



1990

MONTEREY COUNTY ANNUAL CROP REPORT

MONTEREY COUNTY

AGRICULTURAL COMMISSIONER

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RICHARD W. NUTTER
AGRICULTURAL COMMISSIONER
ADMINISTRATOR OF WEIGHTS & MEASURES



*Henry J. Voss, Director
California Department of Food and Agriculture*

and

The Honorable Board of Supervisors of Monterey County:

*Sam Karas, Chairman, Fourth District
Marc Del Piero, First District
Barbara Shipnuck, Second District
Tom Perkins, Third District
Karin Strasser Kauffman, Fifth District*

In compliance with the provisions of Section 2279 of the California Food and Agricultural Code, I am pleased to submit the Monterey County Agricultural Crop Report for the calendar year 1990.

Monterey County's agriculture entered 1990 by breaking all previous records with a gross value of 1,397,598,940. This exceeds the 1989 total by \$191,704,060 or 15.9%.

Acreage total and value for Head Lettuce declined but the crop continued in the number one position as it has for more than 50 years.

Once again, Strawberries displaced Broccoli as the second leading crop with a dramatic 80 million dollar increase. Fresh market prices and new acreage accounted for the showing. Broccoli acreage dropped slightly but gross value rebounded despite a significant drop in product used for processing purposes. This is a direct result of the relocation of food processing plants to Mexico.

Increased production accounted for Wine Grapes establishing another record year. This industry continues to draw worldwide acclaim.

The commodities recording increased gross values were: Anise, Asparagus, Broccoli, Cauliflower, Celery, Chili Peppers, Grapes, Green Onions, Kale, Leaf Lettuce, Nursery Stock, Raspberries, Seed Crops, Spinach, Strawberries, Walnuts; decreases were experienced by: Apples, Artichokes, Brussels Sprouts, Cabbage, Carrots, Garlic, Head Lettuce, Kiwi, Livestock, Milk, Mushrooms and Tomatoes.

Mother Nature adversely affected county agriculture with the continuation of the drought and the impact of the December freeze.

Livestock producers and dry land farmers are the most directly affected by the extended drought. A reduction in herd numbers and acreage grown has been necessary.

Vegetable crop growers continue to produce on about the same acreage but have been forced to deepen wells and pay increased power bills.

Fuel and transportation costs were noted as affecting grower profit margins along with inflationary increases for implements of husbandry.

Exports continue to be a bright spot with Formosa displacing Japan as the leading importer. Broccoli shipments tripled over last year while the Gulf War was responsible for reduced Strawberry shipments to the Middle East Countries.

The values represented in this report are gross receipts of the producers, and do not take into account the various costs of production, marketing, or transportation. No attempt is made to reflect net income of the producer.

My thanks to the individuals and firms whose cooperation made this report possible, and to my staff members, under the direction of Deputy Agricultural Commissioner Gerry Willey and Agricultural Biologist III Katherine Smith, who coordinated and compiled this report.

Very truly yours,



Richard W. Nutter
Agricultural Commissioner

RWN:jd

The 1990 Annual Crop Report is dedicated to Wallace L. Marvin, Assistant Agricultural Commissioner, who will retire in 1991. Wallace L. Marvin will retire with 41 years of exemplary and dedicated service to the Monterey County Agricultural Commissioner's office.

AGRICULTURAL COMMISSIONER

RICHARD W. NUTTER

ASSISTANT AGRICULTURAL COMMISSIONER

WALLACE L. MARVIN

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Robert Roach	Deputy Agricultural Commissioner
Gerry Willey	Deputy Agricultural Commissioner
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Lisa Correia	Agricultural Inspector/Biologist III
Henry Gonzales	Agricultural Inspector/Biologist III
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Tom Cotenias	Agricultural Aide
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Jose Torres	Agricultural Aide

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Julia Duran	Senior Typist Clerk
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Lawrence Mora
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Esther Wells**

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Agricultural Inspector/Biologist I
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Agricultural Inspector/Biologist III
Agricultural Inspector/Biologist III
Typist Clerk II**

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**Robert Hunter
Carol Montgomery
Claud (Skip) Bowen**

**Weights and Measures Inspector III
Weights and Measures Inspector II
Weights and Measures Inspector I**

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<i>Danny Garcia</i>	<i>Produce Inspector II</i>
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<i>J. Arthur Pemberton</i>	<i>Produce Inspector II</i>
<i>Gail Young</i>	<i>Produce Inspector II</i>
<i>Juanita Adame</i>	<i>Produce Inspector I</i>
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<i>Elisa Arroyo</i>	<i>Produce Inspector I</i>
<i>Ima Brannan</i>	<i>Produce Inspector I</i>
<i>Luz Cadena</i>	<i>Produce Inspector I</i>
<i>Celia Cervantes</i>	<i>Produce Inspector I</i>
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<i>Eugenia Ferrel</i>	<i>Produce Inspector I</i>
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<i>Donald Hacker</i>	<i>Produce Inspector I</i>
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<i>Daniel Stebner</i>	<i>Produce Inspector I</i>
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<i>William Tarr</i>	<i>Produce Inspector I</i>
<i>Quintino Torres</i>	<i>Produce Inspector I</i>
<i>Wendy Wycuff</i>	<i>Produce Inspector I</i>

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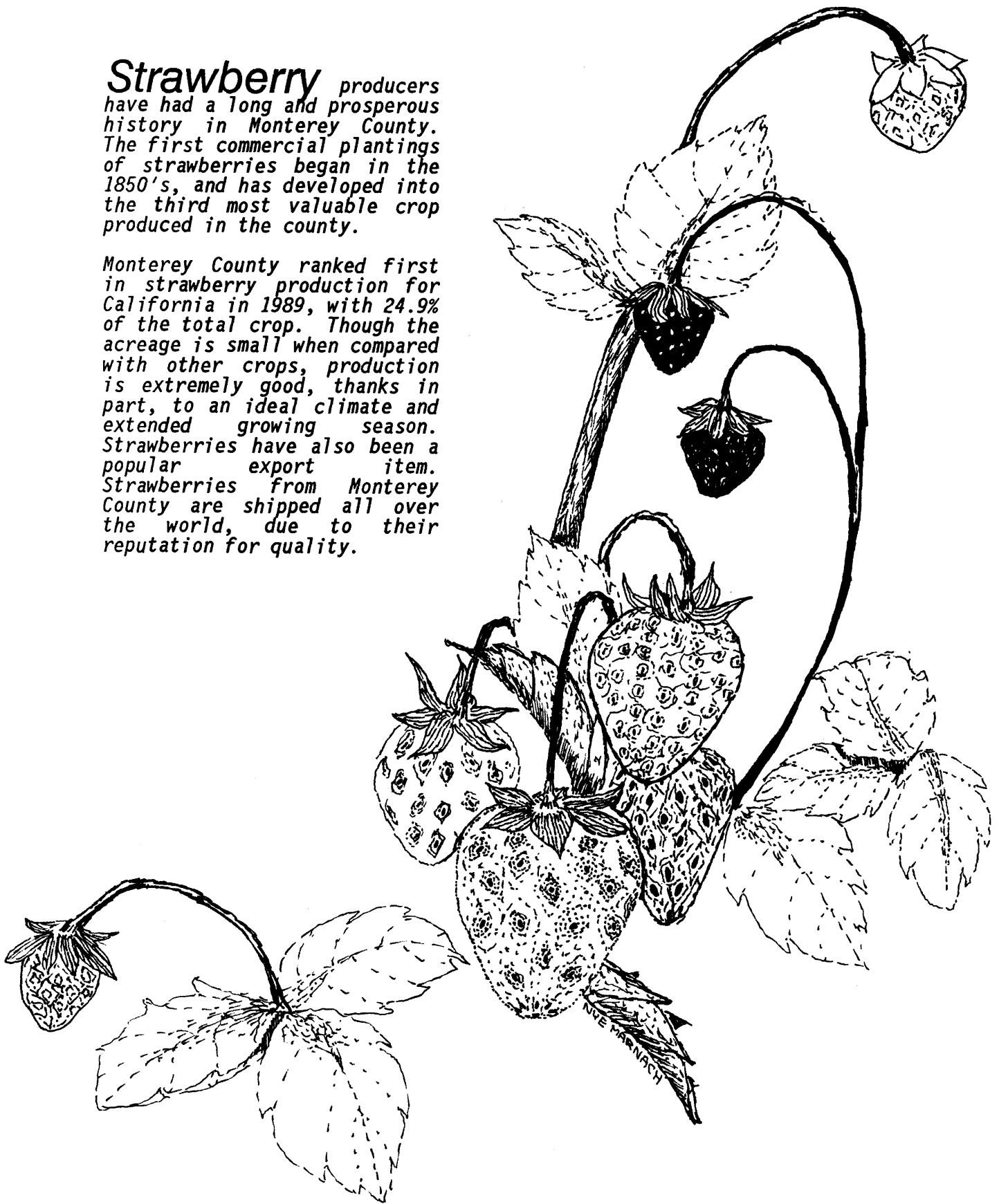
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APPROXIMATE WEIGHTS USED FOR FRESH MARKET CONVERSION

CROP	UNIT	POUNDS
APPLES	Carton	38
ANISE	Crate	37
ARTICHOKES	Carton	23
ASPARAGUS	Carton	32
AVOCADOS	Carton	26
BOK CHOY	Carton	50
BROCCOLI	Carton	23
BRUSSELS SPROUTS	Carton	25
BUSHBERRIES	Slide	9
CABBAGE - All	Carton	50
CARROTS	Carton	50
CARROTS	Sack	50
CAULIFLOWER	Carton	23
CELERY	Carton	60
ENDIVE	Carton	25
ESCAROLE	Carton	25
NAPA	Carton	50
KALE	Carton	20
KIWI FRUIT	Carton	7
LETTUCE - Head	Carton	50
LETTUCE - Leaf	Carton	25
ONIONS - Dry	Sack	50
ONIONS - Green	Carton	13
PARSLEY	Carton	21
PEPPER - Bell	Carton	30
RASPBERRIES	Slide	6
ROMAINE	Carton	37
SALAD PRODUCTS	Carton	20
SPINACH	Carton	20
SQUASH	Carton	30
STRAWBERRIES	Slide	12
TOMATOES	Carton	25
TOMATOES - Cherry	Slide	12

Strawberry producers have had a long and prosperous history in Monterey County. The first commercial plantings of strawberries began in the 1850's, and has developed into the third most valuable crop produced in the county.

