



# MADERA COUNTY

## *agricultural crop report*



"It is inconceivable to me  
that an ethical relation to land can exist without love, respect,  
and admiration for land, and a high regard for its value."

*Aldo Leopold, naturalist*

The California nursery industry was formalized in 1911, with the founding of the California Association of Nurserymen, a non-profit trade organization dedicated to the promotion and advancement of the nursery industry. Representatives from eighteen geographical chapters serve on the board of directors, working together with members to improve communication within the industry and address common concerns.

Nursery crops, remarkable in their diversity, include: fruit and nut trees; grapevines; berry bush and strawberry plants; vegetable transplants; forest seedlings for Christmas trees and timber; ornamental trees and shrubs; flowering bedding plants; bulbs; seeds; turf sod for lawns; indoor decorative plants; cut flowers and floral greens.

This diversity fosters an industry comprised of numerous independent operations, rather than one dominated by a few major players. Autonomy in the industry is further enhanced by relative freedom from the requirement for specific soil types; most nursery plants thrive in above-ground containers of prepared growing media.

Based on dollar value, nursery stock is the sixth largest agricultural product grown in the United States, and this continues to expand. California produces nearly 25% of the nursery stock cultivated nationally.

Locally, nursery production in Madera County has increased from a value of \$545,000 in 1969, to a value exceeding \$30,200,000 in 1999. Madera County nursery products are characteristic of the industry in their variety, including grapevines; fruit and nut trees; flowering bedding plants; indoor decorative plants; seeds; and cut flowers. The nursery products of Madera County further typify the industry in their array of market destinations, from local deliveries, to countries the world over.

# Madera County Department of Agriculture

## Weights and Measures

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**Robert J. Rolan, Agricultural Commissioner**  
**Sealer of Weights & Measures**

**David A. Robinson, Assistant**  
**Commissioner/Sealer**

William J. Lyons, Jr., Secretary  
California Department of Food and Agriculture

and

The Honorable Board of Supervisors

In accordance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the 1999 Agricultural Crop Report.

The total value of Madera County agricultural production topped \$702,383,000 in 1999. This represents a 10.3% increase over the total achieved in 1998.

Yields for the major field crops were up, resulting in a 10% increase in total field crop production value. Silage acreage soared, corresponding to growth in dairy production values. County milk production reached a new high; production of replacement heifers reached a value of \$27,600,000.

Producers of fruits and nuts were challenged on several fronts during the 1999 growing season. Freezing temperatures devastated the orange crop, with only 600 of 3,850 bearing acres harvested. The olive yield was also affected; yield decreased nearly 74% from the preceding year. Almond production, up nearly 60%, suffered a sharp drop in price. The total value for fruit and nut production held steady, however, bolstered in part by a significant increase in raisin production.

Nursery production values continued to rise, reaching a record value of \$30,200,000 in 1999. Vegetable crop production values increased as well, resulting in a total production value of \$16,222,000, up 53% from the preceding year.

The preparation of a report of this type requires extensive collaboration between many individuals, and I sincerely appreciate the contributions of 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. Additionally, I would like to thank Marilyn Key, for compiling the information into its final form; Susan Wilson, for report design; and Bret Nicholson, who served as photographer.

Respectfully Submitted,



Robert J. Rolan  
Agricultural Commissioner

## MADERA COUNTY HIGHLIGHTS

County Established	March 11, 1893
County Seat	Madera (city)
Population <sup>a</sup>	114,748

Total County Acreage <sup>b</sup>	1,368,587
1999 Harvested Acreage	649,425
Field Crop Acreage	113,780
Fruit and Nut Acreage	177,210
Nursery Acreage	1,135
Vegetable Acreage	4,300
Ranchland Acreage	353,000

Forest Acreage	414,290
U. S. Parkland Acreage	82,973

Bordering Counties	Lake Tahoe
Merced County	Northwest
Mariposa County	North
Mono County	East
Fresno County	South and West

Statewide Ranking of County	
Population <sup>a</sup>	35
Total Acreage	24
Total Agricultural Production <sup>b</sup>	14

Commodity, by value <sup>c</sup>	
Figs	1
Pistachios	2
Grapes, Raisin Variety	2
Olives	4
Almonds	5
Grapes, Table Variety	5
Grapes, Wine Variety	6
Milk	7

San Francisco ●

Yosemite  
National  
Park

a/ US Bureau of Census, 1998 Estimate  
b/ USDA Ag Census, 1997  
c/ County Agricultural Commissioner's Data, 1998

