

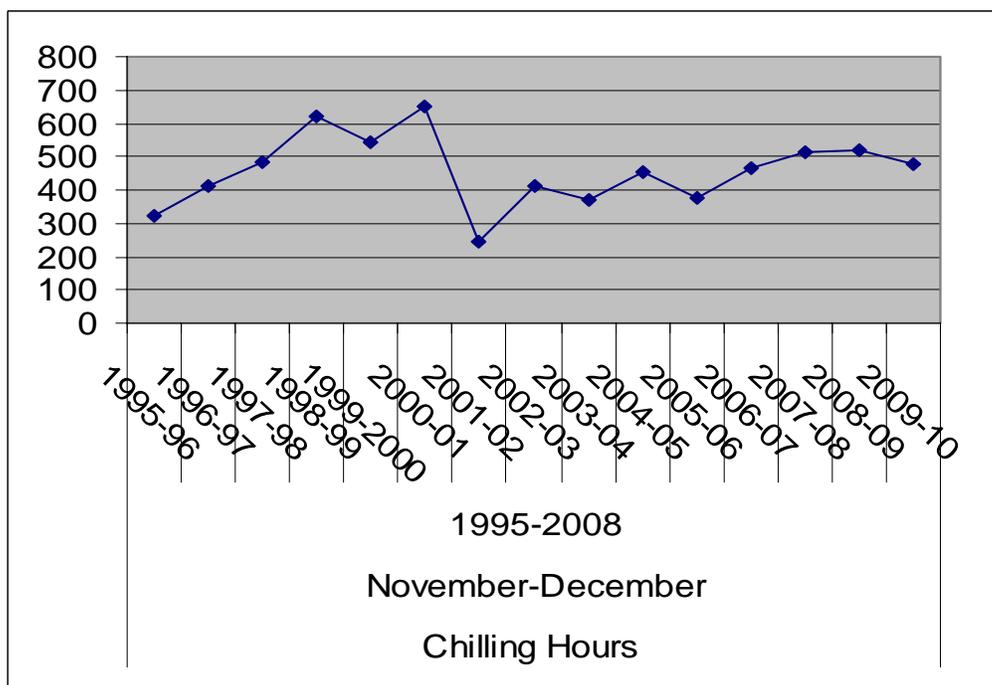


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Chilling Hours and Rainfall
Budbreak
Spring Frost
Weeds

The 2009 year ended with a fairly normal rainfall total for the months of October, November, and December. Total rainfall was around 6.1 inches for the north county and slightly below average levels, around 3.8 total inches, for the south county. As of the first week in February, the north county is well above average at 12.2 inches and the south county just about on an average pace at 8.2 inches. Last year at this time there was a total of 5.9 inches of rain in the Lodi area.

Chilling hours are not as critical for grapes as for tree crops, but can have an effect on uniformity and strength of budbreak. Chilling hour totals have been about average and fog has been a bit more of a common occurrence, as in the "Good Old" days when the sun often disappeared for three to four weeks at a time. Chilling hours (hours below 45°F) totaled slightly less than the long term average at 672 hours for 2009-10 compared to about 752 hours for the 14-year average. Evapotranspiration of winter cover and weeds has been low, so we have a good chance to mitigate the last three years of drought. But I better not say any more at this point.



It looks as if there won't be a need for a late winter or early spring irrigation to refill the soil profile this year. But if the storm door closes quickly for some reason, it is still good to check out the irrigation system **before** you might need it later in April or May. The rainfall has been well spaced and occurring in good amounts, with intermittent breaks to dry out. So far the north county is well ahead of average, currently at 120% of the long term. The south county is slightly behind at about 98% of long term average totals to this point in the season. The table below is a summary of the pattern and totals for the last six years in Lodi.

