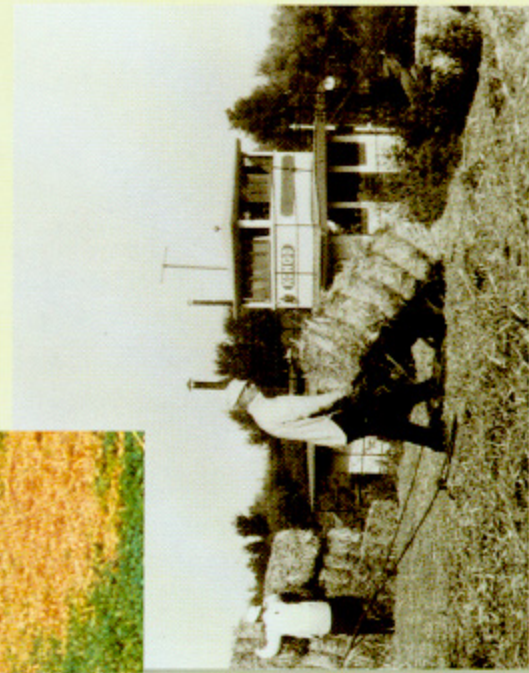


**1998
Agricultural
Report
SAN JOAQUIN
COUNTY**



SAN JOAQUIN COUNTY'S HAY CROP

The 1998 San Joaquin County Crop Report cover depicts the transformation of the hay industry in San Joaquin County. The Gold Rush greatly altered the structure of California agriculture. To meet the needs of the booming population (560,247 by 1870), agriculture was forced to change and expand during this time. This included a switch from range to improved beef cattle and an increase in dairies which occurred primarily around the San Francisco Bay, Humboldt County, and Petaluma in northern California. These expanding industries created a demand for greater hay production.

The introduction of alfalfa seed to California from South America between 1847 and 1850 enabled farmers to produce a new high quality livestock feed. With the development of irrigation, alfalfa soon became the predominant hay produced. As a result of greater demand, the introduction of alfalfa, and development of irrigation, hay production in California increased from 2,000 tons in 1850 to 550,000 tons in 1870.

Hay schooners were a common sight on the Sacramento and San Joaquin Rivers during the early years of hay production in the Central Valley of California. Hay was shipped to the San Francisco Bay area, Petaluma, and even to the East Coast, via larger ships. With the development of improved highways, trucks soon replaced horse drawn wagons as another means of transporting hay within the state.

Even though California does not have the largest alfalfa acreage, it has led all other states in tonnage produced. Since the early 1920's, alfalfa yields per acre have increased about twofold in California. This amounts to an average increase of approximately 1/2 ton each decade.

San Joaquin County acreage for all hay in 1998 totaled 82,800 acres. Of that amount, 77% or 63,800 acres is alfalfa. This serves as one of the major feedstocks for the County's \$232 million dairy industry. The remaining 19,000 acres consists of forage, barley, rye, sudan, oat and wheat.

Even though alfalfa is grown in most of the major agricultural regions in California, the San Joaquin Valley, consisting of San Joaquin County and seven other counties, is the largest production zone in the state, producing nearly half of California's alfalfa.

A SPECIAL "THANK YOU"

The San Joaquin County Agricultural Commissioner's Office expresses its deep appreciation to the San Joaquin Farm Bureau Federation and the Sierra-Bay Farm Credit Association for their contributions to the 1998 Crop Report. We would also like to thank Dan Putnam of University of California at Davis, Mick Canevari of San Joaquin County U.C. Cooperative Extension and the San Joaquin Hay Growers Association for their contributions to the cover photos and informational background. Without their support the publication of this report would not have been possible.

**SAN JOAQUIN COUNTY
AGRICULTURAL COMMISSIONER'S OFFICE**

1998 ANNUAL CROP REPORT

**Scott Hudson
Agricultural Commissioner**

**Compiled by
Diane Curry and Don Rademacher**

Board Of Supervisors

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Robert J. Cabral, Chairman, District 5

**David L. Baker
County Administrator**

AGRICULTURAL COMMISSIONER

SCOTT HUDSON

ASSISTANT AGRICULTURAL COMMISSIONER

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Rosemary Gomez
Judy Gaut
Terry King
Laura Rocha**

**Deputy Agricultural Commissioner
Deputy Agricultural Commissioner
Deputy Agricultural Commissioner
Deputy Agricultural Commissioner**

**Senior Agricultural Biologist, Tracy
Entomologist/Biologist
Agricultural Biologist II, Manteca
Senior Agricultural Biologist, Lodi
Agricultural Biologist I
Senior Agricultural Biologist
Senior Agricultural Biologist, Lodi
Senior Agricultural Biologist
Agricultural Biologist II
Senior Agricultural Biologist
Senior Agricultural Biologist
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Agricultural Biologist I, Manteca
Agricultural Biologist I
Senior Agricultural Biologist, Escalon
Senior Agricultural Biologist
Senior Agricultural Biologist, Lodi**

**Senior Office Systems Analyst
Data Entry Operator
Computer Systems Consultant**

**Office Assistant II, Lodi
Office Assistant, Manteca
Office Manager I
Office Assistant II
Office Assistant II
Office Assistant II
Office Assistant III
Accounting Technician II
Office Assistant II, Manteca**

All staff are based in Stockton unless otherwise noted.



SCOTT HUDSON
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS & MEASURES
ANIMAL CONTROL

VICKI HELMAR
ASST. AGRICULTURAL COMMISSIONER
ASST. SEALER OF WEIGHTS & MEASURES

SAN JOAQUIN COUNTY
OFFICE OF THE
AGRICULTURAL COMMISSIONER

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ESCALON OFFICE
1540 ROOSEVELT ST

WILLIAM LYONS JR., SECRETARY
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
AND
THE HONORABLE BOARD OF SUPERVISORS
SAN JOAQUIN COUNTY

Dear Secretary and Board Members:

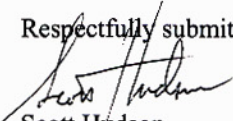
In accordance with Section 2279 of the California Food and Agricultural Code, I am pleased to present the sixty-fifth Annual Report of Agricultural Production in the County of San Joaquin. The values shown are estimates based on the most common method of sale for the individual commodity, except for fresh fruits and vegetables where the value is based on the F.O.B. packed price at the shipping point. The figures contained in this report are gross values rather than net returns to the grower.

