



# **MERCED COUNTY - FIRST IN SWEET POTATO PRODUCTION**

Botanically, the sweet potato belongs to the Morning Glory family. Sweet potatoes are enlarged storage roots, compared to Irish potatoes which are tubers (underground stems). Market varieties are classified as "dry-fleshed" or "moist-fleshed," according to the feel sensation experienced in the mouth when eating a cooked or baked sweet potato. The "moist-fleshed" potato is sometimes referred to as a "yam" and the "dry-fleshed" as a "sweet potato." They are, however, both sweet potatoes, and the USDA requires they be labeled as such.

Scientists believe that sweet potatoes were domesticated in South America or Central America more than 5000 years ago. Columbus found the sweet potato being eaten by the natives of the West Indies and brought it back to Europe in the early 16th century. Sweet potatoes were grown in Spain by 1562 and in Virginia in 1650.

Sweet potatoes were first introduced to the area in the 1880's by Portuguese farmers. In the early 1900's, Japanese farmers in the Yamato Colony (Livingston) began production of them. Family farms dominate production with approximately 60 growers in the county, with about half farming 75 acres of sweet potatoes or less. Production costs often exceed \$5,000 per acre. The crop supports numerous full and part-time jobs in the county, and in 2006 had an estimated farm value of \$112 million from over 12,000 acres.

California as a whole is the second largest producer of sweet potatoes, but Merced County is the #1 sweet potato producing county in the United States. About 80% of the California production is located in Merced County, primarily due to the climate, soil, and a long history of commercial production. A long, dry growing season, high quality irrigation water, and innovative farmers consistently result in good yield and quality. The sandy soils around Atwater and Livingston, where most production fields are located, are preferred for sweet potatoes, because they result in more attractive roots.

Sweet potato production is a long and labor-intensive operation. A typical growing season begins in February, when seed potatoes (small sweet potatoes that are not sold for market) are put into hotbeds to grow plants (called slips) that will later be transplanted into fields. All sweet potatoes are grown from transplants, which are set in the field from April through July using mechanical transplanters. Most sweet potatoes in Merced are grown using drip irrigation, which is surface applied after transplanting. Harvest typically begins in late July and continues into November.

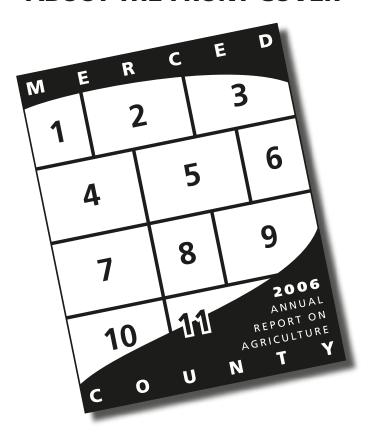






Sweet potatoes are a nutritional powerhouse, providing many vitamins and minerals, especially Vitamin A. Most sweet potatoes are sold during the Thanksgiving, Christmas, and Easter holidays, but they store well and are available year-round. Sweet potatoes can also be used to make processed foods such as fries and chips, and in recent years, this has become an important part of the industry.

# **ABOUT THE FRONT COVER**



- 1) Sweet Potato vines in the field
- 2) Covering Sweet Potato hotbeds
- 3) Typical varieties of Sweet Potatoes
- 4) Sweet Potato blossom
- 5) Transplanting Sweet Potato plants into the field for the growing season
- 6) Freshly harvested Sweet Potatoes in the field
- 7) Sweet Potatoes packaged for shipping
- 8) Cutting Sweet Potato vines
- 9) Covered hotbeds
- 10) Seed Sweet Potatoes being grown in greenhouse prior to field transplanting
- 11) Sweet Potato foilage detail

Our thanks go to University of California Cooperative Extension Farm Advisor, Scott Stoddard, for his generous contribution of the cover photographs, as well as information on the sweet potato.

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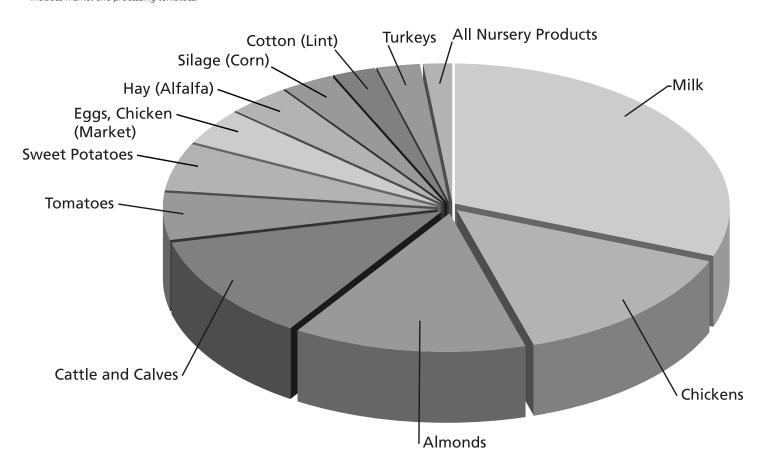


