Khapra Beetle	Trogo	14	6

Pest Eradication/ Management

Exotic weeds can hurt agriculture and the environment by choking out both crops and native plants, degrading natural habitat, and increasing the risk of wildfires. Infestations that became established here could spread to other counties and beyond. Contra Costa County staff use integrated pest management methods including surveying, monitoring, release of biological control agents, and directed chemical applications to eradicate or control certain invasive exotic weed pests on public and private lands. The overall goal of the Department is to eradicate the weed species in the list below with the exception of the species marked with *. For these four species, the Department's goal is to contain existing populations and prevent their spread into new areas.

Pest	#Sites Surveyed	#Sites Eradicated	Method	Acres Surveyed	Acres Treated
Artichoke Thistle	501	96	Chemical	185,524	104.87
Purple Starthistle	218	45	Chemical	27,089	61.15
Oblong Spurge*	12	1	Chemical	167	1.03
Hoary Cress	6	2	Chemical	193	6.59
Barb Goatgrass*	4	1	Chemical	100	10.00
Perennial Pepperweed*	26	1	Chemical	1,601	12.50
Kangaroo Thorn	1	0	Mechanical	3	0.01
Pampas Grass*	6	1	Chemical	93	0.17
White Horsenettle	16	0	Chemical	173	0.43
Russian Knapweed	7	4	Chemical	620	36.08
Purple Loosestrife	3	1	Chemical	1,125	0.33
Japanese Knotweed	2	0	Chemical	7	0.08
Smooth Distaff Thistle	1	0	Mechanical	55	0.03
Wooly Distaff Thistle	1	0	Mechanical	1	2 plants
Red Sesbania	14	5	Mechanical	41	4,293 plants
Japanese Dodder	49	46	Mechanical	17	0.071

Biological Control

Pest	Agent/Mechanism	Scope of Program
Yellow Starthistle (Centaurea solstitialis)	Hairy Weevil (Eustenopus villosus)	Ongoing
	YST Flower Weevil (Larinus curtus)	Ongoing
	Rust Pathogen (Puccinia jaceae var. solstitialis)	Ongoing
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Encytrid Parasitoid Wasp (Psyllaephagus bliteus)	Ongoing

Certified Farmers' Markets

Certified Farmers' Markets allow growers to sell their agricultural products directly to consumers. This gives growers an alternative to large volume distribution marketing by allowing the sale of smaller amounts of produce as well as varieties that are too tender for large commercial production. Certified Farmers' Markets also give consumers a chance to meet the growers and gain a better understanding of the challenges growers face in producing the food we eat.

Tuesday	Concord County Hospital Martinez El Cerrito Walnut Creek Kaiser
Wednesday	Vet. Hospital Martinez Pleasant Hill BART Point Richmond Richmond San Ramon Walnut Creek BART
Thursday	Kaiser Antioch Concord Martinez Kaiser Martinez San Ramon
Friday	Rossmoor Walnut Creek
Saturday	Brentwood Clayton Danville Diablo Valley El Cerrito Hercules Orinda Pinole Pittsburg Pleasant Hill San Ramon Sun Valley Mall
Sunday	Antioch Concord High School Discovery Bay Kensington Lafayette BART Martinez Moraga Walnut Creek

For more information about the Certified Farmers' Markets in Contra Costa County, visit our website at www.co.contra-costa.ca.us and click on Departments, then Agriculture/Weights & Measures.

Organic Farming

Since 1990, organic production in the United States has more than doubled. Over two-thirds of U.S. consumers buy organic foods at least occasionally. As a result, organic food sales have gone from $3.6 billion in 1997 to $18.9 billion in 2007. Organic products are no longer available only in specialty markets, but have spread to mainstream supermarket chains nationwide. This makes organic farming increasingly attractive to California growers. California is one of the few states in the nation with a state-run organic program. The County Departments of Agriculture do much of the enforcement of the laws that apply to fresh agricultural products marketed as organic.

	Apricots	Cherries	Nectarines	Peaches	Pears	Pistachios	Plums	Fruit, other	Herbs	Peas/Beans	Sweet Corn	Tomatoes	Vegetables, leafy	Vegetables, root	Vegetables, other	Nursery products	Livestock products
No. of Farms	4	4	3	3	2	1	3	9	4	5	3	5	5	5	8	4	2
Estimated Acres	27.5	29	17.2	40.2	18	36.8	12.6	17.7	2.3	228.2	35	9.1	9	3.1	11.7	0.6	

Total Acres Organically Farmed 501.0 **Number of Organic Farms** **16**

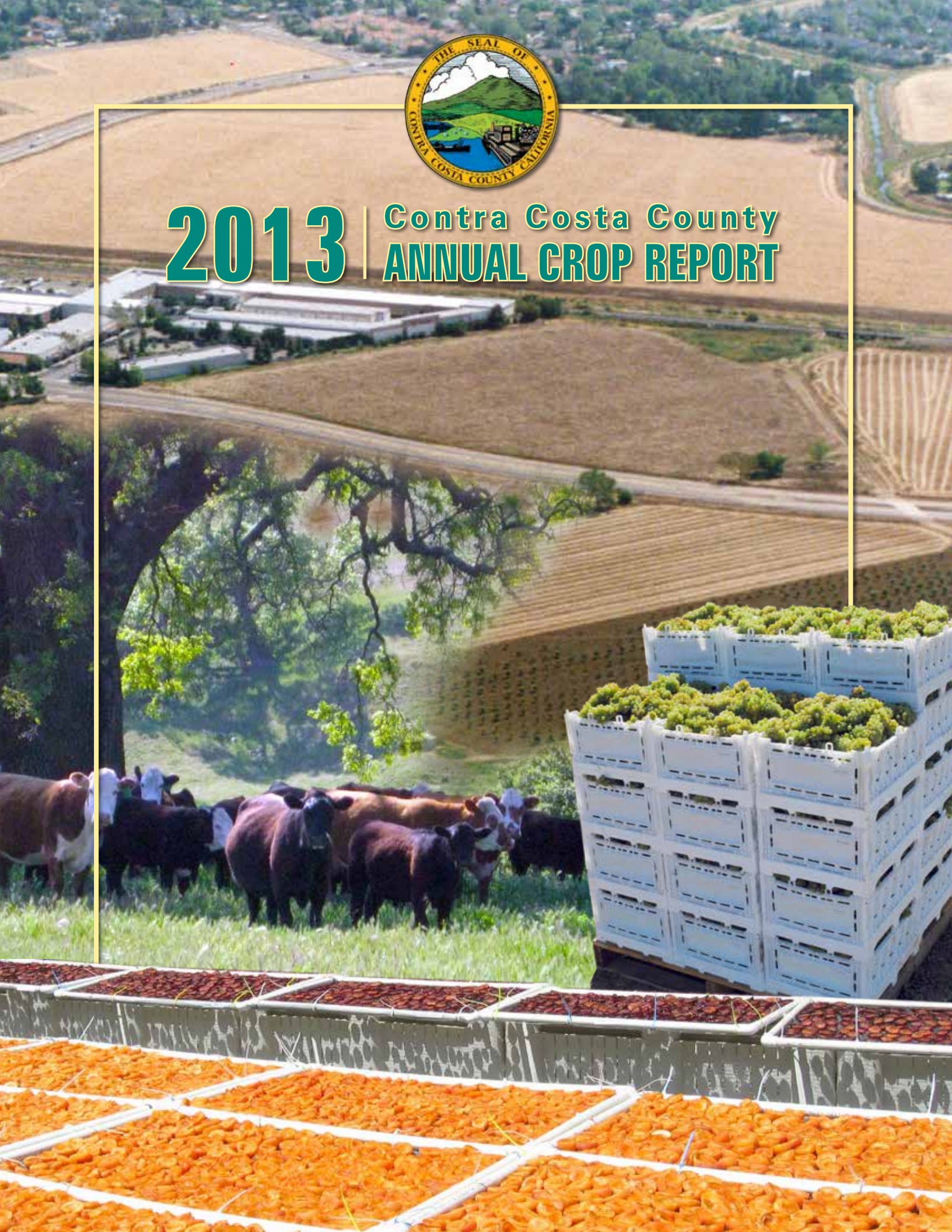
Weights & Measures

The Contra Costa County Division of Weights & Measures protects buyers and sellers by promoting fair packaging and by checking commercial weighing, measuring, and timing devices for accuracy. Accurate devices help ensure that the sale of harvested crops, livestock, animal feed, vehicle fuel, and other business commodities are based on an honest measurement. Inspectors test a wide variety of devices. There are scales ranging from those used for gemstones and gold all the way up to scales that can weigh a fully loaded railroad car. There are many different types of meters used to measure liquids, gases, electricity, time, distance, lengths, etc. Devices and businesses are inspected in time intervals that can vary from one to several years, depending on the program.

	Registered	*Inspected*
Measuring Devices		
Vehicle Fuel Station Meters	7,601	4,175
Electric Submeters	7,112	595
Water Meters and Submeters	5,958	222
Vapor/LPG Meters and Submeters	4,450	335
Taxi Meters	283	450
Other Measuring Devices	229	165
Weighing Devices		
Light Capacity Retail Scales	2,201	1,680
Heavy Capacity Retail Scales	238	212
Vehicle/Railway Scales	110	113
Prescription/Jewelers Scales	75	47
Livestock/Animal Scales	23	22
Other Weighing Devices	42	7
Petroleum Gas Stations	286	253

Weights & Measures inspectors register and inspect price look-up scanner systems on a regular basis. These devices electronically retrieve the price of commodities when a code is scanned. The most common type are store scanners that read the bar code printed on the product label. While inspecting a store that uses scanners, inspectors check that the scanner system is giving the customer the lowest price that is quoted, advertised, or displayed for that item. In 2012, Contra Costa County inspectors registered 1,208 scanner locations and inspected 279.

Service agents must report to the County when they install new or repaired weighing and measuring devices. County inspectors then have the option to check the device and verify that the service agent's work is correct. Weighmasters weigh, measure, or count products for hire and issue a certificate as to the quantity. Businesses that use weighmasters include public scales, recyclers, lumber yards, moving companies, construction material suppliers, etc. Inspectors audit weighmasters to ensure they follow proper procedures when keeping records and issuing certificates. In 2012, Contra Costa County inspectors verified 803 devices installed/repaired by service agents and inspected 13 weighmaster locations.



2013 Contra Costa County ANNUAL CROP REPORT

Table of Contents

Title ..... Page No.

Agricultural Commissioner and Sealer's Letter 1

Changing of the Guard 2

Department of Agricuture
Receives IPM Innovator Award 2

Production Summary 3

Vegetable and Seed Crops 4

Livestock and Livestock Products 5

Field Crops 5

Fruit and Nut Crops 6

Nursery Production 7

IPM Strategies Used to
Protect Agriculture and Trade 7

Million Dollar Crops 8

Agricultural Trends Over the Last Decade 8

The Changing Face of Agriculture 9

Certified Farmers' Markets 10

Organic Farming 10

Pest Exclusion 11

Pest Detection 11

Pest Management 12

Biological Control 12

Weights and Measures 13

Top 15 Crops 50 Years Ago 14

University of California Cooperative Extension 15

Mission Statement

The Contra Costa County Department of Agriculture, under the direction of the California Department of Food and Agriculture, Department of Pesticide Regulations and Division of Measurement Standards, is responsible for conducting regulatory and service activities pertaining to the agricultural industry and the consumers of our county. The primary goal of this office is to promote and protect agriculture while safeguarding the public and the environment. We work hard to ensure a safe place to live and a fair marketplace for trade.

