Garden Notes

"Creating edible and ornamental gardens"

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December 2014

Welcome to the SC Garden Club newsletter!

❧ ***Please send us questions about gardening--****we will do our best to answer them!*

Succulents: What makes them so water-wise?

Succulents have thickened stems or leaves that store water, usually as an adaptation to life In an arid climate. Water is stored in a gel-like substance which you can see if you break apart a leaf or stem. This is especially evident in aloe leaves. Since most water is lost through leaf surfaces, some, such as cacti, have reduced their leaves to spines. Many are pale-colored which helps reflect sunlight. Water loss is often slowed down by a waxy coating. Most evaporation takes place through stomates, pores which take in carbon dioxide and allow oxygen and water to escape. This loss can be reduced by having fewer stomates, or by sinking them below the leaf surface so that escaping moisture pools in the depression and takes longer to evaporate. A local high humidity zone can also be created by covering the surface with hairs that trap water vapor. Hairs and spines create a bit of local shade on the leaf too, and slow down water loss in windy conditions. Some succulents (and other plants) keep stomates closed during the day while they collect light energy and store it in chemical bonds. Then, during the cooler night, they open their stomates to collect carbon dioxide, and use the energy they stored to make it into sugar. Some plants, such as the stapelia featured at right and barrel cacti, have ridged stems with sides that sink in as water is used up and then plump up when water is available. Often stems, like those of the beavertail cactus, are held vertically to reduce the amount of heat hitting the surface. Agave leaves funnel rain down to their roots. These and other adaptations make succulents excellent choices for Claremont gardens!

Favorite quote: (courtesy of Sharron Neyer)

"All gardening is landscape painting." Alexander Pope

Ornamental of the Month

Stapelia grandiflora

"Starfish flower" is a spreading succulent about 6" tall. The 5", hairy flowers are fly-pollinated so they smell a bit like rotten meat, but this is hardly noticeable out of doors. Blooming now. Good in the ground or in pots; moderate water, less in winter; light shade. Stem cuttings laid flat on ground will root. This specimen was given to me by Steve and Susan Tarvin.

Edible of the Month

Foeniculum vulgare

Fennel (left) is a perennial herb up to 6' tall with feathery leaves. Leaves, flowers, and seeds have a licorice flavor, similar to anise. Bright yellow flowers in summer are nice in arrangements. Can be invasive so don't allow to seed near wild areas. Florence fennel (right) has thick leaf bases forming a bulb and is eaten as a cooked or raw vegetable rather than as a seasoning. Find recipes at http://allrecipes.com/.
(Photos from Wikipedia)

Reader question: How can you figure out how long to irrigate?

You can find a lot of information online and in books about how to determine the length of time to leave your sprinklers or drip irrigation going for different plants under varying conditions, but how can you double check that you are actually applying the right amount?

Wilting, of course, can be an indication that you need to increase watering time, but too much water can also cause plants to wilt by reducing air in the soil and killing the roots so they can't take up water. If the soil is damp and the plants are wilting, decrease watering. In hot weather, some plants wilt because they lose water faster during the day than they can take it in. If the plants rehydrate at night when it is cooler, they don't need more water.

Of course, it's good to know if plants need more water before they get stressed, so you can do a rough check. A few hours after the irrigation shuts off and the water is absorbed, use a trowel or shovel to pry open a slot in the soil. If it looks damp to at least eight inches, all should be well for most smaller plants. For shrubs, you would want the depth to be about twice that, and for trees, at least two feet. Alternatively, you could use a soil probe to bring up a cylinder of soil to check for wetness. This lets you know that the water is actually reaching far enough down using the amount of time you have set. If it is going down further than needed, you could reduce the watering time.

Once you know how long it takes to get water to the desired depth, you can keep tabs on the amount in the upper 6" or so with a soil moisture meter. If your plants are going to suffer from drying out much (like many vegetables and annuals) or actually prefer drying out a bit between deep waterings (like many trees and local natives), you can then adjust how often you water. Check depth again to be sure it's still sufficient.

Natural clones: Some plants, like the *Saxifraga sarmentosa* at right (and many strawberries), reproduce by sending out horizontal stems ending in new plantlets. These root, creating a group of clones all with the same genetic makeup as the parent. I'll bring some to the next Garden Club meeting.

(**Correction**: the lovely photo of Texas Ranger in Joe Daughtery's garden in the last issue was submitted by Dorcia Bradley but taken by him.)

Upcoming events and more: No December Garden Club meeting

Armstrong classes: http://www.armstronggarden.com/pages/classes
Dec 27: Rose pruning; Dec 28 Fruit tree pruning

Rancho Santa Ana Botanic Garden: www.rsabg.org/upcoming-events
Visit their Grow Native Nursery

Huntington Library: Free talks plus plant sales on second Thursdays
www.huntington.org/WebAssets/Templates/content.aspx?id=538

Did you know?

Botanical Latin: The genus *Stapelia* is named after Johannes van Stapel, a 17th century botanist; "grandiflora" means 'large flowered".

Plant miscellanea: the main stem of a plant is called the "axis"; the upper angle made by the petiole (leaf stem) and a branch is called the "axil" of the leaf; stem and flower buds that at formed in the axil are termed "axillary"; buds at the stem tip are called "apical".

Things to do in December

General

- ✓ Make sure not to over-compact moist soil when planting
- ✓ Soggy soil can kill–don't overwater
- ✓ Watering soil (in pots as well as ground) just before a frost tends to reduce damage, especially in citrus

Pest/disease management

- ✓ Excessive wind can cause bleached areas on citrus fruit
- ✓ Continue your garden clean up
- ✓ Clean and disinfect garden tools

Edibles

- ✓ Sow cabbage, kale, peas, radishes, beets, broccoli, endive, fava beans
- ✓ Plant artichokes, asparagus, cane berries, rhubarb, grapes, strawberries (when soil isn't too wet)
- ✓ Finish pruning fruit trees

Ornamentals

- ✓ Wait until after flowering to prune spring-blooming shrubs
- ✓ Plant spring bulbs monthly through March for longer season of bloom
- ✓ Make sure houseplants aren't too near heater vents

Please send photos and info about plants you've grown, gardens you've visited, gardening lore you've learned, questions you have. Sue Schenk, editor

The Metropolitan Water District is offering rebates for turf removal, rain barrels, soil moisture sensor systems. Info at: http://socalwatersmart.com/index.php/

Facebook: Claremont Garden Club
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