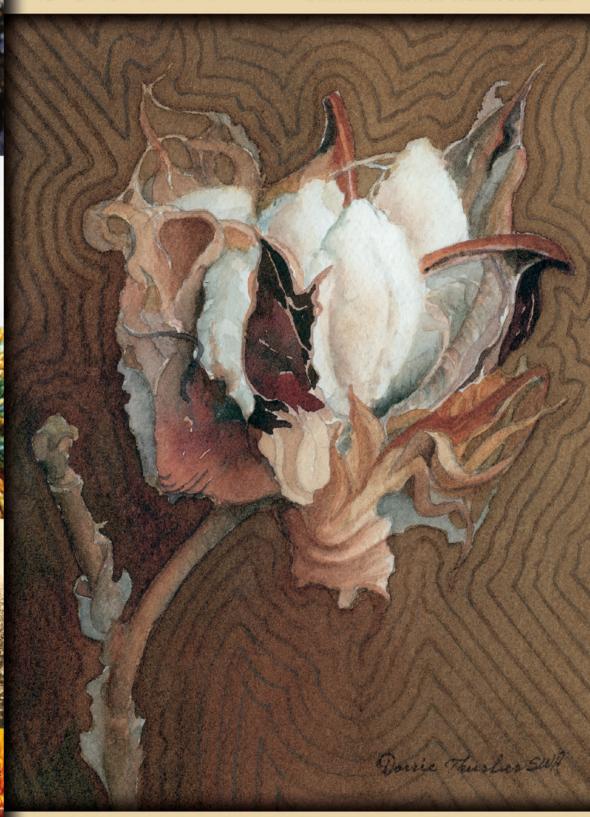




COUNTY

DEPARTMENT OF AGRICULTURE



2010 Report on Agriculture



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Merced County Department of Agriculture Staff
Cover painting by Dorrie Thurber, Morro Bay, California • dorrie.thurber@gmail.com

Cotton in Merced County

In Merced County, cotton is grown from Merced south to the county border. However, the primary growing area is on the Westside. The Dos Palos and Los Banos regions have warm daytime temperatures with cool nights, a good water supply and deep soils that are excellent for growing cotton. This area has had some of the best cotton yields in the San Joaquin Valley.

Merced produces two types or species of cotton. One is the Upland or Acala type and the other is the extra long staple or Pima type. Merced County is in the northern part of the climate zone for growing cotton, thus acreages of Upland or Acala type are usually double that of Pima due to their shorter season growth characteristics.

Merced's cotton production varies from year to year depending on acres planted and yields per acre. Acreage trends have been downward over the past several years for various reasons, including: low cotton prices, competing crops, and water shortages. Over the last 7 years we've seen acres decline from 69,000 acres in 2004 to





23,000 acres in 2009, the lowest since the 1960s. In 2010 Merced's cotton acreage rebounded to 39,265 acres due to an improvement in prices and water availability.

A full size bale of cotton lint weighs approximately 500 pounds and stands about 4½ ft. high. A typical bale can produce as many as 8000 handkerchiefs, or 3400 pairs of socks, or 750 shirts, or 325 pairs of jeans, or 200 full size bed sheets to name a few examples. In addition, cottonseed is used as a supplement for dairy feed and is also processed into oil.

Our thanks go to Bill Weir, University of California, Farm Advisor Emeritus and the California Cotton Ginners and Growers Association for their contributions to this article on cotton production in Merced County.