Agricultural Commissioner
Chad Godoy (current)
Vince Guise (acting in 2013)

Assitant Agricultural Commissioner
Matt Slattengren

Deputy Agricultural Commisioners and Sealers
Gene Mangini
Steve Reymann
Larry Yost

Agricultural Biologists
Karen Adler, Chris deNijs, Mariah deNijs, Ralph Fonseca, Ivan Godwyn, Ann McClure, Mortay Mendoza, Abdoulaye Niang, Nancy Niemeyer, Lucas Pattie, Wil Schaub, Cecilie Siegel, Beth Slate, Jorge Vargas

Weights and Measures Sealers
Gabriel Adebote, Patrick Bowen, Ngozi Egbuna, Harmeet Gill, Arthur Mangonon, Chris Michaels, Gil Rocha

Administrative Support
Roxann Crosby
Sheree Nuxoll

Information Technology Support
Susan Wright

Retiree Volunteer
Suzanne Maddux

Glassy-winged Sharpshooter Inspectors
Betsy Montgomery
Susie Somers

Pest Detection and Pest Management Staff
Danilo Angcla, Eric Baxter, Lindsay Bloxsom, Christine Buelna, Nancy Dennis, Aaron Francis, Herb Gilmore, Louellen Kelly, Hardy Leopando, Phyllis Lewis, Rick Mata, Christine O'Boyle, Eldren Prieto, Craig Shoener, Lindsay Skidmore, Amanda Snider, Greg Spurlock, Tom Wright, Oscur Zaldua

Pest Quarantine Detector Canines
Bella, handled by Cecilie Siegel
Bart, handled by Mariah deNijs

Agricultural Commissioner and Sealer's Letter

Department of Agriculture
2366 A Stanwell Circle
Concord, CA 94520-4807
(925) 646-5250
FAX (925) 646-5732

Branch Office
Knightsen Farm Center
Delta Road @ Second Street
P.O. Box 241
Knightsen, CA 94548
(925) 427-8610
FAX (925) 427-8612

Contra Costa County

Chad Godoy
Agricultural Commissioner
Director of Weights and Measures

I am pleased to submit the 2013 Annual Crop and Livestock Report for Contra Costa County in accordance with the provisions of Section 2279 and 2272 of the California Food and Agricultural Code. This report also includes information on organic farming and biological control activities in our county.

The total gross value of agricultural crops and products in 2013 was $96,811,700, which is an increase of 6.4% or $5,840,000 from 2012. In general, demand and prices have remained strong for agricultural crops in Contra Costa County.

Crop yields and production values vary from year to year due to many factors such as production, weather and market conditions. Some notable changes in values include: vegetable and seed crops increased 17%; cattle and calves increased 16% and nursery products increased 72%. Fresh market green beans continued to show an increase in acreage due to strong demand while providing an ideal companion buffer crop between sweet corn and urban areas. Fresh market tomatoes saw a significant increase in value of 53%. The cherry crop value declined 12% due to lower production acreage and yield.

It should be emphasized that the values stated in this report are gross receipts and do not include the cost of production, transportation, or marketing of the products. The economic benefit of agricultural production is generally thought to be about three times the gross production value.

We wish to thank the individuals, industry and organizations who supplied us with vital information to complete this report. Their cooperation is truly appreciated. I also would like to thank Karen Adler, Ralph Fonseca, Contra Costa County Cooperative Extension, and all of my staff for their diligent work in obtaining, compiling, and coordinating their efforts to put together our annual report.

Respectfully submitted,

Chad Godoy

Changing of the Guard

Vince has been dedicated to the county's noxious weed management program through-out his career. As Commissioner, he strove to continually incorporate IPM practices into the program.

After a 40-year career promoting and protecting the agricultural industry in Contra Costa County, Vince Guise is retiring as the Agricultural Commissioner and Director of Weights & Measures. The County Board of Supervisors has chosen his successor, Chad Godoy, who took the reigns in 2014.

Vince was first hired by the Contra Costa County Department of Agriculture in 1973. He has served eleven years as a Deputy Agricultural Commissioner, eight years as the Chief Deputy, and six years as the Agricultural Commissioner and Director of Weights & Measures.

During his career as Commissioner, Vince has seen many changes in both agriculture and government. He has had to deal with invasive pest infestations, natural disasters, budget cuts, advances in technology, and many changes in the laws the Department must enforce.

Department of Agriculture Receives IPM Innovator Award

In 2013, the California Department of Pesticide Regulation (CDPR) awarded the Contra Costa County Department of Agriculture an Integrated Pest Management (IPM) Innovator Award. The Award, which honors California organizations that use 'greener' pest control methods, is CDPR's highest environmental honor.

CDPR's press release announcing the 2013 IPM Innovator Awards said of Contra Costa, "The Department has been at the forefront of implementing IPM practices for many years and takes an assertive and proactive role in the exclusion and detection of exotic and invasive species in urban and rural environments. It has demonstrated unique and outstanding leadership in the promotion of IPM and the development of various local government programs to protect human health and the environment."

The Contra Costa Agriculture Department received the award for IPM policies and outreach to growers and the public. The Department's work was recognized in four key areas: county government IPM, pesticide use training, plant quarantine and pest management.

Highlights of the department include:

- Developing and implementing an IPM policy for all Contra Costa County Departments that included a pilot structural IPM program for 13 county buildings and resulted in phasing out 26 of the 34 most hazardous pesticides used in the county and reducing the remaining 8 by 83%
- Providing pesticide use training for farm workers, pesticide handlers, and the public, which included training over 3,200 workers during annual Spanish language pesticide safety training classes and providing special classes to help growers and other users pass required exams when diphacinone rodenticide became a federally restricted material
- Being one of the first two California counties to use plant quarantine detector dog teams at parcel delivery facilities, sharing resources with other Bay Area counties until they could get and train their own teams and being the first county in the state to use plant quarantine detector dog teams at U.S. Postal Centers
- Managing invasive noxious weeds through monitoring, herbicide treatments, physical removal, and biological control for over 34 years in order to prevent the spread of noxious weeds that degrade open space, riparian areas, crop and grazing land, and wildlife habitat

From right to left: Brian Leahy (Director of the Department of Pesticide Regulation), Vince Guise, Bob Case (former Deputy) and Abdoulaye Niang (current agricultural biologist).

Production Summary

In 2013, vegetable and seed crops continued their prominence in the county. Livestock and livestock product values remained strong in Contra Costa. Field, fruit and nut crops declined in value, while nursery product values showed a significant increase.

	Gross Value		Change in Gross Value	Total Cultivated Acreage		Change in Cultivated Acreage	Ranking	
Category	2013	2012		2013	2012		2013	2012
Vegetable & Seed Crops	$35,616,000	$30,345,000	+17%	6,422	7,088	-9%	1	1
Livestock & Livestock Products	$21,509,000	$18,554,000	+16%	-	-	-	2	4
Field Crops	$18,526,000	$20,037,000	-8%	194,390	194,666	-	3	2
Fruit & Nut Crops	$16,967,000	$19,607,000	-13%	3,217	3,403	-5%	4	3
Nursery Products	$4,194,000	$2,429,000	+72%	30.8	27.3	+13%	5	5
Total	**$96,812,000**	**$90,972,000**	**+6%**	**204,060**	**205,184**	**-1%**		

2013 Gross Production Values by Percentage

Vegetable and Seed Crops

Contra Costa County's high quality sweet corn remains in strong demand nationwide. Unfortunately, supplies have been limited due to the lack of available cropland, resulting in the double cropping of sweet corn to meet new market opportunities. Prices for fresh market green beans increased due to strong demand for fresh local products. Processing tomatoes continue to provide strong yields and prices throughout the 2013 season.

Crop	Year	Harvested Acreage	Production Per Acre	Total Harvested	Value Per Ton	Total Dollar Value[1]
Beans, Fresh Market	2013	399	4.85	1,940	$1,732	$3,360,000
	2012	457	3.58	1,640	$1,178	$1,932,000
Squash	2013	36	5.76	207	$725	$150,000
	2012	41	3.95	162	$850	$138,000
Sweet Corn	2013	3,265	10.03	32,700	$428	$13,981,000
	2012	3,420	8.83	30,200	$452	$13,650,000
Tomatoes, Total	2013	2,400	-	119,470	-	$11,888,000
	2012	2,152	-	106,231	-	$7,801,000
Tomatoes, Fresh	2013	242	22.66	5,470	$671	$3,669,000
	2012	32	7.23	231	$1,190	$275,000
Tomatoes, Processing	2013	2,159	52.86	114,000	$72	$8,219,000
	2012	2,120	50.00	106,000	$71	$7,526,000
Miscellaneous[2]	2013	322	-	-	-	$6,237,000
	2012	1,018	-	-	-	$6,824,000
TOTAL	**2013**	**6,422**	**-**	**-**	**-**	**$35,616,000**
	2012	**7,088**	**-**	**-**	**-**	**$30,345,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes asparagus, artichokes, beets, cabbage, cardoon, carrots, cauliflower, cucumbers, eggplant, garlic, ginseng, lettuce, okra, onions, geens, herbs, peas, peppers, potatoes, pumpkins, and radishes

Livestock and Livestock Products

Cattle prices have remained strong throughout 2013 due to strong demand for beef products.

Commodity	Year	Number of Head	Total Liveweight	Value Per CWT	Total Dollar Value[1]
Cattle & Calves	2013	19,106	157,382	$119	$18,728,000
	2012	19,100	129,000	$124	$15,967,000
Apiary Products[2]	2013	-	-	-	$881,000
	2012	-	-	-	$687,000
Miscellaneous Livestock[3]	2013	-	-	-	$1,900,000
	2012	-	-	-	$1,900,000
Total	**2013**	**-**	**-**	**-**	**$21,509,000**
	2012	**-**	**-**	**-**	**$18,554,000**

Field Crops

Irrigated field crop acreage, yield and prices remained relatively stable in 2013. Non-irrigated field crops experienced decreased yields due to lack of adequate rainfall during the growing season.

Crop	Year	Harvested Acreage	Production Per Acre	Total Harvested	Unit	Value Per Unit	Total Dollar Value[1]
Field corn	2013	7,928	3.90	30,900	Ton	$193	$5,979,000
	2012	8,150	4.21	34,300	Ton	$220	$7,546,000
Alfalfa hay	2013	3,351	4.99	16,700	Ton	$207	$3,457,000
	2012	3,510	5.24	18,400	Ton	$205	$3,772,000
Cereal hay	2013	1,920	2.68	5,150	Ton	$149	$769,000
	2012	2,100	2.84	5,960	Ton	$144	$858,000
Wheat	2013	4,097	1.44	5,900	Ton	$221	$1,304,000
	2012	556	2.36	1,310	Ton	$208	$272,000
Irrigated pasture	2013	5,450	-	-	Acre	$300	$1,635,000
	2012	5,450	-	-	Acre	$230	$1,254,000
Rangeland pasture	2013	169,000	-	-	Acre	$25	$4,225,000
	2012	169,000	-	-	Acre	$23	$3,904,000
Miscellaneous[4]	2013	2,644	-	-	-	-	$1,157,000
	2012	5,900	-	-	-	-	$2,431,000
Total	**2013**	**194,390**	**-**	**-**	**-**	**-**	**$18,526,000**
	2012	**194,666**	**-**	**-**	**-**	**-**	**$20,037,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes honey, wax, and pollination
3 Includes chickens, ducks, emus, goats, hogs, llamas, ostriches, pigs, rabbits, sheep, turkeys, milk, wool, and eggs
4 Includes barley, forage hay, hay (wild), rye, safflower, silage, straw, and sudan grass

Fruit and Nut Crops

Fruit and nut production declined in 2013 due to abnormal weather events throughout the winter and growing season. Lack of winter chill requirements for stone fruit resulted in erratic bloom and fruit set.

Crop	Year	Harvested Acreage	Production Per Acre	Total Harvested	Value Per Ton	Total Dollar Value[1]
Apricots	2013	89	3.70	328	$2,764	$907,000
	2012	91	4.56	415	$2,990	$1,241,000
Cherries	2013	506	1.68	850	$3,613	$3,071,000
	2012	561	1.84	1,030	$3,370	$3,471,000
Grapes	2013	1,734	4.59	7,960	$879	$6,993,000
	2012	1,800	5.36	9,650	$782	$7,546,000
Nectarines	2013	33	4.22	137	$3,326	$456,000
	2012	36	4.46	161	$3,930	$633,000
Olives	2013	179	2.29	410	$782	$321,000
	2012	183	2.12	388	$1,060	$411,000
Peaches	2013	136	4.20	571	$2,823	$1,612,000
	2012	146	4.78	698	$3,020	$2,108,000
Plums & Pluots	2013	32	4.62	146	$3,264	$477,000
	2012	35	5.88	206	$3,160	$651,000
Walnuts	2013	393	2.28	896	$2,697	$2,417,000
	2012	390	2.54	991	$2,180	$2,160,000
Miscellaneous[2]	2013	117	-	-	-	$713,000
	2012	161	-	-	-	$1,386,000
TOTAL	**2013**	**3,217**	**-**	**-**	**-**	**$16,967,000**
	2012	**3,403**	**-**	**-**	**-**	**$19,607,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes almonds, apples, apriums, asian pears, berries, citrus, figs, melons, pears, pecans, persimmons, pistachios, prunes, pomegranates, quinces and strawberries

Nursery Production

Nursery production values rose in 2013, demonstrating both a strong demand by consumers and an ability of the nurseries within the county to tailor their production to the market. The diverse group of nurseries that produce rare and native ornamentals, as well as typical fruits, vegetables and flowers, supply Bay Area residents as well as consumers within other areas of California and beyond.