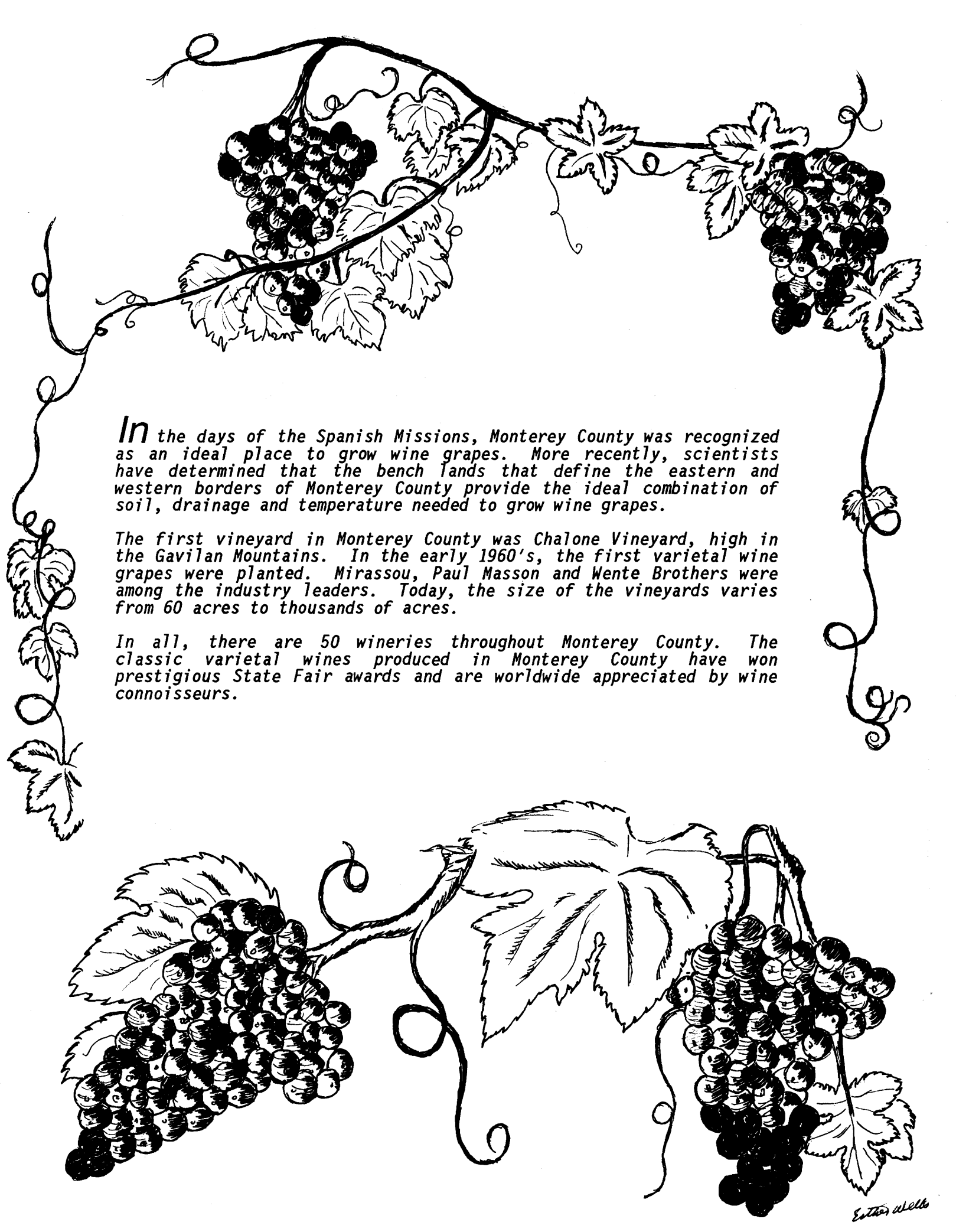
Monterey County ranked first in strawberry production for California in 1989, with 24.9% of the total crop. Though the acreage is small when compared with other crops, production is extremely good, thanks in part, to an ideal climate and extended growing season. Strawberries have also been a popular export item. Strawberries from Monterey County are shipped all over the world, due to their reputation for quality.



FRUITS AND NUTS

CROP	YEAR	ACREAGE	PRODUCTION		F.O.B. VALUE	
			PER ACRE	TOTAL UNIT	PER UNIT	TOTAL
APPLES						
Total	1990	348		4,915 Ton		\$ 677,000
	1989	346		5,010 "		709,000
Fresh	1990	158	7.88	1,245 "	179.90	224,000
	1989	138	7.75	1,070 "	161.40	173,000
Processing	1990	190	19.32	3,670 "	123.30	453,000
	1989	208	18.94	3,940 "	136.10	536,000
AVOCADOS	1990	40	1.10	44 "	1,253.70	55,200
	1989	30.50	2.52	77 "	690.40	53,200
GRAPES	1990	25,247.95				63,719,000
	1989	32,645.71	(See Supplementary Page 3)			60,139,000
KIWI FRUIT	1990	12	1.00	12 "	3,000.00	36,000
	1989	15	3.87	58 "	2,666.70	155,000
MISC. FRUIT*	1990	370				1,195,000
	1989	240				714,000
BUSHBERRIES	1990	68	7.93	539 "	1,058.00	570,000
	1989	72	2.75	198 "	2,470.00	489,000
RASPBERRIES	1990	723	5.19	3,755 "	3,264.30	12,257,000
	1989	640	4.28	2,740 "	3,576.70	9,800,000
STRAWBERRIES						
Total	1990	5,830		183,000 "		181,459,000
	1989	5,050		116,800 "		102,474,000
Fresh	1990		25.21	147,000 "	1,118.70	164,449,000
	1989		20.20	102,000 "	935.00	95,370,000
Processing	1990		6.24	36,400 "	467.30	17,010,000
	1989		2.93	14,800 "	480.00	7,104,000
WALNUTS	1990	319	1.25	400 "	1,130.00	452,000
	1989	313	1.20	375 "	1,000.00	375,000
<hr/>						
TOTAL ACRES	1990	32,957.95	TOTAL VALUE OF FRUITS & NUTS \$		260,420,200	
	1989	39,352.21			174,908,200	

* Includes Almonds, Apricots, Lemons, Oranges and others



In the days of the Spanish Missions, Monterey County was recognized as an ideal place to grow wine grapes. More recently, scientists have determined that the bench lands that define the eastern and western borders of Monterey County provide the ideal combination of soil, drainage and temperature needed to grow wine grapes.

The first vineyard in Monterey County was Chalone Vineyard, high in the Gavilan Mountains. In the early 1960's, the first varietal wine grapes were planted. Mirassou, Paul Masson and Wente Brothers were among the industry leaders. Today, the size of the vineyards varies from 60 acres to thousands of acres.

In all, there are 50 wineries throughout Monterey County. The classic varietal wines produced in Monterey County have won prestigious State Fair awards and are worldwide appreciated by wine connoisseurs.



GRAPE SUPPLEMENTARY

CROP	YEAR	ACREAGE	PRODUCTION		UNIT	F.O.B. VALUE	
			PER ACRE	TOTAL		PER UNIT	TOTAL
GRAPES	1990	25,247.95	3.96	100,075.97	Ton	636.71	\$63,719,000
Nonbearing or not Harvested		7,905.88					
TOTAL		33,153.83					
GRAPES	1989	26,720.31	3.34	89,400	Ton	\$672.70	\$60,139,000
Nonbearing or not Harvested		5,925.40					
TOTAL		32,645.71					

TOTAL ACREAGE OF WINE GRAPES BY VARIETY

VARIETY	ACRES	*AVERAGE PRICE/TON
Cabernet Sauvignon	3,169.75	\$1,095.00
Chardonnay	6,478.30	1,190.00
Chenin Blanc	4,699.91	429.00
Early Burgundy	126.50	500.00
Emerald Riesling	173.90	250.00
Folle Blanche	41.30	275.00
French Colombard	1,189.14	235.00
Gamay	378.00	550.00
Gamay Beaujolais	560.61	625.00
Gewurztraminer	925.00	600.00
Grenache	189.60	489.00
Gray Riesling	893.79	200.00
Malvasia	557.60	722.00
Marlot	500.70	1,050.00
Muscat Blanc/Canelli	191.10	660.00
Petite Sirah	765.04	625.00
Pinot Blanc	1,299.10	725.00
Pinot Noir	1,528.37	737.00
Pinot St. George	42.60	270.00
Ruby Cabernet	76.45	250.00
Sauvignon	1,663.15	649.64
Semillon	766.90	500.00
Sylvaner	719.60	300.00
Tinta Madera	45.90	350.00
White Riesling	3,866.17	525.00
Zinfandel	1,739.31	585.00
Other Red	393.21	300.00
Other White	172.83	500.00

TOTAL ACRES 33,153.83

* CDFA weighted average price per ton



WATER. HOW MUCH IS ENOUGH?

In 1930, 100 gallons of water were required to produce one head of lettuce. Now, in 1990, it takes about 10 gallons. This large improvement in water use efficiency did not just happen. It was the result of long term water use studies to improve efficiency, and constantly improving technology and methods. These improvements enabled growers to produce more, while using less water. In the 1950's, sprinklers began to appear in the Salinas Valley. Laser-guided land levelers have been developed and brought into service to assist in more efficient water use. Computer-directed drip irrigation is now used on crops such as Grapes, Tomatoes, and Strawberries. Drought years cause us all to take notice of our water. California Agriculture, however, is continually searching for new methods to conserve water. New technologies are being developed and implemented each year.