# MADERA COUNTY

## *agricultural crop report*

### **Madera County Board of Supervisors**

Frank Bigelow  
District 1

Vern Moss  
District 2

Gail Hanhart-McIntyre  
District 3

John Silva  
District 4

Gary Gilbert  
District 5

### **County Administrative Officer**

Stell Manfredi

### **Agricultural Commissioner/ Sealer of Weights and Measures**

Robert J. Rolan

### **Assistant Agricultural Commissioner/Sealer**

David A. Robinson

### **Deputy Agricultural Commissioners**

Randall J. Hansen      Donald G. Mayeda

### **Agricultural and Standards Inspectors**

Iqbal S. Brar	Debbie McDougald
Bill DeRaad	Bret L. Nicholson
Bruce E. Derry	Scott G. Porteous
Marilyn Key	Bruce H. Rohn
Carol Massetti-Walters	Diana K. Shima
Susan S. Wilson	

### **Pest Detection Trappers**

Enrique Rosales      Jaime Whatley  
Roberta Weikel

### **Clerical Staff**

Lore Ciuffoli, Administrative Assistant  
Tammy Dodson, Program Assistant II  
Mark Rodrigues, Office Assistant I



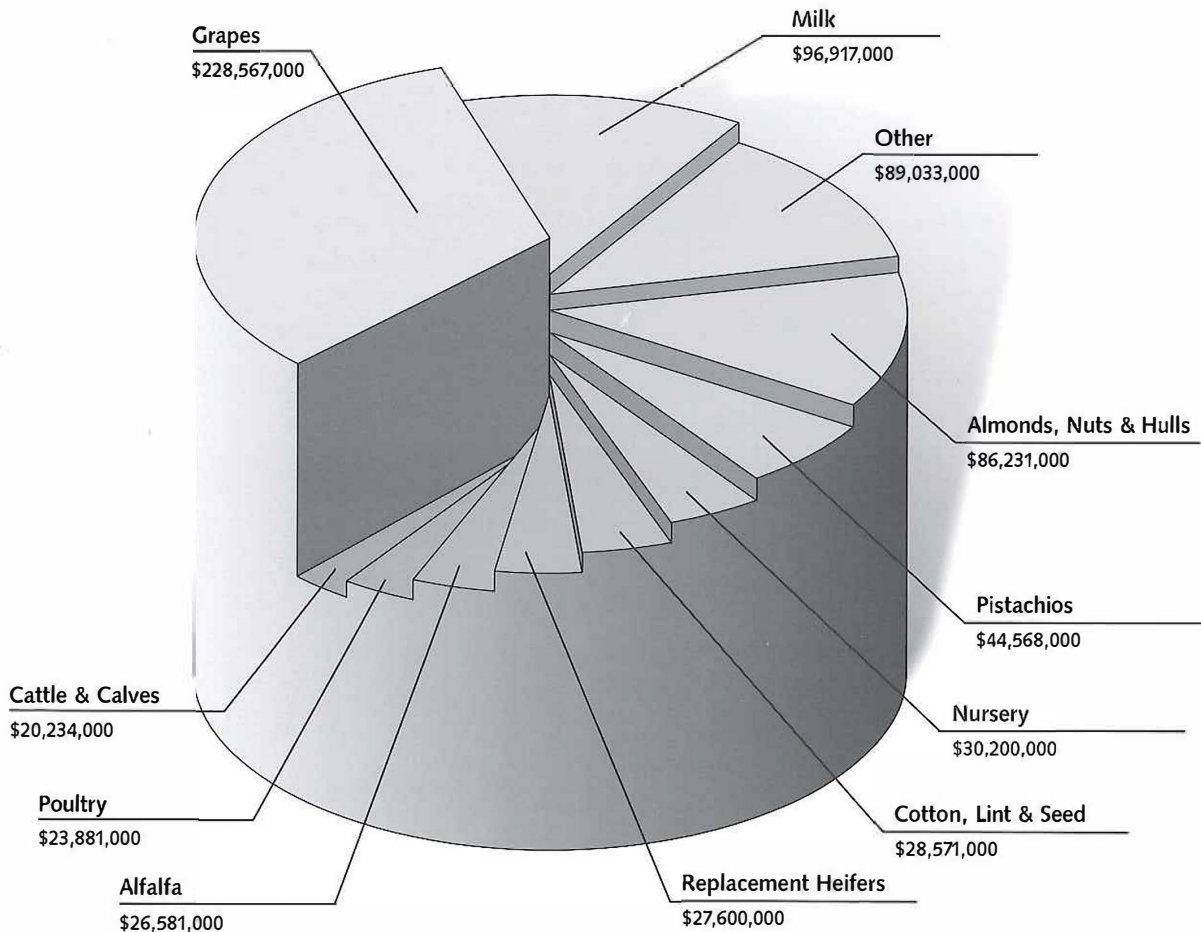
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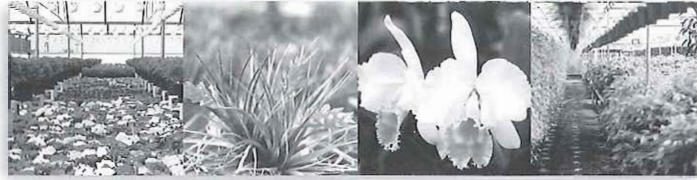
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# TEN LEADING CROPS MADERA COUNTY - 1999