	Year	Greenhouse Production in Square Feet	Acres in Field Production	Total Dollar Value[1]
Bedding Plants	2013	-	3.9	$1,275,000
	2012	45,500	1.4	$504,000
Herbaceous Perennials	2013	71,000	4.0	$1,970,000
	2012	50,000	3.4	$921,000
Indoor Decoratives	2013	36,000	0.1	$23,700
	2012	69,800	0.1	$51,700
Vegetable Plants	2013	15,000	0.8	$239,000
	2012	27,300	0.8	$410,000
Miscellaneous[2]	2013	11,600	22.0	$686,000
	2012	11,600	21.6	$542,000
TOTAL	**2013**	**133,600**	**30.8**	**$4,193,700**
	2012	**204,200**	**27.3**	**$2,428,700**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes Christmas trees, cactus, ground covers, propagative materials, ornamental trees & shrubs, fruit trees and cut flowers

IPM Strategies Used to Protect Agriculture and Trade

A pheromone twist tie placed in a nursery to disrupt the male Light Brown Apple Moth's ability to locate and mate with females.

What exactly do we mean when we talk about integrated pest management (IPM) in an agricultural setting? IPM is a pest management strategy that focuses on long-term prevention or suppression of pest problems through a suite of tools that are chosen individually or in tandem to minimize risks to people, property, and the environment.

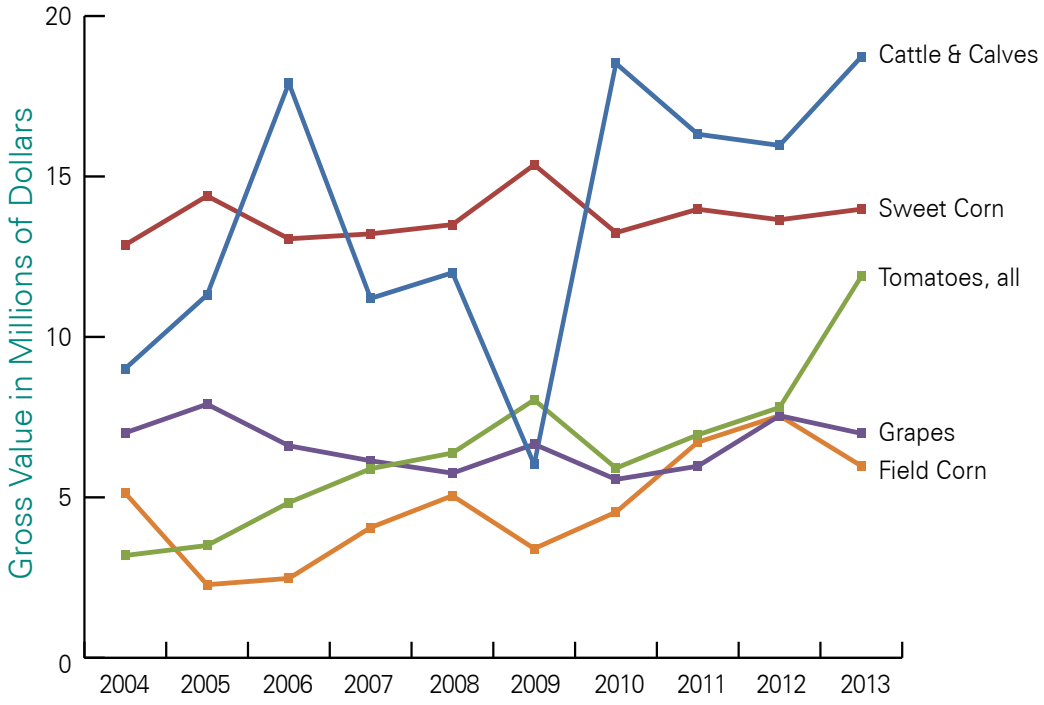
The Department of Agriculture conducts surveys in nurseries and fields to monitor for the presence of unwanted pests. In order to ship many commodities outside of the county, state, or country, quarantines may require that the department certify the commodity as free from a particular weed, insect or disease pest. Since a positive find could trigger trade restrictions, biological tools such as pheromone disruption and release of predatory species provide an alternative to costly chemical treatment.

Million Dollar Crops

	Gross Value in millions of dollars		Rank	
Category	2013	2012	2013	2012
Cattle & Calves	18.7	16.0	1	1
Sweet Corn	14.0	13.7	2	2
Tomatoes, all	11.9	7.8	3	3
Grapes	7.0	7.5	4	5
Miscellaneous Vegetables	6.2	6.8	5	6
Field Corn	6.0	7.5	6	4
Rangeland Pasture	4.2	3.9	7	7
Hay - Alfalfa	3.5	3.8	8	8
Beans	3.4	1.9	9	13
Cherries	3.1	3.5	10	9
Walnuts	2.4	2.2	11	11
Peaches	1.6	2.1	12	12
Irrigated Pasture	1.6	1.3	13	14
Wheat Grain	1.3		14	
Miscellaneous Field Crops	1.2	2.4	15	10

Agricultural Trends Over the Last Decade

There has been a great deal of fluctuation in crop and livestock values over the past decade. Overall, certain commodities like sweet corn and wine grapes have remained fairly constant. Field corn and tomato values have increased over time due to strong domestic and export demand. The cattle and calf market continues on a cyclic trend due to market suppy and demand, as well as drought conditions and other environmental factors.



Total Acres in County: 482,000
County Population: 1,087,008
Land in Farms: 127,670
Harvested Cropland Acres: 33,420

Table based on 2012 census data

The Changing Face of Agriculture

By Gene Mangini

Contra Costa growers and ranchers are constantly faced with new challenges as they attempt to produce crops in an ever-changing environment. Farmers and ranchers have always been at the mercy of mother nature; however, in recent years a wide variety of issues, regulations and environmental concerns have emerged that alter the way farmers do business.

Within the last twenty years the population in the Brentwood, Byron and Oakley areas has exploded. Commercial buildings, residential developments and public schools have been built near or adjacent to agricultural land, creating a whole new set of challenges for local growers and ranchers. This agricultural/urban interface is one of the main priorities that our department currently faces. Complaints from local residents regarding pesticides, noise, dust, and fieldworker issues have become common for the agricultural community. Finding a way to coexist with urban development while ensuring the viability of agriculture has become a significant challenge to the department.

Providing buffer zones between crops and sensitive sites has always been a common method to prevent pesticide drift issues between growers and local residents. Unfortunately, these buffer areas may take sizable amounts of land out of production, which is currently accomplished at the property operator's expense. In recent times, many local growers have utilized crops that require minimal pest management and can be managed by ground applications near sensitive areas. This, in addition to field monitoring by the agriculture department, has helped minimize the number of acres taken out of agricultural production on land near development areas.

Other issues such as noise and dust are more difficult for farmers to mitigate. The Department of Agriculture understands growers have a right to farm, and we try to convey to complainants that the operations creating noise and dust usually occur for a limited time during the growing season. Many growers feel that people moving into an agricultural area should realize that these types of activities are common agricultural practices. Unfortunately there has been a real disconnect between the public's knowledge of food production and actual commercial farming practices.

As we continue to deal with new and recurring issues within the agricultural/urban interface, one thing is clear: farmers, ranchers, homeowners, city, county and school officials need to work together in a cooperative effort to avoid adversarial roles within the community. Open communication, cooperation and respect for each other along with the role of the Agricultural Commissioner's Office can go a long way toward keeping agriculture viable in the future.

Certified Farmers' Markets

Farmers' markets are popular in Contra Costa County. The focus of our regulatory program within these markets is to ensure that there is a fair and equitable marketplace for the direct exchange of produce and other agricultural products between farmers and consumers. Farmers' markets provide an additional revenue source for many small and medium-sized growers and remove middle players in the supply chain, which can reduce prices for the consumer. They also provide a way for customers to meet the farmers and learn about how their food is produced.

This year in Contra Costa County, there were 33 different farmers' markets. Of those, 14 markets were open during the entire year while the remainder were seasonal, running from the spring until the autumn. Four of the markets were located at hospitals and one was held at a local high school. These markets were managed by a total of eight farmers' market associations and non-profit groups.

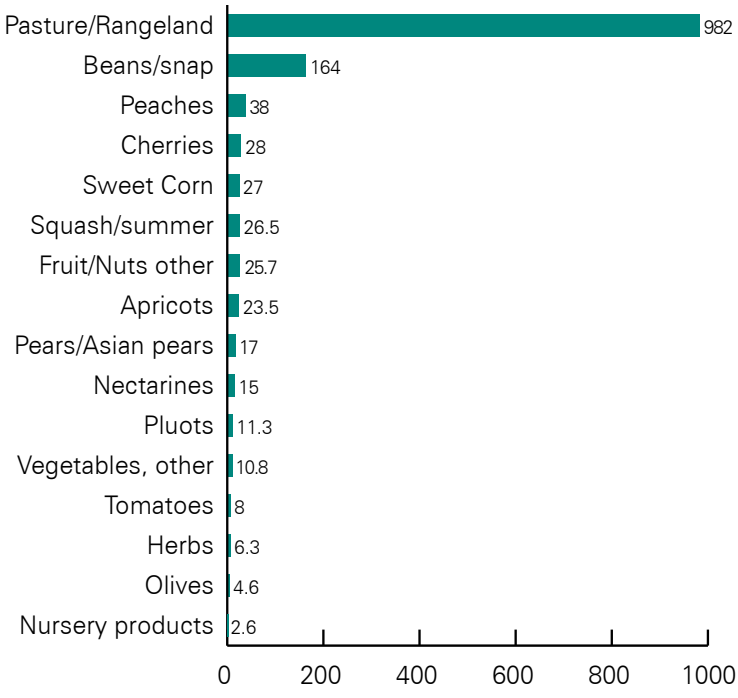
Whether you live in an urban, suburban or rural location, you are close to a farmers' market at least one day a week. The following is a list of the cities where a market operated in 2013.

Antioch (2), Brentwood, Clayton, Concord (3), Danville, Discovery Bay, El Cerrito (2), Kensington, Lafayette, Martinez (4), Moraga, Orinda, Pinole, Pittsburg, Pleasant Hill, Point Richmond, Richmond, San Pablo, San Ramon (3), Walnut Creek (5).

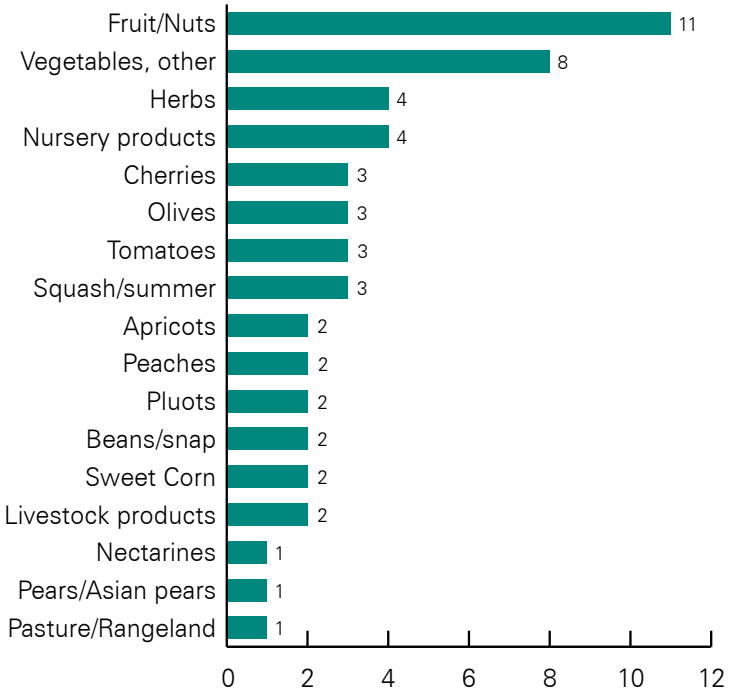
Organic Farming

Organic acreage continues to rise in Contra Costa County. In 2013, organic acerage more than doubled from 2012 levels, totaling 1390 acres. This is mostly due to the conversion of conventional pasture and rangeland to organic production. The number of organic farms registered for organic production increased from 16 farms in 2012 to 17 farms in 2013.