# **TOP TWELVE LEADING FARM COMMODITIES 2006**

Rank	Crop	Value	2005 Rank
1	Milk <sup>1</sup>	\$621,956,000	1
2	Chickens <sup>2</sup>	\$286,785,000	2
3	Almonds (Kernel Basis)	\$268,626,000	3
4	Cattle and Calves	\$243,289,000	4
5	Tomatoes <sup>3</sup>	\$112,730,000	6
6	Sweet Potatoes	\$111,868,000	5
7	Eggs, Chicken (Market)	\$81,297,000	8
8	Hay (Alfalfa)	\$72,912,000	7
9	Silage (Corn)	\$59,197,000	10
10	Cotton (Lint)	\$54,510,000	9
11	Turkeys	\$45,194,000	11
12	All Nursery Products	\$35,421,000	13

<sup>&</sup>lt;sup>1</sup> Includes market and manufacturing milk.

<sup>&</sup>lt;sup>3</sup> Includes market and processing tomatoes.



<sup>&</sup>lt;sup>2</sup> Includes fryers and other chickens.



A. G. Kawamura, Secretary California Department of Food and Agriculture

And

The Honorable Board of Supervisors County of Merced

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### **DEPARTMENT OF AGRICULTURE**

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In accordance with the provisions of Sections 2272 and 2279 of the California Food and Agricultural Code, I am pleased to submit the 2006 Merced County Report of Agriculture. This report summarizes the acreage, production, and gross value of Merced County's agricultural commodities.

Merced County agriculture again surpassed the 2 billion dollar mark in gross production value of agricultural commodities for the third consecutive year. With a gross production value of \$2,284,460,000 in 2006, Merced County agricultural commodities decreased \$105,907,000 (4.43%) from 2005 production values. This reduction was due, in part, to an abnormally wet, late winter and early spring and record high temperatures in mid July.

The price of milk dropped considerably (12.6%) in 2006. This resulted in a reduction in value of \$89,931,000. However, milk remains the county's number one commodity with an overall value of \$621,956,000. Chickens remain the number two commodity, with a total value of \$286,785,000, which is down 4.3% due mainly to a high mortality rate during the July heat wave. Almonds came in at number three again in 2006, with a value of \$268,626,000. This figure is down from last year's value of \$292, 995,000 due to a \$0.69/lb drop in price. Almond production improved slightly (by 240 lbs/A) over 2005 in spite of another poor pollination season plagued by continual rain. Cattle & calves (the fourth leading commodity) also had a reduction in value of 10.4% for a total of \$243,289,000 in 2006. Egg production in Merced County continued to increase, due to continued laying facility expansions in 2006. The market egg price dropped \$0.03/dozen, but with the increased production, the overall value of chicken eggs rose by \$6,018,000 to \$81,297,000. Even with substantial flock losses, due to the July heat wave, turkey production increased in 2006 increasing their overall value to \$45,194,000. Sweet potato acreage increased by 1,771 acres increasing their overall value to \$111,868,000.

The 2006 growing season was again plagued by multiple rain events from February through April. These rains severely impacted almond, apricot, cherry, nectarine, plum, and strawberry bloom. This was followed by a period of extremely high heat during mid July which adversely affected tomato and cotton yields, as well as honey production. However, the greatest heat related losses during this period were to livestock (cattle and poultry) and milk production. These losses were estimated to be in excess of \$46,000,000. Merced County requested and received disaster declarations for apricot, cherry, nectarine, plum, strawberry, livestock, and milk production losses in 2006 from USDA.

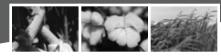
These figures represent gross returns to the producer and do not take into account the costs of production, marketing, or transportation. Net income of the producer is not reflected in this report.

