



# 2007-08 California Navel Orange Objective Measurement Report

Cooperating with the California Department of Food and Agriculture

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## FORECAST

The initial 2007-08 Navel orange forecast is 86.0 million (37.5-pound) cartons, 26 percent above last season's crop of 68.0 million cartons. Of the total forecast, 84.0 million cartons are estimated to be in the Central Valley. Survey data indicated an average fruit set of 390 oranges per tree, with a September 1 diameter of 2.245 inches.

## SURVEY HISTORY

A Navel Orange Objective Measurement Survey has been conducted in the Central Valley since the 1984-85 crop year. The data from the first two years were used for research purposes in developing crop-estimating models.

## SURVEY SAMPLE

A sample of 569 Navel orange groves was randomly selected proportional to county and variety bearing acreage and 543 of the groves were utilized in this survey. Once a grove is randomly chosen and grower permission is granted, two trees are randomly selected. Trunk and branch measurements, along with fruit counts, are then made on each tree. Fruit diameter measurements are made on the right quadrant of four trees surrounding the first sampled tree. Of the 543 utilized groves, 13 were in Madera County, 89 were in Fresno County, 304 were in Tulare County, and 137 were in Kern County.

## CALIFORNIA NAVEL ORANGE AVERAGE SET PER TREE BY COUNTY

Year 1/	Fresno	Tulare	Kern	Central Valley 2/
1987-88	236	402	354	361
1988-89	518	585	594	570
1989-90	606	501	614	541
1990-91	476	505	479	498
1991-92	---	---	---	---
1992-93	501	569	654	572
1993-94	433	427	513	452
1994-95	356	450	529	457
1995-96	428	467	479	460
1996-97	280	376	388	359
1997-98	292	424	477	407
1998-99	343	391	377	380
1999-00	390	450	545	458
2000-01	485	293	392	347
2001-02	201	260	299	264
2002-03	289	465	592	466
2003-04	524	305	388	358
2004-05	432	356	465	392
2005-06	571	445	465	461
2006-07	285	280	358	294
2007-08	380	384	429	390

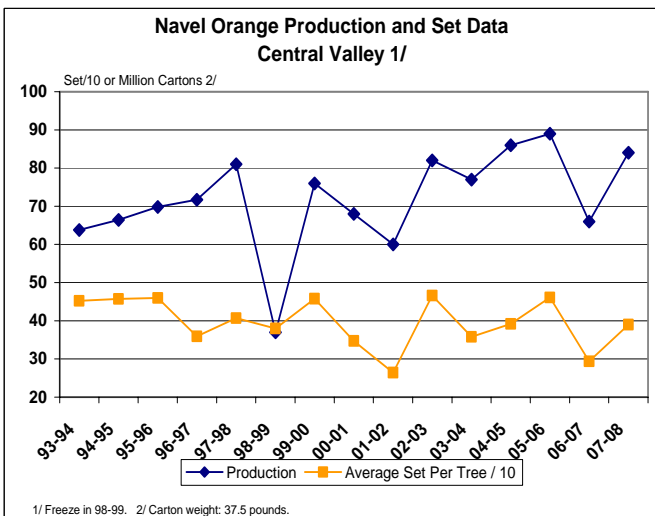
1/ Data for 1990-91 and 1998-99 (freeze years) were not used in forecasting the 2007-08 crop. No Objective Measurement Survey was conducted for the 1991-92 season due to lack of funding.

2/ Includes Madera, Fresno, Tulare, and Kern counties.

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**CALIFORNIA CENTRAL VALLEY NAVEL ORANGES**

Crop Year 1/	Final Utilized Production (37.5-Lb. Cartons)	Bearing Acres	Average Trees Per Acre	Average Set Per Tree	Average September 1 Diameter 2/ (Inches)	Average March 1 Diameter 2/ (Inches)
1987-88	53,588,000	96,110	126	361	2.343	3.195
1988-89	58,326,000	98,766	126	570	2.195	2.761
1989-90	79,242,000	101,525	125	541	2.250	2.820
1990-91	25,514,000	104,560	124	498	2.213	---
1991-92	60,406,000	102,000	124	---	---	---
1992-93	81,034,000	102,612	121	572	2.296	3.021
1993-94	63,800,000	106,381	121	452	2.365	3.090
1994-95	66,358,000	107,049	121	457	2.232	3.063
1995-96	69,750,000	113,000	121	460	2.258	2.994
1996-97	71,700,000	115,000	121	359	2.470	3.208
1997-98	81,000,000	116,500	121	407	2.481	3.195
1998-99	37,000,000	118,000	121	380	2.184	---
1999-00	76,000,000	119,000	122	458	2.224	3.049
2000-01	68,000,000	122,000	122	347	2.311	3.120
2001-02	60,000,000	122,000	122	264	2.483	3.172
2002-03	82,000,000	122,500	122	466	2.200	3.000
2003-04	77,000,000	124,000	124	358	2.410	3.210
2004-05	86,000,000	126,000	125	392	2.495	3.295
2005-06	89,000,000	128,000	127	461	2.230	3.030
2006-07	66,000,000	129,000	129	294	2.268	3.068
2007-08 3/	84,000,000	130,000	130	390	2.245	3.021 4/

1/ Data for 1990-91 and 1998-99 (freeze years) were not used in forecasting the 2007-08 crop. An objective measurement survey was not conducted for the 1991-92 season due to lack of funding.

2/ Size data for 1984-85 through 1993-94 are from the Navel Orange Administrative Committee, while the data from 1993-94 through 2006-07 are from the orange industry. Size data for 2007-08 are from the USDA-NASS, California Field Office objective measurement survey.

3/ USDA, NASS, California Field Office preliminary forecast for 2007-08.

4/ Projected.