Organic Crop Acreage



Number of Organic Farms



Pest Exclusion

Infestations of non-native pests present a serious concern to California agriculture and the environment. Exotic plant pests that become established in California can cause enormous market losses as a result of quarantines established by other nations that wish to exclude the problematic pest from their environment and industries. These quarantines can restrict or eliminate the ability of California growers to market and ship their agricultural commodities. Many of these pests and diseases would also be devastating to parks, forests and residential gardens. For this reason, our biologists and canine detection dogs inspect shipments of plant and other host materials at package delivery services, nurseries and in certain cases, even at people's homes. Biologists will reject plant material when there is evidence that an exotic pest is found.

Conan, one of our detection dogs receives a food reward for alerting on this shipment of limes.

Post Office/UPS/FedEx Package Inspections	52,376
Truck Shipment Inspections from Within California	1,863
Truck Shipment Inspections from Other States	222
Household Goods Inspections	142
Non-native Pest Interceptions	48
Canine Detection Rejections	17
Quarantine Pest or Certification Rejections	108
Markings & Reasonable Cause Rejections	195

Pest Detection

The Department of Agriculture wants to ensure that new quarantine pests do not find a pathway into our county. Left unchecked, new invasive pests can trigger quarantines costing agriculture millions of dollars in lost revenue while necessitating large increases in pesticide use to control the pest. Contra Costa County pest detection trappers monitor insect traps throughout the county, using pheromone and other attractant lures to detect insects of quarantine significance. At the first sign of an invasive pest, steps are taken to eradicate the pest by disrupting its lifecycle so that the established population doesn't grow into an infestation.

Pest	Traps	Trap Services	Pest	Traps	Trap Services
Mediterranean Fruit Fly	859	9795	Japanese Beetle	567	815
Oriental Fruit Fly	865	9680	Pine Shoot Moth	2	18
Melon Fly	806	7116	Nantucket Pine Tip Moth	1	27
Fruit flies (McPhail)	792	19501	Apple Maggot	8	48
Fruit flies (Champ)	35	181	Asian Citrus Psyllid	604	1047
Glassywinged Sharpshooter	980	5684	Vine Mealybug	112	259
Light Brown Apple Moth	20	227	European Grapevine Moth	147	391
Gypsy Moth	680	1002	Khapra Beetle	16	18

Pest Management

Invasive weeds can harm agriculture and the environment by choking out both crops and native plants, degrading natural habitat, and increasing the risk of wildfires. Contra Costa County staff use integrated pest management methods including surveying, monitoring, release of biological control agents, and directed chemical applications to eradicate or control certain exotic weed pests on public and private lands.

Weed Species	Net Acres/ Plants Treated	Gross Acres Surveyed	Method of Control
Artichoke Thistle	179.13 acres	181,566	Chemical
Purple Starthistle	91.21 acres	29,902	Chemical
Oblong Spurge	2.41 acres	512	Chemical
Heart, Lens & Globe-Podded Hoary Cress	5.46 acres	157	Chemical
Barb Goatgrass	5.92 acres	654	Chemical/ Mechanical
Perennial Pepperweed	32.03 acres	4,415	Chemical
Kangaroo Thorn	0.05 acres	6	Mechanical
Pampas Grass	0.16 acres	70	Chemical
White Horsenettle	0.70 acres	135	Chemical
Russian Knapweed	4.56 acres	755	Chemical
Purple Loosestrife	0.08 acres	550	Chemical
Japanese Knotweed	0.03 acres	5.7	Chemical
Smooth Distaff Thistle	0.25 acres	21	Mechanical
Woolly Distaff Thistle	0 plants	2	Mechanical
Red Sesbania	2,206 plants	105	Mechanical
Japanese Dodder	0 plants	5	Mechanical
Totals	**322.74 acres**		

Hairy Weevil

Biological Control

Pest	Agent/Mechanism	Scope of Program
Yellow Starthistle (Centaurea solstitialis)	Hairy Weevil (Eustenopus villosus)	Widely Distributed
	YST Flower Weevil (Larinus curtus)	Widely Distributed
	Rust Pathogen (Puccinia jaceae var. solstitialis)	Not Established
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Encytrid Parasitoid Wasp (Psyllaephagus bliteus)	Widely Distributed

Weights and Measures

The Contra Costa County Division of Weights & Measures protects buyers and sellers by promoting fair packaging and inspecting commercial weighing, measuring, and timing devices for accuracy. Accurate devices help ensure that the sale of harvested crops, livestock, animal feed, vehicle fuel, and other business commodities are based on an honest weight or measure.

Measuring Devices	Devices Registered	Devices Inspected	Weighing Devices	Devices Registered	Devices Inspected
Vehicle Fuel Station Meters	7614	6374	Light Capacity Retail Scales	2064	1859
Electric Submeters	7435	687	Heavy Capacity Retail Scales	280	231
Water Meters	5958	425	Vehicle/Railway Scales	103	105
Vapor/LPG Meters	4350	425	Prescription/ Jewelers Scales	66	35
Taxi Meters	286	476	Livestock/Animal Scales	18	28
Other Measuring Devices	225	171	Other Weighing Devices	41	37

Advertisement & Transaction Verification	Locations Registered	Inspections Conducted	Quality Assurance	Registered	Audited
Petroleum Gas Stations	283	277	Weighmaster Locations	80	30
Price Verifying Scanner	1183	291	Service Agent Devices	-	1396

In this picture, you can see a typical violation found at a retail store. In this case, products were marked with two different prices. The customer must be charged the lowest advertised price.

Price verification through quality control inspections is an important program in the Weights & Measures Division. Inspectors regularly register and inspect price look-up scanner systems in order to determine that the scanner system is giving the customer the lowest price that is quoted, advertised, or displayed for that item when they pay at the register. In 2013, 47 Notices of Proposed Action were issued when violations occurred. The fines for these enforcement actions totalled $43,275 and included a number of repeat violations.

Top 15 Crops 50 Years Ago

Crop	Value in 1963	1963 Value Adjusted for Inflation[1]	Value in 2013
Cattle	7,220,000	54,511,000	18,728,000
Lettuce	3,744,000	28,267,200	Miscellaneous[2]
Walnuts	2,854,000	21,547,700	2,417,000
Almonds	2,433,000	18,369,150	Miscellaneous[2]
Asparagus	2,196,000	16,579,800	Miscellaneous[2]
Apricots	2,072,200	15,645,110	907,000
Milk	1,497,000	11,302,350	Miscellaneous[2]
Cut Flowers	1,320,000	9,966,000	Miscellaneous[2]
Rangeland Pasture	1,200,000	9,060,000	4,225,000
Barley	757,000	5,715,350	Miscellaneous[2]
Field Corn	470,000	3,548,500	5,979,000
Cherries	410,200	3,097,010	3,071,000
Pears	347,093	2,620,552	Miscellaneous[2]
Tomatoes	309,900	2,339,745	11,888,000
Irrigated Pasture	296,000	2,234,800	1,635,000

1 $1.00 in 1963 = $7.55 in 2013
2 2013 crop values not represented due to small production or few producers

University of California Cooperative Extension

The University of California Cooperative Extension (UCCE) was established in Contra Costa County in 1917 and has been serving this county for almost 100 years. As the public outreach arm of the University of California their mission is to bring practical science to the county to address issues of local concern. Over the years our Cooperative Extension Advisors have built strong research and education programs in agriculture, horticulture, nutrition, and youth development. They have worked collaboratively with local farmers, ranchers, pest managers, landscape professionals, and residents to promote healthy and sustainable food systems as well as healthy environments in our county. While the range of programs offered by Cooperative Extension is quite diverse, two key themes that cross many of their programs are environmental stewardship and educating the next generation about food and agriculture.

Environmental Stewardship:

UCCE Farm Advisors work with farmers, ranchers, and other agricultural professionals to help them adopt sustainable practices that assure a safe, productive, and environmentally friendly food system. They conduct local research and provide scientifically based information to help new producers get started and existing producers address new challenges. Recent efforts have included the development and adoption of:

- Comprehensive stewardship strategies for local ranchers and rangeland managers to protect watersheds, control invasive species, support recreation, reduce fire hazards, and enhance wildlife habitat
- Reduced risk pest management practices that are safer for the environment such as mating disruption, biological control, organic production, low toxicity baits and sprays, pest resistant varieties and rootstocks, habitat for bees and beneficial insects, and pest monitoring programs. The Tree Pest Update newsletter provides growers with specific information on best timing and management practices for local orchard pests
- Practices that conserve water and protect local waterways such as more efficient drip and micro-sprinkler irrigation systems, improved irrigation scheduling, and the use of cover crops to reduce erosion. The Crop Currents newsletter addresses these and other topics of concern to local growers
- Appropriate crops and practices that help protect the delicate ecosystem of the San Joaquin-Sacramento Delta

For more information about Agriculture Programs:

- Sheila Barry, Farm Advisor- Livestock & Natural Resources, (408) 282-3106, sbarry@ucanr.edu
- Janet Caprile, Farm Advisor – Agricultural Crops, (925) 646-6129, jlcaprile@ucanr.edu
- Michelle Leinfelder-Miles, Farm Advisor – Delta Crops & Resources, (209) 953-6120, mmleinfeldermiles@ucanr.edu

The **UCCE Horticulture Program** focuses on promoting healthy urban and suburban environments. Advisors deliver programs to landscape and urban pest management professionals so that they in turn can provide environmentally responsible services to county residents. They have helped clientele adopt a variety of sustainable practices including water conservation, improved irrigation systems and management, the use of recycled water, the selection of drought tolerant plants, and reducing green waste. They have been instrumental in finding and limiting the spread of new pests and promote the use of integrated pest management in both landscapes and structures to control pests most effectively with the least environmental impact.

UCCE Master Gardeners (MG) are trained volunteers who provide science based horticulture information directly to county residents. They staff information booths at farmers markets and fairs, support the development of school and community gardens, present public workshops, and operate a gardening "hotline". They developed "Our Garden", a ½ acre, edibles demonstration garden in Walnut Creek where they hold weekly workshops from April through October. The workshops cover a variety of topics on sustainable gardening and summaries appear every Saturday in the Home & Garden section of the Contra Costa Times, their partner in the venture. Excess produce from the garden (12,000 pounds in 2013) is donated to the Monument Crisis Center.

In 2013, MGs sponsored two special educational events that focused specifically on environmental stewardship. In January the first "In Your Own Backyard" workshop was attended by 130 county residents who learned what our farmers are doing to grow sustainably. In October they held the 1st annual Contra Costa County Sustainability Fair which was attended by over 850 participants.

For more information about Horticulture and Urban Pest Management Programs:

- Master Gardener Hotline, Monday-Thursday, 9 am – noon, (925) 646-6586
- Emma Connery, Master Gardener Coordinator, (925) 646-6130, edconnery@ucanr.edu
- Igor Lacan, Urban Forestry Advisor, (650) 726-9059 x 105, ilacan@ucanr.edu
- Andrew Sutherland, Urban Integrated Pest Management Advisor, (510) 777-2481, amsutherland@ucanr.edu

Educating the next generation about food and agriculture:

With only a small percentage of our population involved in agriculture, it becomes increasingly important to educate our future farmers and consumers about the importance of agriculture and where food comes from.

The **4-H Program** is the foundation of the UCCE youth education effort whose focus is to help raise the next generation of productive farmers, ranchers, and citizens in rural, suburban and urban areas. Contra Costa County has an active program with 234 adult volunteers and 494 participating youth. There are 9 clubs located throughout the county from El Cerrito to Brentwood, and Martinez to Tassajara. The Knightsen club, which started in 1914,

was the first in the county and one of the oldest in California.