VEGETABLE CROPS

CROP	YEAR	ACREAGE	PRODUCTION			F.O.B. VALUE	
			PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
ANISE	1990	466	14.16	6,600	Ton	\$505.20	\$ 3,334,000
	1989	271	11.77	3,190	"	422.60	1,348,000
ARTICHOKES							
Total	1990	6,970					23,147,800
	1989	8,360					25,686,000
Fresh	1990		4.13	28,790	"	679.80	19,571,000
	1989		4.13	34,530	"	622.80	21,505,000
Processing (Regular)	1990		1.53	10,690	"	327.80	3,504,000
	1989		1.44	12,070	"	338.00	4,080,000
Processing (Culls)	1990		0.40	2,800	"	26.00	72,800
	1989		0.46	3,880	"	26.00	101,000
ASPARAGUS							
	1990	4,830	3.21	15,500	"	1,077.00	16,694,000
	1989	4,990	3.10	15,450	"	995.00	15,373,000
BOK CHOY							
	1990	69	9.80	676	"	219.00	148,000
	1989	360	10.90	3,925	"	303.30	1,190,000
BROCCOLI							
Total	1990	48,700					129,195,000
	1989	50,960					122,098,000
Fresh	1990	40,000	5.83	233,000	"	473.20	110,256,000
	1989	30,900	6.47	200,000	"	403.20	80,640,000
Processing	1990	8,700	5.59	48,600	"	389.70	18,939,000
	1989	20,060	5.57	111,656	"	371.30	41,458,000

VEGETABLE CROPS - Continued

CROP	YEAR	ACREAGE	PRODUCTION			F.O.B. VALUE	
			PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
BRUSSELS SPROUTS							
Total	1990	1,255					\$4,709,000
	1989	1,322					5,653,000
Fresh	1990	301	7.38	2,222	"	654.60	1,455,000
	1989	182	9.56	1,740	"	606.60	1,055,000
Processing	1990	954	7.42	7,075	"	460.00	3,254,000
	1989	1,140	9.17	10,450	"	440.00	4,598,000
CABBAGE, Green	1990	599	13.47	8,070	"	200.60	1,619,000
	1989	640	20.97	13,420	"	222.50	2,986,000
CABBAGE, Red	1990*						
	1989	143	17.83	2,550	"	234.90	599,000
CARROTS							
Total	1990	3,180					11,401,000
	1989	5,351					18,110,000
Fresh	1990	1,560	20.06	31,300	"	233.85	7,320,000
	1989	2,601	20.45	53,180	"	224.00	11,912,000
Processing	1990	1,620	28.09	45,500	"	89.70	4,081,000
	1989	2,750	29.95	91,550	"	67.70	6,189,000
CAULIFLOWER							
Total	1990	22,340					85,115,000
	1989	21,391					64,411,000
Fresh	1990	19,410	7.32	142,000	"	551.00	78,242,000
	1989	14,911	7.48	111,550	"	455.30	50,789,000
Processing	1990	2,930	4.30	12,600	"	545.50	6,873,000
	1989	6,480	4.29	27,800	"	490.00	13,622,000

*Insufficient to Report

VEGETABLE CROPS - Continued

CROP	YEAR	ACREAGE	PRODUCTION			F.O.B. VALUE	
			PER ACRE	TOTAL UNIT	PER UNIT	TOTAL	
CILANTRO	1990	117	13.38	1,565	Ton	\$ 526.65	\$ 824,000
	1989	87	12.00	1,044	"	495.30	517,000
CELERY Total	1990	7,290					53,346,000
	1989	5,085					34,456,000
Fresh	1990	7,150	33.01	236,000	"	222.70	52,557,000
	1989	4,765	33.46	159,450	"	207.70	33,118,000
Processing	1990	140	29.25	4,095	"	192.60	789,000
	1989	320	28.34	9,070	"	147.50	1,338,000
GARLIC	1990	132	8.30	1,095	"	1,113.65	1,219,000
	1989	380	7.74	2,942	"	693.30	2,040,000
HERBS*	1990	51			"		472,000
	1989	50			"		365,000
KALE	1990	153	14.77	2,260	"	631.10	1,426,000
	1989	118	7.66	904	"	557.50	504,000

* Includes Oregano, Sage, Thyme, Rosemary and others

VEGETABLE CROPS - Continued

CROP	YEAR	ACREAGE	PRODUCTION		UNIT	F.O.B. VALUE	
			PER ACRE	TOTAL		PER UNIT	TOTAL
<i>LETTUCE, 1990</i>							
	<i>Head</i>						
	<i>Spring</i>	<i>17,610</i>					
	<i>Summer</i>	<i>18,440</i>					
	<i>Fall</i>	<i>22,230</i>					
	<i>Naked Pack</i>			<i>26,114,000</i>	<i>Ctn</i>	<i>\$6.80</i>	<i>\$ 177,575,000</i>
	<i>Wrapped Pack</i>			<i>14,243,000</i>	<i>"</i>	<i>8.30</i>	<i>118,217,000</i>
	<i>Bulk for Shredding</i>			<i>6,394,000</i>	<i>"</i>	<i>4.00</i>	<i>25,576,000</i>
	<i>Bulk for Whole Cored Lettuce</i>			<i>511,360</i>	<i>"</i>	<i>7.14</i>	<i>3,651,000</i>
<i>SEASON TOTAL</i>		<i>58,280</i>	<i>811.00</i>	<i>47,262,360</i>	<i>"</i>	<i>6.8769</i>	<i>325,019,000</i>
 <i>LETTUCE, 1989</i>							
	<i>Head</i>						
	<i>Spring</i>	<i>20,105</i>					
	<i>Summer</i>	<i>20,705</i>					
	<i>Fall</i>	<i>23,225</i>					
	<i>Naked Pack</i>			<i>30,477,000</i>	<i>Ctn</i>	<i>\$6.25</i>	<i>\$190,481,000</i>
	<i>Wrapped Pack</i>			<i>13,804,000</i>	<i>"</i>	<i>7.75</i>	<i>106,981,000</i>
	<i>Bulk for Shredding</i>			<i>7,250,000</i>	<i>"</i>	<i>3.59</i>	<i>26,028,000</i>
	<i>Bulk for Whole Cored Lettuce</i>			<i>1,207,000</i>	<i>"</i>	<i>6.14</i>	<i>7,411,000</i>
<i>SEASON TOTAL</i>		<i>64,035</i>	<i>823.58</i>	<i>52,738,000</i>	<i>"</i>	<i>\$6.2744</i>	<i>\$330,901,000</i>

VEGETABLE CROPS - Continued

CROP	YEAR	ACREAGE	PRODUCTION		UNIT	F.O.B. VALUE	
			PER ACRE	TOTAL		PER UNIT	TOTAL
BUTTER LETTUCE	1990	2,120	898.11	1,904,000	Ctn	\$5.10	\$ 9,710,000
	1989	1,195	898.74	1,074,000	"	4.60	4,940,000
GREEN LEAF	1990	6,550	806.56	5,283,000	"	5.30	28,000,000
	1989	4,419	848.83	3,751,000	"	5.36	20,105,000
ENDIVE	1990	482	867.22	418,000	"	6.60	2,759,000
	1989	429	682.98	293,000	"	4.76	1,395,000
ESCAROLE	1990	359	846.80	304,000	"	6.60	2,006,000
	1989	410	504.88	207,000	"	5.40	1,118,000
RED LETTUCE	1990	3,040	821.71	2,498,000	"	5.30	13,239,000
	1989	1,720	867.44	1,492,000	"	5.25	7,833,000
ROMAINE	1990	7,980	756.52	6,037,000	"	5.80	35,015,000
	1989	4,690	768.02	3,602,000	"	6.08	21,900,000
LEAF LETTUCE TOTALS	1990	20,531	800.94	16,444,000	"		90,729,000
	1989	12,863	810.00	10,419,000	"		57,291,000
<hr/>							
LETTUCE CROP TOTALS	1990	78,811	HEAD & LEAF LETTUCE TOTAL VALUE				\$415,748,000
	1989	76,898					\$388,192,000

VEGETABLE CROPS - Continued

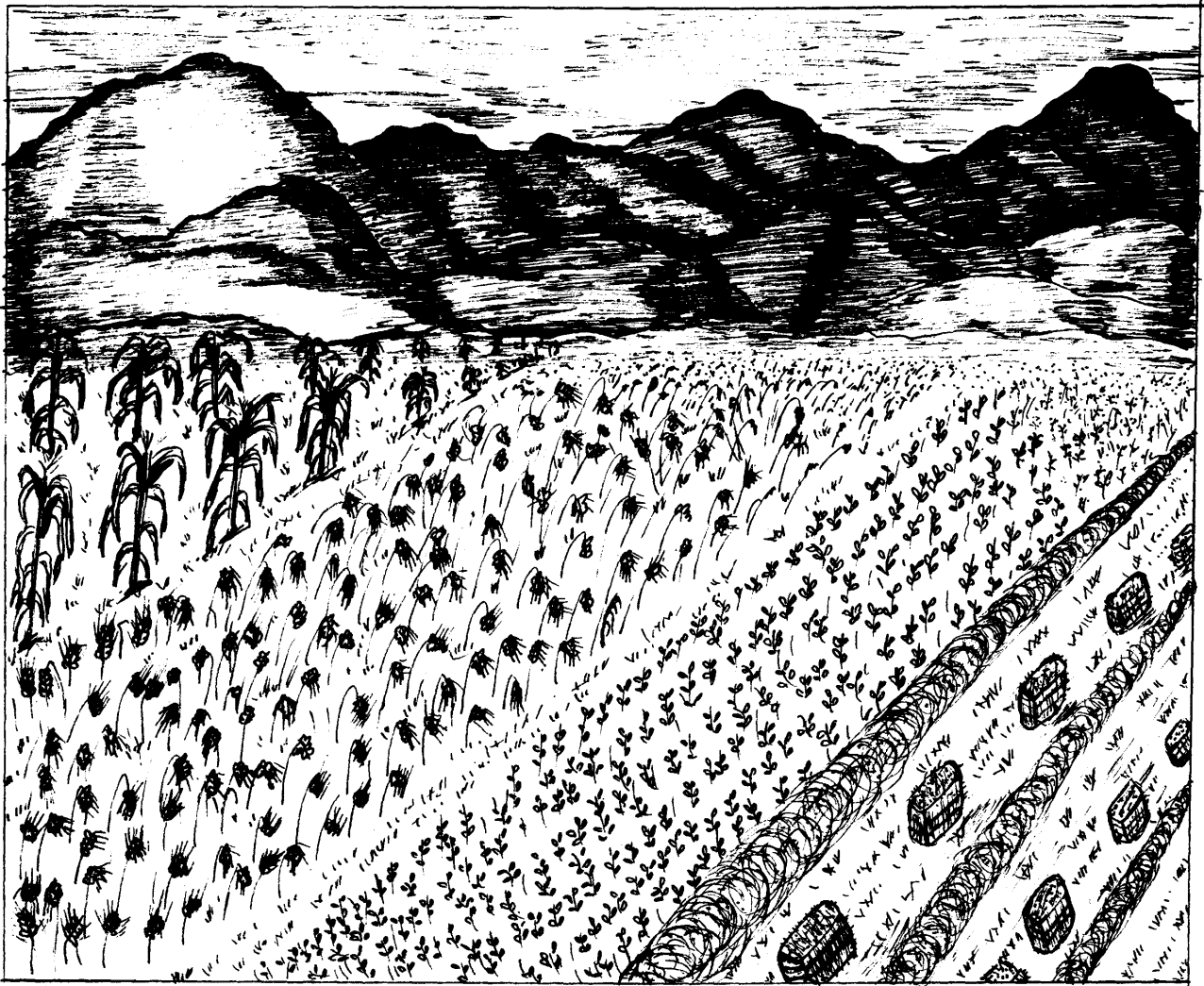
CROP	YEAR	ACREAGE	PRODUCTION		F.O.B. VALUE	
			PER ACRE	TOTAL UNIT	PER UNIT	TOTAL
LEEKS	1990	83	3.64	302 Ton	\$2,085.00	630,000
MUSHROOMS	1990 *			46,412,000 Lb.	0.92	\$42,699,000
	1989 *			48,290,000 "	0.92	44,427,000
NAPA	1990	322	31.68	10,200 Ton	282.40	2,880,000
	1989	305	10.66	3,250 "	276.30	898,000
ONIONS, Dry	1990	383	15.42	5,905 "	172.10	1,016,000
	1989	522	23.59	12,315 "	184.00	2,266,000
ONIONS, Green	1990	1,020	9.50	9,686 "	1,083.80	10,498,000
	1989	1,348	8.31	11,200 "	729.20	8,167,000
PARSLEY Total	1990	817				5,408,000
	1989	1,139				3,490,000
Fresh	1990	315	12.97	4,085 "	523.00	2,136,000
	1989	235	9.23	2,170 "	460.10	998,000
Dry	1990	502	6.24	3,130 "	1,045.40	3,272,000
	1989	904	2.56	2,310 "	1,078.70	2,492,000
PEPPERS, Bell Total	1990	430				1,721,000
	1989	719				2,902,000
Fresh	1990	293	6.11	1,790 "	444.20	795,000
	1989	276	13.73	3,790 "	471.00	1,785,000
Processing	1990	137	30.22	4,140 "	223.60	926,000
	1989	443	15.30	6,623 "	168.70	1,117,000
PEPPERS, Chili Dry	1990	3,870	3.44	13,300 "	1,050.80	13,976,000
	1989	2,990	3.58	10,700 "	991.20	10,606,000
POTATOES	1990	1,000	20.00	20,000 "	135.00	2,700,000
	1989	1,000	20.00	20,000 "	130.00	2,600,000
RADICCHIO	1990	184	10.87	2,000 "	709.00	1,418,000
RADISH	1990	935	4.17	3,900 "	613.30	2,392,000