I wish to express my sincere thanks to our growers and ranchers, the staff of the University of California Cooperative Extension, 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	Total Production	Production Unit	Value per Unit	Total Value
Barley	2006	3,035	2.44	7,394	Ton	\$109.51	\$810,000
	2005	4,610	2.19	10,106	Ton	\$98.81	\$999,000
Beans (Dry Lima)	2006	876	1.08	942	Ton	\$1,203.73	\$1,134,000
	2005	892	1.44	1,285	Ton	\$839.05	\$1,078,000
Beans (Dry Other)	2006	1,570	1.41	2,216	Ton	\$945.31	\$2,095,000
	2005	1,686	1.29	2,169	Ton	\$800.00	\$1,735,000
Corn (Grain) 1	2006	4,228	5.44	23,008	Ton	\$152.81	\$3,516,000
	2005	6,019	5.13	30,855	Ton	\$129.47	\$3,995,000
Cotton (Lint)	2006	56,575	2.60	147,165	500 Lb Bale	\$370.40	\$54,510,000
	2005	63,670	2.60	165,589	500 Lb Bale	\$377.83	\$62,564,000
Cotton (Seed)	2006 2005		1.01 0.89	56,892 56,784	Ton Ton	\$160.00 \$160.00	\$9,103,000 \$9,085,000
Hay (Alfalfa)	2006	83,508	6.62	552,663	Ton	\$131.93	\$72,912,000
	2005	78,560	7.72	606,586	Ton	\$147.24	\$89,315,000
Hay (Grain) <sup>2</sup>	2006	34,991	3.57	124,868	Ton	\$81.89	\$10,226,000
	2005	31,978	3.31	105,769	Ton	\$94.61	\$10,007,000
Hay (Sudan)	2006	4,843	3.11	15,043	Ton	\$85.93	\$1,293,000
	2005	4,067	3.71	15,103	Ton	\$101.24	\$1,529,000
Miscellaneous <sup>3</sup>	2006 2005	2,238 1,164					\$1,044,000 \$411,000
Pasture (Irrigated)	2006 2005	59,000 59,000		59,000 59,000	Acre Acre	\$145.00 \$141.55	\$8,555,000 \$8,351,000
Pasture (Other)	2006	560,000		560,000	Acre	\$22.00	\$12,320,000
	2005	560,000		560,000	Acre	\$21.77	\$12,191,000
Rice	2006	2,544	3.47	8,825	Ton	\$230.73	\$2,036,000
	2005	4,366	3.42	14,916	Ton	\$226.45	\$3,378,000
Silage (Alfalfa)	2006 2005		1.00 1.25	83,508 98,200	Ton Ton	\$54.50 \$33.91	\$4,551,000 \$3,330,000
Silage (Corn)	2006	83,868	26.41	2,214,548	Ton	\$26.73	\$59,197,000
	2005	82,114	26.23	2,153,879	Ton	\$26.51	\$57,098,000
Silage (Other) <sup>4</sup>	2006	64,715	14.06	909,755	Ton	\$20.79	\$18,910,000
	2005	60,336	13.75	829,575	Ton	\$17.39	\$14,430,000
Straw <sup>5</sup>	2006 2005			4,800 6,310	Ton Ton	\$43.13 \$37.58	\$207,000 \$237,000
Stubble (Pasture)	2006 2005			16,761 19,640	Acre Acre	\$20.00 \$20.00	\$335,000 \$393,000
Sugar Beets	2006	2,477	30.00	74,310	Ton	\$40.00	\$2,972,000
	2005	3,621	32.00	115,872	Ton	\$41.00	\$4,751,000
Wheat	2006	9,217	1.81	16,683	Ton	\$125.16	\$2,088,000
	2005	11,325	2.29	25,981	Ton	\$116.78	\$3,034,000
Total	2006 2005	973,685 973,408					\$267,813,000 \$287,912,000

<sup>&</sup>lt;sup>1</sup> For 2006, 2005: Includes Human Consumption Corn (but not Fresh Market Corn).

Disclaimer: Numbers will not compute exactly due to computer rounding of production and value rates.

<sup>&</sup>lt;sup>2</sup> For 2006, 2005: Includes Barley, Forage, Oat, and Wheat Hay.

<sup>&</sup>lt;sup>3</sup> For 2006: Includes Cotton Mote, Oat Grain, and Safflower. For 2005: Includes Oat Grain and Safflower.

<sup>&</sup>lt;sup>4</sup> For 2006, 2005: Includes Oat, Rye, Sorghum, Sudan, Wheat, and Winter Forage.

<sup>&</sup>lt;sup>5</sup> For 2006, 2005: Includes Straw from Barley, Bean (Dry), Oat, Rice and Wheat.







### **VEGETABLE CROPS**

Crop	Year	Acres Harvested	Production per Acre	Total Production	Production Unit	Value per Unit	Total Value
Beans, Lima (Freezer)	2006	2,805	1.52	4,259	Ton	\$474.74	\$2,022,000
	2005	2,821	1.72	4,845	Ton	\$477.85	\$2,315,000
Melons (Cantaloupe)	2006	3,601	675.18	2,431,310	40 Lb Carton	\$5.50	\$13,372,000
	2005	3,872	557.76	2,159,632	40 Lb Carton	\$4.26	\$9,192,000
Melons (Other) 1	2006	1,458	29.36	42,803	Ton	\$197.49	\$8,453,000
	2005	1,738	34.87	60,600	Ton	\$168.25	\$10,196,000
Miscellaneous <sup>2</sup>	2006 2005	3,362 3,134					\$15,494,000 \$16,087,000
Sweet Potatoes	2006	12,028	15.23	183,186	Ton	\$610.68	\$111,868,000
	2005	10,257	15.03	154,163	Ton	\$591.67	\$91,213,000
Tomatoes (Market)	2006	9,999	1,156.21	11,560,959	25 Lb Carton	\$7.01	\$81,097,000
	2005	10,502	1,065.78	11,192,792	25 Lb Carton	\$5.89	\$65,973,000
Tomatoes (Processing	g) 2006	17,300	31.85	551,000	Ton	\$57.41	\$31,633,000
	2005	14,873	33.38	496,457	Ton	\$50.31	\$24,979,000
Total	2006 2005	50,553 47,197					\$263,939,000 \$219,957,000

<sup>&</sup>lt;sup>1</sup> For 2006, 2005: Includes Honeydew, Korean Melon, Mixed Melons, and Watermelon.