4H is open to all youth ages 9 to 19 and offers an array of learn-by-doing or "hands-on" projects. The program gives both youth and adult leaders the opportunity to learn about agriculture, environmental stewardship, and a variety of other interests that help them build citizenship, leadership and life skills that will last them a lifetime.

Currently, there are 170 local 4-H projects covering a range of interests including raising livestock (i.e., swine, beef, goat, poultry, sheep, etc.), vegetable gardens and crops, farm machinery, entomology, and food preparation (i.e., cooking, nutrition, preservation, table setting, etc.). While proudly based in agriculture, 4-H also offers projects in science, engineering, technology, rocketry, sports, money management, drama, arts, woodworking, etc.

For more information about 4-H Programs:

- Charles Go, Youth Development Advisor, (510) 567-6812, cggo@ucanr.edu

The **UCCE Nutrition Education Program** offers a variety of educational opportunities for local youth and adults to learn about food and agriculture.

The Expanded Food and Nutrition Education Program (EFNEP) targets limited-income youth between the ages of 5 and 18 and is offered through local schools and community organizations. It provides teachers with a "Farm to Fork" curricula and ongoing support to help them educate their students about where food comes from, how to make healthy food choices, and ways to consume more fruits and vegetables. Family newsletters are offered in both Spanish and English.

The California Sustainable Community project is an afterschool program offered in two affordable housing communities in Pittsburg and Brentwood. The project utilizes both teens and adults to mentor and educate K-5th graders through cooking, food related games, and edible gardening.

The "Ag Days" and "Seed to Table" school field trip programs for pre-K to 6th grade students operate cooperatively with the Contra Costa County Farm Bureau's "Ag-in-the-Classroom" program. Instruction takes place at the Contra Costa County Fair's Mangini Agricultural Museum and Garden located in Antioch. The Garden was designed, built, and is managed by UCCE Master Gardeners to support the program's experiential learning activities that educate students about the origin of food, the path food takes to get to the table, and how food nourishes us.

For more information about Nutrition Programs:

- Marisa Neelon, Family, Nutrition, & Consumer Sciences Advisor, (925) 646-6128, mqneelon@ucanr.edu

Contra Costa County
2013 Annual Crop Report

The agricultural/urban interface is a dynamic and difficult issue for farming communities throughout California. Here in Contra Costa, the Department of Agriculture actively seeks to promote communication and cooperation between farmers, ranchers and the community to support a viable agricultural industry in the present and future.

CONTRA COSTA COUNTY

2014 CROP REPORT

Table of Contents

Agricultural Commissioner and Sealer's Letter 1

Leading Crops 2

Small Steps We Can Take to Reduce Our Water Use 2

Production Summary 3

Vegetable and Seed Crops..... 4

Livestock and Livestock Products 4

Fruit and Nut Crops 5

Field Crops 6

Nursery Production 7

The Benefits of Native Plants..... 7

Agriculture Today: The Many Sources of the Foods We Eat 8-9

Certified Farmers' Markets..... 10

Organic Farming..... 10

Pest Exclusion and the K-9 Teams 11

Pest Management..... 11

Pest Detection..... 12

What Happens When We Find an Invasive Pest? .. 12

Weights and Measures 13

Cherries in Contra Costa County..... 14

The Cost of Growing Cherries 15

The Value of Urban Agriculture 16-17

Economic Impact of Urban Gardening and Farming in Contra Costa County 17

Mission Statement

The Contra Costa County Department of Agriculture / Weights and Measures, under the direction of the California Department of Food and Agriculture, Department of Pesticide Regulation and Division of Measurement Standards, is responsible for conducting regulatory and service activities pertaining to the agricultural industry and the consumers of our county. The primary goal of this office is to promote and protect agriculture while safeguarding the public and the environment. Our work as county Weights and Measures officials in the community ensures a safe place to live and a fair marketplace for trade.

Agricultural Commissioner
Chad Godoy

Assistant Agricultural Commissioner
Matt Slattengren

Deputy Agricultural Commissioners and Sealers
Gene Mangini
Steve Reymann
Larry Yost

Agricultural Biologists
Karen Adler, Keri Brumfield, Chris deNijs, Mariah deNijs, Ralph Fonseca, Ivan Godwyn, Mortay Mendoza, Abdoulaye Niang, Lucas Pattie, Wil Schaub, Cecilie Siegel, Beth Slate, Jorge Vargas

Weights and Measures Inspectors
Gabriel Adebote, Patrick Bowen, Christine Buelna, Ngozi Egbuna, Harmeet Gill, Chris Michaels, Joel Rocha

Administrative Support
Roxann Crosby
Sheree Nuxoll

Information Technology Support
Susan Wright

Retiree Volunteer
Suzanne Maddux

Glassy-winged Sharpshooter Inspectors
Betsy Montgomery
Tom Wright

Pest Detection and Pest Management Staff
Simone Ackermann, Danilo Angcla, Lyndsay Bloxsom, Amanda Crosby, Nancy Dennis, Aaron Francis, Jatinder Gill, Herb Gilmore, Lou Ellen Kelly, Hardy Leopando, Phyllis Lewis, Edward Lujan, Rick Mata, Christine O'Boyle, Eldren Prieto, Craig Shoener, Lindsay Skidmore, Greg Spurlock, Oscar Zaldua

Pest Quarantine Detector Canines
Conan, handled by Cecilie Siegel
Cairo, handled by Mariah deNijs

Agricultural Commissioner and Sealer's Letter

Department of Agriculture
2366 A Stanwell Circle
Concord, CA 94520-4807
(925) 646-5250
FAX (925) 646-5732

Branch Office
Knightsen Farm Center
3020 Second Street
P.O. Box 241
Knightsen, CA 94548
(925) 427-8610
FAX (925) 427-8612

Contra Costa County

Chad Godoy
Agricultural Commissioner
Director of Weights and Measures

Karen Ross, Secretary
California Department of Food and Agriculture and
The Honorable Board of Supervisors of Contra Costa County

I am pleased to submit the 2014 Annual Crop and Livestock Report for Contra Costa County in accordance with the provisions of Section 2272 and 2279 of the California Food and Agricultural Code. This report also includes information on additional topics including the California drought, native plants, cherry production and urban agriculture.

The total gross value of agricultural crops and products in 2014 was $119,829,000, which is an increase of $23,017,000 or 23.8% from 2013. In general, demand and prices have remained strong for agricultural crops in Contra Costa County.

Crop values vary from year to year due to many factors such as production issues, weather and market conditions. Some notable changes in values include: livestock and livestock products increased 52%; nursery products increased 50%; fruit and nut crops increased 25%; vegetable and seed crops increased 17%; and beans increased 35%. Cattle and calves showed a large increase both in numbers sold and in value. Fresh market and processing tomatoes saw a significant increase in harvested acreage. By contrast, cherry yield declined 59% due to unfavorable weather conditions that greatly reduced fruit set.

Several crop categories exceeded one million dollars in value. These categories in decreasing order include cattle and calves, sweet corn, tomatoes, grapes, beans, alfalfa, rangeland, miscellaneous field crops, walnuts, miscellaneous vegetables, cherries, field corn, peaches and pasture.

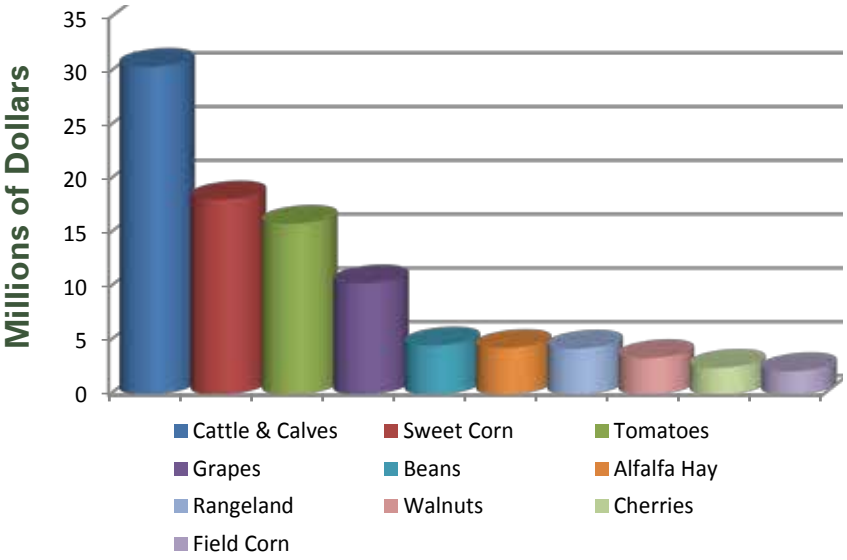
It should be emphasized that the values stated in this report are gross receipts and do not include the cost of production, transportation, or marketing of the products. The economic benefit of agricultural production is generally thought to be about three times the gross production value.

We wish to thank the individuals, industry and organizations that supplied us with vital information to complete this report. Their cooperation is truly appreciated. I would also like to thank Karen Adler, Ralph Fonseca and all of my staff for their diligent work in compiling information for our annual crop report.

Respectfully submitted,

Chad Godoy

Leading Crops



Leading single crops in Contra Costa County in 2014	Gross Value in millions of dollars
Cattle & Calves	30.47
Sweet Corn	18.14
Tomatoes	15.88
Grapes	10.34
Beans	4.56
Alfalfa Hay	4.32
Rangeland	4.26
Walnuts	3.37
Cherries	2.48
Field Corn	2.16

Small Steps We Can Take to Reduce Our Water Use

On January 17, 2014, Governor Jerry Brown declared a State of Emergency in response to the ongoing drought. This trend has continued unabated, causing water shortages for growers and urban residents. It is clear that water is a limited resource in California and anything that we can do to manage it more efficiently will benefit everyone, from farmers to consumers.

When we try to reduce our own water footprint, most of us consider the ways that we use water directly. Shortening showers, using less water for dishes, reducing unnecessary irrigation in the garden and refraining from washing cars are all great ways to lower water use. We also associate the drought with agriculture, since it is often reported that farmers use the majority of California's water to irrigate crops. However, we don't make the connection that the food we consume carries a water footprint in and of itself.

The United States Department of Agriculture has shown that more than 25% of all the fresh water used for agriculture in the United States is lost through food waste. Food waste typically occurs in homes, restaurants and supermarkets when produce, dairy products, pantry items and meat are thrown away because they are damaged, spoiled or not wanted. By taking simple steps to purchase only the food that is needed in a household, eating what is cooked and limiting waste, every person can reduce their water use significantly.

And if that weren't reason enough, reducing food waste to the landfill also reduces the amount of methane that is produced from our household waste. Since methane is a greenhouse gas that is roughly 30 times more potent in its heat trapping capacity than carbon dioxide, reducing food waste, the raw material for bacterial emissions of methane, works to reduce overall greenhouse gas emissions.

California farmers are working to increase water use efficiency and adapt their practices to the current drought, while still providing food to consumers at reasonable prices. We can support this effort by limiting our food waste and demanding that the places where we purchase food do the same. When food waste can't be reduced, we can compost it locally or throw it away with other compostable material in the green waste bin rather than discarding it with household garbage. With these simple steps, we can reduce our water use and help conserve our existing water for the future.

A Year of Food Loss Accounts For:

>25%
of all fresh water used for agriculture in the US

1,160
pounds of food lost by a US family of four

$115 BILLION
dollars spent by US consumers on wasted food

Sources: "The Estimated Amount, Value, and Calories of Postharvest Food Losses at the Retail and Consumer Levels in the United States, USDA Economic Research Service, Online at: http://www.ers.usda.gov/media/1282296/eib121.pdf and "One-third of Food is Lost or Wasted: What Can be Done", National Geographic, http://news.nationalgeographic.com/news/2014/10/141013-food-waste-national-security-environment-science-ngfood/

Production Summary

Production values rose significantly in 2014. Livestock and livestock products drove this trend with a strong increase in value. Vegetable and seed crops also continued to increase in both acreage and value.