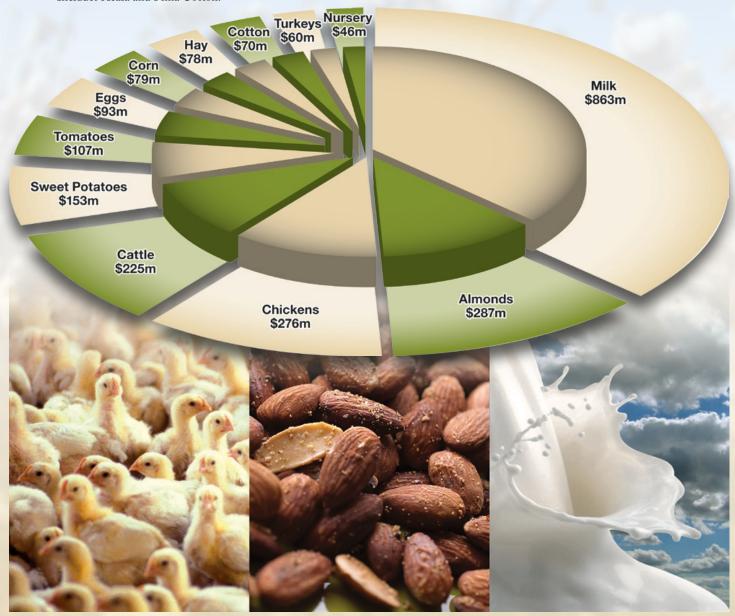


Top Twelve Leading Farm Commodities 2010

RANK	CROP	VALUE	2009 RANK
1	Milk*	\$862,819,000	(1)
2	Almonds (Kernel Basis)	\$286,600,000	(3)
3	Chickens **	\$275,536,000	(2) 🖊
4	Cattle and Calves	\$225,408,000	(4)
5	Sweet Potatoes	\$152,863,000	(5)
6	Tomatoes ***	\$107,297,000	(6)
7	Eggs, Chicken (Market)	\$93,251,000	(7)
8	Silage (Corn)	\$79,164,000	(9) 👚
9	Hay (Alfalfa)	\$77,922,000	(8) 🖶
10	Cotton ****	\$69,804,000	(13)
11	Turkeys	\$59,970,000	(10) 🗸
12	All Nursery Products	\$45,855,000	(12)



- * Includes Market and Manufacturing.
- ** Includes Fryers and Other Chickens.
- *** Includes Market and Processing Tomatoes.
- **** Includes Acala and Pima Cotton.





Karen Ross, Secretary
California Department of Food and Agriculture

The Honorable Board of Supervisors, County of Merced

John Pedrozo, Chairman

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Equal Opportunity Employer

In accordance with the provisions of Sections 2272 and 2279 of the California Food and Agricultural Code, I am pleased to submit the 2010 Merced County Report on Agriculture. This report summarizes the acreage, production, and gross value of Merced County's agricultural commodities.

Overall, the 2010 growing season was quite good for most crops. Merced County agriculture commodities grossed \$2,733,492,000, and for the sixth consecutive year surpassed the 2 billion dollar mark in gross production value. This represents an increase of \$273,017,000 over the 2009 values. These figures represent gross returns to the producer and do not take into account the costs of production, marketing, or transportation. Net income of the producer is not reflected in this report.

SIGNIFICANT EVENTS OF THE 2010 CROP YEAR:

- Milk remains the county's number one commodity with an overall value of \$862,819,000, an increase of \$201,779,000 (30.5%) over the 2009 crop year. Much of this increase is due to the increase in price and a modest increase in production. Prices increased approximately 28% for market milk and approximately 20% for milk used in manufacturing.
- Almonds regained status as the second leading commodity with a gross production value of \$286,600,000. An increase in both acreage and price provided for a 16.9% increase in overall value.
- Chickens remained steady in 2010 experiencing a slight drop in both production and price. Total production value was down 10% for a total of \$275,536,000 making chickens our third leading commodity.
- Cattle & calves, held steady as the fourth leading commodity, posting an increase in value of 4.9% for a total of \$225,408,000 in 2010. Although cattle numbers were down, prices increased 16.0%.
- Sweet potatoes remained the number five commodity despite the slight decrease in both production and price. Total production value was \$152,863,000, down 11.1% from 2009.
- Tomatoes, both market and processing, experienced a decrease in acreage, production and price yet remained our sixth leading commodity.
- In 2010, cotton regained its top twelve status. Overall cotton acreage increased nearly 68.0% and combined with record high prices came in at number ten. Prices rose 48.0% and the total value of \$69,804,000, increased by 125.0% over last year's value.

I wish to express my sincere thanks to our growers and ranchers, industry representatives and the members of my staff who assisted in the gathering of data for this report.

