

**Final Report to the Elvenia J. Slosson Endowment
California Garden Web-Years I & II
Pamela Geisel
September 1, 2009**

Principle Investigators:

Name	Title	Status	affiliation	email	phone
Pamela M. Geisel	Director Statewide Master Gardener Program	PI and Project/content coordinator	ANR UC Davis	pmelam@ucdavis.edu	530.754.6000
Dennis Pittenger	CE Area Environmental Horticulture Advisor	Co-PI Project/content coordinator	ANR UC Riverside	dennis.pittenger@ucr.edu	951.827.3320
Loren Oki	CE Assistant Specialist Landscape Horticulture	Cooperator/content Advisory Committee	ANR UC Davis	lroki@ucdavis.edu	530.754.4135
Mary Lou Flint	Director, Urban IPM Program	Cooperator Content/pest management	UCIPM UC Davis	mlflint@ucdavis.edu	530.752.7692
Chuck Ingels	Farm Advisor Environmental Horticulture/Pomology	Cooperator/content Advisory committee	ANR/CE Sacramento County	caingels@ucdavis.edu	916.875.6913
Katherine Jones	Master Gardener Coordinator	Cooperator/content Advisory committee	ANR/CE San Mateo/San Francisco County	kajones@ucdavis.edu	650.726.9059 ext. 109
Steven Swain	Farm Advisor Environmental Horticulture	Cooperator/content Advisory committee	ANR/CE Marin County	svswain@ucdavis.edu	415 .499.4204
Dave Burger	Professor, Environmental Horticulture	Cooperator/content Advisory committee	AES UC Davis	dwburger@ucdavis.edu	530.752.0398
Vince Lazaneo	Farm Advisor Consumer Horticulture	Cooperator/content Advisory committee	ANR/CE San Diego County	vflazaneo@ucdavis.edu	858.694.2859
Donna Seaver	Program Representative	Statewide Master Gardener Program	ANR UC Davis	dcseaver@ucdavis.edu (retired in June 2009)	

Project Proposal Summary:

The purpose of the California Garden Web is to facilitate the communication of knowledge about the practices of sustainable home horticulture, focused on the identified core issues, to a three tiered audience, which includes master gardener coordinators, master gardener volunteers and our primary home horticulture clientele in California. Expected outcomes will include increased awareness of master gardener programs in California, increased expertise of California master gardeners and our home garden clientele. The project will also improve the consistency with which master gardeners respond to horticultural questions throughout the state and to unify the master gardener programs by providing greater access to policy and management information for coordinators. Desired impacts include reduced pesticide use, reduced surface water run off, reduction or prevention of the introduction of invasive species, and increased knowledge and use of sustainable landscape practices by California consumers.

Budget Summary:

April 30, 2007 to June 30, 2008: \$45,000.

March 1, 2008 to June 30, 2009: \$49,350.

II. Project Description and Completed Work:

Introduction:

The purpose of the California Garden Web is to facilitate and communicate knowledge about home horticulture to a three tiered audience:

1. master gardener coordinators
2. master gardener volunteers, and
3. Primarily home horticulture clientele in California. For the home gardener, the focus of this website is to create a centralized UC resource for research- based information, emphasizing sustainable landscape practices that protect water quality and quantity and enhance the environments and communities in

which we live. It is focused on consumer oriented issues and will include regionally relevant horticulture resources such as gardening on the north coast, high desert, inland valley, etc. It will be linked to plant answers similar to those developed in the eXtension Communities of Practice “Frequently Asked Questions” (FAQ) for consumer horticulture but will be specific to California. It will have linked pages devoted to the high performing landscape plants in California. It would also serve as a portal for linkages to other significant web-based projects suitable for consumer horticulture audiences such as UC IPM, UC ANR publications in home horticulture, the UC Backyard Orchard, the Research and Information Centers (RICs) and the School Gardens program. The developing consumer-oriented website can be viewed at <http://cagardenweb.ucdavis.edu> user name= cagardenweb; password =CAGarden4*

Year 1 Completed Work: During the first grant cycle and through the generous funding of the Elvenia Slosson Endowment, we completed significant work on content for our first two audiences: Master Gardener volunteers; and Master Gardener coordinators. The December 2007 California Garden Web Year II Slosson grant proposal included a description of that work. The following screen shots show examples of the work.

