

1999-2000 Annual Report

Pomology Weather Services on the World Wide Web

Donna Seaver, Program Representative, Fruit and Nut Research and Information Center
Louise Ferguson, Extension Pomologist, University of California, Davis

Summary: This project enhances a project funded in 1998 by the Almond Board of California. The initial project developed a Web interface providing current daily chilling unit accumulations and 5-year historical chilling accumulations, from all California Irrigation Management Information Systems (CIMIS) weather stations. The calculation method was based on hours below 45°F. The system also provides data from a substitute station when the selected station is inactive. This year's project provides two additional methods of calculation: hours between 32°F and 45°F, and the Utah model.

Results: A new user interface and additional programming were needed to accommodate the selection and results of the three calculation methods. Web pages were redesigned and programming changes made, with input from users of last year's program, to:

- easily compare current accumulations for each method
- display historical data for the entire season
- change header, on the pages displaying cumulative data, to reflect years covered within the season, e.g., 98-99
- add periodic headers, on the pages displaying cumulative data, for easier readability
- better distinguish legend codes from daily accumulations
- add alpha links for the initial table of county names
- link to Web pages displaying county maps and the location of each CIMIS station

Programming, design changes, and testing were completed. New weather stations were added and inactive stations removed from the weather database. Hourly weather data is being download from CIMIS on a daily basis.

Conclusion and Practical Application: The updated Web site, reflecting the addition of two new calculation methods, was accessible on November 1, 1999 at <http://fruitsandnuts.ucdavis.edu/weather>. The initial chill unit entry page (http://fruitsandnuts.ucdavis.edu/weather/fruit-chill/chill_stations.exe) received the following hits:

Nov. 08, 1999 – Dec. 7, 1999:	329 hits
Dec. 12, 1999 – Jan. 10, 2000:	753 hits
Feb. 10, 2000 – Mar. 10, 2000:	828 hits

This project provides growers the ability to assess whether sufficient chilling units have accumulated, to date, and to compare current and historical accumulations. The data can also be used to determine if the location of a proposed orchard site accumulates sufficient chilling units for successful almond production. The ability to compare accumulations from different calculation methods will be an excellent resource for researchers and growers to further understand the chilling models and chilling requirements.