# **BEE INDUSTRY**

Crop	Year	Total Production	Production Unit	Value per Unit	Total Value
Beeswax	2006	35,268	Lb	\$2.00	\$71,000
	2005	65,385	Lb	\$1.75	\$114,000
Bulk Bees <sup>1</sup>	2006	84,366	Lb	\$9.93	\$838,000
	2005	69,400	Lb	\$10.30	\$715,000
Honey <sup>2</sup>	2006	2,292,400	Lb	\$0.91	\$2,086,000
	2005	4,250,000	Lb	\$0.63	\$2,678,000
Pollination <sup>3</sup>	2006	137,325	Colony	\$130.72	\$17,951,000
	2005	133,376	Colony	\$81.60	\$10,883,000
Queens <sup>4</sup>	2006	29,154	Each	\$14.17	\$413,000
	2005	28,300	Each	\$11.10	\$314,000
Total	2006 2005				\$21,359,000 \$14,704,000

<sup>&</sup>lt;sup>1</sup> For 2006, 2005: Includes Bees Sold as Bulk Bees, Nuclei, and Packaged Bees.

<sup>&</sup>lt;sup>2</sup> For 2006: Includes Asparagus, Basil (Sweet), Broccoli (Processing), Cauliflower (Processing), Cilantro, Cucumber, Cucumber (Pickle), Eggplant, Garlic, Leafy Lettuce, Onion (Dry Bulb, Green, Processing), Oriental Vegetables, Parsley, Pea (Processing), Pepper (Market Bell and Chile, Processed Chile), Pumpkin, Spinach, Squash, Sunflower, and Tomatillo, For 2005: Includes Asparagus, Cabbage, Cauliflower, Corn (Fresh Market), Cucumber, Eggplant, Garlic, Leafy Lettuce, Okra, Onion, Oriental Vegetables, Pea, Pepper (Bell and Spice), Pumpkin, Radish, Spinach, Squash, Sunflower, Tomatillo, and Tomato (Pole).

<sup>&</sup>lt;sup>2</sup> For 2006: Honey produced by 44,000 resident colonies. For 2005: Honey produced by 50,000 resident colonies.

<sup>&</sup>lt;sup>3</sup> For 2006, 2005: Pollination colonies include all required to pollinate crops grown in Merced County.

<sup>&</sup>lt;sup>4</sup> For 2006, 2005: Includes Mated Queens and Queen Cells.







# **FRUIT AND NUT CROPS**

Crop	Year	Acres Harvested	Productior per Acre	ı Total Production	Production Unit	Value per Unit	Total Value
Almonds (Hulls)	2006 2005			130,598 105,633	Ton Ton	\$95.11 \$97.10	\$12,421,000 \$10,257,000
Almonds	2006	87,771	0.71	62,182	Ton	\$4,320.00	\$268,626,000
(Kernel Basis)	2005	87,123	0.59	51,403	Ton	\$5,700.00	\$292,995,000
Apricots	2006	1,195	6.75	8,065	Ton	\$315.45	\$2,544,000
	2005	1,137	5.25	5,970	Ton	\$284.34	\$1,698,000
Figs (Dry)	2006	2,239	1.00	2,240	Ton	\$1,233.34	\$2,763,000
	2005	2,850	1.18	3,375	Ton	\$1,315.19	\$4,438,000
Grapes (Raisin)	2006	660	0.86	566	Ton	\$1,210.00	\$684,000
	2005	694	1.70	1,182	Ton	\$1,171.00	\$1,384,000
Grapes (Wine)	2006	11,397	9.93	113,138	Ton	\$237.65	\$26,887,000
	2005	11,542	10.71	123,574	Ton	\$278.11	\$34,367,000
Miscellaneous <sup>1</sup>	2006 2005	2,303 2,305					\$12,007,000 \$10,982,000
Peaches (Clingstone)	2006	3,275	16.23	53,162	Ton	\$273.68	\$14,549,000
	2005	3,253	17.21	55,985	Ton	\$237.41	\$13,291,000
Peaches (Freestone)	2006	1,830	15.98	29,247	Ton	\$228.12	\$6,672,000
	2005	1,772	23.21	41,130	Ton	\$218.88	\$9,003,000
Pistachios	2006	4,301	1.30	5,589	Ton	\$4,327.14	\$24,184,000
	2005	4,024	0.42	1,671	Ton	\$4,654.61	\$7,777,000
Plums, Dried	2006	1,853	1.62	3,000	Ton	\$1,518.69	\$4,557,000
	2005	1,856	2.86	5,312	Ton	\$1,319.73	\$7,010,000
Strawberries	2006	104	10.22	1,063	Ton	\$756.26	\$804,000
	2005	202	12.50	2,525	Ton	\$873.76	\$2,206,000
Walnuts (English)	2006	5,877	1.24	7,311	Ton	\$1,649.09	\$12,056,000
	2005	5,948	1.47	8,763	Ton	\$1,630.61	\$14,289,000
Total	2006 2005	122,805 122,706					\$388,756,000 \$409,696,000

<sup>&</sup>lt;sup>1</sup> For 2006: Includes Apple, Blueberry, Cherry, Citrus, Fig (Cannery, Freezer and Fresh Market), Fruit Juice, Grape (Raisin to Wine), Jujube, Kiwi, Nectarine, Olive (Processed), Organic Fruit and Nut, Pear (Asian), Pecan, Persimmon, Plum, Pluot, and Pomegranate.