* Multiple harvested square footage

VEGETABLE CROPS - Continued

CROP	YEAR	ACREAGE	PRODUCTION			F.O.B. VALUE	
			PER ACRE	TOTAL UNIT	PER UNIT	TOTAL	
SALAD PRODUCTS Shredded	1990			4,275,000 Ctn	\$ 5.65	24,154,000	
	1989			3,659,000 "	6.30	23,052,000	
Food Service Products*	1990					32,988,000	
	1989					17,490,000	
SPINACH Total	1990	7,300				\$14,099,000	
	1989	4,410				11,476,000	
Fresh	1990	1,780	7.87	14,000 Ton	573.90	8,035,000	
	1989	1,070	10.09	10,800 "	570.90	6,166,000	
Processing	1990	5,520	9.78	54,000 "	112.30	6,064,000	
	1989	3,340	13.22	44,142 "	120.30	5,310,000	
SQUASH, Fresh	1990	399	11.72	4,675 "	402.30	1,881,000	
	1989	630	11.56	7,280 "	381.20	2,775,000	
TOMATOES Total	1990	7,770				28,471,000	
	1989	7,440				29,895,000	
Fresh	1990	4,970	14.77	73,400 "	320.20	23,503,000	
	1989	4,440	16.02	71,125 "	353.30	25,128,000	
Processing	1990	2,800	32.14	90,000 "	55.20	4,968,000	
	1989	3,000	30.50	91,500 "	52.10	4,767,000	
TOMATOES, Cherry	1990	143	6.20	886 "	830.97	736,000	
	1989	198	11.06	2,190 "	646.60	1,416,000	
MISCELLANEOUS VEGETABLES** Total	1990	1,348				7,331,000	
	1989	2,894				17,645,000	
Fresh	1990	1,250				6,961,000	
	1989	2,459				15,313,000	
Processing	1990	98				370,000	
	1989	435				2,332,000	
TOTAL ACRES	1990	200,967	TOTAL VALUE			1990	943,395,800
	1989	194,650	VEGETABLE CROPS			1989	844,523,000

*Broccoli and Cauliflower Florets, Celery, Spinach, and Carrots
 **Includes Beets, Cactus Pears, Chives, Corn, Green Peppers, Rappini,
 Fresh Peas, Parsnips, Fava Beans, Turnips, Chires, Pimentos,
 Asparagus, Celery Pumpkins, Cardone, Edible Flowers, and others



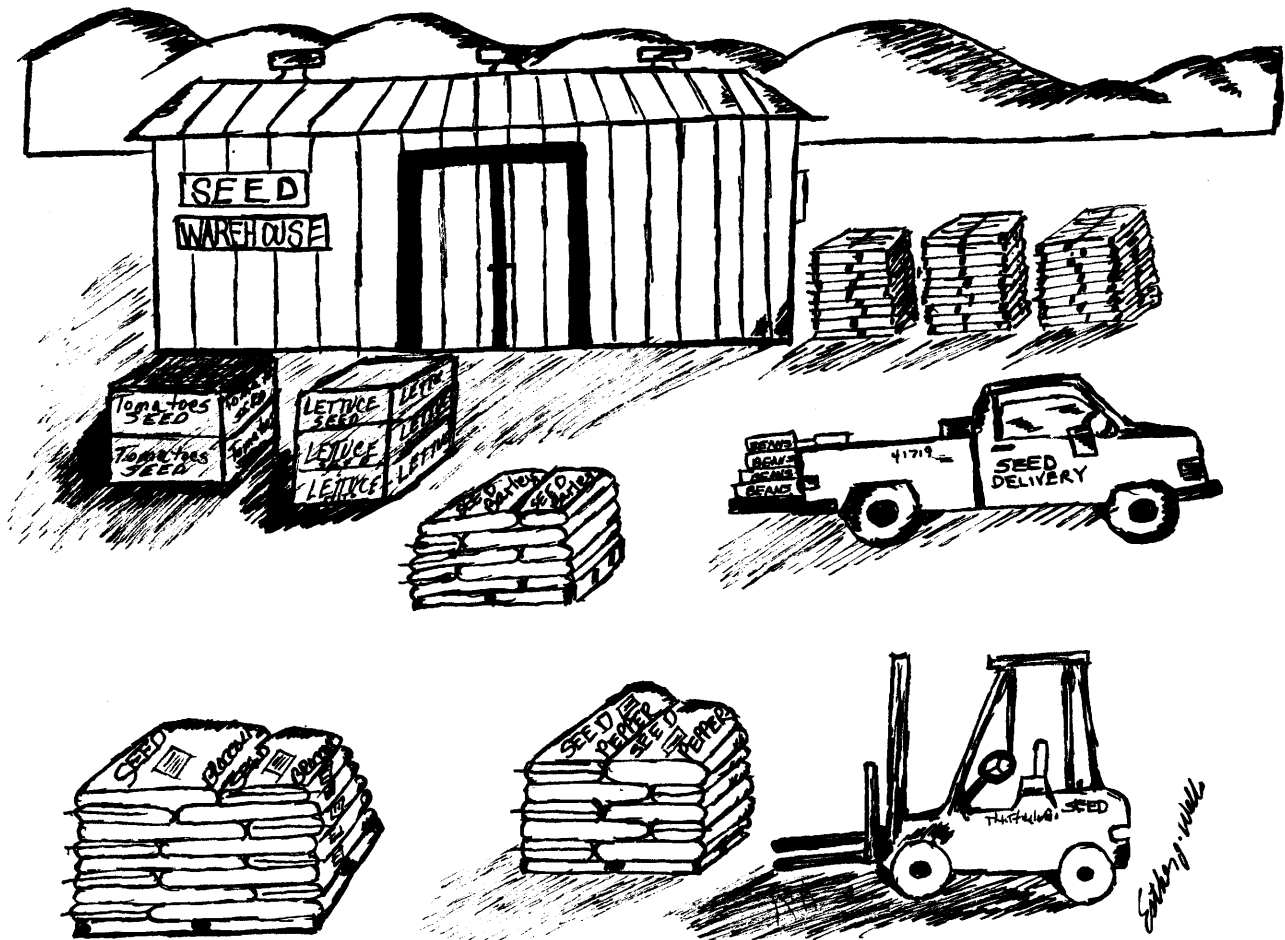
In the last twenty years, the acreage of most field crops has declined as vegetable and grape crops have expanded into the Salinas Valley.

The cereal crops--barley and wheat--have been replaced in the bench lands primarily by grapes. Low grain prices have caused some dry lands to be converted to grazing areas. Over twelve thousand acres of highly erodible grain land has gone into the Conservation Reserve Program, while bean and sugar beet acreage has given way to vegetable production. A reduction in the number of dairies, along with increased land and water costs, have resulted in a decrease of corn, alfalfa and irrigated pasture. Dry land pasture, which utilizes the most acres of any single crop, has remained relatively stable, however, grazing has been reduced as a result of the last four years of drought.

FIELD CROPS

CROP	YEAR	ACREAGE	PRODUCTION		F.O.B. VALUE		
			PER ACRE	TOTAL	PER UNIT	TOTAL	
BARLEY, Grain	1990	12,780	0.89	11,400	TON \$	110.00	\$ 1,254,000
	1989	21,300	0.90	19,200	"	112.00	2,150,000
BEANS, Dry Large Lima	1990	1,570	1.44	2,260	"	1,175.00	2,656,000
	1989	2,585	1.02	2,630	"	960.00	2,525,000
Small White	1990*				"		
	1989	413	1.23	507	"	640.00	324,000
Misc. Dry	1990*				"		
	1989	55	1.44	79	"	780.00	61,600
CORN, Processing	1990	440	5.50	2,420	"	235.00	569,000
	1989	621	5.51	3,420	"	235.00	804,000
CORN, Silage	1990*				"		
	1989	100	35.00	3,500	"	35.00	122,000
HAY, Alfalfa	1990	2,970	5.82	17,300	"	110.00	1,903,000
	1989	2,970	7.37	21,900	"	105.00	2,300,000
HAY, Barley	1990	4,180	0.90	3,760	"	100.00	376,000
	1989	3,800	0.85	3,230	"	80.00	258,000
HAY, Oats	1990	1,310	1.03	1,355	"	106.00	144,000
	1989	1,130	1.00	1,130	"	95.00	107,000
PASTURE, Dry Land	1990	1,107,500			ACRE	6.50	7,199,000
	1989	1,107,500			"	6.50	7,199,000
PASTURE, Irrigated	1990	300	1.00	300	TON	80.00	24,000
	1989	300	1.00	300	"	80.00	24,000
SUGAR BEETS	1990	2,740	39.42	108,000	"	39.10	4,223,000
	1989	2,830	40.11	113,500	"	39.60	4,495,000
WHEAT, Grain	1990	1,790	0.82	1,460	"	120.00	175,000
	1989	1,670	0.80	1,335	"	124.00	166,000
TOTAL ACRES	1990	1,135,580		VALUE TOTAL		1990	\$18,523,000
	1989	1,145,274		FIELD CROPS		1989	20,535,600

*Insufficient to Report



Seed crops have become a very important economic crop for Monterey County. Last year alone, over 7,212,720 pounds of seed were exported to foreign countries. This industry keeps the Federal Phytosanitary Inspectors on their toes, ensuring that the importing nations' requirements have been met.

