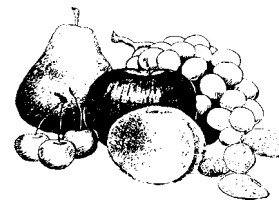


California Fruit & Nut Review



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harvested in late August for wine use. San Joaquin Valley stone fruit growers were picking nectarines, plums, and Freestone peaches. Wind scarring, hail marks, and split pits were concerns for growers. The Clingstone peach and fig harvests were active. Bartlett pear picking was active in the Sacramento-San Joaquin area for the first half of the month. The last half of August saw Bartlett pears harvested in Lake and Mendocino counties. Asian pear picking was active in the San Joaquin Valley. Gala and Granny Smith apple varieties were picked. The almond harvest began in mid-August. Walnut growers whitewashed their trees for sunburn protection. Strawberry growers in the San Joaquin Valley were setting plants for the fall season. Valencia orange picking was slow due to normal competition in the marketplace from stone fruits during August. Approximately two-thirds of the crop has been picked. Harvests of grapefruit and south coast lemons were active. The new crop Navel oranges was maturing well, but with much smaller fruit size than last season.

SEPTEMBER CROP COMMENTS

Crop harvesting dominated growers' activities during August. Picking of grapes for fresh use in the Coachella Valley was completed early in the month, while the San Joaquin Valley was active throughout August. Major varieties picked include Flame Seedless, Red Globe, and Thompson Seedless. Mildew, berry cracking, and premature bunch rot caused by heat and humidity were concerns to growers. By the end of the month, Thompson Seedless grapes were being laid for raisins and also harvested for wine use. Wine type variety grapes were also

FRUIT AND NUT STATISTICS AT A GLANCE

Crop	Bearing Acreage		Yield Per Acre		Estimated Production		Production Percent Change	Next 1998 Crop Update
	1997	1998	1997	1998	1997	1998		
NUT CROPS	- Acres -		- Pounds -		- 1,000 Pounds -			
Almonds (Shelled)	410,000	425,000	1,850	1,270	757,000	540,000	-29.0	January 1999
Pecans	2,600	2,600	962	620	2,500	1,600	-36.0	January 1999
Pistachio (In-Shell)								
Marketable In-Shell	---	---	---	---	137,000	---		
Shelling Stock	---	---	---	---	43,000	---		
Total	65,000	65,900	2,750	2,960	180,000	195,000	8.3	January 1999
Walnuts (In-Shell)	177,200	177,200	1.52	1.24	269.0	220.0	-18.0	November 1998
			- Tons -		- 1,000 Tons -			
FRUIT CROPS	- Acres -		- Tons -		- 1,000 Tons -			
Apples	38,500	35,700	12.80	12.80	481.0	458.0	-5.0	January 1999
Apricots	19,100	18,900	6.91	6.61	132.0	125.0	-5.0	January 1999
Cherries	13,700	13,800	3.59	1.09	49.2	15.0	-70.0	January 1999
Grapes, Raisin ^{1/}	270,000	270,000	10.66	8.52	2,877.0	2,300.0	-20.0	October 9, 1998
Grapes, Table	76,700	80,000	10.76	9.38	825.0	750.0	-9.0	October 9, 1998
Grapes, Wine	329,000	350,000	8.94	7.43	2,940.0	2,600.0	-12.0	October 9, 1998
Grapes, All ^{1/}	675,700	700,000	9.83	8.07	6,642.0	5,650.0	-15.0	October 9, 1998
Olives	35,300	35,300	2.95	2.69	104.0	95.0	-9.0	January 1999
Peaches, Clingstone	31,000	30,300	18.50	17.30	574.0	525.0	-9.0	January 1999
Peaches, Freestone	35,200	32,400	10.50	10.03	369.5	325.0	-12.0	January 1999
Pears, Bartlett	18,200	18,000	15.50	15.00	282.0	270.0	-4.0	January 1999
Pears, Other	4,600	4,400	6.25	6.82	30.0	30.0		January 1999
Prunes (Dried Weight)	79,500	80,100	2.69	2.12	214.0	170.0	-21.0	January 1999
BERRIES	1997	1998	1997	1998	1997	1998		
	- Acres -		- Cwt. -		- 1,000 Cwt. -			
Strawberries	22,600	24,300	590	514	13,334	12,490	-6.0	Dec. 11, 1998
CITRUS CROP ^{2/}	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99		
	- Acres -		- Cartons -		- 1,000 Cartons -			
Grapefruit	18,600	---	968	---	18,000	---		Sept. 23, 1998
Lemons	47,300	---	930	---	44,000	---		Sept. 23, 1998
Oranges, Navel	123,000	125,000	716	544	88,000	68,000	-23.0	Sept. 23, 1998
Oranges, Valencia	75,000	---	800	---	60,000	---		Sept. 23, 1998
Tangerines ^{3/}	8,800	---	545	---	4,800	---		Sept. 23, 1998

^{1/} The Raisin Industry Diversion Program (RID) was not used in 1997 or 1998.