The gross value of agricultural production for 1998 in San Joaquin County is estimated to be \$1,310,403,000. This represents a 12% decrease from the estimated \$1,487,476,000 for 1997. Significant decreases occurred in most crop categories due to the weather effects of El Niño. Heavy winter rains extending through early summer seriously impacted many of the County's crops. Increases occurred in Livestock and Poultry Products, Vegetable Crops, and Seed Crops. Highlights of the 1998 crop year are as follows:

- Grapes, despite an overall decrease in value, continue to be San Joaquin County's number one crop with a value of \$273,855,000.
- Tomatoes experienced an increase in value due to increased acreage and overall price.
- Milk experienced an increase in value due to higher prices.
- Seed Potato acreage continues to increase for the second consecutive year.
- Onions and Peppers increased due to higher yields and strong foreign and domestic markets which increased the price.
- Beans, Corn, and Wheat all experienced decreases in value due to reductions in yields and prices.
- Almonds, Apples, and Walnuts dropped in value due to significant decreases in yield and price.
- Cherries fell out of the "top ten crops" for the first time since 1986 due to a dramatic decrease in production, which was a direct result of spring rains.

I wish to express my sincere appreciation to all who assisted my biologists and deputies by furnishing the necessary information that made this report possible.

Respectfully submitted,


Scott Hudson
Agricultural Commissioner

FIELD CROPS

CROP	PRODUCTION				GROSS VALUE			
	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	SUBTOTAL	TOTAL
BARLEY	1998	357	1.07	400	TON	\$103.00		\$39,000
	1997	611	1.73	1,100	TON	\$168.00		\$178,000
BEANS, DRY, ALL	1998	22,300	0.80	17,900	TON	\$672.00		\$12,032,000
	1997	24,200	1.14	27,700	TON	\$717.00		\$19,874,000
BLACKEYE	1998	1,500	0.75	1,100	TON	\$700.00	\$788,000	
	1997	1,300	1.50	1,900	TON	\$580.00	\$1,122,000	
KIDNEY	1998	8,300	0.75	6,200	TON	\$611.00	\$3,803,000	
	1997	9,300	1.01	9,300	TON	\$835.00	\$7,800,000	
LIMA	1998	12,000	0.84	10,100	TON	\$715.00	\$7,206,000	
	1997	13,600	1.21	16,500	TON	\$665.00	\$10,952,000	
OTHER	1998	545	0.88	480		\$490.50	\$235,400	
	1997 *							
CORN, GRAIN	1998	63,900	4.71	300,900	TON	\$102.00		\$30,632,000
	1997	68,000	5.14	349,300	TON	\$123.00		\$42,832,000
HAY, ALL	1998	82,800	5.27	436,100	TON	\$115.00		\$50,262,000
	1997	79,400	5.95	472,100	TON	\$125.00		\$58,957,000
ALFALFA	1998	63,800	6.10	388,900	TON	\$120.00	\$46,672,000	
	1997	61,200	6.98	427,000	TON	\$128.00	\$54,661,000	
OTHER	1998	19,000	2.48	47,200	TON	\$76.00	\$3,590,000	
	1997	18,200	2.47	45,100	TON	\$95.00	\$4,296,000	
OATS, GRAIN	1998	1,504	3.06	4,600	TON	\$104.00		\$477,000
	1997	488	4.03	2,000	TON	\$111.00		\$219,000
PASTURE & RANGE	1998	157,000			ACRE	\$30.00		\$4,590,000
	1997	161,000			ACRE	\$30.00		\$4,607,000
IRRIGATED	1998	23,900			ACRE	\$125.00	\$2,988,000	
	1997	23,700			ACRE	\$125.00	\$2,966,000	
OTHER	1998	133,500			ACRE	\$12.00	\$1,602,000	
	1997	136,800			ACRE	\$12.00	\$1,641,000	
RICE	1998	4,830	3.60	17,400	TON	\$210.00		\$3,654,000
	1997	5,580	3.72	20,800	TON	\$208.00		\$4,321,000
SAFFLOWER	1998	14,300	1.38	19,700	TON	\$305.00		\$6,001,000
	1997	19,300	1.53	29,500	TON	\$329.00		\$9,710,000
SILAGE, CORN	1998	31,300	28.17	880,400	TON	\$20.00		\$17,441,000
	1997	32,400	28.18	913,700	TON	\$20.00		\$18,000,000
SILAGE, OTHER INCLUDES GREEN CHOP	1998	25,300	14.01	354,800	TON	\$20.00		\$7,016,000
	1997	22,300	12.72	283,400	TON	\$20.00		\$5,153,000

FIELD CROPS

CROP	YEAR	PRODUCTION			UNIT	PER UNIT	GROSS VALUE	
		HARVESTED ACREAGE	PER ACRE	TOTAL			TOTAL	
SUGAR BEETS	1998	7,600	23.46	177,200	TON	\$39.00	\$6,992,000	
	1997	10,300	25.60	264,800	TON	\$40.00	\$10,590,000	
SUNFLOWERS	1998	1,200	1.00	1,200	TON	\$400.00	\$480,000	
	1997	1,890	1.20	2,300	TON	\$392.00	\$889,000	
WHEAT	1998	40,600	2.30	93,300	TON	\$108.00	\$10,072,000	
	1997	46,200	2.89	133,500	TON	\$128.00	\$17,144,000	
TOTAL	1998	453,000					\$149,453,000	
	1997	471,000					\$192,474,000	

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

*NOT PREVIOUSLY REPORTED

SEED CROPS

CROP	YEAR	PRODUCTION			UNIT	PER UNIT	GROSS VALUE	
		HARVESTED ACREAGE	PER ACRE	TOTAL			TOTAL	
*BEAN SEED								
KIDNEY BEAN	1998	1,510	14.20	21,000	CWT	\$36.16	\$773,000	
	1997	1,310	19.20	25,100	CWT	\$42.50	\$1,068,000	
BEANS, OTHER	1998	75	14.00	1,020	CWT	\$36.30	\$37,000	
	1997	170	17.00	2,880	CWT	\$37.80	\$109,000	
POTATOES, SEED	1998	1,668	300.00	500,250	CWT	\$11.00	\$5,503,000	
	1997	1,000	271.00	270,596	CWT	\$12.20	\$3,312,000	
VEGETABLE SEED	1998	620					\$2,995,000	
	1997	600					\$3,165,000	
*MISCELLANEOUS SEED	1998	880					\$276,000	
CLOVER, SUDAN, GRAIN & ETC.	1997	1,000					\$1,264,000	
TOTAL	1998	4,750					\$9,548,000	
	1997	4,080					\$8,918,000	