Rainfall
San Joaquin County—Lodi

	Total	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
2005	24.7		10.4		3.2	3.3	3.5	1.4	1.3
2006	23.7		7.1		5.4	1.1	5.2	3.8	0.8
2007	12.0		4.6		0.3	4.3	0.6	2.3	T
2008	13.6		4.5		7.3	1.8	0.1	0	0
2009	15.1		4.0		1.9	5.3	1.9	0.7	1.3
2010	?		6.1*		4.5	3.6			
Avg.	17.8								

* 2.9 inches on October 13th

There have been a few warm afternoons recently and it might not be long before budbreak for grapes (usually around March 15 ± 5 days). Soil moisture is good and vines are “bleeding” easily and strongly compared to the last three years during the drought.

Average Date of Budbreak*
Chardonnay 1986-2009
Lodi

Year	Date in March	Year	Date in March	Year	Date in March
2009	20	1999	25	1989	17
2008	12	1998	14	1988	13
2007	14	1997	1	1987	26
2006	15	1996	15	1986	9
2005	2	1995	5		
2004	13	1994	14		
2003	10	1993	22		
2002	13	1992	13		
2001	17	1991	21		
2000	17	1990	23		

* Budbreak = 10% of buds at ½ inch shoot length or first leaf unfolding

Spring of 2008 was the first year since 1972 that frost occurred statewide. There were some scattered frost events in early March of 2009, being more a problem in almonds than grapes, but it is best to be prepared.

Just to review some old, but good information on soil conditions and cold during the early spring from work done by past Farm Advisors Jim Kissler and Don Rough:

Temperature Comparisons of Vineyard Floors*

- * Firm, bare ground that is wet +2°F
- * Firm bare ground, that is dry --
- * Freshly disked soil -2°F colder
- * High cover crop (24 to 30 inches) -2°F to 4°F (possibly 6°F to 8°F colder)
- * Low cover crop (less than 24 inches) -1°F to 3°F colder
- * Mowed cover crop -½ °F

* Kissler and Rough

A summary of Spring Frost events over the last 76 years for San Joaquin County show that most years are not a problem for vineyards, but we seem to have entered a colder cycle than the recent past.

Historical Dates of Last Spring Frost

- **1933** Late April
- **1961** April 19 and 20
- **1964** April 24
- **1972** March 26, 27 and 28
- **1983** April 13
- **1984** April 20
- **1997** April 5
- **1999** April 9
- **2001** April 8
- **2008** April 15, 20 and 24

It seems weed growth is more than last year, as temperatures have been more normal and rainfall abundant, but the fall and early winter were dry enough to slow general weed development. Good control should be achievable with some normal rainfall patterns and Mother Nature’s help. There are some newer materials available and rotation or selection for particular weed species should be considered. If you missed the 58th Lodi Grape Day you can check out some of the slides from weed

presentations by Kurt Hembree of Fresno County and John Roncoroni of Napa County CE in the Lodi Grape Day, February 2, 2010 section on the following webpage:

http://cesanjoaquin.ucdavis.edu/agriculture419/Grape_Reports_&_Presentations.htm

If you have related questions, check in at <http://ipm.ucdavis.edu> or <http://wric.ucdavis.edu/>

Be on the watch for gophers, as they remain active and are already establishing new burrows. Trapping, baits, or even a couple of good cats can reduce population levels. Gopher populations were high last year and may carry over into this year. Ground squirrels may become active soon with the warm, dry weather. Unfortunately, they begin feeding on seedling grasses, but can be dealt with by initially putting out toxicant-free bait, to get them used to feeding on it, prior to placing actual control bait. Smoke bombs in burrows or acute lead poisoning with a long rifle also work.

As spring arrives, be aware of soil moisture conditions and plant water demand, but be careful about “getting too far ahead.” If there are soil problems to deal with such as pH issues or water infiltration, soil amendments or physical mixing may be needed. After plant growth is well developed and temperatures have warmed, the macro-nutrients nitrogen or potassium can be effectively applied. For vines, that’s after bloom. For micro-nutrients, earlier is better, as early spring growth is needed for efficient uptake of nutrients such as zinc and boron. Besides the cost efficiency, more attention is being directed to anything that goes on the ground with a potential for leaching by irrigation or rainfall.