^{2/} Grapefruit - 33.5 lbs. per carton, Lemons - 38.0 lbs. per carton, Oranges - 37.5 lbs. per carton, Tangerines - 37.5 lbs. per carton.

^{3/} Includes tangelos, tangerines, and tangors.

PECANS

The initial pecan production forecast for 1998 is 1.60 million pounds, down 36 percent from last year. Estimated bearing acres for 1998 is 2.60 thousand, unchanged from last year. Pecans fluctuate between high and low production years; 1998 is a low production year. Nut quality is reported as good to fair. The U.S. pecan production forecast, at 185.2 million tons, is down 45 percent from last year.

PECAN PRODUCTION FORECAST FOR SELECTED STATES AND U.S.

Crop & State	1996	1997	1998 Forecast
--- 1,000 Pounds ---			
California	1,300	2,500	1,600
Georgia	100,000	105,000	60,000
New Mexico	22,000	43,000	28,000
Oklahoma	2,000	35,000	10,000
Texas	40,000	90,000	40,000
Other States ^{1/}	56,200	62,600	45,600
U.S. TOTAL	221,500	338,100	185,200

^{1/} Alabama, Arizona, Arkansas, Florida, Kansas, Louisiana, Mississippi, Missouri, North Carolina, and South Carolina. Forecasts discontinued in 1996 for MO and TN.

FLORIDA CITRUS

Most of the weather in Florida's citrus industry during August was very normal. Frequent rains and thunderstorms occurred along with hot and humid conditions. Rainfall amounts were mostly average depending on location. The almost ideal weather has produced an abundance of new growth on trees of all ages in all areas of the citrus belt. New crop fruit responded well during the month and made good progress. Some groves received very little, if any, production care during this past Spring and early Summer. These groves have trees with yellowing foliage and fruit of varying sizes and quantities. Caretakers have been very active maintaining cover crops, spraying, fertilizing, and removing dead, sick and unthrifty trees.

1998-99 CALIFORNIA NAVEL ORANGE FORECAST

The initial 1998-99 Navel orange forecast is 68.0 million (37.5-pound) cartons, down 23 percent from the 88.0 million cartons in the 1997-98 season. Of this 68.0 million, 61.0 million cartons

are estimated to be in the Central Valley. Fruit set and size are considerably less than last season. Crop development was delayed by the wet, cool spring.

CALIFORNIA CENTRAL VALLEY NAVEL ORANGES ^{1/}

Crop Year ^{2/}	Final Utilized Production ^{3/} (37.5-Lb. Cartons)	Bearing Acres	Average Trees Per Acre	Average Set Per Tree
1984-85	43,386,000	93,039	128	354
1985-86	57,612,000	94,074	128	457
1986-87	58,566,000	94,997	128	544
1987-88	53,588,000	96,110	126	361
1988-89	58,326,000	98,766	126	570
1989-90	79,242,000	101,525	125	541
1990-91	25,514,000	104,560	124	498
1991-92	60,406,000	102,000	124	N/A
1992-93	81,034,000	102,612	121	572
1993-94	63,800,000	106,381	121	452
1994-95	66,358,000	107,049	121	457
1995-96	69,750,000	113,000	121	460
1996-97	71,700,000	115,000	121	359
1997-98	81,000,000	116,500	121	407
1998-99	61,000,000	118,950	121	380

^{1/} Data for final utilized production and bearing acres are from the orange industry. Acreage data is number of acres of bearing age (more than four years old). Some fruit could have been picked from trees younger than four years old, but not enough to consider the tree full bearing.

^{2/} Data for 1990-91 (a freeze year) were not used in forecasting the 1998-99 crop. No Objective Measurement Survey was conducted for the 1991-92 season due to lack of funding.

^{3/} California Agricultural Statistics Service preliminary forecast for 1998-99.