For 2005: Includes Apple, Blueberry, Cherry, Citrus, Fig (Cannery, Freezer and Fresh Market), Fruit Juice, Grape (Frozen and Raisin to Wine), Jujube, Kiwi, Nectarine, Olive, Organic Fruit and Nut, Peach (Fresh Market), Pear, Pecan, Persimmon, Plum, Plumcot, and Pomegranate.













# FRUIT AND NUT ACREAGE PLANTING

Сгор	Bearing 2006	Non-Bearing 2006	Bearing 2001	Non Bearing 2001
Almonds	87,771	7,247	85,024	3,537
Apples	145	0	577	27
Apricots	1,201	0	1,920	34
Berries	109	0	320	25
Cherries	340	3	319	57
Figs	2,507	0	3,297	340
Grapes (Raisin)	736	1	1,260	0
Grapes (Table)	124	0	149	0
Grapes (Wine)	11,397	225	14,644	59
Jujube	20	0	0	0
Kiwi	33	0	33	0
Mandarins	9	0	14	0
Nectarines	121	3	211	14
Olives	2	0	60	0
Oranges	8	0	47	0
Peaches (Clingstone)	3,427	47	3,714	265
Peaches (Freestone)	1,848	214	1,871	317
Pears	6	0	13	0
Pecans	32	5	41	10
Persimmon	17	0	0	0
Pistachios	4,861	284	4,620	447
Plums	90	0	35	26
Plums (Dried)	1,853	38	2,791	93
Pluot	72	0	0	0
Pomegranate	12	0	0	0
Walnuts (English)	5,877	426	5,514	796
Total	122,618	8,493	126,474	6,047

# **NURSERY PRODUCTS**

Crop	Year	Acres Harvested	Production per Acre	Total Production	Production Unit	Value per Unit	Total Value
All Nursery Product	s <sup>1</sup> 2006	1,510					\$35,421,000
	2005	1,735					\$33,329,000
Total	2006	1,510			<u> </u>		\$35,421,000
	2005	1,735					\$33,329,000

<sup>&</sup>lt;sup>1</sup> For 2006: Includes Bud Wood, Cane Berries, Christmas Trees, Crowns and Cuttings, Deciduous Fruit and Nut Trees, Decorative Plants, Dried Flowers, Grapevines, 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.

For 2005: Includes Bud Wood, Cane Berries, Christmas Trees, Deciduous Fruit and Nut Trees, Dried Flowers, Grapevines, Greenhouse Plants, Ornamental Plants, Ornamental and Shade Trees, Pits and Cuttings, Turf, and Vegetable Transplants. 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	Total Production	Production Unit	Value per Unit	Total Value
Cattle and Calves 1	2006	301,655	8.53	2,573,129	Cwt	\$94.55	\$243,289,000
	2005	297,999	8.37	2,493,536	Cwt	\$108.89	\$271,521,000
Chickens	2006	90,438,363	5.29	477,974,601	Lb	\$0.60	\$286,785,000
(Fryers and Broilers)	2005	93,612,430	5.34	499,474,373	Lb	\$0.60	\$299,685,000
Livestock (Miscellaneous) <sup>2</sup>	2006 2005	35,507 30,097					\$4,052,000 \$3,407,000
Poultry (Miscellaneous) <sup>3</sup>	2006 2005	140,000 254,000					\$1,054,000 \$1,441,000
Sheep and Lambs	2006	36,918	1.54	57,025	Cwt	\$77.09	\$4,396,000
	2005	36,525	1.52	55,598	Cwt	\$91.93	\$5,111,000
Turkeys	2006	3,077,798	29.85	91,858,583	Lb	\$0.49	\$45,194,000
	2005	2,168,576	29.09	63,090,238	Lb	\$0.63	\$39,558,000
Total	2006 2005	94,030,241 96,399,627					\$584,771,000 \$620,723,000

<sup>1</sup> For 2006, 2005: Includes Calves, Cull Bulls (Dairy and Beef), Cull Cows (Dairy and Beef), Replacement Heifers (Dairy and Beef) and Stocker Cattle.

# **LIVESTOCK AND POULTRY PRODUCTS**

Crop	Year	Total Production	Production Unit	Value per Unit	Total Value
Eggs (Other) 1	2006	3,516,921	Each	\$0.53	\$1,864,000
	2005	3,898,808	Each	\$0.54	\$2,115,000
Eggs, Chicken (Market)	2006	156,341,058	Dozen	\$0.52	\$81,297,000
	2005	136,870,358	Dozen	\$0.55	\$75,279,000
Milk (Goat)	2006	71,941	Cwt	\$32.17	\$2,314,000
	2005	35,055	Cwt	\$28.94	\$1,014,000
Milk (Manufacturing)	2006	2,620,364	Cwt	\$12.58	\$32,964,000
	2005	1,189,063	Cwt	\$14.79	\$17,586,000
Milk (Market)	2006	50,775,182	Cwt	\$11.60	\$588,992,000
	2005	49,663,884	Cwt	\$13.98	\$694,301,000
Wool	2006	167,076	Lb	\$0.90	\$150,000
	2005	204,048	Lb	\$0.70	\$143,000
Total	2006 2005				\$707,582,000 \$790,438,000

<sup>&</sup>lt;sup>1</sup> For 2005: Includes Eggs other than Chicken Eggs

<sup>&</sup>lt;sup>2</sup> For 2006, 2005: Includes Goats, Hogs, and Pigs.