Respectfully submitted,

David A. Robinson, Agricultural Commissioner

Field Crops

CROP	YEAR	ACRES HARVESTED	PRODUCTION PER ACRE	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Barley	2010	4,065	1.97	7,993	Ton	\$154.32	\$1,233,000
	2009	3,185	2.77	8,823		\$153.75	\$1,357,000
Beans (Dry Lima)	2010	1,823	1.36	2,476	Ton	\$972.53	\$2,408,000
	2009	2,259	1.19	2,697		\$1,122.12	\$3,027,000
Corn (Grain) 1	2010	12,088	5.88	71,133	Ton	\$196.46	\$13,975,000
	2009	10,826	5.94	64,338		\$186.09	\$11,973,000
Cotton (Acala)	2010	25,915	2.88	74,566	500 Lb Bale	\$553.63	\$41,282,000
	2009	14,467	2.98	43,099		\$387.80	\$16,714,000
Cotton (Pima)	2010	13,350	2.40	32,081	500 Lb Bale	\$889.09	\$28,522,000
	2009	8,918	2.74	24,401		\$587.09	\$14,326,000
Cotton (Seed)	2010	_	0.98	38,595	Ton	\$291.84	\$11,264,000
	2009	_	0.99	23,262		\$270.00	\$6,281,000
Hay (Alfalfa)	2010	84,186	6.47	544,262	Ton	\$143.17	\$77,922,000
	2009	90,551	6.90	625,204		\$118.85	\$74,306,000
Hay (Grain) ²	2010	36,074	3.12	112,721	Ton	\$78.14	\$8,808,000
·	2009	40,461	3.62	146,430		\$70.26	\$10,288,000
Hay (Sudan)	2010	9,708	4.63	44,922	Ton	\$123.75	\$5,559,000
• •	2009	10,104	2.29	23,123		\$82.60	\$1,910,000
Misc. Field Crops ³	2010	3,219	_	_	_	_	\$1,518,000
•	2009	3,040	_	_		_	\$1,326,000
Pasture (Irrigated)	2010	30,719	_	30,719	Acre	\$160.00	\$4,915,000
	2009	30,719	_	30,719		\$157.50	\$4,838,000
Pasture (Other)	2010	567,391	_	567,391	Acre	\$25.00	\$14,185,000
	2009	569,828	_	569,828		\$21.00	\$11,966,000
Rice	2010	2,499	4.05	10,125	Ton	\$293.43	\$2,971,000
	2009	2,455	3.84	9,432		\$364.63	\$3,439,000
Silage (Alfalfa)	2010	_	0.84	70,598	Ton	\$33.36	\$2,355,000
0	2009	_	1.94	175,271		\$35.83	\$6,279,000
Silage (Corn)	2010	90,119	27.74	2,499,530	Ton	\$31.67	\$79,164,000
	2009	97,880	26.27	2,571,215		\$27.04	\$69,528,000
Silage (Other) ⁴	2010	70,647	15.57	1,100,045	Ton	\$21.27	\$23,392,000
	2009	78,311	12.85	1,006,109		\$19.20	\$19,315,000
Straw ⁵	2010	_	_	3,779	Ton	\$32.64	\$123,000
	2009	_	_	4,410		\$33.68	\$149,000
Stubble (Pasture)	2010	_	_	15,153	Acre	\$20.00	\$303,000
	2009	_	_	14,488		\$18.00	\$261,000
Wheat ⁶	2010	11,940	2.89	34,474	Ton	\$175.15	\$6,038,000
	2009	11,420	3.50	39,996		\$268.46	\$10,737,000
TOTAL	2010						
TOTAL	2010	963,745					\$325,939,000
	2009	974,421					\$268,019,000

For 2010: Includes Human Consumption Corn (but not Fresh Market Corn). For 2009: Includes Human Consumption Corn (but not Fresh Market Corn), and grain for Feed.

For 2010: Includes Oat, Wheat, and Winter Forage Hay. For 2009: Includes Forage, Oat, and Wheat Hay.

For 2010: Includes Beans (Dry Other), Corn Stalks and Earledge, Milo, Oat Grain, and Safflower. For 2009: Includes Beans (Dry Other), Cotton Mote, Oat Grain, Milo, and Safflower.

⁴ For 2010: Includes Oat, Sorghum, Sudan, Triticale, Wheat, and Winter Forage. For 2009: Includes Oat, Sorghum, Sudan, Wheat, and Winter Forage

For 2010: Includes Straw from Barley. Bean (Dry), Oat, Rice, and Wheat. For 2009: Includes Straw from Barley, Bean (Dry), Oat, Rice and Wheat.

⁶ For 2010: Includes Dryland farming

Vegetable Crops

CROP	YEAR	ACRES HARVESTED	PRODUCTION PER ACRE	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Beans, Lima (Freezer)	2010	992	1.80	1,789	Ton	\$599.38	\$1,073,000
	2009	1,479	1.80	2,659		\$601.90	\$1,600,000
Melons (Cantaloupe) 1	2010	6,353	599.38	3,807,831	40lb Ctn	\$4.73	\$18,021,000
	2009	5,678	678.27	3,851,234		\$5.68	\$21,875,000
Melons (Other) ²	2010	3,401	21.16	71,970	Ton	\$244.45	\$17,593,000
	2009	2,084	39.37	82,043		\$258.54	\$21,211,000
Misc. Vegetables ³	2010	3,422	_	_	_	_	\$20,946,000
	2009	3,615	_	_		_	\$20,014,000
Sweet Potatoes 4	2010	16,548	15.39	254,674	Ton	\$600.23	\$152,863,000
	2009	16,361	16.28	266,357		\$645.48	\$171,928,000
Tomatoes (Market) 5	2010	8,612	1,069.88	9,214,183	25lb Ctn	\$4.99	\$45,971,000
	2009	10,987	1,282.63	14,092,000		\$5.81	\$81,862,000
Tomatoes (Processing)	2010	20,582	44.71	920,164	Ton	\$66.65	\$61,326,000
	2009	21,000	45.51	955,807		\$80.89	\$77,318,000
TOTAL	2010	59,910					\$317,794,000
	2009	61,204					\$395,809,000

¹ For 2010, 2009: Price reflects wholesale after packing and shipping.