COMMODITY	1999 RANK	1999 DOLLAR VALUE	1998 RANK
Grapes	1	\$228,567,000	1
Milk	2	\$96,917,000	2
Almonds, Nuts & Hulls	3	\$86,231,000	3
Pistachios	4	\$44,568,000	4
Nursery Stock	5	\$30,200,000	8
Cotton, Lint & Seed	6	\$28,571,000	6
Replacement Heifers	7	\$27,600,000	—
Alfalfa	8	\$26,581,000	5
Poultry	9	\$23,881,000	—
Cattle and Calves	10	\$20,234,000	7





## MADERA COUNTY AGRICULTURAL PRODUCTION & VALUE

The information in the following tables is compiled and made available in order to provide an annual record of agricultural production within the county. Yield, production, and pricing information is gathered from both growers and processors. Acreages shown are not intended to reflect planted acreage, but rather the total acreage harvested during the current growing season. Weighted averages of yields and unit values are then prepared for the individual commodities, allowing determination of countywide totals for production and value.



### APIARY PRODUCTS

Item	Year	PRODUCTION		VALUE	
		Total	Unit	Per Unit	Total
<b>Apiary Products</b>					
Beeswax <sup>a</sup>	1999	13,000	Pound	\$1.00	\$13,000
Honey	1999	596,740	Pound	0.55	328,000
	1998	580,800	Pound	.60	348,000
	1997	640,320	Pound	.58	371,000
Pollination	1999	118,500	Colony	40.60	4,811,000
	1998	109,500	Colony	39.80	4,358,000
	1997	114,119	Colony	42.25	4,822,000
<b>TOTAL</b>	1999				<b>\$5,152,000</b>
	1998				4,706,000
	1997				5,193,000

a/ Not previously reported



# FIELD CROPS

Item	Year	PRODUCTION			VALUE		
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
<b>Alfalfa</b>							
Hay	1999	37,810	7.12	269,207	Ton	\$96.00	\$25,844,000
	1998	37,313	6.98	260,445	Ton	105.00	27,347,000
	1997	39,356	7.40	291,234	Ton	114.00	33,201,000
Silage <sup>ab</sup>	1999			33,488	Ton	22.00	737,000
<b>Total Alfalfa</b>	<b>1999</b>	<b>37,810</b>					<b>26,581,000</b>
<b>Beans, Dry<sup>c</sup></b>							
	1999	2,600	1.26	3,276	Ton	448.00	1,468,000
	1998	2,100	1.33	2,793	Ton	567.00	1,584,000
	1997	2,259	1.03	2,327	Ton	560.00	1,303,000
<b>Corn</b>							
Grain	1999	5,820	4.69	27,296	Ton	121.00	3,303,000
	1998	8,372	4.52	37,841	Ton	101.00	3,822,000
	1997	9,743	4.20	40,921	Ton	111.00	4,542,000
Silage	1999	10,400	24.37	253,448	Ton	18.00	4,562,000
	1998	6,961	25.00	174,025	Ton	18.00	3,132,000
	1997	3,057	26.00	79,482	Ton	22.00	1,749,000
<b>Total Corn</b>	<b>1999</b>	<b>16,220</b>					<b>7,865,000</b>
	1998	15,333					6,954,000
	1997	12,800					6,291,000
<b>Cotton</b>							
Lint	1999	26,540	1,303 <sup>d</sup>	72,045	Bale <sup>e</sup>	.69 <sup>f</sup>	23,861,000
	1998	27,130	950	53,695	Bale	.71	18,299,000
	1997	37,275	1,338	103,904	Bale	.76	37,904,000
Seed	1999			31,401	Ton	150.00	4,710,000
	1998			23,403	Ton	175.00	4,096,000
	1997			41,570	Ton	176.00	7,316,000
<b>Oat</b>							
Hay <sup>g</sup>	1999	2,500	2.74	6,850	Ton	62.00	425,000