Monterey County's agricultural industry is involved not only in growing and shipping raw seed, but is also the home for many seed coaters, both large and small. These companies use modern seed treatment techniques to enhance the viability, germination and vigor of the seed. Countries throughout the world benefit from this kind of seed treatment.

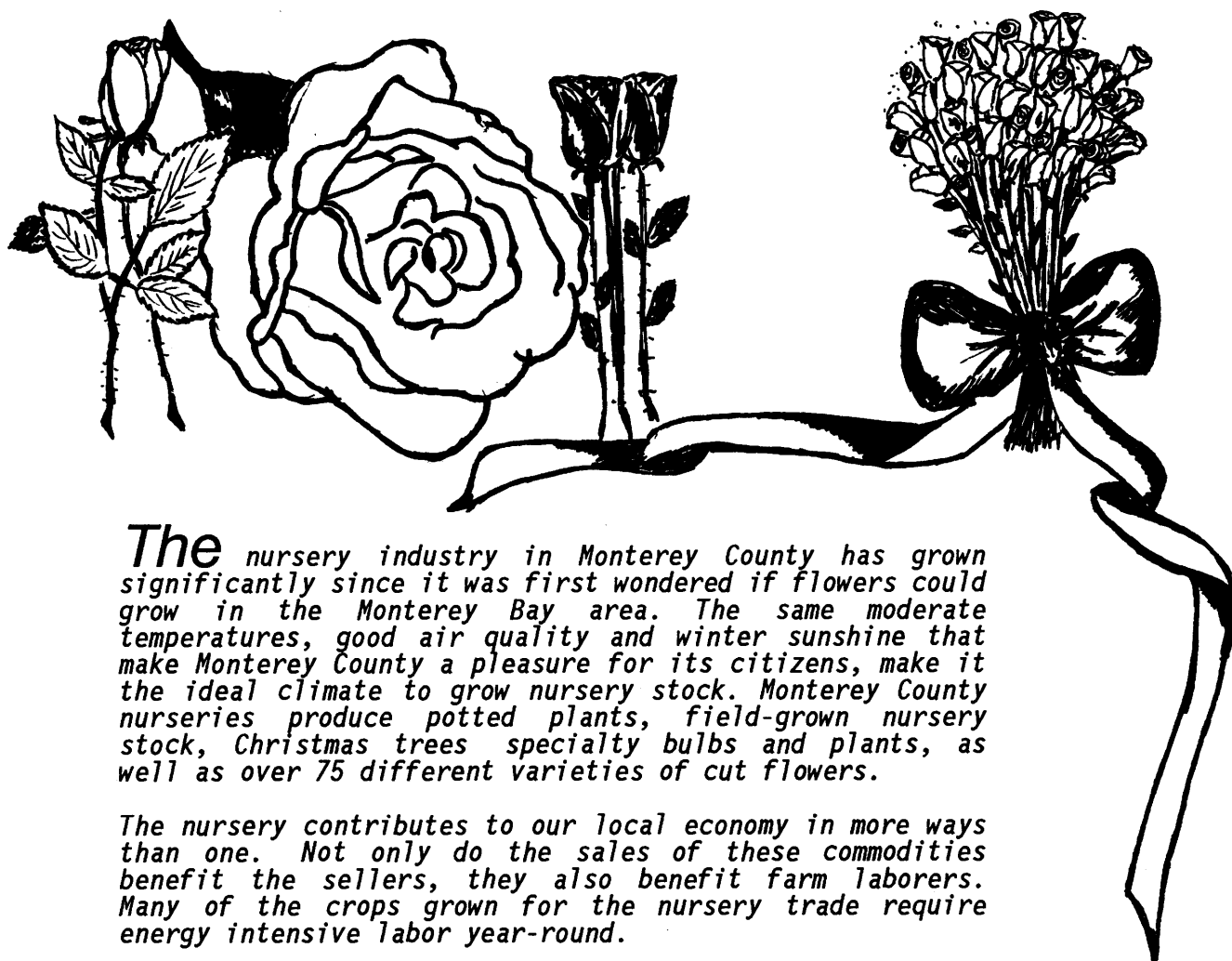
Bean seed production accounts for the largest portion of seed produced in Monterey County. Much of this seed is used for crop production in other states and foreign countries. This requires official verification that the seed crop is in compliance with the seed pest standards of states or countries receiving shipments of this seed. The Monterey County Agricultural Commissioner's Office is responsible for field inspections and during the growing season and for issuing phytosanitary certificates when the seed crop meets the requirements of the importing countries or states.

SEED CROPS

CROP	YEAR	ACREAGE	PRODUCTION		UNIT	F.O.B. VALUE	
			PER ACRE	TOTAL		PER UNIT	TOTAL
ASPARAGUS	1990	*			Ton		
	1989		24	0.13	3	\$ 2,700.00	\$ 8,100
BARLEY	1990	*			"		
	1989		850	0.89	758	126.00	95,500
BEANS (A11)	1990		3,430	1.07	3,665	1,020.00	3,738,000
	1989		2,630	1.13	2,965	1,012.00	3,001,000
BROCCOLI	1990		157	0.13	20	29,000.00	580,000
	1989		92	0.16	15	19,196.00	288,000
CAULIFLOWER	1990		95	0.22	21	27,000.00	567,000
	1989		62	0.19	12	15,272.00	183,000
CORN	1990	*			"		
	1989		80	0.70	56	1,949.00	109,000
OAT	1990	*			"		
	1989		390	0.63	247	310.00	76,600
PEA	1990	*			"		
	1989		18	0.17	3	5,621.00	16,900
PEPPER	1990		22	0.14	3	24,000.00	72,000
	1989		30	0.20	6	50,000.00	300,000
WHEAT	1990	*			"		
	1989		145	2.68	389	134.00	52,000
MISC. SEED**	1990		1,450				1,244,000
	1989		55				96,400
TOTAL ACRES	1990		5,154				\$6,201,000
	1989		4,376				4,226,500
			TOTAL VALUE				
			SEED CROP				

* Insufficient to Report

** Misc. Seeds includes Cucumber, Squash, Onion, Flowering Kale, Carrot, Asparagus, Pea, Oats, Barley, Wheat, Corn, Tomato, Parsley, Radish and other.



The nursery industry in Monterey County has grown significantly since it was first wondered if flowers could grow in the Monterey Bay area. The same moderate temperatures, good air quality and winter sunshine that make Monterey County a pleasure for its citizens, make it the ideal climate to grow nursery stock. Monterey County nurseries produce potted plants, field-grown nursery stock, Christmas trees specialty bulbs and plants, as well as over 75 different varieties of cut flowers.

The nursery contributes to our local economy in more ways than one. Not only do the sales of these commodities benefit the sellers, they also benefit farm laborers. Many of the crops grown for the nursery trade require energy intensive labor year-round.

Additionally, the benefits do not just reside in Monterey County. More than 80% of the flowers grown in Monterey are exported out of California, less than 20% stay in California and less than 1% are enjoyed here in the area. The success of Monterey County's cut flower growers results from the general sentiment that a gift of flowers expresses caring, friendship and love.



NURSERY CROPS

<u>CROP</u>	<u>YEAR</u>	<u>ACREAGE</u>	<u>AMOUNT SOLD</u>	<u>AVERAGE PRICE</u>	<u>TOTAL</u>
			<u>BLOOMS SOLD</u>	<u>PER BLOOM</u>	
CUT FLOWERS					
Rose	1990	159.36	89,138,000	\$0.2684	\$23,925,000
	1989	146.89	70,900,000	0.2700	19,143,000
Miniature Rose	1990	10.78	10,799,000	0.1826	1,972,000
	1989	12.48	8,360,000	0.1637	1,369,000
Carnation	1990	210.97	129,268,000	0.1425	18,421,000
	1989	206.19	132,718,000	0.1331	17,665,000
Chrysanthemum (Standard)	1990	24.66	6,701,000	0.4320	2,895,000
	1989	25.34	6,956,000	0.4073	2,833,000
			<u>BUNCHES SOLD</u>	<u>PER BUNCH</u>	
Carnation (Miniature)	1990	34.16	2,336,000	1.453	3,394,000
	1989	39.95	2,385,000	1.312	3,129,000
Cut Flowers (Misc.)	1990	7.32	836,000	1.28	1,070,000
	1989	4.63*	61,000	1.50	91,500
<hr/>					
TOTAL INDOOR	1990	447.25			\$51,677,000
CUT FLOWERS	1989	453.85			44,230,500

* Corrected 1989 figure

NURSERY CROPS - Continued

<u>CROP</u>	<u>YEAR</u>	<u>ACREAGE</u>	<u>AMOUNT SOLD</u>		<u>AVERAGE PRICE</u>	<u>TOTAL</u>
			<u>BLOOMS SOLD</u>	<u>PER BLOOM</u>		
<i>Alstroemeria</i>	1990	20.69	636,000		\$2.35	1,495,000
BEDDING PLANTS						
<i>Vegetable</i>	1990	99.81				11,521,000
<i>Commercial</i>	1989	80.16				8,629,000
<i>Callas</i>	1990	75.98	1,620,000		1.14	1,847,000
<i>Eucalyptus</i>	1990	169.17	1,121,000		2.46	2,758,000
FOLIAGE (All)						
	1990*					
	1989	188.80				2,698,000
Gypsophila						
	1990	16.00	38,850		1.97	76,500
	1989	22.50	131,000		1.60	210,000
Iris						
	1990	64.83	1,016,000		1.61	1,636,000
	1989	65.29	1,003,000		1.96	1,966,000
POTTED PLANTS						
<i>Poinsettia</i>	1990	13.53	1,886,000		1.96	3,697,000
Miscellaneous**						
<i>Indoor</i>	1990	40.34	6,665,000		1.95	12,997,000
<i>Decorative</i>	1989	54.72	6,467,000		2.60	16,814,000
Outdoor						
<i>Woody</i>	1990	45.75	1,426,000		2.73	3,893,000
<i>Ornamentals</i>	1989	20.70	296,000		7.10	2,102,000
PROPAGATIVE STOCK,***						
MISC. FIELD CROPS,	1990	532.77				20,070,000
SUCCULENTS, BULBS	1989	484.25				23,963,000

*In Miscellaneous Field Crops

**Includes Saintpaulia, Gloxinia, Potted mums, Seasonal potted plants (Easter Lily, etc), Spathiphyllum, Dieffenbachia, Ficus sp., etc.