<sup>&</sup>lt;sup>3</sup> For 2006, 2005: Includes Chukar, Pheasant, Pullets, and Squab.







# **SEED CROPS**

Crop	Year	Acres Harvested	Production per Acre	Total Production	Production Unit	Value per Unit	Total Value
Seed Crops 1	2006	2,196					\$875,000
·	2005	2,708					\$3,319,000
Total	2006	2,196					\$875,000
	2005	2,708					\$3,319,000

<sup>&</sup>lt;sup>1</sup> For 2006: Includes Certified, Common, and Phytosanitary Seed from Artichoke, Bean (Lima), Carrot, Cucumber, Lettuce, Oat, Onion, Pepper (Chile), Pumpkin, Spinach, Rye, Squash, Tomato, and Wheat.

# **AQUACULTURE**

Crop	Year	Total Production	Production Unit	Value per Unit	Total Value
Fish <sup>1</sup>	2006 2005	1,318,750 1,187,000	Lb Lb	\$2.30 \$1.96	\$3,031,000 \$2,327,000
Total	2006 2005				\$3,031,000 \$2,327,000

<sup>&</sup>lt;sup>1</sup> For 2006: Includes Black Bass, Bluegill, Catfish, Silver Carp, Striped Bass, Sturgeon, and Trout. For 2005: Includes Catfish, Silver Carp, Sturgeon, and Trout.

# **OTHER AGRICULTURE**

Crop	Year	Total Production	Production Unit	Value per Unit	Total Value
Almond (Shells) 1	2006	42,419	Ton	\$21.99	\$933,000
	2005	35,425	Ton	\$22.13	\$784,000
Firewood <sup>2</sup>	2006	20,591	Cord	\$155.81	\$3,208,000
	2005	20,545	Cord	\$115.07	\$2,364,000
Fuel (Cogeneration) <sup>3</sup>	2006	47,350	Ton	\$38.00	\$1,799,000
	2005	49,000	Ton	\$35.00	\$1,715,000
Manure <sup>4</sup>	2006	1,090,504	Ton	\$4.56	\$4,973,000
	2005	973,745	Ton	\$3.18	\$3,099,000
Total	2006 2005				\$10,913,000 \$7,962,000

<sup>&</sup>lt;sup>1</sup> For 2006, 2005: For Animal Bedding.

For 2005: Includes Certified, Common, and Phytosanitary Seed from Artichoke, Barley, Bean (Dry), Broccoli, Corn, Cucumber, Lettuce, Mustard, Oat, Onion, Pumpkin, Rye, Squash, Tomato, Watermelon, and Wheat.

<sup>&</sup>lt;sup>2</sup> For 2006, 2005: Includes Orchard Prunings and Removal for Firewood. (Recorded in Cords).

<sup>&</sup>lt;sup>3</sup> For 2006, 2005: Includes Orchard Prunings and Orchard Removal for Fuel (Recorded in Dry Tons).

<sup>&</sup>lt;sup>4</sup> For 2006, 2005: Includes Livestock and Poultry Manure.







# **MERCED COUNTY GLOBAL**

Exports go to these co	ountries:
Algeria	Luxembourg
Argentina	Malaysia
Armenia	Malta
Australia	Mauritius
Austria	Melilla
Azerbaijan	Mexico
Bahrain	Monaco
Belarus	Morocco
Belgium	Nepal
Brazil	Netherlands
Bulgaria	New Zealand
Canada	Norway
Canary Islands	Algeria
Chile	Oman
China	Pakistan
Colombia	Philippines
Costa Rica	Poland
Cyprus	Portugal
Czech Republic	Qatar
Denmark	Romania
Ecuador	Russian Federation
Egypt	San Marino
El Salvador	Saudi Arabia
Estonia	Singapore
Finland	Slovakia
France	Slovenia
Georgia	South Africa
Germany	Spain
Greece	Sweden
Guatemala	Switzerland
Honduras	Syria
Hong Kong	Taiwan
India	Tajikistan
Indonesia	Thailand
Israel	Trinidad & Tobago
Italy	Tunisia
Japan	Turkey
Jordan	Ukraine
Kazakhstan	United Arab Emirates
Korea, Republic of	United Kingdom
Kuwait	Uruguay
Latvia	Uzbekistan
Lebanon	Vatican City State
Liechtenstein	Venezuela
Lithuania	Vietnam









# **AGRICULTURAL EXPORTS**



Exported Commodities		
Alfalfa Hay	Onion Seed	Rye Hay
Almonds	Pecans	Strawberry Nursery Stock
Cantaloupe	Pistachios	Sudan Hay
Fig	Propagative Stock	Sweet Potato
Garlic	Prunes	Tomatoes
Honeydew	Radicchio	Walnut Burls
Oat Hay	Raspberry Nursery Stock	Walnuts



### 2006 SUSTAINABLE AGRICULTURE REPORT

### **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 7,185 shipments of incoming plant material were inspected in 2006. Shipments are inspected at United Parcel Service, United States Post Offices, Federal Express, and trucking terminals. Twenty-nine shipments were rejected. The 29 rejections were for live pests, material not properly certified, or improper container markings.

