



UC Marin Master Gardeners
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Advice to Grow By ... Ask Us!

FINE TUNE YOUR IRRIGATION SYSTEM TO FIT EACH PLANT'S NEEDS

By Elizabeth Patterson, Marin Master Gardener

After weeks of cool, wet weather, most Marin gardeners are not thinking about watering or irrigation. However, winter is a good time to develop strategies for conserving water in the garden and preparing for the dry season ahead. Adjustments made now will conserve both water and money after the rains stop.

Water-wise gardening takes into account the water requirements of plants in the garden, as well as the efficiency with which their water needs are being met. Winter is the perfect time to move plants around in the garden. Take this opportunity to cluster plants with similar water needs so that they can be watered separately. This way, the entire garden won't need to be over watered to meet the needs of some thirsty plants.



The best source of information on the water requirements of landscape plants is at [A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California](#). In it, gardeners will find classification of water needs for over 1900 species of plants used in California gardens. This guide alone could take a long, wet winter to figure out, but the data on water requirements of plants will help you to cluster plants by their watering needs.

Plants should also be moved if they are not content in their current microclimate. For example, shade-loving plants should be kept out of summer sun and will require less water if they are moved to a shadier location. Plants that are in the way of irrigation sprays should be moved or pruned as well.

Winter can be a good time to plant. Planting now will help get young plants off to a good start by taking advantage of moist soil and the remaining rains of winter. Just be careful not to compact wet soil in the process. To lower summer water requirements, select plants adapted to our dry-summer climate. An excellent resource for water-wise gardeners is [Plants and Landscape for Summer-Dry Climates of the San Francisco Bay Region](#), published by the East Bay Municipal Utility District.

In addition to fine-tuning the placement of plants in the garden, winter is an excellent time to fine tune an irrigation system. Ideally, an irrigation system is divided into separate stations that water plants with similar water needs in a uniform microclimate. You will be rewarded with healthier plants and lower water bills when your irrigation system distributes water evenly and efficiently.

Take the time now to understand and adjust the features of your system before you desperately need it to water plants this summer. If that task seems overwhelming, enlist the help of an expert. The [Marin Municipal Water District](#) website lists landscape contractors that are trained in their WEL (Water Efficient Landscaper) Program.

If you are really in deep water and have water usage that pushes water rates into the costly Tier 4 bracket, look into MMWD's Tier-4 exemption process. MMWD set up their tiered billing system to give customers a financial incentive to conserve. The Tier 4 exemption process requires consumers to comply with a checklist of water conservation measures and to pass an inspection. Once they have done so, Tier 4 usage is billed at the Tier 3 rate, which is 33% lower.

Once an irrigation system is efficiently meeting the needs of garden plants, it should be adjusted to reflect local weather conditions using evapotranspiration (ET) rates. ET is the amount of water lost through the plant's leaves

(transpiration) and evaporated from the soil and is the amount of water a plant requires to thrive.

ET rates and the amount of water plants need are affected by environmental factors, such as temperature, solar radiation and wind. These variables change seasonally, weekly, even daily. Temperature changes and day length are key seasonal changes. Water needs in April and September can be approximately 30% below peak July water needs.

A great way to save water is to make weekly adjustments to your irrigation system by using the [Weekly Watering Schedules](#) section of the MMWD website. For a high tech approach, sophisticated irrigation systems are becoming available commercially that adjust irrigation runtimes daily based on downloaded ET rates.

Enjoy the respite from watering worries, but while it rains, take the time to become a water-wise gardener. Come summer, you'll be glad you did.

More resources from the UC IPM website:

<http://www.ipm.ucdavis.edu/QT/landscapedesigncard.html>

<http://www.ipm.ucdavis.edu/QT/landscapeplantscard.html>