***Includes Heather, Snapdragons, Thistle varieties, Column stock, Godetia, Agapanthus, Foxglove, Sunflower, Larkspur, Leptospermum, Myrtle, Curly Willow, Catus, Succulents, Cornflower, strawflower, Stock, Yarrow, Freesia Strelitzia, Turf, Orchids, Cactus, Commercial nursery propagative Stock, Dianthus and etc.

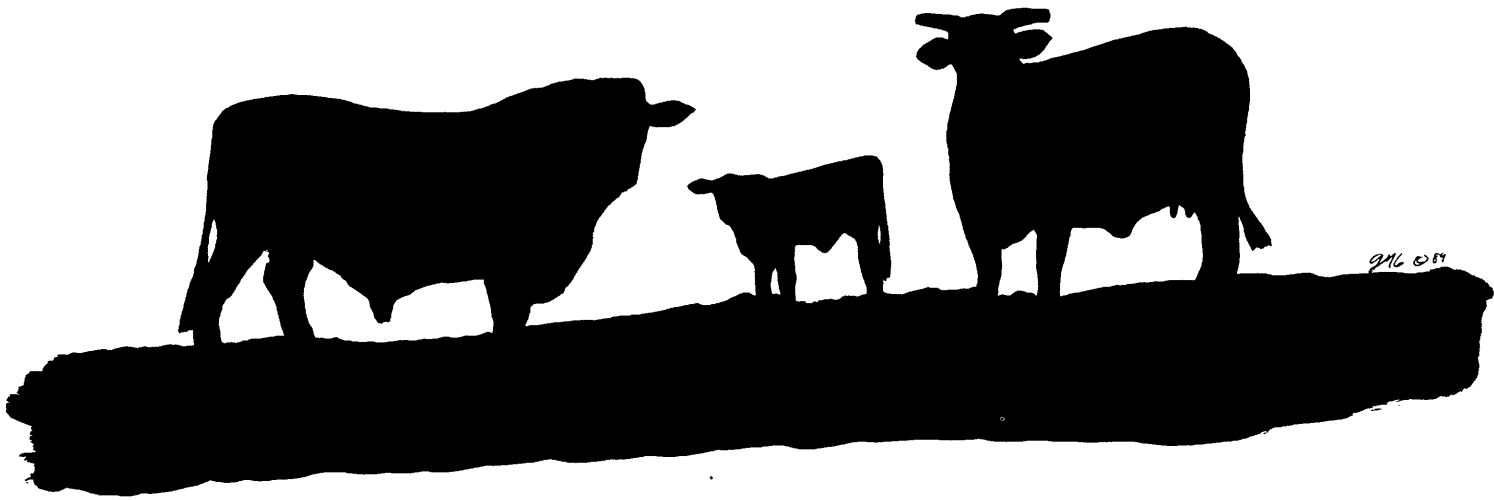
NURSERY CROPS - Continued

<u>CROP</u>	<u>YEAR</u>	<u>ACREAGE</u>	<u>AMOUNT SOLD</u>		<u>AVERAGE PRICE</u>		<u>TOTAL</u>
			<u>BLOOMS SOLD</u>		<u>PER BLOOM</u>		
Seafoam	1990	10.50	61,650		1.40		86,300
Statice	1990	32.58	407,320		1.30		530,000
	1989	34.50	357,000		1.09		389,000
			<u>TREES SOLD</u>		<u>PER TREE</u>		
CHRISTMAS TREES	1990	103.00	8,009		20.45		164,000
	1989	96.00	8,745		20.50		179,000
<u>TOTAL ACRES</u>		1990 1,672.20	<u>TOTAL VALUE</u>		\$112,447,800		
		1989 1,480.07	<u>NURSERY CROPS</u>		101,108,500		

APIARY

<u>CROP</u>	<u>YEAR</u>	<u>COLONIES</u>	<u>PRODUCTION</u>	<u>UNIT</u>	<u>F.O.B. VALUE</u>		
					<u>PER UNIT</u>	<u>TOTAL</u>	
<u>APIARY</u>							
Total	1990					\$ 80,780	
	1989					69,980	
Honey	1990		35,000	POUND	\$ 0.50	17,500	
	1989		45,000	"	0.50	22,500	
Pollination*	1990	2,600		COLONY	24.00	62,400	
	1989	2,100		"	22.00	46,200	
Wax	1990		1,100	POUND	0.80	880	
	1989		1,600	"	0.80	1,280	
<u>TOTAL VALUE APIARY</u>					1990	\$ 80,780	
					1989	69,980	

*Crops Pollinated: Apple, Cucumber, Cauliflower, Broccoli, Onion, Squash, Carrot, Spinach, Pepper, Fava bean, Parsely and Melon.



Livestock originally came to California along with Father Serra and the founding of the missions in the late 1700's. The only value of cattle in those days was for tallow and hides, which had to be transported to the east coast or to the Orient. Because of the sparse population and no means of preservation, the meat itself was of minimal value.

With the coming of the California Gold Rush, the transcontinental railroad, the settlement of the farmlands, and the development of the seaports, the surge of population increased the need for meat. With the invention of barbed wire, livestock could be confined and grazing was intensified. With the unpredictable drought years producing no feed, stock then had to be moved or died. The majority of south Monterey County was utilized by stocker cattle mainly in the spring when there was ample feed and water. Because of a large fluctuation in the price of stocker cattle, some years there was money made, but in others, ranches were lost. By the 1950's, most ranches were keeping a cow herd and raising their own weaners by utilizing grain stubble, irrigated crop by-products, and irrigated pastures.

A change in marketing from 3-4 years olds to yearlings increased the percentage of cattle in the Monterey County area. Management practices were also responsible for this increase, including water development, fencing, disease control, crossbreeding and feedlots with grain, hay, and by-products utilization.

With intensified drought conditions for the last 5-6 years, many cattle have been sold or moved out of Monterey County, with fewer coming back each year. Prices have held up very well, but this profit has gone towards more feed, pasture, and transportation.

The cow population in Monterey County will never match the numbers of the 1940's-1960's due to increased urban pressure, less land available, bankers who are not willing to loan to longer term operations, and drought-related effects on seasonal grasslands.

The old time cattle barons are gone. In their place are strong, progressive cattlemen and women who take an active part in county, state, and national government. The cattle industry is responsible for a substantial contribution to the economy of Monterey County.

Bob Wilson, President
Monterey County Cattlemens Association

LIVESTOCK, POULTRY, & DAIRYING

<u>CROP</u>	<u>YEAR</u>	<u>HEAD</u>	<u>PRODUCTION</u>	<u>UNIT</u>	<u>F.O.B. VALUE</u>	
					<u>PER UNIT</u>	<u>TOTAL</u>
BEEF CATTLE						
<i>Total</i>	1990	110,650		CWT	\$	\$40,152,000
	1989	140,250		"		43,040,000
<i>Cattle & Calves</i>	1990	55,750	367,950	"	76.00	27,964,000
	1989	60,600	400,000	"	66.00	26,400,000
<i>Feeder</i>	1990	25,000	70,000	"	78.00	5,460,000
	1989	35,000	98,000	"	73.00	7,154,000
<i>Stocker</i>	1990	29,900	74,750	"	90.00	6,728,000
	1989	44,650	111,600	"	85.00	9,486,000
SHEEP & LAMBS						
	1990	2,500	3,500	"	55.00	192,000
	1989	2,800	4,000	"	60.00	240,000
WOOL						
	1990		20,000	POUND	0.25	5,000
	1989		25,200	"	0.70	17,600
HOGS						
	1990	1,400	266,000	"	0.50	133,000
	1989	1,600	304,000	"	0.40	122,000
DAIRYING COWS						
<i>Breeding Stock</i>	1990	4,230		Head	1,025.00	4,336,000
	1989	5,500		"	1,000.00	5,500,000
<i>Cull Cows</i>	1990	861		"	668.00	575,000
	1989	718		"	575.00	413,000
<i>Calves</i>	1990	976		"	95.00	92,700
	1989	1,800		"	75.00	135,000
<i>Fertilizer</i>	1990		15,060	TON	6.00	90,400
	1989		17,760	"	6.00	107,000
MILK, Market						
<i>Marketed</i>	1990		728,625	CWT	11.80	8,598,000
	1989		806,225	"	10.88	8,772,000
<i>Manufactured</i>	1990		1,015	"	11.05	11,200
	1989		600	"	9.89	5,900

LIVESTOCK, POULTRY, & DAIRYING, Continued

<u>CROP</u>	<u>YEAR</u>	<u>HEAD</u>	<u>PRODUCTION</u>	<u>UNIT</u>	<u>F.O.B. VALUE</u>	
					<u>PER UNIT</u>	<u>TOTAL</u>
GOATS						
Breeding Stock	1990	450		HEAD	250.00	112,000
	1989	500		"	250.00	125,000
Cull Goats	1990	450		"	40.00	18,000
	1989	300		"	40.00	12,000
Kids	1990	1,100		"	25.00	27,500
	1989	1,325		"	35.00	35,000
CHICKENS						
Total	1990	404,200				1,237,560
	1989	392,815				1,271,000
Broilers, Fryers, Roasters	1990	400,000	3,000,000	POUNDS	0.41	1,230,000
	1989	390,000	3,088,800	"	0.41	1,266,000
Meat Hens	1990	4,200	18,900	"	0.40	7,560
	1989	2,815	14,080	"	0.40	5,600
MISC. POULTRY*	1990					390,000
	1989					430,000
EGGS	1990		609,000	DOZEN	0.92	560,000
	1989		255,900	"	0.88	225,000
TOTAL VALUE LIVESTOCK, POULTRY, & DAIRYING					1990	56,530,360
					1989	60,451,100

*Includes Pullets, Fryers, Ducklings, Goslings, Duck eggs, Quail eggs and others

TREND OF MAJOR CROPS IN MONTEREY COUNTY

<u>CROP</u>	<u>YEAR</u>	<u>ACRES</u>	<u>VALUE</u>
ARTICHOKES Fresh & Processing	1990	6,970	\$23,147,800
	1985	9,187	30,555,000
	1980	7,890	26,652,400
BROCCOLI Fresh & Processing	1990	48,600	129,195,000
	1985	54,805	129,332,000
	1980	43,395	74,147,000
CARROTS Fresh & Processing	1990	3,180	11,401,000
	1985	6,956	22,103,000
	1980	5,330	15,775,000
CAULIFLOWER Fresh & Processing	1990	22,340	85,115,000
	1985	21,815	62,239,000
	1980	18,180	40,514,000
CELERY Fresh & Processing	1990	7,290	53,346,000
	1985	5,409	39,380,000
	1980	6,430	33,005,000
GRAPES	1990	25,247.95	63,719,000
	1985	28,646.91	38,321,000
	1980	33,724.40	36,885,000
LETTUCE	1990	78,811	415,748,000
	1985	62,640	271,851,000
	1980	67,684	202,513,000
MUSHROOMS	1990	46,412,000 POUNDS	42,699,000
	1985	41,774,000 "	38,432,000
	1980	20,876,000 "	18,079,000
NURSERY CROPS	1990	1672.20	112,447,800
	1985	890.32	77,687,000
	1980	832.25	53,215,000
STRAWBERRIES Fresh & Processing	1990	5,830	181,459,000
	1985	3,500	93,619,000
	1980	2,785	45,279,000
TOMATOES Fresh & Processing	1990	7,770	28,471,000
	1985	4,565	16,377,000
	1980	6,720	27,254,000