	Gross Value		Change in Gross Value	Total Cultivated Acreage		Change in Cultivated Acreage	Ranking	
Category	2014	2013		2014	2013		2014	2013
Vegetable & Seed Crops	$41,710,000	$35,616,000	+17%	7,567	6,422	+18%	1	1
Livestock & Livestock Products	$32,767,000	$21,509,000	+52%	-	-	-	2	2
Fruit & Nut Crops	$21,295,000	$16,967,000	+26%	3,627	3,217	+13%	3	4
Field Crops	$17,753,000	$18,526,000	-4%	188,506	194,390	-3%	4	3
Nursery Products	$6,304,000	$4,194,000	+50%	41	33	+24%	5	5
Total	**$119,829,000**	**$96,812,000**	**+24%**	**199,741**	**204,062**	**-2%**	**-**	**-**

2014 Gross Production Values by Percentage

Vegetable and Seed Crops

Contra Costa County sweet corn remained the leading vegetable crop due to continuing demand for this high quality product. There was also a significant increase in tomato acreage, including both fresh and processing tomatoes.

Crop	Year	Harvested Acreage	Production Per Acre	Tons Harvested	Value Per Ton	Total Dollar Value[1]
Beans, Fresh Market	2014	477	4.80	2,290	$1,989.71	$4,556,000
	2013	399	4.85	1,940	$1,732.00	$3,360,000
Squash	2014	61	5.91	361	$993.04	$358,000
	2013	36	5.76	207	$725.40	$150,000
Sweet Corn	2014	3,263	10.45	34,100	$531.86	$18,136,000
	2013	3,265	10.03	32,700	$427.54	$13,981,000
Tomatoes[2]	2014	3,105	35.61	150,130	-	$15,879,000
	2013	2,400	37.76	119,470	-	$11,888,000
Miscellaneous[3]	2014	661	-	-	-	$2,781,000
	2013	322	-	-	-	$6,237,000
Total	**2014**	**7,567**	**-**	**-**	**-**	**$41,710,000**
	2013	**6,422**	**-**	**-**	**-**	**$35,616,000**

Livestock and Livestock Products

The gross value for cattle products increased significantly in 2014 due to high market prices. In addition, ranchers sold more cattle and took advantage of federal feed subsidies that were available because of the drought.

Commodity	Year	Number of Head	Total Liveweight	Value Per CWT	Total Dollar Value[1]
Cattle & Calves	2014	23,260	186,884	$163.04	$30,470,000
	2013	19,100	157,382	$119.00	$18,728,000
Apiary Products[4]	2014	-	-	-	$597,000
	2013	-	-	-	$881,000
Miscellaneous Livestock[5]	2014	-	-	-	$1,700,000
	2013	-	-	-	$1,900,000
Total	**2014**	**-**	**-**	**-**	**$32,767,000**
	2013	**-**	**-**	**-**	**$21,509,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes both fresh market and processing tomatoes
3 Includes asparagus, artichokes, beets, cabbage, cardoon, carrots, cauliflower, cucumbers, eggplant, garlic, ginseng, lettuce, okra, onions, geens, herbs, peas, peppers, potatoes, pumpkins and radishes
4 Includes honey, wax and pollination
5 Includes chickens, ducks, emus, goats, hogs, llamas, ostriches, pigs, rabbits, sheep, turkeys, milk, wool and eggs

Fruit and Nut Crops

In general, fruit and nut prices were significantly higher in 2014 while yield for most commodities was generally lower. Grape and walnut production increased due to new vineyards and orchards starting to bear. In addition, grape prices increased by 15%, which raised the overall production value. Cherry production was down due to unfavorable weather conditions that greatly reduced fruit set.

Crop	Year	Harvested Acreage	Production Per Acre	Tons Harvested	Value Per Ton	Total Dollar Value[1]
Apricots	2014	66	4.85	320	$3,489.16	$1,117,000
	2013	89	3.70	328	$2,763.85	$907,000
Cherries	2014	494	0.99	489	$5,071.00	$2,480,000
	2013	506	1.68	850	$3,613.00	$3,071,000
Grapes	2014	2,190	4.64	10,200	$1,013.35	$10,336,000
	2013	1,734	4.59	7,960	$878.55	$6,993,000
Nectarines	2014	23	3.85	87	$5,631.56	$490,000
	2013	33	4.22	137	$3,326.00	$456,000
Olives	2014	183	1.77	324	$759.63	$246,000
	2013	179	2.29	410	$782.00	$321,000
Peaches	2014	101	4.10	414	$4,207.60	$1,742,000
	2013	136	4.20	571	$2,823.00	$1,612,000
Plums & Pluots	2014	27	4.27	113	$5,249.80	$593,000
	2013	32	4.62	146	$3,264.00	$477,000
Walnuts	2014	458	2.09	957	$3,522.00	$3,371,000
	2013	393	2.28	896	$2,697.00	$2,417,000
Miscellaneous[2]	2014	87	-	-	-	$920,000
	2013	117	-	-	-	$713,000
Total	**2014**	**3,627**	**-**	**-**	**-**	**$21,295,000**
	2013	**3,217**	**-**	**-**	**-**	**$16,967,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes almonds, apples, apriums, asian pears, berries, citrus, figs, melons, pears, pecans, persimmons, pistachios, prunes, pomegranates, quinces and strawberries

Field Crops

In 2014, field crop harvested acreage decreased, while production values increased slightly. Overall, despite price increases, the total field crop dollar value dipped slightly.

Crop	Year	Harvested Acreage	Production Per Acre	Total Harvested	Unit	Value Per Unit	Total Dollar Value[1]
Alfalfa hay	2014	3,387	5.13	17,400	Ton	$248.26	$4,320,000
	2013	3,351	4.99	16,700	Ton	$207.00	$3,457,000
Cereal hay	2014	3,166	2.69	8,520	Ton	$154.88	$1,320,000
	2013	1,920	2.68	5,150	Ton	$149.30	$769,000
Field corn	2014	2,658	4.20	11,200	Ton	$192.68	$2,158,000
	2013	7,928	3.90	30,900	Ton	$193.50	$5,979,000
Pasture	2014	5,450	-	-	Acre	$300.00	$1,635,000
	2013	5,450	-	-	Acre	$300.00	$1,635,000
Rangeland	2014	169,000	-	-	Acre	$25.20	$4,259,000
	2013	169,000	-	-	Acre	$25.00	$4,225,000
Wheat	2014	807	2.41	1,940	Ton	$232.54	$451,000
	2013	4,097	1.44	5,900	Ton	$221.00	$1,304,000
Miscellaneous[2]	2014	4,038	-	-	-	-	$3,610,000
	2013	2,644	-	-	-	-	$1,157,000
Total	**2014**	**188,506**	**-**	**-**	**-**	**-**	**$17,753,000**
	2013	**194,390**	**-**	**-**	**-**	**-**	**$18,526,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes barley, forage hay, hay (wild), rye, safflower, silage, straw, sudan grass and sorghum

Nursery Production

Nursery production values continued to rise in 2014, demonstrating strong consumer demand. The diverse group of nurseries in Contra Costa County produces a wide selection of plants that fit a number of specialized niches, including heirloom varieties, native plants and fruit tree rootstock. These supply Bay Area residents as well as consumers from other parts of California and beyond.

	Year	Greenhouse Production in Square Feet	Acres in Field Production	Total Dollar Value[1]
Indoor Decoratives	2014	7,200	-	$55,800
	2013	36,000	0.10	$23,700
Vegetable Plants	2014	15,000	1.05	$417,000
	2013	15,000	0.80	$239,000
Miscellaneous[2]	2014	21,425	39.00	$5,831,000
	2013	82,600	29.90	$3,931,000
Total	**2014**	**43,625**	**40.15**	**$6,304,000**
	2013	**133,600**	**30.85**	**$4,194,000**

1 Values represent rounded estimates based on data collected from producers, experts and literature
2 Includes bedding plants, herbaceous perennials, Christmas trees, cactus, ground covers, propagative materials, ornamental trees and shrubs, fruit trees and cut flowers

The Benefits of Native Plants

Contra Costa County nurseries offer an array of horticultural and food-producing plants to businesses and the public. With the current drought, the nurseries that offer native plants are seeing an upswing in sales. This is due to the multitude of benefits that these plants provide to yards, gardens and other vegetated sites.

Since many native plants evolved in low precipitation environments, they are more drought-tolerant than other plants that originate in wetter climates. They supply habitat for native pollinators and have adapted defense strategies that provide protection from local pests. Native plants also generally require less maintenance and fewer inputs like pesticides. Research has shown that many types of wildlife, including birds, butterflies and beneficial insects prefer native plants, so growing them in your garden provides more opportunities to support and view wildlife. In addition, since open space areas have diminished due to urban growth, planting native plants can create corridors of habitat that help to maintain populations of wildlife.

You can find more information about natives at cnps.org. For resources on invasive, non-native plants, check out http://www.plantright.org/

Agriculture Today: The Many

Contra Costa County agriculture is diverse and historically rich. Many people from around the Bay Area are familiar with the eastern part of the county because of the U-pick cherry orchards and farm stands. The majority of the fruit, vegetable and field crops are concentrated in and around the Agricultural Core, an area near Brentwood that is zoned to maintain economically viable blocks of agricultural land.

Livestock production has also been an important part of the agricultural economy for decades. In 1940, cattle production accounted for 18% of the total calculated crop value of the county and in 1970, it provided 23% of total gross production. By 2000, due in part to a surge in nursery production, cattle values accounted for only 8% of the total. However, at present livestock and livestock products are once again the biggest single commodity in the county, providing 25% of the gross value of Contra Costa's agricultural production.

While large-scale farming and livestock account for a majority of the agricultural production in the county, there are also many small-scale producers and business owners that contribute to our county's agricultural diversity and provide a growing quantity of produce to local and regional food systems. The international Food and Agricultural Organization (FAO) notes that, "Agriculture – including horticulture, livestock, fisheries, forestry, and fodder and milk production – is increasingly spreading to towns and cities. Urban agriculture provides fresh food, generates employment, recycles urban wastes, creates greenbelts, and strengthens cities' resilience to climate change."[1]

Contra Costa County has been the starting ground for a number of these urban and suburban diversified small-scale farms. In the late 1970s, the Contra Costa Community Gardening Project and several independent initiatives in Richmond established 16 community gardens around Contra Costa County. In this same period, a handful of school gardens were established and pioneering programs in horticultural education began. By the early 1980s, the county's first farmers' markets opened in Pleasant Hill and Walnut Creek. Since then, the urban gardening and farming movement in Contra Costa has continued to grow. This year there are over 40 community gardens and 30 Certified Farmers' Markets that bring locally grown fresh fruit and vegetables from farms to consumers. Most impressively, there are now over 60 school gardens around the county, many of which are part of larger multi-school educational gardening programs.

Small-scale diversified farms

- Produce a variety of fruits, vegetables and other agricultural products by employing ecological principles including nutrient recycling and biological control agents that reduce the need for pesticides and chemical fertilizers
- Use direct marketing avenues like farmers' markets, farm stands, CSAs[2] and direct sales to restaurants
- Offer classes and volunteer opportunities to the public focused on food production, composting, marketing, cooking, nutrition and other agricultural skills
- Find a profitable niche by differentiating their products from more widely available commodities by unique quality, taste, appearance or harvest time

Nurseries

- Specialize in particular plants that provide value to homes and gardens such as natives, vegetable seedlings, plants that provide pollinator habitat, drought-tolerant ornamentals, herbs and flowers
- Produce plants for landscaping, gardening, home use and habitat restoration
- Retain a historical significance and promote both small and large-scale enterprises, especially in the Richmond area where old greenhouses are still used for production today

Sources of the Food We Eat

Commercial Farms

- Provide a diverse array of crops including grapes, cherries, walnuts, sweet corn and tomatoes
- Market crops commercially, although many also diversify by using more direct channels like farmers' markets, U-Picks and farm stands
- Utilize larger tracts of land and tend to grow crops in blocks that are rotated annually
- Consist of organic and conventional production

Community Gardens

- Sustain crops that aren't always available in grocery stores like heirloom varieties or have ethnic or cultural value
- Provide access to nutritionally rich foods that may otherwise be inaccessible to low-income families and individuals
- Provide green space in urban neighborhoods and are credited with reducing urban blight
- Add beauty to the community and heighten people's awareness and appreciation for living things

School Gardens

- Provide innovative teaching tools that allow educators to incorporate hands-on activities in a diverse array of interdisciplinary, standards-based lessons
- Create opportunities for students to discover fresh food, make healthier food choices and become better nourished, expanding on First Lady Michelle Obama's *Let's Move* initiative
- Build classroom relationships, provide physical activity, improve teamwork, beautify the environment and instill a positive work ethic
- Provide pre-employment training in production gardening, hydroponic farming, culinary and food service training

Livestock production

- Encompasses primarily large acreages used in beef cattle and calf production, but also includes other types of livestock
- Contains an extensive amount of land devoted to rangeland and pasture with much of this land also serving as public open space
- Controls the growth of non-native grasses and forbs through managed grazing, which allows other desirable plants like wildflowers and native grasses to maintain viable populations
- Reduces fuel load, which along with other rangeland management tools such as prescribed burning, helps mitigate fire risk

1 Source: http://www.fao.org/urban-agriculture/en/

2 CSA refers to Community Supported Agriculture, where individuals support a local farm by purchasing a share of the harvest that is usually supplied in the form of produce baskets that are provided throughout the harvest season

Certified Farmers' Markets

Many consumers don't realize what is meant by a Certified Farmers' Market. People come to farmers' markets to purchase local, high quality specialty produce and products directly from the farmer who grew them. Often, they don't recognize that there is a certified section in each market, nor do they notice that each producer with fresh fruit, vegetables, nuts, honey, eggs and cut flowers has a certificate that is displayed at his or her stall.