As shown below, the Statewide Master Gardener Program's site includes program information for the public, links to pages specifically for volunteers, and links to a password-protected site for coordinators.



The password-protected site for coordinators includes a multitude of administrative tools and tips, and a newsletter for coordinators.



Project Progress Year II.

This past year, the two sites mentioned above continued to be updated, including a new registration and informational site for the Statewide Master Gardener Conference and an Expert Speakers Database.

We also invested in a major redesign and enhancement of the Volunteer Management System^{2.0} (VMS). This online system was initially developed by ANR Communication Services (ANR CS) as a tool for Master Gardeners to record their hours and manage their projects/calendars and for coordinators to manage their program. The first version was less than user-friendly and not readily adopted by our users. The new system was redesigned following a meeting convened by the Statewide Master Gardener Program composed of coordinators and volunteers who often used the existing system. All were asked for input on how to make the system work better. The "wish-list" was taken to ANR CS and analyzed by Dave Krause for do-ability. Dave developed an entirely new system that is being embraced by Master Gardeners due to its ease of use, awareness of the system and training provided by Pam Geisel, and an online help system with short videos and print materials. Reported volunteer hours increased by almost 100,000 hours in one year. The following two screen shots show the VMS home page and one of the help system pages.

Two other components of this site, in development, are an online recertification system and a Frequently Asked Question (FAQ) database that will be internal to the Master Gardeners and used as a statewide hotline resource.

The top screenshot displays the 'Master Gardener VMS 2.0 - Home' page in a Windows Internet Explorer browser. The page features a header with the UCCE logo and navigation links: Home, Logout, ANR Portal, and Help. A personalized greeting 'Hello, Donna Seaver!' is shown. The main content area includes a 'Welcome!' message, a 'Your Information' sidebar with links like 'Edit Your Profile' and 'Add New Hours', and a 'Latest Statewide News' section with a headline about the 'Conference Registration Deadline Extended to Nov. 30, 2008'. A 'Your Hours' table shows 'Volunteer Hours' as 8 and 'Continuing Education Hours' as 4. There is also a 'Search FAQs' section with a search box and a 'GO' button.

The bottom screenshot shows the 'Master Gardener Volunteer Management System - VMS Administration Documentation' page. It features a 'Main Menu' sidebar with links such as 'What is the VMS?', 'Logging in to VMS', 'Site Overview', 'Your Information', 'Event Calendars', 'General Information', 'VMS Administration Documentation', 'VMS', and 'UC Master Gardener Program'. The main content area is titled 'VMS Administration Documentation' and contains a 'TABLE OF CONTENTS - ADMINISTRATION DOCUMENTATION'. It lists sections for viewing PDFs, including 'Administration Section 1—VMS System Overview & Documentation Conventions', 'Section 2—Accessing VMS' (updated 8/21/08), 'Section 3—VMS Administration Site Overview' (updated 8/21/08), 'Section 4—Manage VMS' (updated 8/21/08), and 'Section 5—Manage Roster'.

The third component of our web project and the major focus of the second grant cycle was the **California Garden Web – the UC gardening portal**. The web committee guiding development of this site has met several times in year II and determined the format, style, and structure for this site. Content, for several sub-categories, has been created by committee members and implemented by the program representative. The site was password-protected during development: <http://cagardenweb.ucdavis.edu>;

Decisions made by the committee included:

- link to only UC material and sites, unless we cannot find appropriate UC information, e.g. Selectree at CalPoly.
- To use a “Q&A format for organizing materials on the site.
- link directly to UC IPM when appropriate.
- use the model implemented by Integrated Viticulture Online <http://iv.ucdavis.edu>, and ANR's site builder and datastore/database for ease of long-term maintenance. Within that structure include categories for topic; overview; publications; and associated links. Include photos or graphics on all pages.
- use examples and updated content from the *Master Gardener Handbook*. We were able to get electronic copies of the Handbook from ANR Communication Services
- when linking to a table or chapter from the *Master Gardener Handbook*, include a "Buy Publication" link to the ANR Communication Services catalog.
- use, in general, a question & answer format, instead of staid content titles.
- content is developed by committee members and will be peer reviewed by other committee member.

The home page, shown below, includes a weekly gardening tip, with photo; a 4-photo rotation, with every load of the page; and a welcome statement. The footer includes links to "Our team;" the Statewide Master Gardener Program; the Elvenia J. Slosson Ornamental Horticulture Research Endowment; a warning on the use of chemicals; and a disclaimer. The focus has become a Question and Answer Format

Looking at the navigation bar, we've completed the main content categories for: lawns; trees, shrubs, and vines; poisonous plants; and classes & events. The current home page is shown below.