MILLION DOLLAR CROPS

1990

1.	LETTUCE, HEAD.....	325,019,000	293.295	1
2.	STRAWBERRIES	181,459,000	158.261	2
3.	BROCCOLI	129,195,000	135.917	3
4.	NURSERY	112,447,800	123.311	4
5.	LEAF LETTUCE.....	90,729,000	99.741	5
6.	CAULIFLOWER.....	85,115,000	86.786	6
7.	GRAPES	63,719,000	73.808	7
8.	CELERY.....	53,346,000	39.848	9
9.	MUSHROOMS.....	42,699,000	36.927	10
10.	CATTLE.....	40,152,000		
11.	FOOD SERVICE PRODUCTS.....	32,988,000	46.121	8
12.	TOMATOES.....	28,471,000		
13.	SALAD PRODUCTS SHREDED.....	24,154,000		
14.	ARTICHOKES.....	23,147,800		
15.	ASPARAGUS.....	16,694,000		
16.	SPINACH.....	14,099,000		
17.	PEPPERS, CHILI.....	13,976,000		
18.	RASPBERRIES	12,257,000		
19.	CARROTS.....	11,401,000		
20.	ONIONS, GREEN	10,498,000		
21.	MILK, MARKETED.....	8,598,000		
22.	PASTURE LAND, DRY.....	7,199,000		
23.	SEEDS.....	6,201,000		
24.	PARSLEY.....	5,408,000		
25.	BRUSSELS SPROUTS.....	4,709,000		
26.	SUGAR BEETS.....	4,223,000		
27.	ANISE.....	3,334,000		
28.	NAPA.....	2,880,000		
29.	POTATOES	2,700,000		
30.	BEANS, DRY	2,656,000		
31.	RADISH.....	2,392,000		
32.	HAY, ALFALFA.....	1,903,000		
33.	SQUASH.....	1,881,000		
34.	PEPPERS, BELL.....	1,721,000		
35.	CABBAGE, GREEN.....	1,619,000		
36.	KALE.....	1,426,000		
37.	RADICCHIO.....	1,418,000		
38.	BARLEY.....	1,254,000		
39.	CHICKENS.....	1,237,560		
40.	GARLIC.....	1,219,000		
42.	ONIONS, DRY.....	1,016,000		

SUMMARY

<i>FRUITS & NUTS</i>	<i>1990</i> <i>1989</i>	<i>\$ 260,420,200</i> <i>174,908,200</i>
<i>VEGETABLE CROPS</i>	<i>1990</i> <i>1989</i>	<i>943,395,800</i> <i>844,523,000</i>
<i>FIELD CROPS</i>	<i>1990</i> <i>1989</i>	<i>18,523,000</i> <i>20,535,600</i>
<i>SEED CROPS</i>	<i>1990</i> <i>1989</i>	<i>6,201,000</i> <i>4,226,500</i>
<i>APIARY</i>	<i>1990</i> <i>1989</i>	<i>80,780</i> <i>69,980</i>
<i>NURSERY CROPS</i>	<i>1990</i> <i>1989</i>	<i>112,447,800</i> <i>101,180,500</i>
<i>LIVESTOCK, POULTRY, AND DAIRYING</i>	<i>1990</i> <i>1989</i>	<i>56,530,360</i> <i>60,451,100</i>
<hr/>		
<i>TOTAL - 1990</i>	<i>1990</i>	<i>\$1,397,598,940</i>
<i>1989</i>	<i>1989</i>	<i>1,205,894,880</i>
<hr/>		

SUMMARY OF TOP 20 PRODUCE EXPORTS FOR 1990

	<u>1988</u> <u>POUNDS</u>	<u>1989</u> <u>POUNDS</u>	<u>1990</u> <u>POUNDS</u>
1. BROCCOLI.....	2,433,094	7,676,189	25,813,127
2. LETTUCE	4,721,375	7,178,641	12,033,891
3. CELERY.....	7,397,072	6,130,232	15,528,091
4. TOMATO	62,900	943,477	6,997,570
5. STRAWBERRY	5,537,822	4,377,158	4,328,829
6. POTATO	0	0	4,191,210
7. ONION	3,469,020	4,516,231	4,125,545
8. CARROT	592,221	1,916,005	3,009,868
9. ASPARAGUS	2,413,767	1,544,646	2,337,646
10. CABBAGE	701,463	1,840,057	2,270,566
11. CAULIFLOWER	128,934	205,905	2,202,665
12. GARLIC	83,170	625,755	965,809
13. BEAN	78,390	46,550	235,535
14. RASPBERRY	287,130	214,235	186,976
15. RADISH.....	1,692	84,003	159,480
16. LEAF LETTUCE.....	0	0	102,694
17. PARSLEY.....	1,599	17,681	97,081
18. SPINACH	20,256	31,565	65,679
19. ROMAINE	29,086	29,702	55,787
20. GREEN ONION	22,049	19,178	29,626
<u>ALL SEED</u>	6,429,660	28,585,242	7,212,720

<u>NURSERY</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Cut Flower (# of stems)	1,908,379	2,313,331	2,982,947
Other Nursery Plants	1,881,596	10,573,707	8,400,213

SUMMARY OF PRODUCE EXPORTS BY COUNTRY

	<u>1988</u> <u>POUNDS</u>	<u>1989</u> <u>POUNDS</u>	<u>1990</u> <u>POUNDS</u>
1. TAIWAN	6,462,844	10,328,347	36,024,739
2. JAPAN.....	11,286,915	12,979,539	29,547,480
3. MEXICO.....	1,005,682	3,911,961	25,035,335
4. GREAT BRITAIN	2,903,557	2,079,421	3,799,167
5. GUAM	1,712,785	2,876,703	2,188,815
6. UNITED ARAB EMIRATES.....	352,880	235,251	2,108,206
7. SAIPAN.....	214,198	424,540	1,747,584
8. ITALY	492,208	168,115	1,372,207
9. PANAMA	382,500	1,450,000	1,337,500
10. NETHERLANDS.....	803,712	120,660	1,071,000
11. KUWAIT	502,913	1,567,128	925,250
12. FEDERAL REPUBLIC OF GERMANY.....	757,555	577,974	695,081
13. AUSTRALIA	492,465	634,636	427,494
14. SAUDI ARABIA	306,229	274,455	404,978
15. SWEDEN	0	19,008	320,603
16. BAHRAIN.....	118,022	215,253	215,486
17. PHILIPPINES.....	0	112,946	184,110
18. PEOPLE'S REPUBLIC OF CHINA.....	0	81,500	123,180
19. TAHITI.....	45,000	402,843	11,160
20. DENMARK.....	0	64,806	5,060



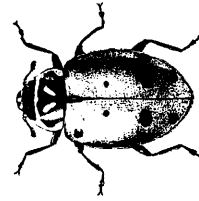
SUMMARY OF MONTEREY COUNTY SUSTAINABLE AGRICULTURAL ACTIVITIES



PEST	AGENT/MECHANISM	SCOPE OF PROGRAM (1)
COUNTY BIOLOGICAL CONTROL		
<u>Yellow Starthistle</u> <u>Centaurea solstitialis</u>	Seed Weevil	2 sites 250 weevils released
<u>Russian Thistle</u> <u>Salsola australis</u>	Stem mining moth <u>Coleophora parthenica</u> & Case bearing moth <u>C. klimeschiella</u>	2 sites 5 sites
<u>Puncture vine</u> <u>Tribulus terrestris</u>	Stem & Seed Weevils <u>Microlarinus lypriformis</u> & <u>M. lareynii</u>	17 sites
<u>Aphid species</u>	Seven-spotted Lady Beetle <u>Coccinella septempunctata</u>	1 site 10,000 beetles released
<u>Lettuce Root Aphid</u> <u>Pemphigus bursarius</u>	Alternate host destruction	1134 poplar trees removed
PEST ERADICATION		
<u>Taurian thistle</u> <u>Onopordum tauricum</u>	Mechanical	54 plants removed
<u>Scotch thistle</u> <u>Onopordum acanthium</u>	Mechanical	338 plants removed
<u>Dalmatian toadflax</u> <u>Linaria dalmatica</u>	Mechanical	1 plant removed
<u>Diffuse Knapweed</u> <u>Centaurea diffusa</u>	Mechanical	22 plants removed
PEST EXCLUSION		
<u>Green shield scale</u> <u>Pulvinaria psidii</u>	Truck shipment/ cut flowers	1 rejected/destroyed
<u>Soft scale</u> <u>Philephedra tuberculosa</u>	Truck shipment Spathiphyllum	1 rejected/destroyed
<u>Tent caterpillar</u> <u>Malacosoma americanum</u>	Household goods	1 rejected/destroyed

(1) Represents total number of individual sites, plants, etc, incorporated in program effort (surveys, collection, releases, etc.)

ORGANIC FARMING STATISTICS

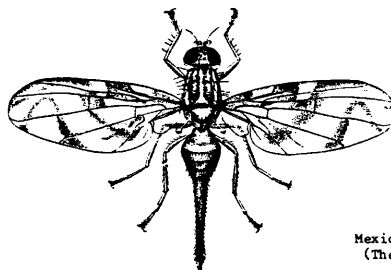


Lady beetles
(Courtesy U.S.D.A.)

Monterey County organic farming statistics include 15 growers farming approximately 900 acres and producing commodities ranging from artichokes, strawberries to head lettuce and salad products to herbs and miscellaneous vegetables.