Bee Industry

CROP	YEAR	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Beeswax	2010	57,420	Lb	\$2.37	\$136,000
	2009	22,203		\$2.06	\$46,000
Bulk Bees 1	2010	67,492	Lb	\$12.00	\$810,000
	2009	69,586		\$11.00	\$765,000
Honey ²	2010	3,732,326	Lb	\$1.49	\$5,561,000
	2009	1,443,207		\$1.37	\$1,977,000
Pollination ³	2010	169,624	Colony	\$121.59	\$20,625,000
	2009	151,242		\$133.59	\$20,205,000
Queens 4	2010	25,867	Each	\$17.94	\$464,000
	2009	37,147		\$10.53	\$391,000
TOTAL	2010				\$27,596,000
IOIAL					
	2009				\$23,384,000



² For 2010, 2009: Includes Honeydew, Mixed Melons, and Watermelon.

³ For 2010: Includes Asparagus, Basil, Broccoli, Cabbage (Napa), Cantaloupe (Organic), Cilantro, Corn (Fresh), Cucumber, Dill, Garlic, Leek, Onion, Parsley, Pepper (Bell, Spice), Pumpkin, Radicchio, Radish, Sage, Spice/Herb, and Squash.

For 2009: Includes Asparagus, Arrugula, Basil, Broccoli, Cabbage (Napa), Cantaloupe (Organic & Processing, Cilantro, Corn (Sweet), Cucumber, Cucumber (Pickle), Dill, Garlic, Honeydew (Organic), Leek, Onion (Dry, Fresh, Green), Oregano, Pepper (Bell, Chili Dried, Spice), Pumpkin, Radicchio (Organic, Spring, Winter), Radish, Sage, Squash, Squash (Winter, Summer), Sunflower, Tomatillo, and Tomato (Processing Organic).

⁴ For 2010, 2009: Price reflects wholesale after packing and shipping.

⁵ For 2010, 2009: Price reflects wholesale after packing and shipping.

¹ For 2010, 2009: Includes Bees Sold as Bulk Bees, Nuclei, and Packaged Bees.

For 2010: Honey produced by 44,180 resident colonies. For 2009: Honey produced by 42,076 resident colonies.

³ For 2010, 2009: Pollination colonies include all required to pollinate crops grown in Merced County.

⁴ For 2010, 2009: Includes Mated Queens and Queen Cells.

Seed Crops

CROP	YEAR	ACRES HARVESTED	PRODUCTION PER ACRE	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Seed Crops ¹	2010	5,072	_	_	_	_	\$3,175,000
	2009	5,626	_	_		_	\$3,746,000
TOTAL	2010	5,072					\$3,175,000
	2009	5,626					\$3,746,000

For 2010: Includes Certified, Common, and Phytosanitary Seed from Barley, Bean (Lima), Cotton, Lettuce, Oat, Radish, Rice, Rye, and Wheat.
For 2009: Includes Certified, Common, and Phytosanitary Seed from Barley, Bean (Lima), Cauliflower, Lettuce, Mustard, Oat, Rye, Turnip, and Wheat.

Fruit and Nut Crops

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CROP	YEAR	ACRES HARVESTED	PRODUCTION PER ACRE	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Almonds (Hulls)	2010	_	_	157,513	Ton	\$100.88	\$15,890,000
	2009	_	_	157,245		\$84.37	\$13,267,000
Almonds (Kernel Basis)	2010	98,895	0.78	77,460	Ton	\$3,699.98	\$286,600,000
	2009	94,635	0.82	77,600		\$3,160.00	\$245,217,000
Apricots	2010	413	14.24	5,884	Ton	\$381.52	\$2,245,000
	2009	807	5.71	4,611		\$316.30	\$1,458,000
Figs (Dry)	2010	980	1.26	1,235	Ton	\$1,339.19	\$1,653,000
	2009	1,572	1.25	1,972		\$1,487.98	\$2,934,000
Grapes (Raisin)	2010	551	1.50	826	Ton	\$1,486.11	\$1,227,000
	2009	569	2.53	1,439		\$978.71	\$1,408,000
Grapes (Wine)	2010	11,186	9.03	101,004	Ton	\$334.27	\$33,763,000
	2009	11,317	11.36	128,596		\$325.21	\$41,821,000
Miscellaneous 1	2010	2,179	_	_	_	_	\$30,983,000
	2009	1,959	_	_		_	\$23,253,000
Peaches (Clingstone)	2010	2,631	21.04	55,352	Ton	\$285.95	\$15,828,000
_	2009	2,749	19.75	54,281		\$317.14	\$17,215,000
Peaches (Freestone)	2010	1,875	23.71	44,453	Ton	\$268.71	\$11,945,000
	2009	1,836	18.13	33,283		\$268.55	\$8,938,000
Pistachios	2010	4,446	1.86	8,265	Ton	\$4,949.71	\$40,912,000
	2009	4,411	0.87	3,841		\$3,474.60	\$13,345,000
Plums, Dried	2010	1,706	2.20	3,752	Ton	\$1,523.06	\$5,714,000
	2009	1,753	1.56	2,743		\$1,399.81	\$3,839,000
Strawberries	2010	74	7.13	527	Ton	\$1,516.09	\$800,000
	2009	70	8.10	563		\$868.69	\$489,000
Walnuts (English)	2010	5,326	1.64	8,741	Ton	\$2,069.46	\$18,088,000
	2009	5,612	1.58	8,858		\$1,724.37	\$15,275,000
TOTAL	2010	130,261					\$465,648,000
	2009	127,289					\$388,459,000