The Department of Agriculture/Weights and Measures inspects growers who plan to sell at a farmers' market within each county to certify what they are producing. During a site inspection, we document the types and amounts of crops being grown, post-harvest storage practices and harvest season. All of this information is put onto a Certified Producer Certificate that the producer must post at the market.

Certified Farmers' Markets can only be run by certified producers, non-profits, or government agencies. The individual or group that organizes the market also registers and provides general information about the market to the county. Throughout the period when the market is open to the public, agricultural inspectors walk the markets to check that these producers have certificates and what they have for sale matches what is on the certificate. In this way, the office of the County Agricultural Commissioner endeavors to maintain the equity of the market by ensuring that consumers grow what they sell.

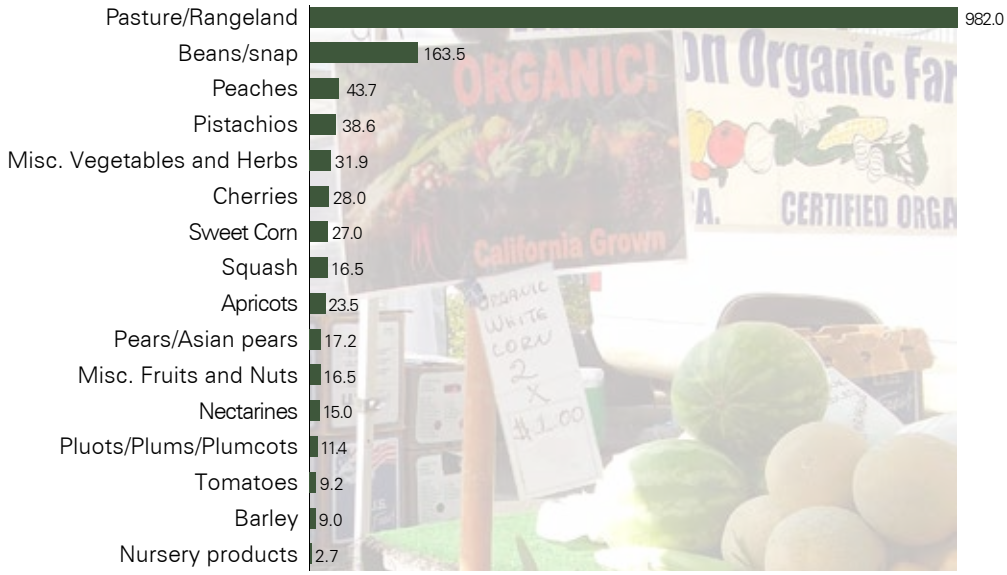
In 2014, there were 30 Certified Farmers' Markets in Contra Costa County. Of those, 16 were seasonal and 14 were open year-round. In addition, three of these markets served local hospital populations. These markets were run by a total of eight different market associations or individual parties.

Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Concord Todos Santos Plaza	Richmond Main St.	Concord Todos Santos Plaza	Richmond Barrett Ave.	El Cerrito San Pablo Ave.	Antioch Sommersville
Martinez Contra Costa County Hospital	San Ramon Sherwood Sports Park	Antioch Kaiser	Martinez Main St.	Brentwood	Walnut Creek North Locust
Walnut Creek Kaiser		San Ramon Bishop Ranch 3	Rossmoor	Walnut Creek Diablo Valley Shadelands	Moraga
El Cerrito San Pablo Ave.		Martinez Court St.		Clayton / Danville / Orinda	Alamo
				Pinole / Pittsburg	Kensington
				Pleasant Hill / San Pablo	Martinez Main St.
				San Ramon Bishop Ranch 2	

Organic Farming

Organic acreage continues to rise in Contra Costa County. In 2014, there were 1,449 acres certified for organic production. This is an increase of 59 acres or 4% from 2013. The number of organic farms registered for organic production in the county remained the same from 2013 with 17 farms growing organic crops.

Organic Crop Acreage



Pest Exclusion and the K-9 Teams

The mission of the pest exclusion program is to keep exotic agricultural and environmental pests out of the state of California and to prevent the establishment or limit the spread of newly discovered pests within the state. Non-native plant pests that become established in California can cause enormous market losses as a result of quarantines imposed by other states or countries that restrict or prohibit the ability of California growers to market and ship their agricultural commodities.

The Department of Agriculture has two key roles in the pest exclusion program: (1) quarantine regulatory compliance and enforcement and (2) service to the agricultureal industry and the public. We meet these objectives by regularly inspecting commodities entering our county that pose a risk of harboring agricultural pests. Examples include: incoming plant shipments at nurseries; UPS, Postal Service, and FedEx terminals; sites where landscaping is installed; and outdoor household articles from areas where the gypsy moth is present.

Our agricultural detector dogs, which are funded through a federal program, play a pivotal role on our inspection team. These dogs are trained to find fruit, vegetables, plants, seeds, soil or live animals shipped in packages. In one of our most recent successes, Cairo and his handler Mariah deNijs intercepted a package containing 25 pounds of unshelled walnuts at a USPS distribution facility. The walnuts, which originated from Pennsylvania, were found to be infested with the A-rated pests Hickory Shuckworm (Cydia caryana) and Walnut Husk Maggot (Rhagoletis suavis).The A rating signifies that the organism is prohibited entry into California and is subject to confiscation and destruction. In this case, neither of the pests are currently found in California and if they were to become established, they would cause significant damage to the walnut industry.

The find was even more important because these walnuts were being shipped to Yuba County, where walnuts are the number one crop. If the infested material had been allowed to transit to its final destination, the likelihood that the pests would have found a host to continue reproducing would have been very high. Instead, our dog team alerted on the infested package. The walnuts were subsequently confirmed to contain A-rated pests and destroyed, ultimately preventing a possible infestation.

Pest Exclusion Statistics	
Post Office/UPS/FedEx Package Inspections	47,230
Truck Shipment Inspections from Within California	2,190
Truck Shipment Inspections from Other States	123
Household Goods Inspections for Gypsy Moth	145
Non-native Pest Interceptions	20
Canine Detection Rejections	58
Quarantine Pest, Certification and Markings Rejections	207

Pest Management

Contra Costa County staff use integrated pest management methods including surveying, monitoring and chemical applications to control or eradicate certain exotic weed pests on public and private land. In 2014, the major weed species treated were: Artichoke Thistle - 511 sites; Purple Star Thistle - 232 sites; and Perennial Pepperweed - 51 sites. In addition, biologists surveyed areas for barbed goat grass, hoary cress, japanese dodder, japanese knotweed, oblong spurge, pampas grass, russian knapweed, red sesbania, woolly distaff thistle, white horse nettle, smooth distaff thistle, purple loosestrife and kangaroo thorn, treating as needed. Where feasible, mechanical control methods were used.

Pest Detection

Pest detection activities ensure that new quarantine pests do not find a home in our county. Exotic invasive pests can trigger quarantines costing millions of dollars in lost revenue while necessitating large increases in pesticide use to control the pest. Contra Costa County pest detection specialists monitor insect traps throughout the county, using pheromone and other attractant lures to detect insects of quarantine significance. At the first sign of an invasive pest, steps are taken to eradicate it so that the population doesn't become established.

Pest	Peak Number of Traps	Total Annual Trap Services	Pest	Peak Number of Traps	Total Annual Trap Services
Apple Maggot	8	100	Asian Citrus Psyllid	715	1,388
European Grapevine Moth	63	514	Fruit flies (McPhail & Champ)	812	20,941
Glassywinged Sharpshooter	980	5,684	Gypsy Moth	583	891
Japanese Beetle	603	1,010	Light Brown Apple Moth	45	232
Mediterranean Fruit Fly	809	10,181	Melon Fly	751	6,962
Oriental Fruit Fly	854	12,276	Oriental Fruit Moth	15	780
Pine Shoot Moth and Nantucket Pine Tip Moth	6	34	Vine Mealybug	63	363
Gypsy Moth	583	1,002	Khapra Beetle	16	18

What Happens When We Find an Invasive Pest?

In early July, pest detection specialists found three male guava fruit flies over a three day period during routine detection trapping in the Bay Point neighborhood of central Contra Costa County. All three were found in traps that contained a lure that mimicks the pheremone that female oriental, guava and similar Bactrocera fruit flies release to attract males.

When a pest of quarantine significance like the guava fruit fly is found, a multi-pronged approach is employed to eradicate it. A Proclamation of Eradication Project is issued by the California Department of Food and Agriculture that outlines a work plan for the eradication. A delimitation area is created in which additional traps are deployed to determine the extent of the infestation. Agricultural staff also investigate how the fly may have arrived and employ a technique of male eradication to break the life cycle. In addition, hold notices are issued to owners of properties where the flies are found to restrict movement of potentially infested host fruit.

The response is targeted to ensure that the guava fruit fly, which is native to southeast Asia and China, doesn't become established in California. Since it feeds on fruits like guava, peach, citrus, cherry, fig, pomegranate and melon, it could have a potentially devastating effect on agriculture. If the pest were to become established, the larvae or "maggots" would destroy fruit tissue, making the fruit unmarketable. Pesticides would be used to combat the feeding damage, resulting in additional environmental and food costs. For commercial producers, the presence of a serious pest would also result in the loss of export markets due to quarantines imposed by other states and countries.

For fruit growers in Contra Costa County, allowing the guava fruit fly to become established would cause significant damage. Estimated annual economic losses for an unabated population that spread throughout the state run into the hundreds of millions of dollars.

Weights and Measures

The Contra Costa County Division of Weights and Measures promotes a fair and equitable marketplace by performing inspections of packages and commercial weighing and measuring devices for accuracy. This ensures that the sale of harvested crops, livestock, animal feed, vehicle fuel and other commodities is based on an honest weight or measure.

Measuring Devices	Devices Registered	Devices Inspected[1]	Weighing Devices	Devices Registered	Devices Inspected[1]
Vehicle Fuel Station Meters	7,602	6,027	Light Capacity Retail Scales	2,090	2,200
Electric Submeters	7,184	430	Heavy Capacity Retail Scales	322	245
Water Meters and Submeters	5,968	607	Vehicle/Railway Scales	99	123
Vapor/LPG Meters and Submeters	4,345	188	Prescription/ Jewelers Scales	61	46
Taxi Meters	305	889	Livestock/Animal Scales	19	22
Other Measuring Devices	416	183	Other Weighing Devices	39	25

Advertisement & Transaction Verification	Locations Registered	Inspections Conducted	Quality Assurance	Registered	Audited
Petroleum Gas Stations	286	271	Weighmaster Locations	105	22
Price Verifying Scanner	1,150	164	Service Agent Devices	-	1,073

1 Includes reinspections

Contra Costa County Weights and Measures inspectors test a large variety of devices for accuracy. There are scales ranging from jeweler's scales used for tiny gemstones all the way up to scales that can weigh a fully loaded railroad car. You can be sure commercial scales and meters are accurate because a Weights and Measures official has tested them. Before they can be put into commercial use, devices are inspected to make sure they are accurate and approved for that use. After the inspection, the inspector seals any adjustable parts that might affect how they perform. Each commercial scale that passes inspection will have a paper county seal that is visible to consumers. Additional regular inspections are performed on devices to ensure continued accuracy.