Content has been submitted for all topics listed in the navigation bar and include:

This site addresses development and implementation of core issue materials, outreach materials, and web activities. The current site structure follows:

[Gardening Basics](#)

☒ [Your Climate Zone](#)

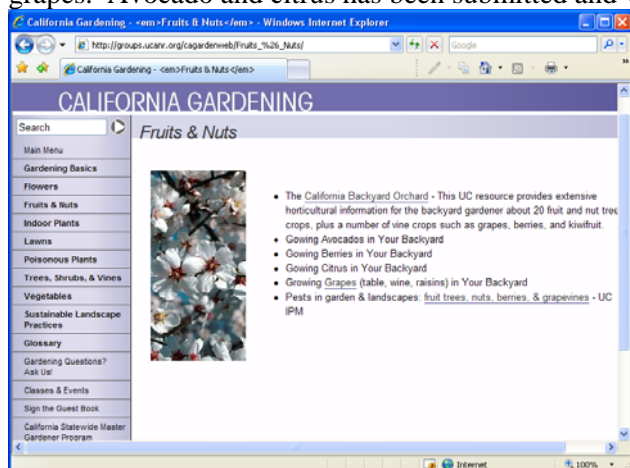
1. [Find You Local Master Gardener](#)

2. [Pests, Diseases, Weeds](#)
3. [Vegetables](#)
4. [Nut & Fruit Trees & Vines](#)
5. [Landscape Trees, Shrubs, & Vines](#)
6. [Lawns](#)
7. [Flowers](#)
8. [Indoor Plants](#)
9. [Poisonous Plants](#)
10. [Glossary](#)
11. [Classes & Events](#)
12. [Tell Us - Has this site helped you or changed your gardening practices?](#)

The Gardening Basics category includes several subsections, as shown below. Content is complete for: Sustainable Landscape Practices, Pests, Diseases, Weeds, & Pesticides – linking directly to UC IPM; and Invasive Plants. Content has been submitted for: Soil & Fertilizer Management; and Fire Protection.



The Fruits & Nuts section, as shown below, links to the California Backyard Orchard with original content for grapes. Avocado and citrus has been submitted and will be added in late 2009.



We conducted usability testing in early December 2009, based on the content that is complete to that date. The feedback we got vastly improved the navigation and content organization for this site.

The following screen shots show the substructure of this site: how this site is using a modified Integrated Viticulture Online model; the Q & A format; a few of the completed pages; links to the ANR catalog; and inclusion of photos.

The image displays three overlapping screenshots of the "California Gardening" website, illustrating its structure and content. Each screenshot shows a browser window with the site's URL and a sidebar menu on the left.

Top Screenshot: "Growing Grapes (table, wine, raisins) in Your Backyard"

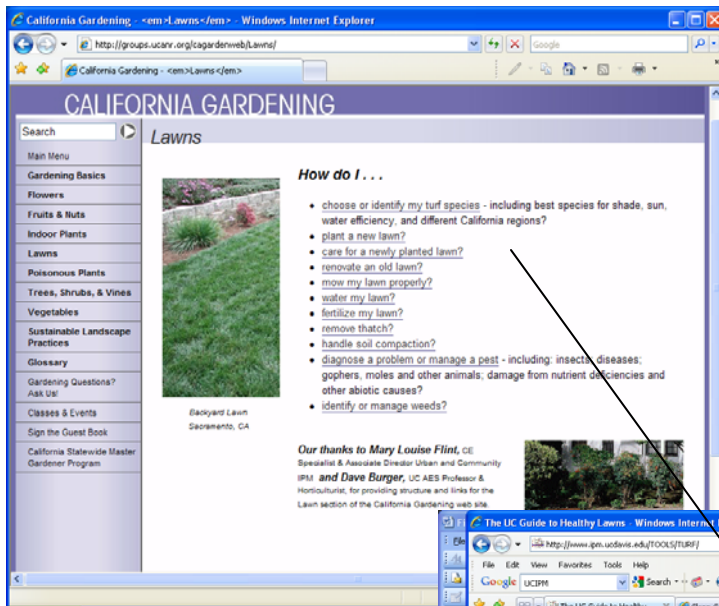
- Search:** A search bar with a magnifying glass icon.
- Left Sidebar:** A vertical menu with categories: Main Menu, Gardening Basics, Flowers, Fruits & Nuts, Indoor Plants, Lawns, Poisonous Plants, Trees, Shrubs, & Vines, Vegetables, Sustainable Landscape Practices, Glossary, Gardening Questions? Ask Us!, Classes & Events, Sign the Guest Book, and California Statewide Master Gardener Program.
- Header:** "CALIFORNIA GARDENING" in large blue letters.
- Section Header:** "Growing Grapes (table, wine, raisins) in Your Backyard" in a light blue banner.
- Image:** A photograph of a bunch of dark purple grapes hanging from a vine, labeled "Black Monnuka".
- Content:** A list of topics and questions:
 - Glossary of grape growing terms
 - Overview
 - What are the sunlight, soil, and space requirements for a backyard vineyard?
 - When would I use rootstocks?
 - What varieties are best for my backyard?
 - What do I need to know about growth and fruiting?
 - How do I...
 - propagate new vines?
 - provide structural support for the vines?
 - plant and care for young vines?
 - train and prune mature vines?
 - manage the canopy and clusters in the spring?
 - manage insects, diseases, weeds, and other pests and disorders?