For 2010: Includes Apple, Blueberry, Cherry, Fig (Fresh), Fruit Juice, Grape (Raisin to Wine), Kiwi, Nectarine, Olives, Orange (Mandarin), Organic Fruit and Nut, Pear (Asian), Pecan, Persimmon, Plum, Pluot, and Pomegranate.
For 2009: Includes Apple, Apricot (Fresh), Blueberry, Cherry, Fig (Fresh), Fruit Juice, Grape (Raisin to Wine), Kiwi, Nectarine, Olives (Processed), Orange (Mandarin), Organic Fruit and Nut, Pear (Asian), Pecan, Persimmon, Plum, Pluot, and Pomegranate.

Fruit and Nut Acreage Planting

CROPS	BEARING 2010	NON-BEARING 2010	BEARING 2005	NON-BEARING 2005
Almonds	98,895	2,799	87,159	8,558
Apples	1	0	203	0
Apricots	441	0	1,272	0
Berries	189	0	283	0
Cherries	365	41	338	2
Figs	1,226	194	3,022	0
Grapes (Raisin)	612	0	771	0
Grapes (Table)	0	0	124	0
Grapes (Wine)	11,186	622	11,542	301
Jujube	0	0	20	0
Kiwi	26	0	33	0
Mandarins	16	0	9	1
Nectarines	99	0	112	25
Olives	7	0	12	0
Oranges	6	0	4	1
Peaches (Clingstone)	2,631	48	3,649	72
Peaches (Freestone)	1,875	32	1,790	173
Pears	7	0	13	0
Pecans	0	0	32	5
Persimmon	16	20	2	0
Pistachios	5,006	490	4,584	241
Plums	86	28	78	12
Plums (Dried)	1,706	250	1,902	38
Pluot	38	0	72	0
Pomegranate	202	108	12	0
Walnuts (English)	5,326	210	5,948	474
TOTAL	129,962	4,842	122,986	9,903
	,	,	,	



Nursery Products

CROP	YEAR	ACRES HARVESTED	PRODUCTION PER ACRE	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
All Nursery Products ¹	2010	1,316	_	_	_	_	\$45,855,000
	2009	1,428					\$38,661,000
TOTAL	2010	1,316					\$45,855,000
	2009	1,428					\$38,661,000

For 2010: Includes Bud Wood, Cane Berries, Christmas Trees, Crowns and Cuttings, Deciduous Fruit and Nut Trees, Decorative Plants, Dried Flowers, Greenhouse Plants, Ornamental Plants, Ornamental and Shade Trees, Transplants (Strawberry and Vegetables) and Turf. The Separate production and value are not shown to avoid disclosing individual operations. For 2009: Includes Bud Wood, Cane Berries, Christmas Trees, Crowns and Cuttings, Deciduous Fruit and Nut Trees, Decorative Plants, Dried Flowers, Greenhouse Plants, Ornamental Plants, Ornamental and Shade Trees, Transplants (Strawberry and Vegetable), and Turf. The separate production and value are not shown to avoid disclosing individual operations.