- a/ Reported previously under Silage, Other
- b/ Alfalfa acreage yields both hay and silage
- c/ Includes black-eyes, kidneys and limas
- d/ Pounds
- e/ Bale: 480 pounds
- f/ Per pound
- g/ Reported previously under Miscellaneous







# FIELD CROPS

Item	Year	PRODUCTION			VALUE		
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
<b>Pasture</b>							
Irrigated	1999	5,500			Acre	\$120.00	\$660,000
	1998	5,500			Acre	120.00	660,000
	1997	5,000			Acre	120.00	660,000
<b>Rangeland<sup>h</sup></b>							
	1999	353,000 <sup>i</sup>			Acre	9.00	3,177,000
	1998	381,000			Acre	8.00	3,048,000
	1997	381,000			Acre	8.00	3,048,000
<b>Sugar Beets</b>							
	1999	580	36.13	20,955	Ton	30.00	629,000
	1998	440	31.50	13,860	Ton	37.00	513,000
	1997	357	33.50	11,960	Ton	43.00	514,000
<b>Wheat</b>							
Grain <sup>i</sup>	1999	6,000	2.33	13,980	Ton	102.00	1,426,000
	Silage <sup>j</sup>	1999	11,000	16.07	176,770	Ton	17.00
Total Wheat	1999	17,000					4,431,000
	1998	14,000					3,083,000
	1997	28,543					8,426,000
Winter Forage <sup>a</sup>	1999	2,430	12.62	30,670	Ton	17.00	521,000
<b>Miscellaneous<sup>k</sup></b>							
	1999	2,600					1,552,000
	1998	8,288					3,268,000
	1997	9,330					2,992,000
<b>TOTAL</b>							
	1999	466,780					\$75,880,000
	1998	491,104					68,852,000
	1997	515,920					101,655,000

- h/ Reported previously under Pasture, Other
- i/ Change due to improved mapping
- j/ Reported previously under Wheat
- k/ Includes barley, rice, safflower, sorghum, Sudan grass, seed crops and field stubble





## FRUIT & NUT CROPS

Item	Year	PRODUCTION				VALUE	
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Almonds <sup>a</sup>	1999	46,200	1.01	46,662	Ton	\$1,734.00	\$80,912,000
	1998	43,635	.67	29,235	Ton	3,100.00	90,629,000
	1997	42,514	1.17	49,741	Ton	3,100.00	154,197,000
Almond Hulls	1999			88,658	Ton	60.00	5,319,000
	1998			58,470	Ton	70.00	4,093,000
	1997			99,483	Ton	84.00	8,357,000
Apples	1999	2,400	6.90	16,560	Ton	474.00	7,849,000
	1998	2,726	7.78	21,208	Ton	445.00	9,437,000
	1997	3,138	9.09	28,524	Ton	605.00	17,257,000
Figs	1999	9,520	1.27	12,090	Ton	519.00	6,275,000
	1998	9,430	1.32	12,448	Ton	751.00	9,348,000
	1997	9,199	1.73	15,914	Ton	718.00	11,426,000
<b>Grapes</b>							
<b>Raisin Varieties</b>							
Crushed	1999	8,810	7.82	68,894	Ton	202.00	13,917,000
	1998	9,960	8.60	85,656	Ton	165.00	14,133,000
	1997	10,438	11.72	122,345	Ton	186.00	22,756,000
Dried	1999	32,780	1.87	61,299	Ton	1,228.00	75,275,000
	1998	30,738	1.72	52,869	Ton	1,158.00	61,222,000
	1997	30,112	3.02	90,938	Ton	872.00	79,298,000
Fresh	1999	2,660	6.91	18,381	Ton	986.00	18,123,000
	1998	3,200	6.02	19,264	Ton	911.00	17,550,000
	1997	3,211	8.90	28,578	Ton	857.00	24,491,000
Table Varieties	1999	2,590	7.68	19,891	Ton	1,067.00	21,224,000
	1998	2,544	6.65	16,918	Ton	1,005.00	17,923,000
	1997	2,577	7.90	20,358	Ton	974.00	19,829,000
<b>Wine Varieties<sup>b</sup></b>							
Red Varieties	1999	21,690	7.78	168,748	Ton	328.00	55,349,000
	1998	17,477	8.36	146,108	Ton	325.00	47,485,000
	1997	16,466	11.27	185,572	Ton	333.00	61,795,000
White Varieties	1999	23,700	9.02	213,774	Ton	209.00	44,679,000
	1998	22,789	10.39	236,777	Ton	206.00	48,776,000
	1997	24,524	12.16	298,212	Ton	227.00	67,694,000
Total Grapes	1999	92,230					228,567,000
	1998	86,708					207,089,000
	1997	87,328					275,863,000