Seed inspection during 2005 detected the presence of "B"-Rated Jointed Goatgrass (Aegilops cylindrica) seed contamination in forage crop seed mixture, which had been planted in four fields totaling 312 acres in Merced County. Jointed Goatgrass is a potential major pest of small grain crops, primarily wheat. "B"-Rating indicates a pest with limited distribution in the State with eradication at the discretion of the County Agricultural Commissioner. Since there is no known establishment of Jointed Goatgrass in Merced County, the planted fields were placed under compliance agreement to control any potential movement of seed from the planted fields. With the assistance of the California Department of Food and Agriculture, the four fields were visually surveyed three times in 2005 and no Jointed Goatgrass plants were discovered. In 2006, these fields were surveyed again to verify that the Jointed Goatgrass did not become established in Merced County. The results of these surveys were negative. Another survey is planned in 2007 to verify the continued absence of Jointed Goatgrass in Merced County.

### PIERCE'S DISEASE CONTROL PROGRAM

To prevent the introduction of the Glassy-winged Sharpshooter (GWSS) into Merced County, 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. Eight hundred and fifteen shipments of nursery stock from infested counties were inspected in 2006. In addition, all nurseries in the county and 1,962 residential yards were visually inspected for GWSS presence during 2006. No GWSS was detected.











### FEDERAL PHYTOSANITARY CERTIFICATION PROGRAM

This program prevents the spread of injurious pests from Merced County to foreign countries through inspection and certification of exported plants and plant commodities. In 2006, 4,301 export shipments were inspected and issued Phytosanitary Certificates.

### **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:				
Apple Maggot (Rhagoletis pomonella)	Mediterranean Fruit Fly (Ceratitis capitata)			
European Corn Borer (Ostrinia nubilalus)	Melon Fly (Dacus cucurbitae)			
European Pine Shoot Moth (Rhyacionia buoliana)	Mexican Fruit Fly (Anastrepha ludens)			
Gypsy Moth (Lymantria dispar)	Oriental Fruit Fly (Dacus dorsalis)			
Glassy-winged Sharpshooter (Homalodisca coagulate)	Sweet Potato Weevil (Cylas formicarius elegantulus)			
Japanese Beetle (Popillia japonica)	Vine Mealy Bug (Planococcus ficus)			
Khapra Beetle (Trogoderma granarium)				

A total of 1,980 pest detection traps were placed in Merced County and inspected a total of 17,524 times during the 2006 trapping season.

### **PEST ERADICATION**

The Pest Eradication Program endeavors to eliminate infestations of significant agricultural pests with limited distribution before they are able to cause ongoing economic cost to California agriculture.

In 2006, an exotic potentially invasive parasitic vine known as Japanese dodder was detected at six locations in Merced County. These locations are slated for eradication in 2007.

Ongoing detection and eradication efforts continued during 2006 for Pink Bollworm, Red Imported Fire Ant, Purple Mustard, and Water Hyacinth.

Ongoing detection efforts continue for Camelthorn, Carolina Horse Nettle, and Hydrilla.

Successful eradication projects include Sweet Potato Weevil and Banana Waterlily. None have been detected since the end of their respective eradication projects.

The Pink Bollworm is a significant cotton pest with eradication efforts consisting of a State operated detection trapping program in conjunction with County enforcement of the host-free period from January 1 through March 10. In 2006, 56,575 acres were trapped for Pink Bollworm. No Merced County growers were found to be in violation of the host free period requirement during 2006.

Merced County's Red Imported Fire Ant (RIFA) eradication program started in November 2001. At the peak of the program, the California Department of Food and Agriculture had 4,300 acres under treatment. During 2006, there were additional finds made in several areas of the county. By the end of 2006, 2,200 acres were still under treatment with the rest of the acreage under intensive post treatment survey. County personnel surveyed and trapped in conjunction with CDFA personnel.







### **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.

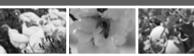
Pest Organism	
Ash Whitefly (Siphoninus phillyreae)	Parasitoid Wasp (Encarsia inaron)
Grapeleaf Skeletonizer (Harrisina brillians)	Parasitic Fly (Ametadoria misella)
,	Virus (WGLS Granulosis)
	Parasitic Wasp (Apanteles harrisinae)
Itallian Thistle (Carduus sp.)	Seed-Head Weevil (Rhinocyllus conicus)
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 has 2 organic processors, 3 organic dairies, and 2 organic handlers. There were 41 growers of organic commodities in 2006. These growers farmed a total of 6,385 acres to produce assorted organic field crops, fruits, nuts, berries, and vegetables. Organic milk and livestock were also produced.