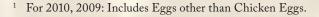
Livestock and Poultry Production

CROP	YEAR	NUMBER OF HEAD	PRODUCTION PER HEAD	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Cattle and Calves 1	2010	320,884	8.41	2,698,761	Cwt	\$83.52	\$225,408,000
	2009	367,080	8.13	2,982,947		\$72.02	\$214,832,000
Chickens (Fryers and Broilers)	2010	77,744,725	5.72	444,699,827	Lb	\$0.62	\$275,536,000
	2009	82,354,694	5.65	465,304,021		\$0.66	\$306,200,000
Livestock (Miscellaneous) ²	2010	38,735	_	_	_	_	\$5,324,000
	2009	30,771	_	_			\$4,029,000
Poultry (Miscellaneous) ³	2010	78,000	_	_	_	_	\$727,000
	2009	61,000	_	_			\$583,000
Sheep and Lambs	2010	29,650	1.00	29,650	Cwt	\$121.97	\$3,616,000
	2009	21,474	1.60	34,318		\$79.09	\$2,714,000
Turkeys	2010	2,306,709	31.18	71,923,187	Lb	\$0.83	\$59,970,000
	2009	2,701,196	29.98	80,981,856		\$0.66	\$53,408,000
TOTAL	2010	80,518,703					\$570,580,000
	2009	85,536,215					\$581,766,000

For 2010: Includes Calves, Cull Bulls (Dairy and Beef), Cull Cows (Dairy and Beef), Replacement Heifers (Dairy and Beef) and Stocker Cattle. For 2009: Includes Calves, Cull Bulls (Dairy and Beef), Culls Cows (Dairy and Beef), Replacement Heifers (Dairy and Beef) and Stocker Cattle.

Livestock and Poultry Products

CROP	YEAR	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Eggs (Other) ¹	2010	1,460,000	Each	\$0.37	\$540,000
	2009	2,390,363		\$1.01	\$2,407,000
Eggs, Chicken (Market)	2010	112,351,020	Dozn	\$0.83	\$93,251,000
	2009	112,184,190		\$0.72	\$80,885,000
Milk (Goat)	2010	86,884	Cwt	\$42.83	\$3,721,000
	2009	48,987		\$36.00	\$1,764,000
Milk (Manufacturing)	2010	8,702,438	Cwt	\$14.55	\$126,627,000
Ŭ.	2009	7,858,120		\$12.10	\$95,083,000
Milk (Market)	2010	50,048,038	Cwt	\$14.71	\$736,192,000
	2009	49,249,930		\$11.49	\$565,957,000
Wool	2010	116,983	Lb	\$1.15	\$135,000
	2009	178,050		\$0.85	\$151,000
TOTAL	2010				#060 466 000
TOTAL	2010				\$960,466,000
	2009				\$746,247,000





² For 2010, 2009: Includes Dairy and Meat Goats sold for meat.

³ For 2010, 2009: Includes Chukar, Pheasant, and Squab.



Aquaculture

CROP	YEAR	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Fish 1	2010	832,100	Lb	\$2.52	\$2,098,000
	2009	831,500		\$2.63	\$2,183,000
TOTAL	2010				\$2,098,000
	2009				\$2,183,000



For 2010: Includes Black Bass, Bluegill, Catfish, Silver Carp, Sturgeon, and Trout. For 2009: Includes Black Bass, Bluegill, Catfish, Perch, Silver Carp, Sturgeon, and Trout.

Other Agriculture

CROP	YEAR	PRODUCTION TOTAL	PRODUCTION UNIT	VALUE PER UNIT	VALUE TOTAL
Almond (Shells) 1	2010	49,756	Ton	\$19.94	\$992,000
	2009	65,174		\$12.10	\$788,000
Firewood ²	2010	24,991	Cord	\$166.55	\$4,162,000
	2009	20,796		\$163.32	\$3,396,000
Fuel (Cogeneration) ³	2010	62,325	Ton	\$40.00	\$2,493,000
	2009	43,900		\$40.00	\$1,756,000
Manure ⁴	2010	1,003,570	Ton	\$6.67	\$6,694,000
	2009	992,019		\$6.31	\$6,260,000
TOTAL	2010				\$14,341,000
TOTAL					
	2009				\$12,201,000



- ¹ For 2010, 2009: For Animal Bedding.
- ² For 2010, 2009: Includes Orchard Prunings and Removal for Firewood (Recorded in Cords).
- ³ For 2010, 2009: Includes Orchard Prunings and Orchard Removal for Fuel (Recorded in Dry Tons).
- ⁴ For 2010, 2009: Includes Livestock and Poultry Manure.

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PEST PREVENTION

The California Food and Agricultural Code mandates pest prevention programs to prevent the introduction and spread of pests in California. Pest prevention involves Pest Exclusion, Pest Detection, Pierce's Disease Control, and the Federal Phytosanitary Certification Program.

PEST EXCLUSION PROGRAM

Pest Exclusion is the first line of defense to prevent the introduction of pests, injurious to agriculture, that are not of common occurrence in Merced County.

A total of 8,286 shipments of incoming plant material were inspected in 2010. Shipments are inspected at United Parcel Service, United States Post Offices, Federal Express and trucking terminals. Ten shipments were rejected. The 10 rejections were for live pests, material not properly certified, or improperly marked containers.