Examples of scales that are tested include railroad scales, livestock scales, vehicle scales and produce scales (counterclockwise from top left).

Cherries in Contra Costa County

By Janet Caprile, UC Cooperative Extension Farm Advisor

U-Pick Cherries

In recent years the Brentwood U-Pick cherry orchards have become one of the most successful and well known agri-tourism enterprises in Contra Costa County. About 60% of our orchards are U-pick or direct marketed and about 40% are picked for commercial shipping. This robust mix of U-pick and commercial shipping operations is quite unique among our agricultural crops.

Sixty-five percent of our cherry orchards are 10 acres or less. Cherries are a great crop for small farmers and rural ranchettes. They are one of the first crops to come off in the season (so there is less time for something to go wrong with the crop) and until recently, they didn't need any sprays, so it was a good crop around home sites. The U-pick arrangement also solves the increasing labor problem that many growers face as the customers do the picking themselves!

The U-pick operations tend to be smaller orchards and account for about 30% of all the cherry acreage in the county. But even though there may be fewer U-Pick acres, they are the most visible cherry acres and are an important avenue for consumer education. They connect people to where their food comes from, which garners support for agriculture by promoting a better understanding of what it means to grow, harvest and eat freshly grown produce.

Cherries can be a high risk crop if rain comes during harvest and splits the cherries or when the crop is light due to warm winter temperatures. So although 70% of our acreage is commercially picked, packed and shipped, most of these growers also have a U-pick operation because it helps them offset their risk due to weather and labor shortages. When the crop is light it can be difficult to find a commercial crew to pick the crop. However, the U-Pick customers enjoy spending time strolling in the orchard to find the perfect cherry and they will simply leave the split ones behind.

Varieties

Our acreage has grown from about 400 acres in 1990 to 900 acres in 2014. In 1990 our acreage was primarily Bing, the standard variety for the California cherry industry. Now about 75% of our acreage is Coral Champagne, a University of California (UC) variety selected, named and introduced as an excellent variety for Brentwood by UC Cooperative Extension Farm Advisor Ross Sanborn. Coral Champagne is a variety that has excellent eating and shipping quality like Bing, but ripens a little earlier so growers can get good prices at the front end of the market window. The remaining 25% of the acreage is comprised of a number of other cultivars that help to offer variety and extend the season such as Brooks, Bing, Lapins, Rainier, Sweetheart, Tulare and Utah Giants.

New pests

We have had two pest introductions in recent years that have threatened our cherry industry: Cherry Buckskin disease and Spotted Wing Drosophila. We have overcome both due to a strong working relationship among local growers, UC Cooperative Extension and the Department of Agriculture.

Cherry Buckskin disease had been found in neighboring San Joaquin County in the 1980s and had the potential to devastate our unsprayed, U-pick cherry industry if it got into this county. UC Cooperative Extension began coordinating an annual survey with the help of their Master Gardener volunteers, the Department of Agriculture, Mid Valley Agricultural Services and the local growers to look for this difficult-to-identify disease and keep it from getting established here. When we found the disease in 2002, we stepped up our survey, initiated eradication efforts and took an aggressive approach to prevent establishment. The disease is now almost entirely eliminated and our cherry industry continues to grow, unaffected by this disease.

A Spotted Wing Drosophila adult

Spotted Wing Drosophila is a small vinegar fly that was found in Brentwood towards the end of the 2009 cherry harvest season. This brand new pest to the U.S. invaded the entire Pacific Northwest that year. UC Cooperative Extension worked furiously with researchers throughout the west to find a solution to this new pest. By the 2010 season they had management plans and extensive grower education programs in place that allowed our local growers to successfully control it. During the next few years the research team continued to fine tune the management program to make it as safe and environmentally-friendly as possible. UC Cooperative Extension worked extensively to develop management practices that were compatible with the unique needs of our U-Pick industry. We now have organic options and bait sprays that have been widely adopted in the Brentwood area and work particularly well in our multiple variety, U-pick orchards.

The Cost of Growing Cherries

UC Davis Agricultural and Resource Economics in conjunction with University of California Cooperative Extension Services all over the state continually put together production cost studies for various crops. For cherries in California, research shows that farmers, on average, gain a 13% profit after all production costs are considered.[1]

Production costs and returns for cherries vary by location and over time for any particular farming operation. This variability stems from differences in the following:

- Capital, labor and natural resources
- Type and size of machinery
- Cultural practices
- Size of farm enterprise
- Crop yields
- Input prices
- Commodity prices
- Management skill

For example, while our cherry producers grossed an average of $5,071 per acre on cherries in 2014, based on a 13% profit projection from the cost study, the grower may only see a profit of about $659 per acre. For a small grower with 5 acres, this means that the grower needs to spend $22,059 in order to earn $3,296 in total profit. The cost study shows that cherry producers, like many farmers, assume an enormous amount of risk by investing in a crop without knowing what the yields will be when the cherries are harvested.

Sample production cost studies for many commodities are available and can be requested through the Department of Agricultural and Resource Economics, UC Davis. Current studies and some archived studies can be obtained from county UC Cooperative Extension offices or downloaded from the department website at http://coststudies.ucdavis.edu

1 Costs can also be calculated differently depending on the intended use of the cost estimate. The information in this publication serves as a general guide for establishing and producing sweet cherries in central California. To avoid drawing unwarranted conclusions for any particular farm or group of farms, the reader must closely examine the assumptions used. If they are not appropriate for the situation under consideration, adjustments in the costs and/or returns should be made.

The Value of Urban Agriculture

By Rob Bennaton, Bay Area Urban Agriculture Advisor, UC Cooperative Extension

In 2013, the world's population crossed a threshold never before surpassed in history: greater than 50% of the world now lives in cities and metropolitan areas.[1] This trend carries over to Contra Costa County, which is home to a number of cities. As a matter of fact, "The San Francisco-Bay Area is the nation's second most densely populated area at 6,266 people per square mile, followed by San Jose, CA (5,820 people per square mile)… Of the ten most densely populated urbanized areas, nine are in the West, with seven of those in California."[2]

As cities grow, one key question many are asking is how humanity will continue to sustain itself in terms of food systems that maintain both our environment and a sustainable quality of life. We all want an environment that includes healthy water, soil and air that we can enjoy for generations to come. To support a beneficial quality of life for all, urban agriculture considers social issues, economics and equity in the context of a healthy local environment. Urban agriculture is a way to support healthy families, communities and the environment, while reaping the associated social and environmental benefits that come from bringing people together to grow food.

"Urban agriculture includes production, distribution and marketing of food and other [agricultural] products within core metropolitan areas and at their edges".[3] It is inclusive because anyone can learn how to grow his or her own food and enjoy the benefits. Urban food production ranges from carrots growing in a balcony container pot to a local urban farm growing produce to feed a low income community lacking access to healthy food. It comes in all shapes and sizes: urban farms, community and school gardens, and parks, and can be for-profit, non-profit, community/school-based or a hybrid model.

Urban agriculture provides stacked social, health, economic and environmental advantages to communities. Social impacts of urban agriculture include safer spaces, community building and intergenerational/cross-cultural integration and understanding. Economic impacts cover increased farmer income through market expansion, saved or locally-used food-dollars and social and economic reevaluation through asset-building. Some health impacts are improved nutrition from increased fruit and vegetable consumption, low-intensity physical activity and the therapeutic effects of gardening on mental and rehabilitative health. Environmental impacts include a lower carbon footprint from reduced food-miles traveled, increased water conservation and decreased organic materials entering the waste stream. In addition, urban agriculture generally uses fewer chemical inputs and enhances soil conservation. This does not mean that every urban agriculture project or farm offers all of these benefits because each site is unique. Projects must be designed and implemented with specific goals in mind, and the type of hybrid model that results will have many of these benefits.

But the picture is not all rosy! Cultivating food in urban areas has its challenges and the urban growers have their burdens to bear as well. Participation and buy-in of area residents is essential to the success, viability and safety of urban agriculture projects. Managing soil quality issues by testing soils, building raised beds, adding organic material and being aware of a specific site's history, especially if it is an industrial one, are key factors to consider. Legal issues such as liability/permitting, leases, food safety, heavy metals in soil and local zoning regulations are also crucial points to recognize. Another challenge has been that urban agriculture projects have historically been subsidized by government funding earmarked for education and outreach, but attempts to become financially self-sustainable haven't always succeeded. After all of these realities are resolved, the traditional agricultural issues of production, small farm business management, food safety in post-harvest handling and processing come to the forefront as well.

1 Source: http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/
2 Source: http://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html
3 Adapted from the APA Definition, 2011. See UC Urban Ag Website: http://ucanr.edu/sites/UrbanAg/ for more information

Given these challenges, the University of California's Division of Agriculture and Natural Resources (ANR) conducted a statewide Urban Agriculture Needs Assessment. One of the main findings was that urban agriculture is a priority for UC Cooperative Extension, which has over 120 UCCE academics involved in some aspect of urban agriculture throughout California. Another was the need to develop technical literature that was adapted to the urban context and audience on soil quality, pest management and irrigation. The assessment also led to the establishment of an ANR Urban Agriculture Collaborative Team and website (http://ucanr.edu/sites/UrbanAg/) with a vast array of information on urban agricultural production, distribution and marketing.

Urban agriculture provides the opportunity for livable cities that allow for an urban existence in which healthy families and communities can coexist without compromising the environmental and natural resources needed by future generations. Let's grow together!

Economic Impact of Urban Gardening and Farming in Contra Costa County

In March 2013, Sustainable Contra Costa (SCOCO) launched a multi-faceted initiative to support urban gardening and farming (UGF) in Contra Costa County. SCOCO conducted a first-ever inventory and survey of urban gardens and farms in the county and compiled a comprehensive on-line directory of gardens, projects and supporting programs. In the process, SCOCO documented the work of a number of organizations that are working to create a local food system and connect people to the land. These growing spaces provide land for people who want to grow their own food, schools that teach our kids about food, nutrition and other core subjects through garden-based curricula, urban farmers, co-op neighborhood gardening groups, gleaners, farmers' markets, backyard farm circles and more.

Estimated Annual Value of Urban Gardening and Farming Food Production

	Projects[1]	Acres (avg)[2]	Sq. ft.	Value/Project[3]	Total Value
Community Gardens	41	1/8	5,445	$8,168	$334,868
School Gardens	60	1/16	2,723	$4,084	$245,025
Urban Farms and Demonstration Gardens	6	1/2	21,780	$32,670	$196,020
Charity Gardens	4	1/4	10,890	$16,335	$65,340
Gleaning[4]	1	-	-	-	$80,000
Estimated Total	**-**	**-**	**-**	**-**	**$921,253**

You can find more information about valuing urban food production at: http://sustainablecoco.org/, https://communitygarden.org/resources/research/ and http://foodsecurity.uchicago.edu/research/community-gardens-2/

1 Urban Gardening and Farming Projects. Source: Sustainable Contra Costa's Directory of Urban Gardening and Farming Projects in Contra Costa, http://sustainablecoco.org/gardendirectory
2 Gardened areas are rough estimates not based on actual site measurements
3 Values are based on an estimated square foot value of $1.50 based on information from Gardens for All and the National Gardening Association, http://www.gardenresearch.com/files/2009-Impact-of-Gardening-in-America-White-Paper.pdf
4 Gleaning figures are based on the estimate of 80 tons of produce or 160,000 pounds per year harvested and donated to the food bank at a price of $0.50 per pound in Contra Costa County

Contra Costa County 2014 Annual Crop Report

Agriculture is an everchanging industry, and food is produced in a variety of ways by farmers, gardeners and ranchers of all sizes. Here in Contra Costa, the Department of Agriculture / Weights and Measures actively seeks to promote communication and cooperation between producers and their communities to support a viable agricultural industry in the present and future.