Orchard Notes
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University of California
Agriculture and Natural Resources | Cooperative Extension

In This Issue

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Save the Date!

Kiwi Grower Meeting: Vine Cankers

Thursday, May 1, 2025, 1 - 2 PM
142 Garden Highway, Yuba City 95991

Dr. Akif Eskalen (UCCE Specialist in Plant Pathology) will discuss kiwi vine cankers causes and symptoms

Click this link or scan QR below to register

2025 Peach Harvest Timing

Peach harvest can be predicted fairly accurately by the temperatures in the first 30 days following bloom. Other factors such as weather near harvest, soil, tree nutrition, and water status can also have some effect on harvest date. On average, we accumulate about 6,000 growing degree hours (GDH) during the first 30 days after bloom. Accumulation of much more than 6,000 GDH in the first 30 days after bloom leads to earlier harvest dates and smaller fruit size under normal thinning practices.

The UC Davis Fruit & Nut Information Center hosts a peach harvest prediction model that calculates GDH based on CIMIS stations and predicts harvest dates of select cultivars.

This table provides full bloom dates for Sutter-Yuba Counties and growing degree hours 30 days after bloom (GDH_{30}). It also includes the general harvest timing from 2004-2024 and the prediction for 2025.

Year	Full Bloom	GDH_{30}	Harvest Timing Prediction
2025	Mar 7	5,301	Slightly Later Than Normal
2024	Mar 12	5,909	Normal
2023	Mar 13	4,518	Later Than Normal
2022	Mar 4	6,634	--
2021	Mar 8	5,249	--
2020	Mar 3	4,726	Later Than Normal
2019	Mar 19	6,950	Late
2018	Mar 12	6,403	Slightly Early
2017	Mar 10	7,315	Slightly Early
2016	Feb 26	6,352	Very Early
2015	Mar 8	7,955	Very Early
2014	Mar 14	6,510	Slightly Early
2013	Mar 13	7,397	Early
2012	Mar 8	4,621	Later Than Normal
2011	Mar 14	4,963	Later Than Normal
2010	Mar 12	5,060	Later Than Normal
2009	Mar 16	6,117	Slightly Later Than Normal
2008	Mar 10	5,548	Normal
2007	Mar 9	7,420	Early
2006	Mar 14	4,375	Very Late
2005	Mar 3	6,153	Normal

Note: Sutter County Verona CIMIS weather station was used to calculate GDH_{30} for 2013-2025. Colusa CIMIS station was used to calculate 2012 and Nicolaus CIMIS station was used to calculate 2003-2011.

Why it's important to thin peaches early

At the end of the day, cling peach growers want high fruit yields with large size. Yield and growth are influenced by two separate, but interdependent processes: assimilation processes that supply carbohydrates and nutrients, and developmental processes that create a demand for these resources. The interaction of these can make it challenging to get the most, largest fruit.

Assimilation processes like carbohydrate movement and photosynthesis do not depend on cultivar genetics, but do depend on leaves and environmental factors, including temperature. The availability of carbohydrates around bloom time affects fruit development – the demand for carbohydrates is high at this time when fruit is growing quickly but leaves are not yet developed to create enough sugar.

Meanwhile, development processes dictate how large a fruit can grow at a specific time via a relative growth rate function. Relative growth rate is genetically determined per cultivar and can be likened to compound interest rate function. The largest a fruit can become (growth potential) is a function of its size at the beginning of growth phase (akin to a principal deposit) and its developmental pattern (some amount of interest) over time. Ideal conditions for the largest possible fruit size (largest payout) are cool temperatures in the 30 days after bloom with each fruit receiving the maximum amount of carbohydrates and nutrients. However, a high crop load can reduce the amount of nutrients each fruit gets and negatively impact fruit size.

The timing of thinning is important for sizing because starting with a high principal early in the season allows for a greater amount of interest (growth) to accrue until harvest – think about all the advice about how it's better to start saving a little for retirement when you're young vs. trying to save a lot when you're older!

When you thin, you reduce the number of fruits on the tree, so that each fruit has less competition for nutrients. In terms of the compound interest rate analogy, think of having $100 to deposit. Split among 10 fruits at bloom, each fruit will start with $10, and then start collecting interest on that. But if you thin later, more fruits will be present, and then maybe you'll have to split $100 amongst 20 fruits. They will each only start with $5 AND not have as long to collect interest.

Some factors that can limit growth potential:

- Carbohydrate deficit or water stress during the first stage of fruit growth about 30 days after bloom will reduce your "principal deposit."
- High temperatures in the 30 days after bloom – fruit will develop faster and harvest will be earlier, which means less time to "collect interest" for growth.
- High crop load can reduce the amount of nutrient delivered to each fruit.

Data from prior experiments in thinning peaches at different times show that earlier thinning can result in larger fruit size, higher crop load, and higher yields at harvest.

Cultivar & Thinning Date	Fruit size (g FW/fruit)	Cropload (fruit/tree)	Yield (tons/acre)
Loadel			
March 20	113.3 ± 1.4	1681 ± 64	22.9 ± 0.8
May 18	91.9 ± 2.4	1649 ± 40	18.3 ± 0.6
Carson			
March 20	127.8 ± 4.7	1576 ± 74	24.0 ± 0.8
May 18	108.2 ± 2.5	1427 ± 53	18.6 ± 0.8
Andross			
March 21	123.6 ± 2.1	1888 ± 96	28.0 ± 1.1
May 18	115 ± 1.7	1766 ± 58	24.6 ± 1.1
Ross			
March 27	163.9 ± 7.0	1862 ± 99	32.7 ± 1.0
May 18	163.9 ± 3.2	1638 ± 69	29.2 ± 1.3

Table 1. Fruit yield data from four clingstone peach cultivars in commercial orchards near Kingsburg, CA that were thinned on two different dates in 1992. Data are means ± standard error for six 4-tree replicates per cultivar and thinning date, adapted from DeJong et al., 1992.

If you wait to thin until reference date comes around, you have already lost out on early season growth potential. Once you lose that potential growth, you can't regain it because you're compounding on a principal. Crop load adjustments should be made as early as economically feasible, especially in years of heavy fruit set.

Mobile Irrigation Lab

The Mobile Irrigation Lab (MIL) from Yolo Resource Conservation District provides an **irrigation evaluation** to determine areas to improve irrigation efficiency at no cost and with no application process. It also provides **free pump testing** on most systems when you schedule an evaluation (these are required for CDFA's SWEEP grants which are expected to reopen next year).

It will be starting at the end of April in the Southern Sacramento Valley for Colusa, Sutter, Yolo, and Yuba counties.

Currently, this upcoming irrigation season is the last summer with guaranteed funding to provide our irrigation services for free. Sign up to take advantage! Below is a brief overview of the process:

1. Schedule an evaluation for a day that you are already planning to irrigate
2. MIL will collect data pertaining to the pump, pressures, flows, leaks, plugs, etc. throughout the system
3. MIL will write an individualized and confidential report for you highlighting observations from the field
4. MIL will return the report to you and discuss any questions you may have

The easiest way to schedule an evaluation is to contact Conor Higgins at 530-661-1688 ext. 4 or higgins@yolorcd.org. Assistance is also available in Spanish.