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

*INCLUDES CERTIFIED SEED

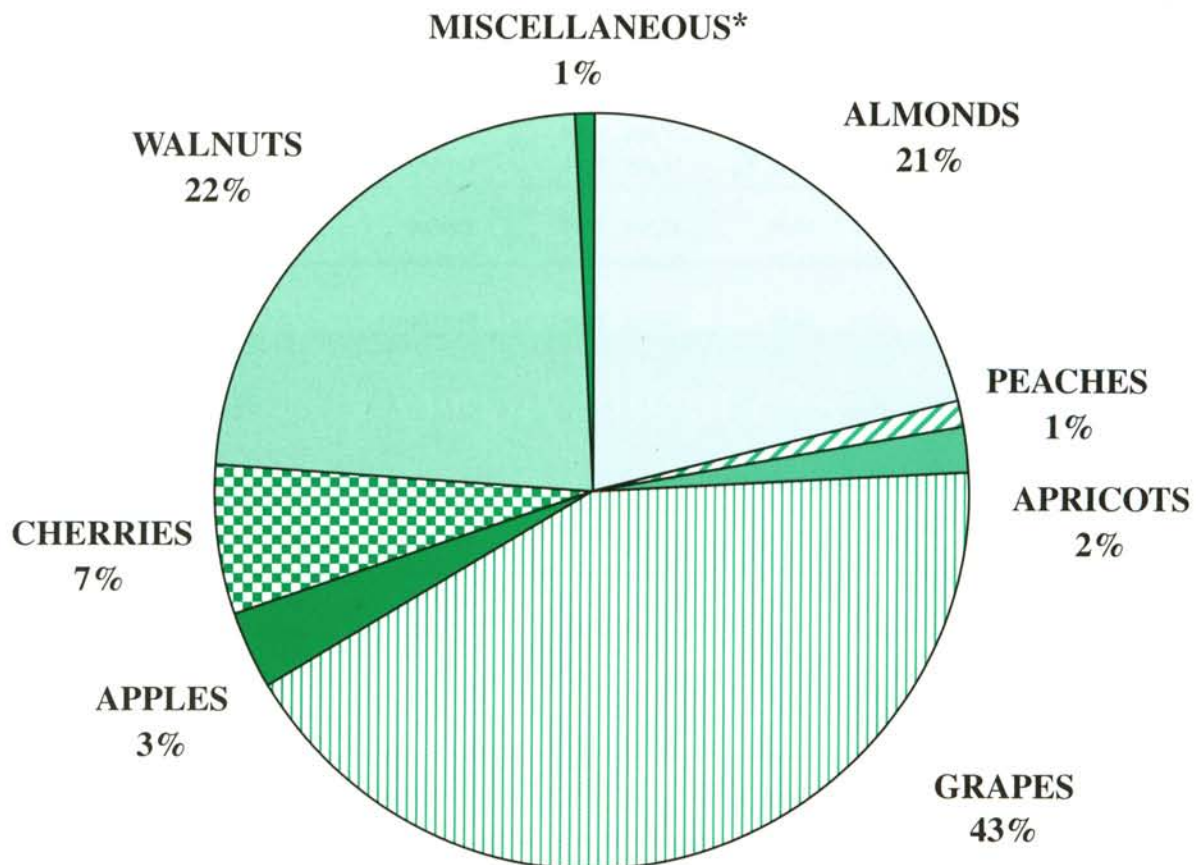
FRUIT AND NUT CROPS

CROP	YEAR	PRODUCTION		TOTAL	UNIT	GROSS VALUE		
		HARVESTED ACREAGE	PER ACRE			PER UNIT	SUBTOTAL	TOTAL
ALMOND, MEATS	1998	38,500	0.58	22,200	TON	\$2,700.00		\$79,778,000
	1997	36,800	0.80	29,400	TON	\$3,200.00		\$94,080,000
ALMOND, HULLS	1998			55,500	TON	\$75.00		\$5,513,000
	1997			73,500	TON	\$75.00		\$5,513,000
APPLES	1998	4,980	12.60	62,500	TON	\$568.00		\$35,509,000
	1997	4,980	14.30	71,400	TON	\$624.00		\$44,585,000
APRICOTS	1998	3,180	9.01	28,700	TON	\$246.00		\$7,060,000
	1997	3,380	8.57	29,000	TON	\$232.00		\$6,728,000
CHERRIES, ALL	1998	12,500	0.72	9,000	TON	\$2,770.00		\$24,943,000
	1997	12,000	3.36	40,300	TON	\$2,430.00		\$97,974,000
FRESH	1998			6,136	TON	\$3,777.00	\$23,176,000	
	1997			30,048	TON	\$3,000.00	\$90,144,000	
PROCESSING	1998			2,839	TON	\$622.34	\$1,767,000	
	1997			10,232	TON	\$765.27	\$7,830,000	
GRAPES, ALL	1998	76,800	6.71	515,000	TON	\$532.00		\$273,855,000
	1997	74,100	7.89	585,000	TON	\$503.00		\$294,471,000
TABLE, CRUSHED	1998	3,240	5.80	18,800	TON	\$184.00	\$3,462,000	
	1997	3,250	12.25	39,800	TON	\$186.00	\$7,404,000	
WINE, ALL	1998	73,600	6.74	496,000	TON	\$545.15	\$270,393,000	
	1997	70,800	7.70	545,000	TON	\$526.73	\$287,067,000	
FRESH	1998			4,280	TON	\$644.00	\$2,756,000	
	1997			6,350	TON	\$661.00	\$4,192,000	
CRUSHED	1998			491,600	TON	\$544.00	\$267,637,000	
	1997			538,900	TON	\$525.00	\$282,875,000	
PEACHES, ALL	1998	2,190	18.63	40,800	TON	\$248.00		\$10,107,000
	1997	2,130	19.81	42,200	TON	\$212.00		\$8,962,000
CLINGSTONE	1998	1,650	19.00	31,400	TON	\$225.00	\$7,065,000	
	1997	1,700	20.00	34,000	TON	\$211.00	\$7,174,000	
FREESTONE	1998	535	17.50	9,360	TON	\$325.00	\$3,042,000	
	1997	427	19.30	8,240	TON	\$217.00	\$1,788,000	
PEARS	1998	725	19.00	13,780	TON	\$250.00		\$3,445,000
	1997	688	18.20	12,520	TON	\$240.00		\$3,005,000
WALNUTS, ENGLISH	1998	39,300	1.17	44,110	TON	\$1,257.00		\$55,448,000
	1997	40,100	1.90	76,190	TON	\$1,300.00		\$99,047,000

FRUIT AND NUT CROPS

CROP	PRODUCTION		GROSS VALUE
	YEAR	HARVESTED ACREAGE	TOTAL
MISCELLANEOUS	1998	1,139	\$4,391,000
	1997	956	\$5,153,000
TOTAL	1998	179,000	\$500,049,000
	1997	175,000	\$659,518,000