WALNUT PRODUCTION FORECAST

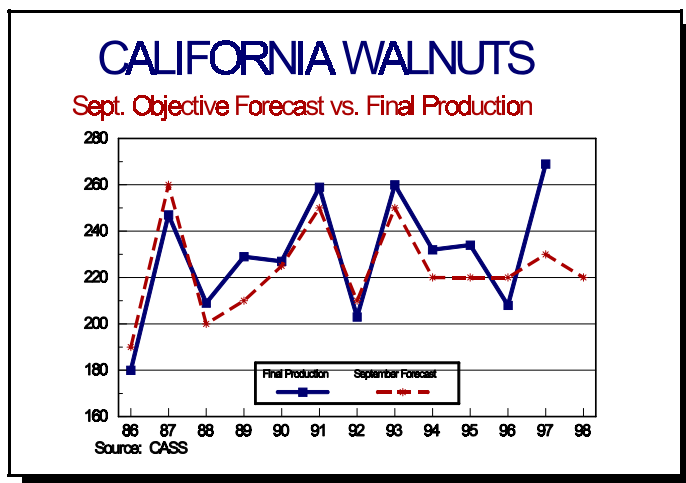
The 1998 California walnut production forecast is 220,000 tons, down 18 percent from 1997's production of 269,000 tons. This is 14 percent below the July forecast of 255,000. The September forecast is based on the Walnut Objective Measurement (O.M.) Survey, while the July forecast was based on subjective information provided by growers. The Objective Measurement Survey was conducted August 3 through August 29, 1998. Due to a very wet spring, the crop is about three weeks behind normal. The early varieties, such as Serr, look to be strong. Mid-season varieties, such as Vina, are expected to be about average, while late varieties, such as Hartley and Chandler, look to be off quite a bit from last year. Levels of sunburn are expected to be higher than last year.

The 1998 Objective Measurement Survey utilized a total of 731 blocks with two sample trees per block. Survey data indicated an average nut set of 1,407, down 20 percent from 1997's average of 1,753. The Hartley nut set was down 35 percent; Serr, up 104 percent; Franquette, down 30 percent; Chandler, down 17 percent from 1997. Percent of sound kernels in-shell was 94.4 percent Statewide. In-shell weight per nut was 21.4 grams, while the average in-shell suture measurement was 31.9 millimeters. The average length in-shell was 39.5 millimeters.

WALNUTS PER TREE, BY DISTRICT

Year	Coast <u>1/</u>	Sacramento Valley <u>2/</u>	San Joaquin Valley <u>3/</u>	State Total <u>4/</u>
1987	1,883	2,696	2,143	2,320
1988	1,359	2,390	1,837	2,008
1989	1,427	2,182	1,537	1,785
1990	1,637	2,380	1,835	2,028
1991	1,955	2,620	2,210	2,340
1992	1,567	1,902	1,380	1,604
1993	1,530	2,703	1,596	2,068
1994	1,813	1,961	1,602	1,773
1995	1,420	2,253	1,451	1,777
1996	1,362	1,836	1,497	1,630
1997	1,128	2,233	1,439	1,753
1998	1,070	1,654	1,253	1,407

- 1/ Coast includes: Contra Costa, Lake, Monterey, Napa, San Benito, San Luis Obispo, Santa Clara, and Sonoma counties.
- 2/ Sacramento Valley includes: Butte, Colusa, El Dorado, Glenn, Sacramento, Solano, Sutter, Tehama, Yolo, and Yuba counties.
- 3/ San Joaquin Valley includes: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties.
- 4/ District and State averages are derived by weighting county averages by county bearing acreage figures.



WALNUT OBJECTIVE MEASUREMENT SURVEY DATA, CALIFORNIA

Year	Bearing Acres <u>1/</u>	Total Production (Tons)	Nuts Set Per Tree	Kernel Grade-Percent Sound	In-Shell Weight (gm)	In-Shell Width (mm)	In-Shell Length (mm)	In-Shell Cross-Width (mm)
1987	176,000	247,000	2,320	97.3	21.5	32.7	39.7	33.2
1988	177,000	209,000	2,008	96.2	21.2	32.5	39.1	32.7
1989	179,000	229,000	1,785	97.0	21.5	32.3	39.1	32.6
1990	181,000	227,000	2,028	96.3	21.8	32.3	38.8	32.4
1991	181,000	259,000	2,340	95.5	20.8	31.5	39.0	31.1
1992	178,000	203,000	1,604	96.9	22.7	32.6	39.5	32.9
1993	176,000	260,000	2,068	95.8	22.9	32.6	40.0	32.5
1994	171,000	232,000	1,773	95.6	22.1	32.2	39.4	32.2
1995	176,000	234,000	1,777	93.1	20.8	31.7	39.2	31.3
1996	176,000	208,000	1,630	94.4	22.1	32.3	39.0	32.5
1997	177,000	269,000	1,753	97.3	22.9	32.3	38.6	32.6
1998	177,000	220,000	1,407	94.4	21.4	31.9	39.5	31.8