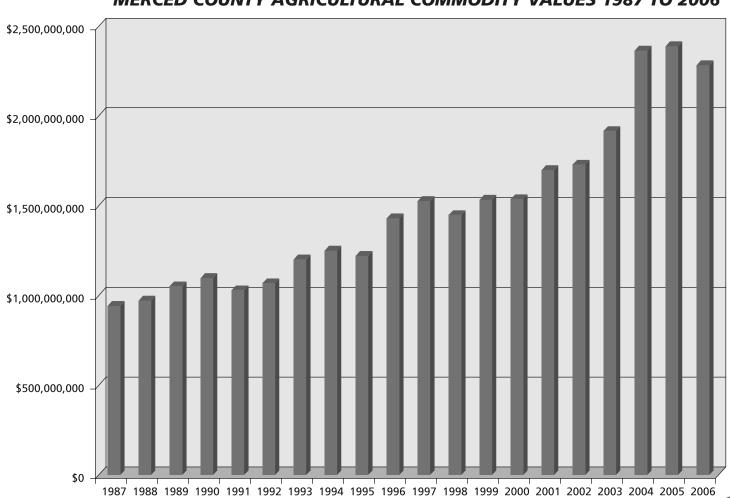




# **COMMODITY VALUE CROP COMPARISON**

Total	\$2,284,460,000	\$1,430,454,000	\$849,581,000	\$465,714,000
Vegetable Crops	\$263,939,000	\$139,649,000	\$82,106,000	\$40,089,000
Seed Crops	\$875,000	\$582,000	\$2,612,000	\$3,343,000
Other Agriculture	\$10,913,000	\$10,038,000		
Nursery Products	\$35,421,000	\$14,265,000	\$8,132,000	\$4,302,000
Livestock and Poultry Products	\$707,582,000	\$488,956,000	\$239,804,000	\$99,303,000
Livestock and Poultry Production	\$584,771,000	\$214,703,000	\$209,788,000	\$119,052,000
Fruit and Nut Crops	\$388,756,000	\$293,142,000	\$151,252,000	\$74,971,000
Field Crops	\$267,813,000	\$260,256,000	\$152,423,000	\$123,161,000
Bee Industry	\$21,359,000	\$7,480,000	\$3,464,000	\$1,493,000
Aquaculture	\$3,031,000	\$1,382,000		
Commodities	2006	1996	1986	1976

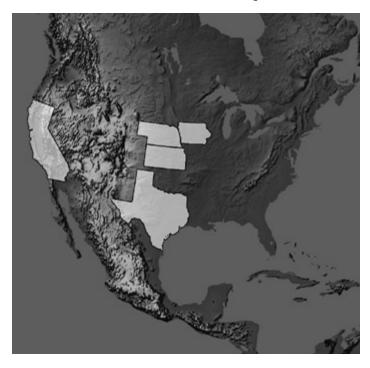
### **MERCED COUNTY AGRICULTURAL COMMODITY VALUES 1987 TO 2006**





# **TOP 5 AGRICULTURAL STATES IN CASH RECEIPTS, 2005**

Rank 2005	State	Total Value Billions
1	California	31.7
2	Texas	16.4
3	Iowa	14.6
4	Nebraska	11.5
5	Kansas	10



# 2005 CALIFORNIA COUNTY RANK TOTAL VALUE OF PRODUCTION AND LEADING COMMODITIES

Rank 2005	County	Total Value \$1,000	Leading Commodities
1	Fresno	4,640,166	Grapes, Almonds, Milk, Tomatoes, Cattle and Calves
2	Tulare	4,360,854	Milk, Oranges, Cattle and Calves, Grapes, Alfalfa Hay and Silage
3	Kern	3,546,925	Almonds and By-products, Grapes, Milk, Citrus, Pistachios
4	Monterey	3,273,000	Lettuce, Strawberries, Wine Grapes, Spinach, Broccoli
5	Merced	2,388,058	Milk, Chickens, Almond Meats, Cattle and Calves, Sweet Potatoes
6	Stanislaus	1,977,596	Milk, Almonds, Cattle and Calves, Chickens, Walnuts
7	San Joaquin	1,743,294	Milk, Grapes, Almond Meats, Tomatoes, English Walnuts
8	San Diego	1,531,307	Foliage Plants, Woody Ornamentals, Avocados, Bedding Plants, Cut Flowers
9	Kings	1,407,091	Milk, Cotton, Cattle and Calves, Pistachios, Alfalfa
10	Imperial	1,286,066	Cattle, Alfalfa, Leaf and Head Lettuce, Carrots, Livestock
11	Ventura	1,253,048	Strawberries, Nursery Stock, Lemons, Celery, Tomatoes
12	Riverside	1,168,537	Milk, Woody Ornamentals, Table Grapes, Bell Peppers, Grapefruit

<sup>\*</sup> Source: California Department of Food and Agriculture, "California Agriculture Resource Directory 2006"



# MERCED COUNTY DEPARTMENT OF AGRICULTURE STAFF

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