a/ Meat basis

b/ Includes table grapes crushed





# FRUIT & NUT CROPS

Item	Year	PRODUCTION			VALUE		
		Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Nectarines	1999	530	7.03	3,726	Ton	\$655.00	\$2,441,000
	1998	640	5.86	3,750	Ton	580.00	2,175,000
	1997	651	7.70	5,013	Ton	750.00	3,760,000
Olives <sup>c</sup>	1999	1,370	1.43	1,959	Ton	473.00	927,000
	1998	1,160	5.48	6,357	Ton	482.00	3,064,000
	1997	1,805	4.28	7,728	Ton	692.00	5,346,000
Oranges <sup>d</sup>	1999	600	11.62	6,972	Ton	240.00	1,673,000
	1998	3,931	18.00	70,758	Ton	175.00	12,383,000
	1997	4,281	15.70	67,212	Ton	212.00	14,249,000
Peaches							
	Clings <sup>e</sup>	1999	1,030	17.67	18,200	Ton	237.00
Freestone	1999	830	10.43	8,657	Ton	424.00	3,671,000
	1998	876	10.62	9,303	Ton	436.00	4,056,000
	1997	1,090	7.70	8,393	Ton	488.00	4,096,000
Pistachios	1999	18,510	0.83	15,363	Ton	2,901.00	44,568,000
	1998	17,854	1.00	17,854	Ton	2,215.00	39,547,000
	1997	17,517	1.25	21,896	Ton	2,550.00	55,835,000
Plums	1999	1,020	8.23	8,395	Ton	718.00	6,028,000
	1998	1,204	9.55	11,498	Ton	717.00	8,244,000
	1997	1,308	7.87	10,294	Ton	741.00	7,628,000
Prunes <sup>f</sup>	1999	1,440	2.68	3,859	Ton	997.00	3,847,000
	1998	946	2.12	2,005	Ton	917.00	1,839,000
	1997	1,293	3.60	4,655	Ton	849.00	3,952,000
Walnuts	1999	1,050	1.75	1,838	Ton	879.00	1,616,000
	1998	977	1.57	1,534	Ton	962.00	1,476,000
	1997	890	1.35	1,202	Ton	1,400.00	1,683,000
Miscellaneous							
Fruits & Nuts <sup>g</sup>	1999	480					1,888,000
	1998	1,568					7,748,000
	1997	1,680					4,324,000
Orchard							
Firewood <sup>h</sup>	1999			5,000	Cord		455,000
TOTAL	1999	177,210					\$400,349,000
	1998	171,655					401,128,000
	1997	172,694					567,973,000

c/ Yield impacted by freezing temperatures

d/ Harvestable acreage impacted by fruit loss due to freeze

e/ Reported previously under miscellaneous

f/ Dried weight

g/ Includes apricots, cherries, kiwis, pears, pecans, tangerines, tangelos, persimmons, pomegranates and strawberries

h/ Not previously reported





## NURSERY PRODUCTS

Item	Year	Field Acres	House Sq. Ft.	Total Value
Nursery Stock <sup>a</sup>	1999	1,135	552,000 <sup>b</sup>	\$30,200,000
	1998	671		15,128,000
	1997	390		4,541,000

a/ Includes grapevines, fruit trees, nut trees and ornamentals

b/ Not previously reported



## VEGETABLE CROPS

Item	Year	Harvested Acreage	Total Value
Vegetables <sup>a</sup>	1999	4,300	\$16,222,000
	1998	4,816	10,600,000
	1997	5,151	12,746,000

a/ Includes artichokes, all cabbage, carrots, cucumbers, garlic, melons, onions, all peppers, potatoes, all squash, all tomatoes, and miscellaneous truck crops