PIERCE'S DISEASE CONTROL PROGRAM

To prevent the introduction of the Glassy-winged Sharpshooter (GWSS) into Merced County, which is the main insect vector of Pierce's Disease, all shipments of nursery stock from infested counties are inspected. GWSS has the ability to spread Pierce's Disease rapidly among grape vines with devastating results. Five hundred and sixty-nine shipments of nursery stock from infested counties were inspected in 2010.

In addition, all nurseries receiving nursery stock from GWSS infested areas plus 2,094 residential yards were visually inspected for GWSS presence during 2010. Merced County continues to be free from GWSS.

FEDERAL PHYTOSANITARY CERTIFICATION PROGRAM

This program ensures that plants and plant commodities exported to foreign countries from Merced County are free from injurious pests. In 2010, the Merced County staff inspected and issued Phytosanitary Certificates for 5,305 export shipments.

PEST DETECTION PROGRAM

Pest Detection uses visual inspection and insect traps that target specific exotic insects of high agricultural and economic importance.

The trapping program in Merced County targeted the following pests:

Asian Citrus Psyllid (Diaphorina citri Kuwayama)*

Apple Maggot (Rhagoletis pomonella)

European Pine Shoot Moth (Rhyacionia buoliana)

Glassy-winged Sharpshooter (Homalodisca coagulate)

Light Brown Apple Moth (Epiphyas postvittana)

Khapra Beetle (Trogoderma granarium)

Melon Fly (Dacus cucurbitae)

Oriental Fruit Fly (Dacus dorsalis)

* New for 2010

European Grape Vine Moth (Lobesia botana) *

Vine Mealy Bug (Planococcus ficus)

European Corn Borer (Ostrinia nubilalus)

Gypsy Moth (Lymantria dispar)

Japanese Beetle (Popillia japonica)

Mediterranean Fruit Fly (Ceratitis capitata)

Mexican Fruit Fly (Anastrepha ludens)

Sweet Potato Weevil (Cylas formicarius elegantulus)

A total of 2,502 pest detection traps were placed in Merced County and inspected 24,414 times during the 2010 trapping season.

PEST ERADICATION PROGRAM

The Pest Eradication Program endeavors to eliminate infestations of significant agricultural pests with limited distribution before they are able to cause an on-going economic cost to California Agriculture.

Successful eradication projects include Sweet Potato Weevil, Banana Waterlily, and Japanese Dodder.



Detection and eradication efforts for the invasive weeds; South American Sponge Plant ("A" Rated), Capeweed ("A" Rated), Purple Loosestrife ("B" Rated), and Purple Mustard ("B" Rated) were conducted during 2010.

Detection efforts for Camelthorn, Carolina Horse Nettle, and Hydrilla are continuing.

Detection and eradication efforts for insect pests Pink Bollworm and Red Imported Fire Ant are continuing. Three native Pink Bollworm moths were trapped on the Westside of Merced County in 2010.

The Pink Bollworm is a major cotton pest. Eradication efforts included a State operated trapping program of 39,265 acres in conjunction with County enforcement of the host - free period from January 1 through March 10, also known as cotton plow down. Treatment is accomplished by disrupting mating, utilizing pheromones and sterile moths.

Merced County's Red Imported Fire Ant (RIFA) eradication program started in November 2001. Since that time, 41,000 plus acres have been surveyed for RIFA; 12,022 acres have been found to be infested with RIFA. During 2010, there were additional finds made in several areas of the County. At the end of 2010, acres under treatment totaled 8,711. A total of 557 acres were declared eradicated, and 5,846 acres are being monitored for re-infestations of RIFA with post treatment surveys. CDFA personnel in conjunction with County personnel conducted these surveys.



BIOLOGICAL CONTROL

The Biological Control (Biocontrol) Program uses natural enemies to suppress pest populations to economically and environmentally acceptable levels. Once the biocontrol agent becomes established it is self-perpetuating, reducing the need to use pesticides. The following are pests found in Merced County and their Biocontrol Agents.

7-0-	
PEST	ORGANISM
Ash Whitefly (Siphoninus phillyreae)	Parasitoid Wasp (Encarsia inaron)
Grapeleaf Skeletonizer (Harrisina brillians)	Parasitic Fly (Ametadoria misella) Virus (WGLS Granulosis) Parasitic Wasp (Apanteles harrisinae)
Itallian Thistle (Carduus sp.)	Seed-Head Weevil (Rhinocllyus conicus)
Klamath Weed (Hypericum perforatum)	Leaf Beetle (Chrysolina quadrigemina)
Milk Thistle (Silybum marianum)	Seed-Head Weevil (Rhinocyllus conicus)
Puncture Vine (Tribulus terrestris)	Seed Weevil (Microlarinus lareynii) Stem Weevil (Microlarinus lypriformis)
Red Gum Lerp Psyllid (Glycaspis brimblecombei)	Parasitoid Wasp (Psyllaephagus bliteus)
Russian Thistle (Salsola sp.)	Case-bearer Moth (Coleophora klimeschiella) Russian Thistle Borer (Coleophora parthenica)
Yellowstar Thistle (Centaurea solstitialis)	Seed-Head Weevil (Bangasternus orientalis) Seed-Head Gall Fly (Urophora sirunaseva) Hairy Weevil (Eustenopus villosus) False Peacock Fly (Chaetorellia succinea) Rust Fungus (Puccinia jaceae var. solstitialis)