SAN JOAQUIN COUNTY'S FRUIT AND NUT ACREAGE



* INCLUDES PEARS

VEGETABLE CROPS

CROP	PRODUCTION			GROSS VALUE				
	YEAR	HARVESTED ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	SUBTOTAL	TOTAL
ASPARAGUS	1998	23,500	1.45	34,100	TON	\$1,842.00		\$62,789,000
	1997	24,100	1.25	30,200	TON	\$2,300.00		\$69,452,000
CORN, SWEET	1998	2,860	11.22	32,100	TON	\$163.00		\$5,245,000
	1997	3,410	7.69	26,200	TON	\$282.00		\$7,390,000
CUCUMBERS	1998	4,210	7.50	31,600	TON	\$180.00		\$5,686,000
	1997	3,980	6.50	25,900	TON	\$186.00		\$4,808,000
MELONS, ALL	1998	2,860	19.20	54,800	TON	\$141.00		\$7,718,000
	1997	2,510	16.50	41,300	TON	\$203.00		\$8,381,000
WATERMELON	1998	2,200	21.00	46,100	TON	\$130.00	\$5,992,000	
	1997	2,290	17.00	39,000	TON	\$200.00	\$7,800,000	
OTHER	1998	657	13.31	8,700	TON	\$197.00	\$1,726,000	
	1997	223	10.29	2,300	TON	\$253.00	\$581,000	
ONIONS, DRY	1998	3,410	26.00	88,400	TON	\$234.00		\$20,654,000
	1997	2,380	16.00	38,300	TON	\$193.00		\$7,412,000
PEPPERS	1998	3,220	11.14	35,900	TON	\$342.00		\$12,258,000
	1997	3,430	7.83	26,800	TON	\$275.00		\$7,364,000
POTATOES	1998	3,070	16.28	49,900	TON	\$208.00		\$10,382,000
	1997	3,220	16.27	52,400	TON	\$208.00		\$10,896,000
PUMPKINS	1998	3,720	16.00	59,600	TON	\$130.00		\$7,744,000
	1997	2,680	13.63	36,600	TON	\$140.00		\$5,121,000
TOMATOES, ALL	1998	38,230	24.76	946,400	TON	\$100.00		\$97,469,000
	1997	34,440	29.06	1,000,900	TON	\$90.00		\$88,045,000
SHIPPING	1998	11,130	8.55	95,200	TON	\$535.00	\$50,950,000	
	1997	8,340	12.26	102,300	TON	\$413.00	\$42,215,000	
PROCESSING	1998	27,100	31.41	851,200	TON	\$55.00	\$46,519,000	
	1997	26,100	34.43	898,600	TON	\$51.00	\$45,830,000	
MISCELLANEOUS VEGETABLES	1998	5,130						\$10,174,000
	1997	3,130						\$13,323,000
TOTAL	1998	90,200						\$240,119,000
	1997	83,300						\$222,192,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

NURSERY PRODUCTS

ITEM	YEAR	QUANTITY SOLD BY PRODUCERS	UNIT	GROSS VALUE	
				TOTAL	
GRAPEVINES, STRAWBERRY PLANTS, FRUIT & NUT TREES	1998	75,454,000	PLANT	\$3,912,000	
	1997	78,219,000	PLANT	\$4,221,000	
VEGETABLE PLANTS	1998	141,543,000	PLANT	\$5,103,000	
	1997	122,530,000	PLANT	\$4,051,000	
FLOWERING POTTED PLANTS	1998	2,196,000	EACH	\$7,609,000	
	1997	3,807,000	EACH	\$10,955,000	
FOLIAGE PLANTS	1998	8,369,000	EACH	\$11,777,000	
	1997	5,363,000	EACH	\$9,583,000	
BEDDING PLANTS	1998	1,553,000	PKG	\$8,554,000	
	1997	836,000	PKG	\$5,491,000	
WOODY ORNAMENTALS	1998	5,181,000	EACH	\$23,690,000	
	1997	7,403,000	EACH	\$39,183,000	
CHRISTMAS TREES	1998	2,000	EACH	\$56,000	
	1997	2,000	EACH	\$43,000	
BULBS, RHIZOMES, TURF, CACTUS, ETC.	1998			\$13,414,000	
	1997			\$23,532,000	
TOTAL	1998			\$74,115,000	
	1997			\$97,059,000	

* Revised

APIARY PRODUCTS

ITEM	YEAR	PRODUCTION	UNIT	PER UNIT	GROSS VALUE	
					TOTAL	
HONEY	1998	195,000	LBS	\$0.55	\$107,000	
	1997	162,000	LBS	\$0.61	\$99,000	
BEESWAX	1998	6,600		\$1.35	\$8,900	
	1997 *					
POLLINATION	1998	159,300	HIVE	\$31.00	\$4,933,000	
	1997	152,000	HIVE	\$32.80	\$4,991,000	
TOTAL	1998				\$5,049,000	
	1997				\$5,090,000	

* not previously reported

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

LIVESTOCK AND POULTRY

ITEM	YEAR	NO.HEAD	WEIGHT	UNIT	PER UNIT	TOTAL
CATTLE & CALVES	1998	101,600	725,000	CWT	\$39.50	\$28,654,000
	1997	124,300	794,700	CWT	\$48.10	\$38,262,000
SHEEP & LAMBS	1998	21,300	21,300	CWT	\$61.10	\$1,302,000
	1997	25,200	24,800	CWT	\$74.60	\$1,849,000
BROILERS, FRYERS, DUCKS & RABBITS	1998	1,650,000	6,320,000	LBS	\$0.69	\$4,375,000
	1997	1,150,000	4,450,000	LBS	\$1.11	\$4,928,000
OTHER CHICKENS & SPENT HENS	1998	2,576,000		EACH	\$0.04	\$104,000
	1997	2,552,000		EACH	\$0.05	\$135,000
TURKEYS	1998	279,000	4,255,000	LBS	\$0.55	\$2,321,000
	1997	278,000	4,240,000	LBS	\$0.45	\$1,908,000
OTHER LIVESTOCK	1998					\$743,000
	1997					\$594,000
TOTAL	1998					\$37,499,000
	1997					\$47,676,000

LIVESTOCK AND POULTRY PRODUCTS

ITEM	YEAR	PRODUCTION	UNIT	PER UNIT	GROSS VALUE	
					SUBTOTAL	TOTAL
MILK, ALL	1998	18,176,000	CWT	\$15.00		\$273,427,000
	1997	18,379,000	CWT	\$12.60		\$232,155,000
MARKET	1998	17,960,000	CWT	\$15.10	\$270,489,000	
	1997	18,281,000	CWT	\$12.60	\$230,966,000	
MANUFACTURING	1998	216,000	CWT	\$13.60	\$2,938,000	
	1997	98,000	CWT	\$12.10	\$1,189,000	
WOOL	1998	176,000	LBS	\$0.40		\$70,000
	1997	152,000	LBS	\$0.65		\$99,000
EGGS, CHICKEN	1998	35,165,000	DOZ	\$0.57		\$20,181,000
	1997	35,787,000	DOZ	\$0.54		\$19,374,000
MANURE	1998	260,000	TON	\$5.03		\$1,307,000
	1997	291,000	TON	\$5.09		\$1,482,000
TOTAL	1998					\$294,985,000
	1997					\$253,110,000

HAY PRODUCTION

In the United States 100 million tons of hay are harvested each year from 60 million production acres.