## FOREST PRODUCTS

Item	Year	Production	Unit	Total Value
Timber	1999	8,982	MBF <sup>a</sup>	\$2,142,000
	1998	9,978	MBF	2,413,000
	1997	5,504	MBF	1,225,000
Firewood <sup>b</sup>	1999	3,765	Cord <sup>c</sup>	320,000
<b>TOTAL</b>	<b>1999</b>			<b>\$2,462,000</b>

a/ Million Board Feet

b/ Not previously reported

c/ Cord: 128 cubic feet





## LIVESTOCK AND POULTRY

Item	Year	Head	Liveweight	Unit	Per Unit	Total
Cattle and Calves <sup>a</sup>	1999	42,500	293,250	CWT <sup>b</sup>	\$69.00	\$20,234,000
	1998	41,000	282,900	CWT	64.00	18,106,000
	1997	38,011	262,276	CWT	61.00	15,999,000
Replacement Heifers <sup>cd</sup>	1999	20,000			1,380.00	27,600,000
Chickens	1999	4,702,320	26,910,000	Pound	0.267	7,185,000
	1998	6,376,400	32,664,000	Pound	.351	11,465,000
	1997	3,900,170	20,514,894	Pound	.307	6,298,000
Turkeys	1999	2,084,720	48,394,000	Pound	0.345	16,696,000
	1998	1,241,100	30,715,000	Pound	.350	10,750,000
	1997	936,271	19,183,670	Pound	.345	6,618,000
TOTAL	1999					\$71,715,000
	1998					40,321,000
	1997					28,915,000

- a/ Range and dairy cattle sold for beef  
 b/ Hundredweight: 100 pounds  
 c/ Milk cows  
 d/ Not previously reported



## LIVESTOCK AND POULTRY PRODUCTS

Item	Year	PRODUCTION		VALUE	
		Production	Unit	Per Unit	Per Total
Milk Market <sup>a</sup>	1999	7,147,793	CWT	\$13.18	\$94,208,000
	1998	6,088,877	CWT	14.65	89,213,000
	1997	5,143,928	CWT	12.30	63,270,000
Milk Manufacturing <sup>a</sup>	1999	206,197	CWT	13.14	2,709,000
	1998	146,919	CWT	14.93	2,194,000
	1997	84,369	CWT	12.16	1,026,000
Other Products <sup>b</sup>	1999				3,486,000
	1998				2,165,000
	1997				1,959,000
TOTAL	1999				\$100,403,000
	1998				93,572,000
	1997				66,255,000

- a/ Madera County has 49 dairies, with 34,500 lactating cows  
 b/ Includes aquaculture, market eggs, fertilizer, hogs, sheep, lambs and wool







# COUNTRIES RECEIVING MADERA COUNTY PRODUCE IN 1999

- Argentina 
- Australia   
- Austria  
- Belgium  
- Brazil 
- Canada   
- Canary Islands 
- Chile 
- Colombia 
- Costa Rica 
- Egypt 
- El Salvador 
- France  
- Germany  
- Greece 
- Guatemala 
- Honduras 
- Hong Kong   
- India 
- Indonesia 
- Israel  
- Italy  
- Iceland 
- Japan    
- Jordan 
- Kenya 
- Korea 





 **FRUIT:**  
 Figs • Grapes • Kiwi • Nectarines • Peaches  
 Plums • Peaches • Pomegranates • Raisins

 **NUTS:**  
 Almonds • Pecans  
 Pistachios • Walnuts



- Latvia 
- Lebanon  
- Macau 
- Malaysia   
- Malta 
- Mauritius  
- Mexico   
  
- Norway 
- Netherlands 
- New Zealand   
- Panama 
- Paraguay 
- Philippines 
- Saudi Arabia  
- Scotland 
- Singapore 
- Slovenia 
- Spain  
- Sweden 
- Taiwan   
- Thailand  
- Turkey 
- United Arab Emirates  
- United Kingdom   
- Venezuela 

 **FIELD CROPS:**  
 Alfalfa • Garlic • Onions  
 Potatoes • Sudan Grass

 **NURSERY STOCK:**  
 Corms • Grape cuttings  
 Grape rootings • Ornamentals



# MADERA COUNTY ANNUAL SUSTAINABLE AGRICULTURE REPORT

## PEST PREVENTION

Pest prevention programs are mandated by the California Food and Agricultural Code to prevent the introduction and spread of pests in California. Pest prevention involves three strata: pest exclusion, pest detection, and integrated pest control.