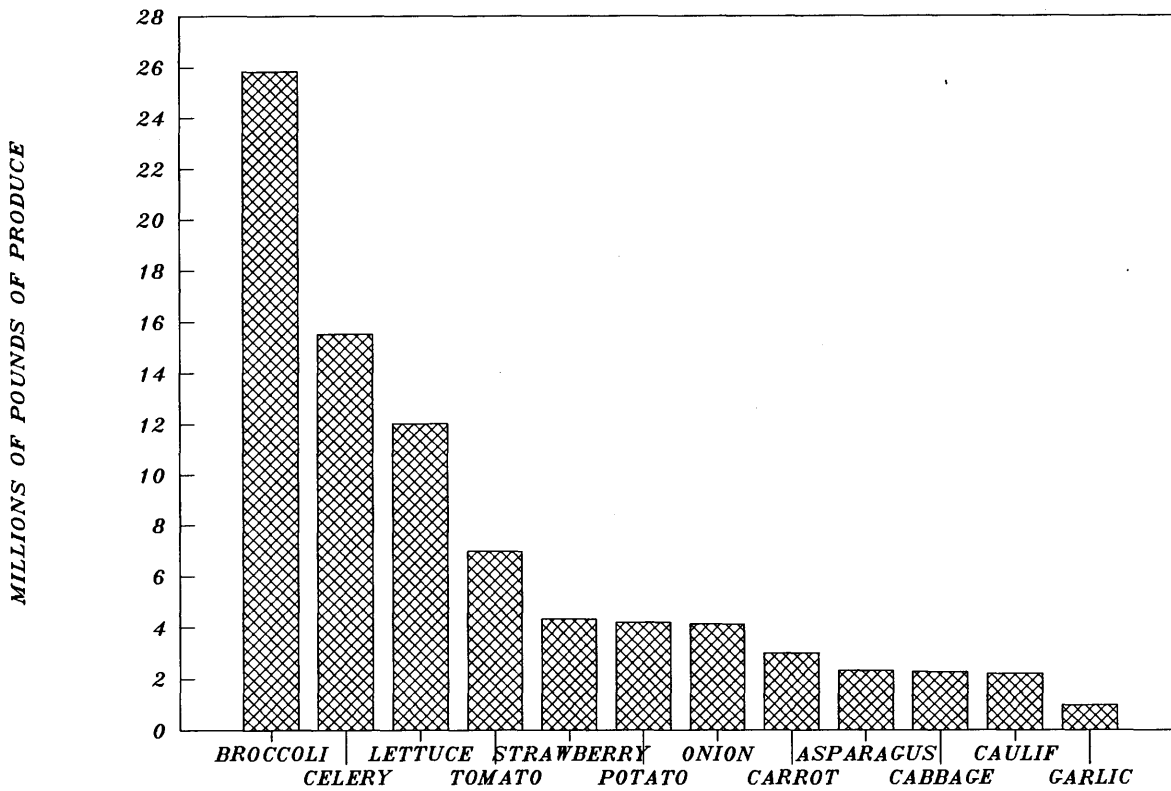
PEST DETECTION

TARGET PEST	INSECT HOST	NUMBER OF SITES
<i>Trogoderma Beetle</i>	Grain	43
<i>Africanized Honey Bee</i>	High Risk Area	4
<i>Medfly</i>	Fruit Trees	470
<i>Oriental Fruit Fly</i>	Fruit Trees	120
<i>Mexican Fruit Fly</i>	Fruit Trees	135
<i>Melon Fruit Fly</i>	Vegetable Gardens	100
<i>All Purpose Fruit Fly</i>	Fruit Trees	250
<i>Japanese Beetle</i>	Turf, Roses	200
<i>Gypsy Moth</i>	Shade Trees	300
<i>European Corn Borer</i>	Corn	6
<i>Nantucket Pine Tip Moth</i>	Monterey Pine	12
<i>European Pine Shoot Moth</i>	Pine Trees	6

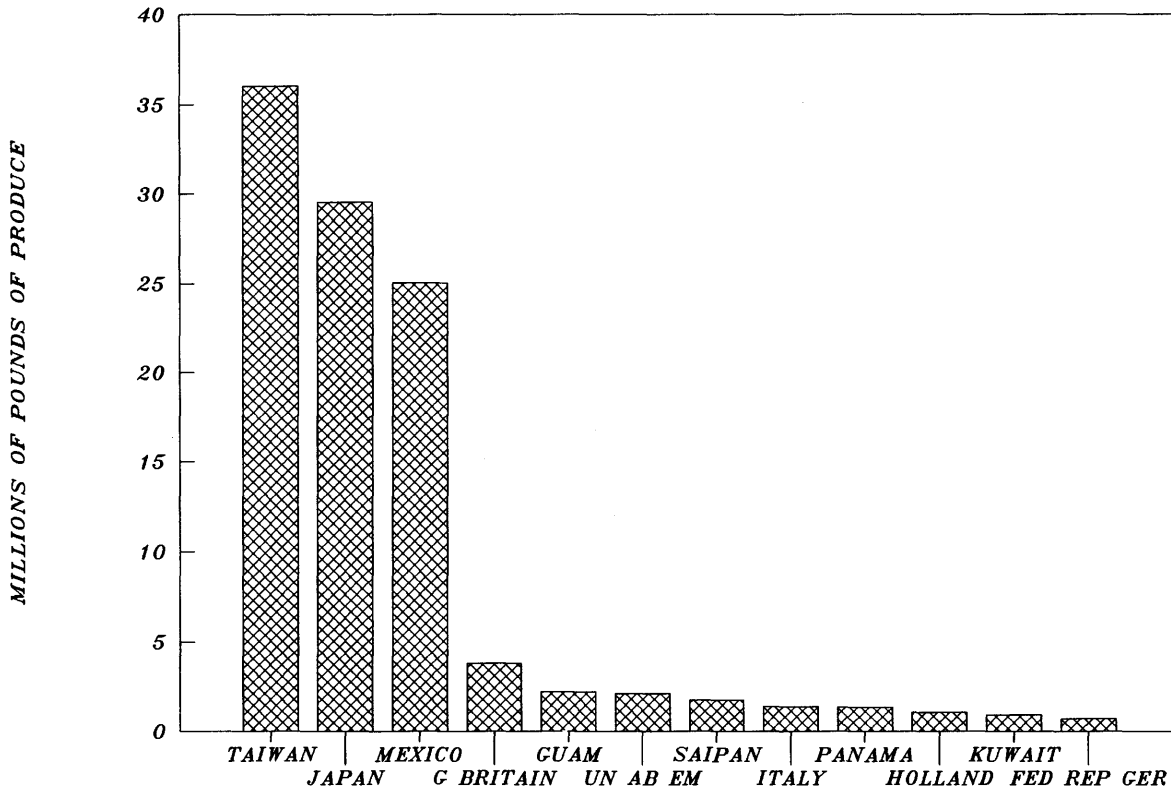


Mexican Fruit Fly
(The Bulletin)

TOP 12 PRODUCE EXPORTS FOR 1991

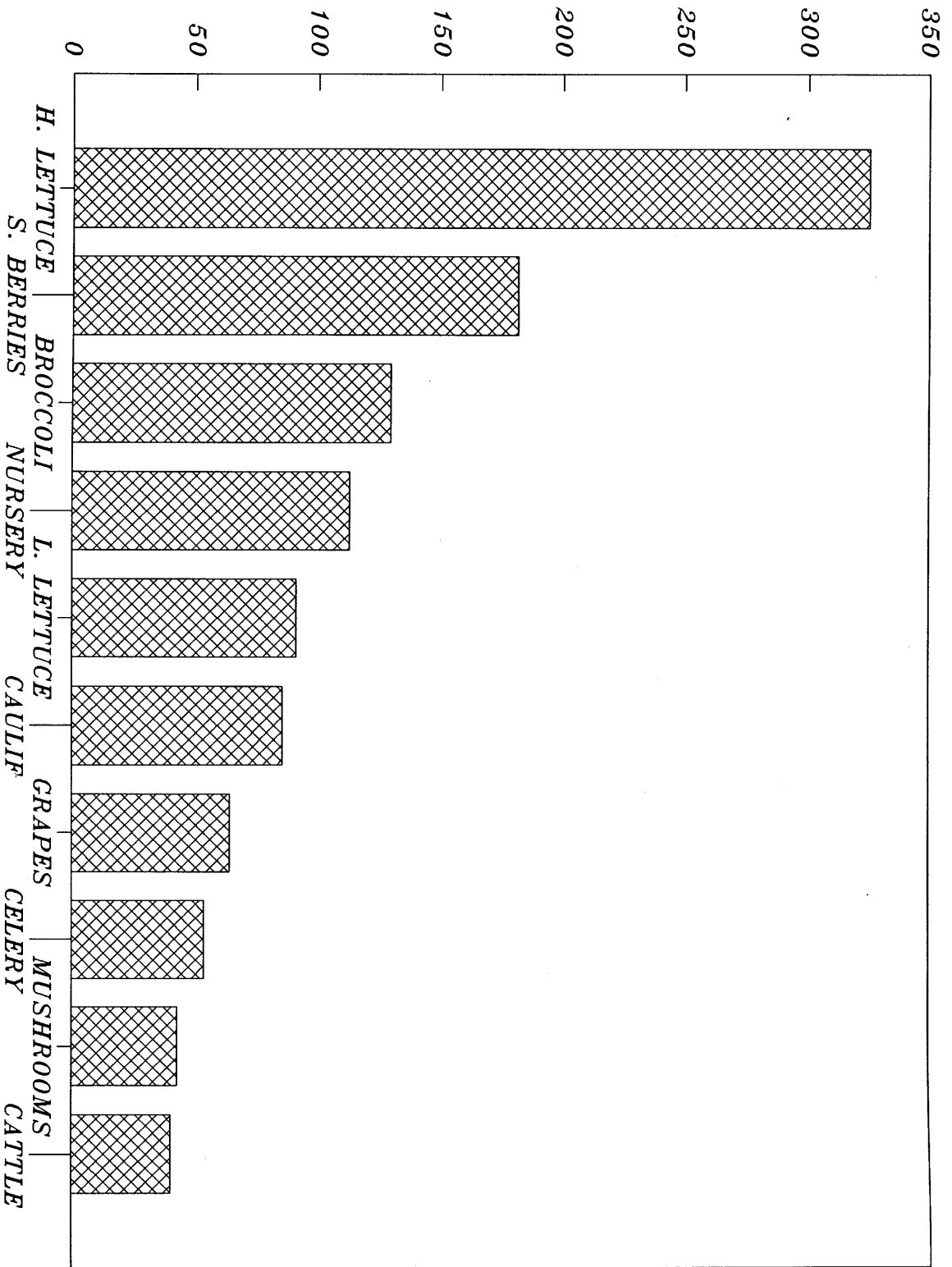


TOP 12 IMPORTING COUNTRIES FOR 1991



MONTEREY COUNTYS TOP 10 CROPS

MILLIONS OF DOLLARS VALUE



MONTEREY COUNTY AGRICULTURE

TOTAL VALUE \$ 1,397,598,940

LIVESTOCK (4.1%)