Alfalfa was one of the first irrigated crops in California.

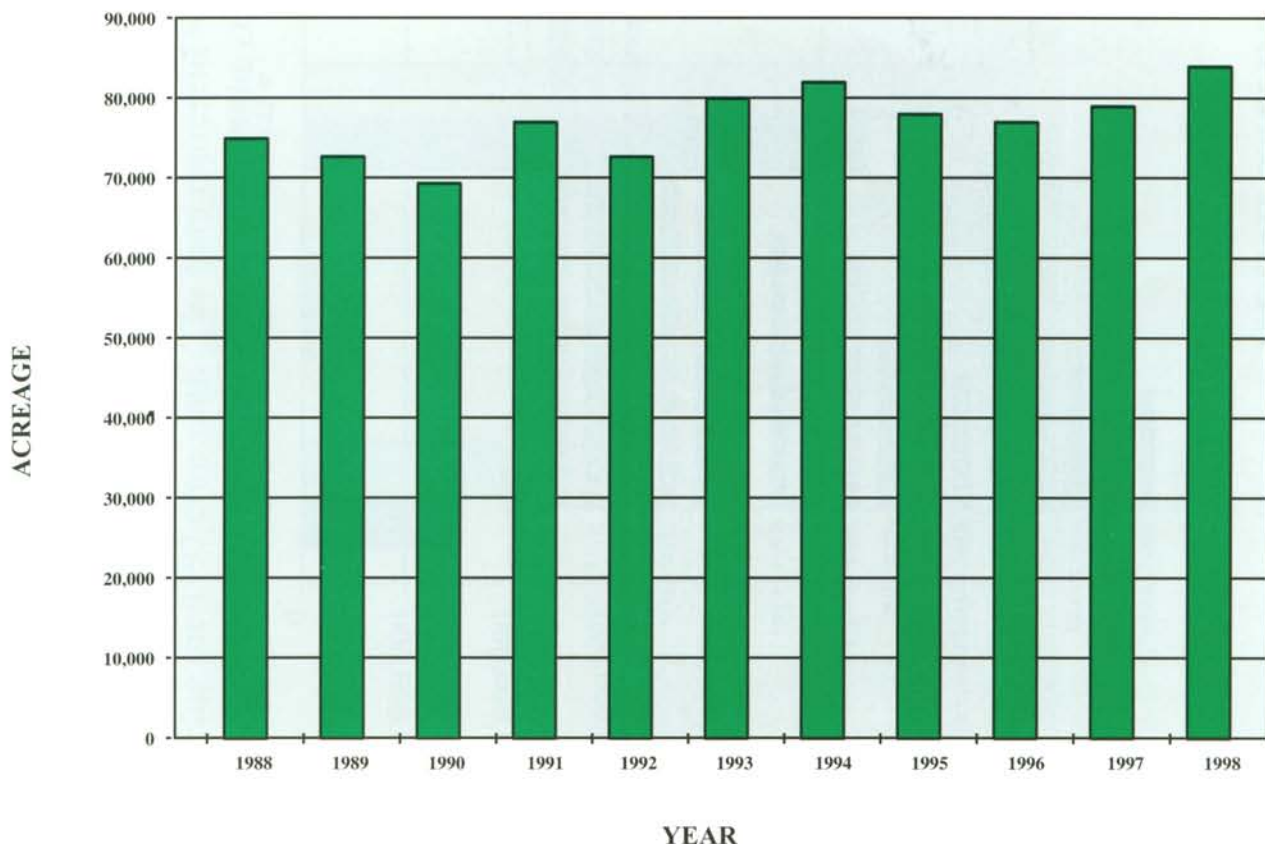
Alfalfa is the second most important revenue-producing field crop in California, behind cotton.

Hay is the seventh-ranked agricultural crop of the top 20 farm products in California.

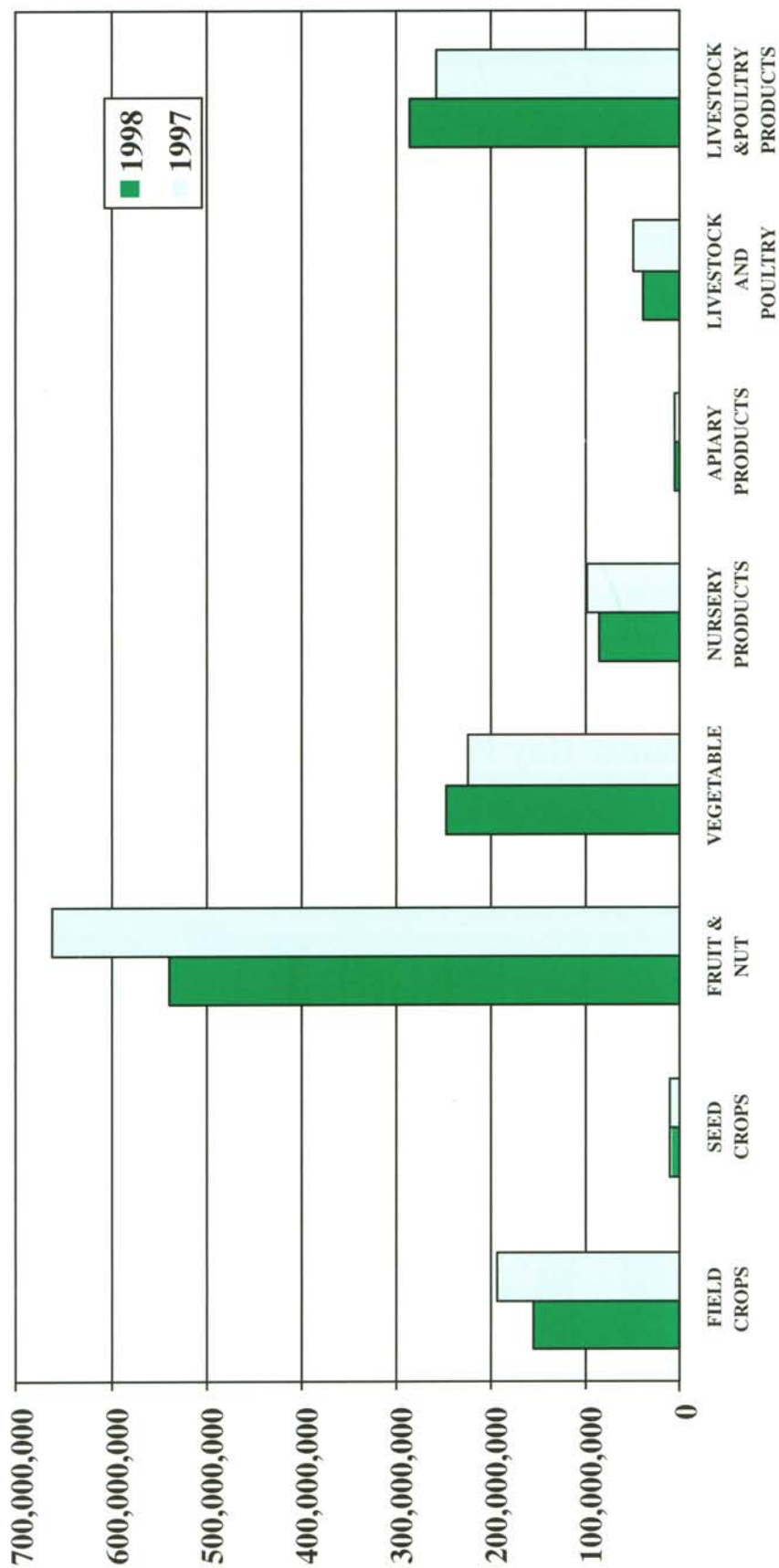
Alfalfa is the major feedstock for California's \$3.6 billion Dairy industry and an important part of the \$1.3 billion Cattle industry.

