University of California Cooperative Extension
Central Coast & South Region

Center for Landscape and Urban Horticulture

Selecting a Smart Irrigation Controller

Sample smart irrigation controllers. There are many brands, formats, and technologies to choose from.

Selecting A Smart Irrigation Controller

In addition to cost, consider your answers to the following questions before purchasing a smart irrigation controller product:

- What type and amount of technical information about the landscape and irrigation system to be managed are needed to set up this product? Am I qualified to develop and supply this data?
- How does the product use the set up information to calculate irrigation amounts and schedules? Does this approach make horticultural sense?
- How user friendly is the controller interface?

Following are other specific points to consider when deciding if a smart controller is right for you and choosing which one might perform best in your situation.

Installing a smart controller does not:

- guarantee less water will be applied to a landscape.
- assure that plants receive the proper amount of water or that optimum irrigation schedules are provided.
- eliminate the need for human interaction in landscape irrigation management.
- automatically minimize runoff.

Smart controllers require:

- the input of accurate technical horticulture information and irrigation system performance parameters in order to be setup effectively.
- someone with technical knowledge and experience in determining landscape plant water needs, soils, and other parameters to set up the controller and evaluate its performance.
- tweaking of schedules and/or input data after the initial setup in order to produce water conserving schedules that meet the needs of plants being irrigated and the site's water budget.
- an irrigation system with a high degree of uniformity in applying water.

A properly set up and adjusted smart controller can:

- save water
  - if designed with algorithms and input parameters that accurately reflect plant water needs and landscape variables.
  - the site is currently over watered.
- reduce runoff if the slope and irrigation precipitation rate are accounted for in the setup parameters and algorithms that calculate schedules.

- automatically and effectively modify irrigation schedules in tune with weather changes provided the initial schedules and input information are carefully evaluated and adjusted to assure that plant water needs are met.
- reduce on-site visits by landscape irrigation managers to adjust irrigation schedules.

Click here for the complete article on smart controllers.

Resources on Smart Controllers:

- Smart Controller Sources
- Evaluation of Weather-sensing Irrigation Controllers
- Review of Weather Based Technology
- Summary of Smart Irrigation Controller Studies-2008 U.S .Bur. of Reclamation Report
- Water Conservation, Runoff Reduction, Water Quality Impacts with Smart Irrigation Controllers in Orange County, CA-2008 MWDOC Report

Miscellaneous information on landscape and water conservation:

- Irrigation Calculation Worksheet
- California Irrigation and Management Systems (CIMIS)
- Lawn Watering Guide for California
- Mulches: Water Retention and Evaporative Properties
  Abstract
  Full Article
- Questions and Answers about Water Conservation and Drought in the Landscape
- U.C. Landscape Irrigation System Evaluation and Management Handbook
- Easy Calculators for Estimating Landscape Water Needs

June 29, 2010