ORGANIC FARMING



Merced County had 51 growers of organic commodities, four organic processors, and four organic handlers in 2010. These growers farmed a total of 45,037 acres to produce assorted organic field crops, berries, fruits, nuts, vegetables, irrigated, and non-irrigated pastureland. Organic eggs, livestock, milk, and poultry were also produced.



EUROPEAN GRAPEVINE MOTH (EGVM)

The European Grapevine Moth (EGVM), also known as Lobesia botrana, is a destructive pest of grapes (wine, table, raisin, and wild grapes); however, it will also feed on a number of other hosts.

The EGVM was originally discovered in the autumn of 2009 in the Napa Valley region of California, the first ever recorded find in the United States, and has already caused considerable crop damage in the Napa Valley. Larvae prefer to feed on flowers and the inside of berries, causing significant damage and possible exposure to fungal infections. By mid-summer 2010, there were EGVM detections in the San Joaquin Valley locations of Fresno, Merced, and San Joaquin counties. To date, there have been four positive finds for EGVM in Merced County. All of which, were

found in the same area and during the same time frame. This resulted in a portion of Merced County being placed under a Federal Quarantine, restricting the movement of host commodities, and the ability to export to some countries.

All of the commercial grapes in Merced County, outside of the quarantine area, are currently being trapped for EGVM at a density of 15 traps per square mile. Within the quarantine area all host commodities are being trapped at a density of 25 traps per square mile.

It is important to detect and eradicate EGVM infestations while the population is still small. Grapes are ranked second among agricultural commodities in California and ranked fourteenth in Merced County. Establishment of this pest can be catastrophic to our vineyards. Places in Europe, the Mediterranean, Africa, the Middle East, Japan, and Chile are already dealing with the negative impacts of this pest.

Your backyard fruit is also at risk if this pest gets established. You can help by not transporting fresh fruits, vegetables, and plants out of the area, especially if you are within a quarantined area.



Delta trap, type used for detection of EGVM.

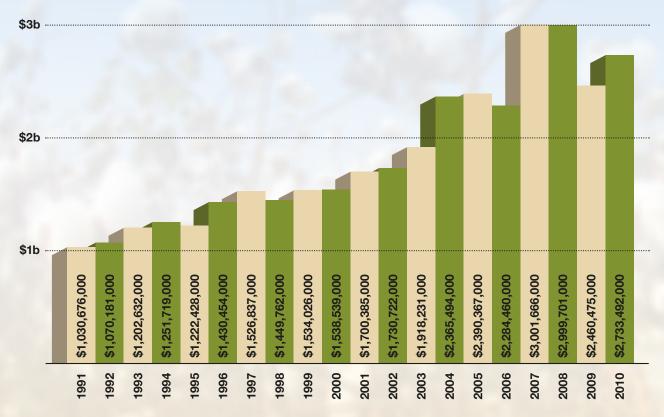


One of the actual specimens trapped in Merced County.

Commodity Value Crop Comparison

COMMODITIES	2010	2000	1990	1980
Aquaculture	\$2,098,000	\$3,814,000	\$2,809,000	
Bee Industry	\$27,596,000	\$9,833,000	\$4,565,000	\$2,923,000
Field Crops	\$325,939,000	\$230,751,000	\$228,475,000	\$191,239,000
Fruit and Nut Crops	\$465,648,000	\$213,310,000	\$200,773,000	\$152,584,000
Livestock and Poultry Production	\$570,580,000	\$316,098,000	\$231,735,000	\$191,226,000
Livestock and Poultry Products	\$960,466,000	\$524,493,000	\$314,963,000	\$171,548,000
Nursery Products	\$45,855,000	\$21,758,000	\$12,036,000	\$15,734,000
Other Agriculture	\$14,341,000	\$10,340,000	\$8,639,000	
Seed Crops	\$3,175,000	\$1,689,000	\$1,465,000	\$3,012,000
Vegetable Crops	\$317,794,000	\$206,451,000	\$93,625,000	\$65,831,000
Total	\$2,733,492,000	\$1,538,539,000	\$1,099,085,000	\$794,097,000

Merced County Agricultural Commodity Values 1991–2010





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