The San Joaquin Valley is the largest production zone in California, consisting of 8 counties which produce 49% of California's alfalfa.

San Joaquin County Hay Production Acreage over the past 10 years



CROP CATEGORY GROSS VALUES

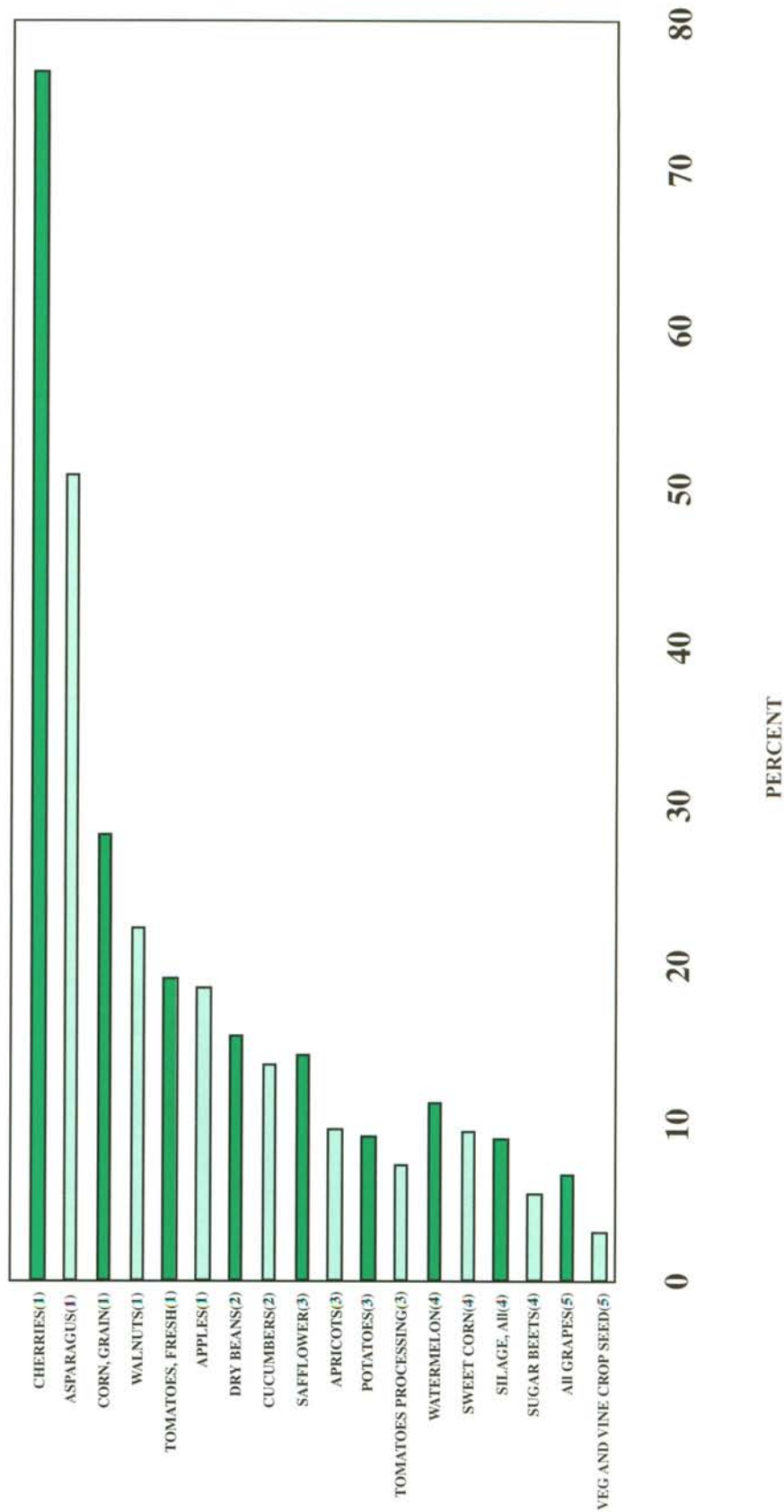


TOTAL VALUE 1997: \$1,487,476,000

TOTAL VALUE 1998: \$1,310,403,000

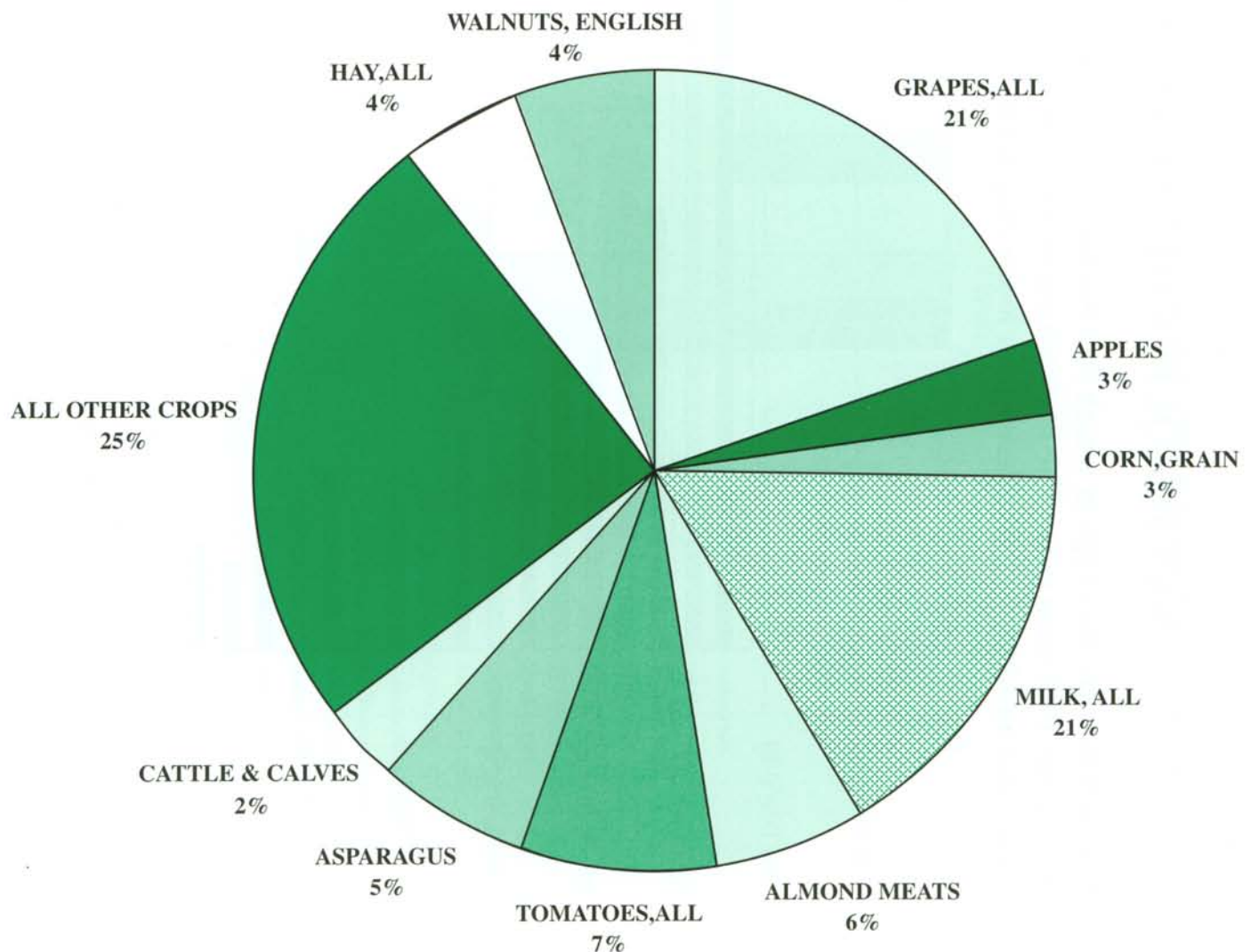
SAN JOAQUIN COUNTY'S SHARE OF PRODUCTION

Listed below are the crops in which San Joaquin County ranked in the top five in the State based on gross value during the 1997 crop year. The bars represent San Joaquin County's percentage of the state value for that crop. The numbers in parentheses next to the crop labels show San Joaquin County's ranking for that crop.



SAN JOAQUIN COUNTY'S TEN LEADING CROPS

GRAPES, ALL	\$273,855,000
MILK, ALL	\$273,427,000
TOMATOES, ALL	\$97,469,000
ALMOND MEATS	\$79,777,000
ASPARAGUS	\$62,789,000
WALNUTS, ENGLISH	\$55,448,000
HAY, ALL	\$50,262,000
APPLES	\$35,509,000
CORN, GRAIN	\$30,632,000
CATTLE & CALVES	28,654,000
ALL OTHER CROPS	\$322,579,000