The **Pest Exclusion Program** prevents the introduction of injurious pests that are not of common occurrence in the county. In Madera County, inspections ensuring pest cleanliness were performed at nursery locations. In addition, incoming shipments of plant material were inspected for potentially injurious pests. Over 1,200 phytosanitary inspections were performed on agricultural products destined for export. Eighteen locations, totaling 2,535 acres, were surveyed and baited for Red Imported Fire Ant (*Solenopsis invicta*), a significant new quarantine pest. Incoming beehives, transported into the county for pollination, were also inspected for Red Imported Fire Ants. Three finds resulted, and the infested hives were treated.

The **Pest Detection Program** utilizes insect traps and surveys for the discovery of foreign pests which may have eluded exclusion efforts. The trapping program in Madera County targeted several fruit flies, including: Caribbean Fruit Fly (*Anastrepha suspensa*), Mediterranean Fruit Fly (*Ceratitis capitata*), Melon Fly (*Dacus cucurbitae*), Mexican Fruit Fly (*Anastrepha ludens*), Olive Fruit Fly (*Bactrocera oleae*), and Oriental Fruit Fly (*Dacus dorsalis*). Other targeted pests include: Apple Maggot (*Rhagoletis pomonella*), Gypsy Moth (*Lymantria dispar*), Japanese Beetle (*Popillia japonica*), Khapra Beetle (*Trogoderma granarium*), European Corn Borer (*Ostrinia nubilalis*), and European Pine Shoot Moth (*Rhyacionia buoliana*). Eleven hundred traps were placed in the county, with 9,686 trap servicings performed during the 1999 season.



The **Integrated Pest Control Program** strives to eradicate infestations of new pests before they become widespread. Pink Bollworm (*Pectinophora gossypiella*), a non-established and economically significant pest of cotton, is controlled by post-season plowdown of cotton plants. In Madera County, plowdown of nearly 26,000 acres was verified, ensuring the destruction of habitat supportive of this pest.



## PEST MANAGEMENT

Pest management programs serve to control pests already established in the county, including injurious insects, weeds, and rodents.

The **Vertebrate Pest Management Program** provides expertise and materials, to growers and homeowners, for the control of certain depredating vertebrate pests.

The **Biological Control Program** involves the utilization of natural parasites and predators to reduce populations of insects or weeds. We have distributed biological control agents active against the ash whitefly (*Siphoninus phillyreae*), as well as three noxious weeds: Klamath weed (*Hypericum perforatum*), puncturevine (*Tribulus terrestris*), and yellow starthistle (*Centaurea solstitialis*).

A parasitic wasp, *Encarsia nr. inaron*, was used countywide against the ash whitefly. (whitefly pictured to right)



An herbivorous leaf beetle, *Chrysolina quadrigemina*, was used against Klamath weed at three sites in the county. (beetle on weed pictured to left)

Stem-mining and seed-eating weevils (*Microlarinus lypriformis* and *Microlarinus lareynii*) were used countywide against puncturevine.

A seed head gall fly (*Urophora sirunaseva*) and a seed head weevil (*Bangasternus orientalis*) were used against yellow starthistle at two sites.