Middle Screenshot: "How do I train and prune mature vines?"

- Search:** A search bar with a magnifying glass icon.
- Left Sidebar:** Same as the top screenshot.
- Header:** "CALIFORNIA GARDENING" in large blue letters.
- Section Header:** "Growing Grapes in Your Backyard" in a light blue banner.
- Topic:** "How do I train and prune mature vines?"
- Overview:** A paragraph explaining the goal of pruning: "The goal in pruning is to leave an appropriate number of one-year-old fruiting branches (spurs or canes) to provide optimum fruit production without excessively dense vegetative growth. Pruning also aids in balancing vegetative growth and fruit production. Grapes are pruned while vines are dormant. See [What Varieties are Best for My Backyard?](#) to understand the reasons for using spur vs. cane pruning, and which varieties receive which method."
- Image:** A photograph of a bare, trained grapevine in a field, labeled "Long arms".
- How do I...:** A list of topics:
 - train and prune mature vines?

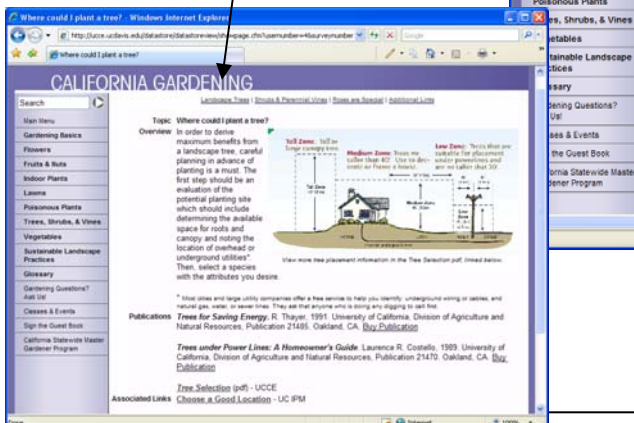
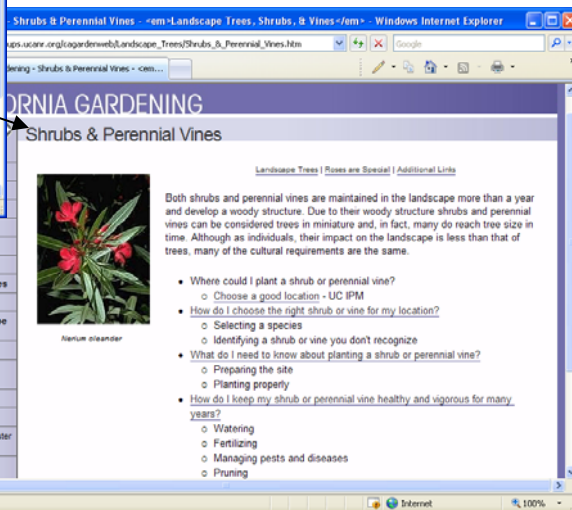
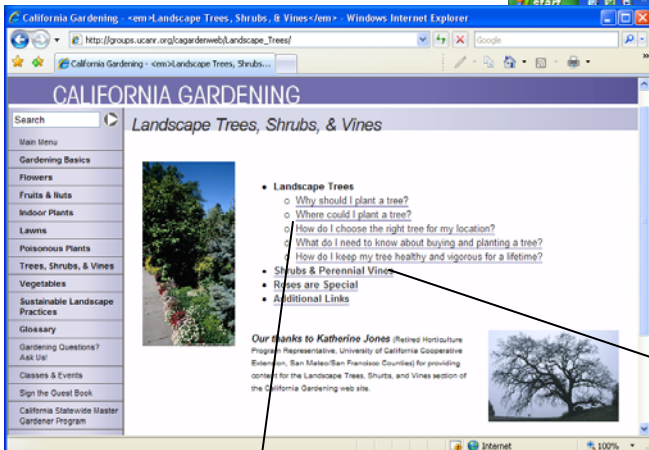
Bottom Screenshot: "What varieties are best for my backyard?"