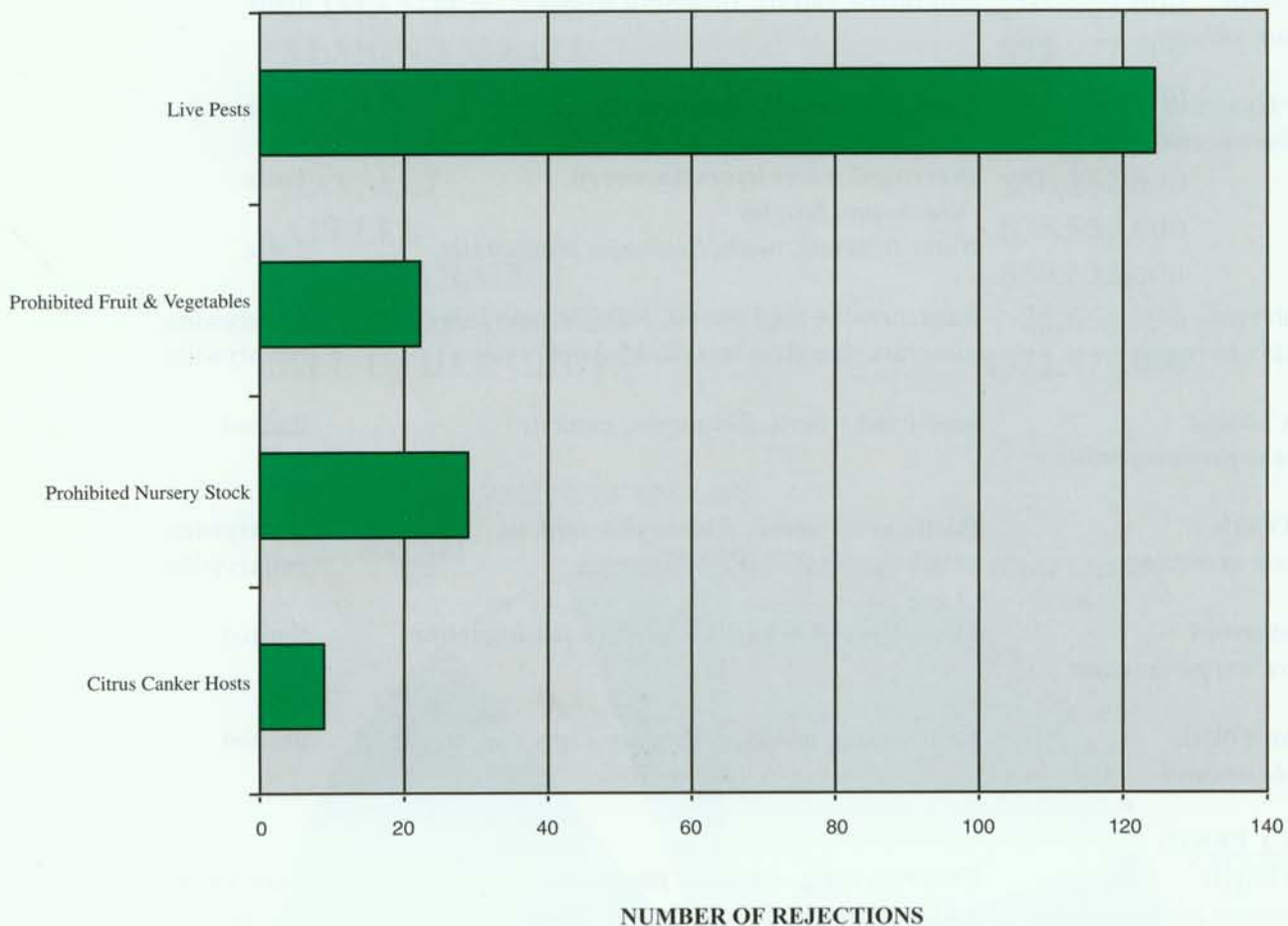


SAN JOAQUIN COUNTY SUSTAINABLE AGRICULTURE
1998 BIOLOGICAL CONTROL

<u>WEED PEST</u>	<u>BIO CONTROL ORGANISM</u>	<u>SCOPE OF PROGRAM</u>
Yellow Starthistle (YST) <i>Centaurea solstitialis</i>	YST bud weevil, <i>Bangasternus orientalis</i> YST gall fly, <i>Urophora sirunaseva</i> YST peacock fly, <i>Chaetorellia australis</i> YST hairy weevil, <i>Eustenopus villosus</i>	2 sites 2 sites countywide 2 sites
Bull Thistle <i>Cirsium vulgare</i>	bull thistle gall fly, <i>Urophora stylata</i>	1 site
Water Hyacinth <i>Eichhornia crassipes</i>	mottled water hyacinth weevil, <i>Neochetina eichhorniae</i> chevroned water hyacinth weevil, <i>Neochetina bruchii</i> water hyacinth moth, <i>Sameodes albiguttalis</i>	1 site 1 site 1 site
Puncturevine <i>Tribulus terrestris</i>	puncturevine seed weevil, <i>Microlarinus lareynii</i> puncturevine stem weevil, <i>M. lypriformis</i>	countywide countywide
Italian Thistle <i>Carduus pycnocephalus</i>	seed-head weevil, <i>Rhinocylus conicus</i>	limited
Milk Thistle <i>Silybum marianum</i>	thistle head weevil, <i>Rhinocylus conicus</i> artichoke fly, <i>Terellia fuscicornis</i>	countywide countywide
Klamathweed <i>Hypericum perforatum</i>	klamathweed beetle, <i>Chrysolina quadrigemina</i>	limited
Russian Thistle <i>Salsola australis</i>	stem mining moths, <i>Coleophora</i> spp.	limited
<u>INSECT PESTS</u>		
Ash Whitefly <i>Siphoninus phillyreae</i>	Encarsia wasp, <i>Encarsia partenopea</i> ladybird beetle, <i>Clitostethus arcuatus</i>	countywide 3 sites
Greenhouse Whitefly <i>Trialeurodes vaporariorum</i>	ladybird beetle, <i>Clitostethus arcuatus</i> Encarsia wasp, <i>Encarsia formosa</i>	1 site 2 sites
Cottony Cushion Scale <i>Icerya purchasi</i>	Vedalia beetle, <i>Rodalia cardinalis</i> parasitic fly, <i>Cryptochaetum iceryae</i>	countywide countywide
Aphid & Scale Insects (numerous species)	Asiatic ladybird beetle, <i>Harmonia axyridis</i>	countywide
<u>GREENHOUSE PESTS</u>		
Fungus Gnats, <i>Sciara</i> spp.	a nematode, <i>Steinernema feltiae</i>	2 sites