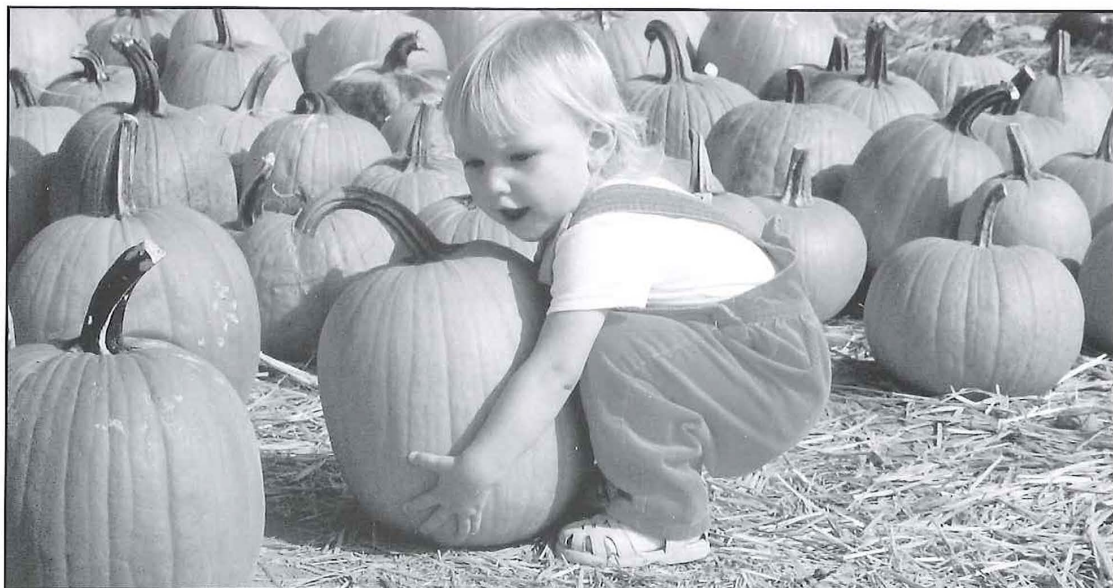
## ORGANIC FARMING

Nineteen organic farms, totaling 1850 acres, were registered in Madera County in 1999. Utilizing organic principles defined in the California Organic Food Act of 1990, these farms produce a wide array of commodities: almonds, apples, figs, grapes and raisins, prunes, cotton, and vegetables. The total value of organic production in Madera County during 1999 was \$3,554,000.



# AGRICULTURAL CROP REPORT SUMMARY

Item	Year	Harvested Acreage	Total Value
Apiary	1999		<b>\$5,152,000</b>
	1998		4,706,000
	1997		5,193,000
Field Crops	1999	<b>466,780</b>	<b>75,880,000</b>
	1998	491,104	68,852,000
	1997	515,920	101,655,000
Fruit and Nut Crops	1999	<b>177,210</b>	<b>400,349,000</b>
	1998	171,655	401,128,000
	1997	172,694	567,973,000
Livestock and Poultry	1999		<b>71,715,000</b>
	1998		40,321,000
	1997		28,915,000
Livestock and Poultry Products	1999		<b>100,403,000</b>
	1998		93,572,000
	1997		66,255,000
Nursery	1999	<b>1135</b>	<b>30,200,000</b>
	1998	671	14,128,000
	1997	390	4,541,000
Timber Products	1999		<b>2,462,000</b>
	1998		2,413,000
	1997		1,225,000
Vegetable Crops	1999	<b>4,300</b>	<b>16,222,000</b>
	1998	4,816	10,600,000
	1997	5,151	12,746,000
<b>TOTAL</b>	1999		<b>\$702,383,000</b>
	1998		636,720,000
	1997		788,503,000





## THE CHANGING FACE OF MADERA COUNTY AGRICULTURE

	Almonds	Cotton	Grapes	Potatoes	Wheat
1999	46,200 Acres \$80,912,000	26,540 Acres \$23,861,000	92,230 Acres \$228,567,000	* *	17,000 Acres \$4,431,000
1989	34,323 Acres \$49,837,000	42,500 Acres \$35,214,000	81,439 Acres \$145,584,000	* *	18,000 Acres \$6,160,000
1979	19,473 Acres \$35,616,000	79,750 Acres \$37,310,000	57,920 Acres \$107,988,000	* *	25,000 Acres \$6,720,000
1969	3,697 Acres \$1,392,000	43,100 Acres \$7,150,000	34,792 Acres \$21,102,000	2,000 Acres \$1,138,000	5,000 Acres \$300,000
1959	469 Acres \$255,840	49,384 Acres \$15,478,670	20,220 Acres \$8,918,647	2,107 Acres \$1,251,874	10,874 Acres \$185,280
1949	310 Acres \$76,400	74,041 Acres \$11,126,290	18,106 Acres \$3,666,600	2,295 Acres \$906,615	12,440 Acres \$240,715
1939	338 Acres \$43,920	44,900 Acres \$2,586,000	17,188 Acres \$1,285,240	949 Acres \$142,360	22,694 Acres \$265,510
1929	295 Acres \$16,800	26,000 Acres \$1,850,000	20,060 Acres \$1,900,000	125 Acres \$34,000	52,490 Acres \$724,800

\* potatoes last reported in 1971 (1,100 acres; \$521,000)



**MADERA COUNTY**  
**DEPARTMENT OF AGRICULTURE**  
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Madera, California 93637

