

**Supporting Table S1.** Location of weather stations and years of temperature records used for each county.

County	NOAA Station	CIMIS Station
Butte	Chico University Farm (1959-1982)	Durham (1982-2007)
<i>Omitted years</i> <sup>o</sup>	1974, 1980- 1983	1983- 1985, 1987
Colusa	Colusa (1959-1983)	Colusa (1983-2007)
<i>Omitted years</i>	1982*	1985, 1995*, 2006
Fresno	Five Points (1959-1982)	Five Points (1982-2007)
<i>Omitted years</i>	1964, 1965, 1966*, 1968-1970, 1973-1975, 1981	1983, 1985, 1991, 1992, 1996, 1998, 2001, 2002*
Glenn	Orland (1959-1982)	Orland (14, 61) (1982-2007)
<i>Omitted years</i>	1981	1983, 1985, 1988*, 1989*
Kern	Wasco (1959-1982)	Shafter (1982-2007)
<i>Omitted years</i>	No years omitted	1983, 2002
Kings	Hanford (1959-1982)	Stratford (1982-2007)
<i>Omitted years</i>	1973, 1974	1983, 1985, 1992, 2000
Madera	Madera Airport (1959-1998)	Madera (1998-2007)
<i>Omitted years</i>	1964, 1972, 1974, 1980, 1986*	2005*, 2007
Merced	Los Banos (1959-1988)	Los Banos (1988-2007)
<i>Omitted years</i>	No years omitted	1990, 1999*, 2001, 2002*, 2003*
San Joaquin	Stockton Metro Airport (1959-1983)	Lodi (1983-1987), Manteca (1987-2007)
<i>Omitted years</i>	No years omitted	1985 <sup>†</sup> , 1986, 1988*, 1989-1991
Stanislaus	Modesto Airport (1959-1987)	Modesto (1987-2007)
<i>Omitted years</i>	No years omitted	1995*, 2001*
Sutter	No stations	Nicolaus
<i>Omitted years</i>	No stations	1983, 1985, 1990, 1991
Tehama	Red Bluff Municipal Airport (1959-1982)	Gerber (1982-2007)
<i>Omitted years</i>	No years omitted	1983, 1985, 1989*
Tulare	Visalia (1959-1983)	Visalia (1983-2007)
<i>Omitted years</i>	1969, 1983	1984*, 1994
Yolo	Davis (1959-1982)	Davis (1982-2007)
<i>Omitted years</i>	No years omitted	1983, 1985

<sup>o</sup>Omitted harvest year

\*Year was used for almond but not pistachios and walnuts because the bulk of anomalous temperatures were in January/February.

<sup>†</sup> Year was use for walnut but not almond because the bulk of anomalous temperatures were in November/December.

**Supporting Table S2.** Relative yield below 29 chill portions in almond

Year	Chill Accumulation*	$Y_R$ (%)	County
1988	22	18	Colusa
1996	22	-13	Kern
1996	22	5	Yolo
1996	24	-2	Butte
1996	24	-13	Merced
1996	25	2	Colusa
2006	25	6	Kern
1990	26	9	Colusa
1996	26	-21	Madera
2006	26	-3	Tulare
2006	27	5	Fresno
1982	27	-2	Kern
2006	27	-20	San Joaquin
1996	27	1	Tehama
1996	27	-2	Tulare
1990	28	12	Fresno
2006	28	-15	Glenn
1990	28	4	Kern
1982	28	-16	Tulare

\*November 1<sup>st</sup> through December 31<sup>st</sup>, in chill portions

**Supporting Table S3.** Relative yield below 40% above average yield in pistachio

Year	Chill Accumulation*	$Y_R$ (%)	County
1996	55	-36	Kern
1996	55	-24	Kings
2006	58	-40	Kern
2000	59	50	Kern
1996	59	-32	Merced
1996	61	5	Madera
1981	61	-26	Tulare
1983	61	-54	Tulare
1996	61	-33	Tulare
2006	61	-11	Tulare
2000	62	15	Fresno
2006	62	-30	Fresno
1991	62	-18	Kings
2006	62	-31	Kings
1986	62	34	Tulare
2000	62	-6	Tulare

\*November 1<sup>st</sup> through last day of February, in chill portions

**Supporting Table S4.** Relative yield below 61 chill portions in walnut

Year	Chill Accumulation*	$Y_R$ (%)	County
1963	52	1	Tulare
1988	54	-2	Colusa
1996	55	-2	Kings
1963	56	18	Fresno
1977	56	-11	Tehama
1963	57	-6	Merced
1996	57	-21	Yolo
1963	58	22	Kings
1968	58	5	Tehama
1996	59	-18	Merced
1996	60	-10	Colusa

\*November 1<sup>st</sup> through last day of February, in chill portions