Twospotted mites <i>Tetranychus</i> spp.	predator mites, <i>Phytoseiulus</i> spp. <i>Galendromus</i> (= <i>Metaseiulus</i>) <i>occidentalis</i>	2 sites

PEST EXCLUSION REJECTIONS 1998

The following depicts the number of Exclusion rejection notices issued on shipments in violation of California quarantines. All shipments of plant material entering San Joaquin County are inspected as a function of the Agricultural Commissioner's Pest Exclusion Program.



PEST INTERCEPTED

SOURCE

SCOPE OF PROGRAM

Live Pests

Burrowing Nematode
 Reniform Nematode
 Quarantined Scales
 Quarantined Snails, and Slugs
 Other Quarantined Insects

Nurseries
 Nurseries
 Nurseries, P.O., UPS
 Nurseries, P.O., UPS
 Nurseries, P.O., UPS

1 Rejection/Destroyed
 1 Rejection/Destroyed
 28 Rejections/Destroyed
 83 Rejections/Destroyed
 12 Rejections/Destroyed

Prohibited Fruit & Vegetables

P.O., UPS, Specialty Mkt.

22 Rejections/Destroyed

Citrus Canker Hosts

Specialty Markets, P.O.

9 Rejections/Destroyed

Prohibited Nursery Stock

Nurseries, P.O.

12 Rejections/Destroyed

GENERAL SAN JOAQUIN COUNTY INFORMATION

COUNTY SEAT	STOCKTON
COUNTY POPULATION (1997)	535,400
POPULATION PER SQUARE MILE	379
INCORPORATED CITIES (7)	
ESCALON, LATHROP, LODI, MANTECA, RIPON, STOCKTON AND TRACY	
LAND AREA (SQUARE MILES)	1,400
LAND IN FARMS (ACRES - 1997)	808,838
TOTAL CROPLAND (ACRES - 1997)	559,435
IRRIGATED CROPLAND (ACRES - 1997)	519,021
NUMBER OF FARMS (1997)	3,862
AVERAGE SIZE OF FARMS (ACRES - 1997)	209
AGRICULTURAL WORK FORCE	15,700
LOWEST ELEVATION IN COUNTY (DELTA AREA)	12' BELOW SEA LEVEL
HIGHEST ELEVATION IN COUNTY (SOUTHWESTERN AREA)	3065' ABOVE SEA LEVEL
LENGTH OF COUNTY (NORTH TO SOUTH)	75 MILES
WIDTH OF COUNTY (EAST TO WEST)	65 MILES
AVERAGE JANUARY TEMPERATURE	53°
AVERAGE JULY TEMPERATURE	93°
AVERAGE ANNUAL RAINFALL	
NORTH COUNTY	16 INCHES
SOUTH COUNTY	14 INCHES
EAST COUNTY	12 INCHES
WEST COUNTY	9 INCHES

AGRICULTURAL COMMISSIONER'S OFFICE
SAN JOAQUIN COUNTY
P.O. BOX 1809
STOCKTON, CA 95201