Budget problems and possible cutbacks of 39% this year can make you think about the future and the past. I recently dug up information on the line of farm advisors in San Joaquin County working in grapes. The following is a summary of the gentlemen who established the respected program from which the growers and I have benefited for the last 24 years:

1914 San Joaquin County Farm Bureau established by grower vote. A twenty percent commitment of county growers (600/3,000) was required; with annual membership dues of One U.S. dollar. This qualified San Joaquin County to have a University farm advisor assigned to the county. His county budget was \$1,000.

1914-1917	Frank Lyons	Resigned
1917-1919	Ralph D. Robertson	Died January 6, Influenza epidemic
1919-1928	J. W. Adriance	Tokay Grape Day, retired June 30
1928-1943	O. V. Patton	Died of heart attack at home
1943-1947	Clark Swanson	Returned to farm in Escalon
1947-1949	Loren A. Estabrook	County Director, temporary advisor
1949-1958	Gordon F. Mitchell	Lodi Grape Day became Pomology specialist UC Davis
1958-1986	James J. Kissler	Introduced machine harvesting, research, Viticulture Round Table, premium wine varieties Retired June 30, 1986

The Lodi District Grape Growers have a scholarship foundation in memory of James J. Kissler. It is a program for local students planning to attend any college or university and follow an agriculture related course of study. Contact Amy Blagg at info@ldgga.org if your budget allows for a donation.

Two thoughts to end on (whether working in agriculture and small business or not):

*Every blade of grass is a study; And to produce two, Where there was but one,
Is both a profit and a pleasure. And not grass alone; But soils, seeds, and
seasons*

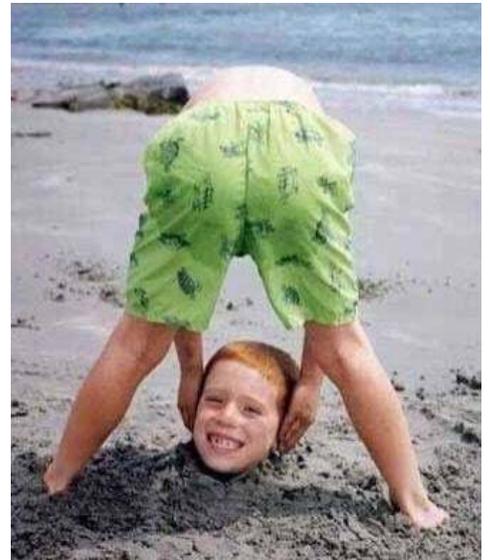
*Hedges, ditches, and fences, Draining, droughts, and irrigation -- Plowing,
hoeing, and harrowing -- Reaping, mowing, and threshing -- Saving crops,
pests of crops, diseases of crops, And what will prevent or cure them --
Implements, utensils, and machines,*

*Their relative merits, And [how] to improve them -- Hogs, horses, and cattle --
Sheep, goats, and poultry -- Trees, shrubs, fruits, plants, and flowers -- The
thousand things Of which these are specimens -- Each a world of study within
itself.*

Abraham Lincoln, Milwaukee, 1859

*The study of history is a powerful antidote to contemporary arrogance.
It is humbling to discover how many of our glib assumptions, which seem
to us novel and plausible, have been tested before, not once but many
times and in innumerable guises; and discovered to be, at great human
cost, wholly false.*

Paul Johnson



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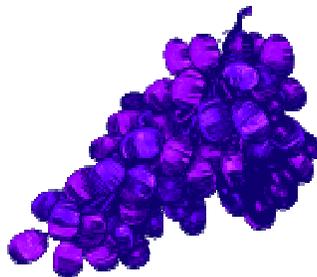
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Grapevine

Paul

Paul Verdegaal, Farm Advisor
March 2010