- Search:** A search bar with a magnifying glass icon.
- Left Sidebar:** Same as the top screenshot.
- Header:** "CALIFORNIA GARDENING" in large blue letters.
- Section Header:** "Growing Grapes in Your Backyard" in a light blue banner.
- Topic:** "What varieties are best for my backyard?"
- Overview:** A paragraph explaining the variety of grapes: "A large number of grape varieties are available in California. Varieties are divided into table grapes and wine grapes according to their primary use. Some are suitable for multiple uses and may have secondary uses in making juices or jellies. American and American hybrids are typically grown for table grapes, raisins, juice, or jelly. Table grape and multiple-use type varieties are the ones most commonly grown by home gardeners. They are usually adapted to a range of local conditions and training systems. Numerous varieties are available, and suitable ones for various climate zones are listed in tables 15.1 and 15.2, linked below."
- Image:** A photograph of a bunch of green grapes hanging from a vine, labeled "Thompson Seedless".
- Publications:**
 - Cultural Information for Selected Table Grape Varieties:** Table 15.1 (pdf). Pages 421-422 in *California Master Gardener Handbook*. Geisel, P., Farnham D., and Vossen, P. 2002. Pittenger, editor. University of California, Division of Agriculture and Natural Resources, Publication 3338. Oakland, CA. [Buy Publication](#)
 - Cultural information for selected American and American-European hybrid seedless table grape cultivars:** Table 15.2 (pdf). Pages 421-422 in *California Master Gardener Handbook*. Geisel, P., Farnham D., and Vossen, P. 2002. Pittenger, editor. University of California, Division of Agriculture and Natural Resources, Publication 3338. Oakland, CA. [Buy Publication](#)
 - Raisin Grape Varieties** (pdf). Christensen, L.P. 2000. Pages 38-47 in: *Raisin Production Manual*.



The Lawn Care section
Links to the UC Guide
To Healthy Turf.

The following three screen shots
Show the links in Tree section.



We met our project goals and outcomes:

1. Overall purpose, goals and specific objectives:
The purpose of the California Garden Web is to facilitate the communication of knowledge about the practices of home horticulture to our primary home horticulture clientele in California.
2. Goals/objectives:
 - A. To continue to create a centralized UC researched-based web resource that emphasizes sustainable landscape practices that protect water quality and quantity, and enhance the environment and would include information on sustainable design such as swales, hydrozones, addition of organic soil amendments, water auditing, and soil amendments.
 - B. To create a comprehensive online reference tool for the California master gardener and home gardener that is regionally relevant and research-based.
 - C. It will link to regionally appropriate high performing plants for California.
 - D. It ties together and serves as a portal to important tools for master gardeners/home gardeners including: UC IPM, ANR Catalog, Center for Urban Horticulture, UC RICs, California Backyard Orchard, eXtension FAQs, UC related arboreta, UCTV, and Integrated Viticulture.

We are meeting or moving toward our expected outcomes, and impacts, including:

- Increased access and better dissemination of existing UC web-based information to home gardeners, master gardeners and coordinators.
- Unified, credible and centralized sources of information.
- Coordination and support activities related to master gardeners and urban horticulture.
- Reduced water and pesticide use because of better garden design, plant selection and improved horticultural practices.
- More awareness of the core issues of ANR by master gardeners and coordinators and clientele.
- More knowledgeable master gardeners that extend research-based information.
- Raise the profile of UC ANR for the California public as a source of credible and reliable home garden information.

We appreciate your support for this project.