- 1/ Bearing years include plantings of the following: Chandler, Chico, Howard, Tulare (1994 & Earlier); 50-55, 59-124, 4946, Amigo, Ashley, Bardoni, Cisco, Earhorn, Grove, Gustine, Honeycutt, Houston, Jensen, Lompoc, Marchetti, Nuggett, Payne, Pedro, Serr, Sunland, Tehama, Trinta, UCD 67-13, Vina, Westside (1993 and Earlier); Franquette, Franquette Scharsch, Mayette, Placentia, Poe, Willsons/Willsons Wonder, Woodland (1991 & Earlier); all other varieties not specified (1992 & Earlier).

PISTACHIO PRODUCTION FORECAST

California pistachio production is forecast at a record 195 million pounds. The 80 percent confidence interval is from 172 to 218 million pounds. This means that 80 percent of the time the actual production will fall within this range. This forecast is based on an objective measurement survey conducted by the California Agricultural Statistics Service under the sponsorship of the California Pistachio Commission. The survey collects data

such as clusters per tree, nuts per cluster, percent of bearing trees, as well as weight and size information. Due to the later than usual spring, the crop is approximately two to three weeks behind normal. In recent years, production has remained more stable as Pioneer Gold rootstock (verticillium wilt resistant) has increasingly replaced the older Atlantica rootstock. The Pioneer Gold generally bears heavy on even years and the Atlantica on odd.

PISTACHIO OBJECTIVE MEASUREMENT SURVEY DATA, CALIFORNIA, 1/

Year	Samples Completed <u>2/</u>	Estimated Average Number Of Clusters Per Tree	Estimated Percent Of All Spaces That Contain		Count Data			In-Hull Data <u>3/</u>			Kernel Data <u>3/</u>			
			Bearing Trees	Pollinators	Nuts Per Cluster (Filled & Blank)	Percent Of Nuts Filled	Est. Total Number Of Filled Nuts Per Tree	Weight Per Nut (Includes Blanks)	Weight Per Nut (Filled)	In-Hull Cross Suture	Average Weight Per Kernel	Suture	Cross Suture	Length
1985	313	419	78.3	7.4	13.6	75.6	4,307	2.51	---	14.62	0.829	10.02	9.52	16.32
1986	332	1,090	79.8	6.1	11.5	77.3	9,689	2.77	---	15.63	1.000	10.50	10.49	17.00
1987	286	655	81.1	5.9	8.8	67.6	3,891	2.51	---	14.95	0.912	10.36	9.56	16.51
1988	347	1,181	83.2	5.7	10.5	80.7	10,032	2.61	---	14.13	0.832	10.02	9.37	15.87
1989	367	344	85.8	6.1	11.4	72.9	2,864	2.84	---	14.70	0.979	10.71	9.97	17.40
1990	373	1,479	85.6	6.3	10.1	73.5	10,942	2.43	---	14.14	0.871	10.12	9.32	16.11
1991	389	439	87.7	5.9	11.1	77.8	3,794	2.99	---	15.41	0.963	10.69	10.11	16.68
1992	394	1,670	86.3	6.8	7.2	70.4	8,433	3.04	---	15.26	1.240	10.96	10.35	17.79
1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1994	491	797	87.4	6.0	11.9	80.6	7,647	2.92	---	15.02	0.952	10.43	9.68	16.97
1995	586	974	89.9	5.4	9.2	78.9	7,114	3.07	3.26	15.51	0.949	10.33	9.94	16.40
1996	562	739	89.3	5.3	10.3	65.7	5,007	2.52	2.72	14.87	0.775	9.76	9.08	15.70
1997	642	1,049	89.5	5.4	10.4	76.0	8,326	2.78	2.92	14.92	0.896	10.56	9.60	16.55
1998	610	895	90.9	5.0	13.8	77.2	9,542	2.86	3.04	15.05	0.828	10.31	9.51	16.48

1/ Survey was not conducted in 1993.

2/ Number of samples is based on the August Pistachio Objective Measurement Survey. There are two trees per sample.

3/ All weights are in grams. Suture, cross suture and length measurements are in millimeters.