



uring the last 10 years, we have seen a steadily increasing interest in a relatively unknown group of plants. These are the succulents, those tenacious plants that, as a result of evolving to live in harsh environments in arid areas, have developed strategies for "state of the art" drought tolerance. Succulents are very resilient and adaptable, making them long lasting and durable plants in the garden. What is surprising is that these wonders of nature were overlooked for so long, but that is rapidly changing. Their popularity has grown exponentially during the last few years, as more information has become available about their beauty, unusual forms and textures, but more importantly their durability and drought tolerance. For these reasons, they are very useful in many applications, including dish gardens, as centerpieces for entertaining, wedding bouquets, living wreaths, green roofs, living walls and even "painting" intricate designs in botanic gardens with the shapes and colors that are so unique to succulents.

In temperate climates, succulents can be used as landscape plants. Those new to succulent gardening are discovering that succulents are a dream-come-true aesthetically for the landscape, and will provide many years of pleasure. Not only are they of easy culture, but succulents offer a rainbow palette of colors that includes frosty white, icy blue, emerald, lime green, lemon, copper, flame red, burgundy, rose, lilac, mauve, and near black, as well as structural shapes and distinct textures.

Succulents are easy to grow, whether in the landscape, in rock gardens, in pots on the patio or even the windowsill. The modern gardener wants a garden or landscape that doesn't require a lot of maintenance. Succulents provide that kind of low

water, low maintenance landscape. In general, their growth is slower and more controlled than traditional landscape plants, and as a result, doesn't create nearly the amount of "green" waste as other landscapes. A typical succulent landscape requires a bit of trimming and tidying up about every three months. As succulents are well adapted to grow

on rocky inclines, they can be used as a water-wise groundcover to reduce runoff and erosion.

In the face of the devastating drought that we are experiencing in the western states, many more homeowners are yanking out that watergreedy lawn, saying goodbye to that lawnmower and planting drought tolerant succulent landscapes. In contrast to traditional landscapes, a succulent landscape can endure long intervals of time with reduced or little supplemental irrigation, without becoming a barren wasteland or a fire hazard. In fire sensitive areas, succulents can act as fire retardants. Due to their high water content, they are less flammable than many other plants. While not fireproof, they are inherently more difficult to ignite. There have been incidences in California where flames raced up towards a house, only to "sputter" out in a bed of Aloes or other succulents, just feet from the house.

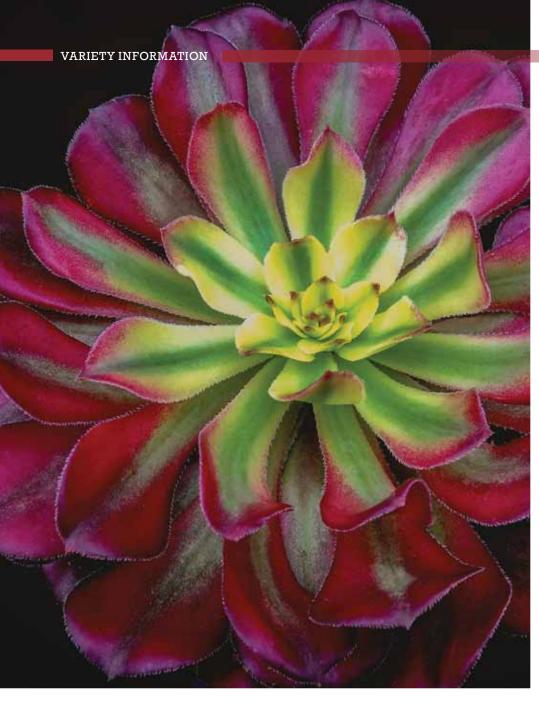
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Attractive plantings of succulents in decorative container gardens are gaining popularity quickly. These are economical combos of colorful, land-scape tolerant succulents that can be placed around the patio or yard. Some succulents have a natural tendency to drape, and are popular as "hanging baskets". In fact, it is possible to create a tranquil nook on a brightly lit patio, using vertical succulent plantings,

container gardens on tables or at ground level, with "hanging baskets" completing the floor-to-ceiling succulent living space. And the best thing is that all of these are long lasting and require little care or pruning.

Landscaping with succulents is just one use of this versatile group of plants. Due to their intrinsic beauty, their unique textures, structural shapes and unbelievable palette of colors, succulents are also very "collectable." Favorite succulents can be placed around the patio or pool, and for those that don't have a lot of space outside, a well lit atrium, or "windowsill" garden can provide room for the collection indoors. Some succulents are so unique





Clockwise from top left: Aeonium 'Mardi Gras', xGraptopetalum 'Murasaki'

in appearance that they can be used as conversation pieces at parties.

New Succulent Introductions

Echeveria 'Imbricata' variegata

A wonderful variegated form of the all time favorite 'Hen and Chicks' (Echeveria 'Imbricata'). Echeveria 'Imbricata' variegata exhibits a beautiful contrast between ivory white splashes with powder blue.

Sedum 'Firestorm'

Sedum 'Firestorm' has vivid orange leaves, providing great fall color, and can be used in fall table arrangements, or as favors for holiday get togethers. The brilliant orange color is a beautiful accent to blues and violets in succulent arrangements and combinations. 'Firestorm' provides a great color accent for the garden in temperate climates.

Echeveria 'Crimson Tide'

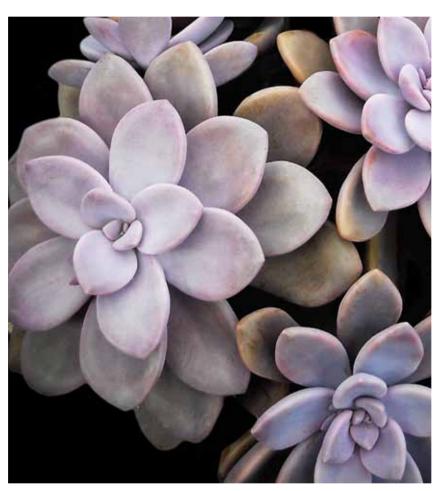
Echeveria 'Crimson Tide' forms large rosettes of 10 inches in diameter or more of very frilly glowing crimson. 'Crimson Tide' has performed well in the landscape in temperate climates, providing the gardener with a frilly accent to euphorbia 'Firesticks', Senecio mandraliscae and others. Hummingbirds love the profuse tall flowering stalks with bell-shaped flowers filled with nectar.

Aeonium 'Mardi Gras'

'Mardi Gras' is an offsetting aeonium with yellow and green variegation combined with vivid rose to rich burgundy, offering a very striking accent.

Echeveria 'Swirl'

Echeveria 'Swirl' forms icy blue rosettes with whorls of leaves, reminiscent of a water eddy. Performs well in the garden or on the patio.





Graptopetalum 'Murasaki'

The xGraptopetalum 'Murasaki' (violet in Japanese) adds another dimension to the violet palette. When used with graptosedum 'Vera Higgins' and graptosedum 'California Sunset', 'Murasaki' supplies the "missing" violet hue. No doubt future hybrids will be able to add to the dimensionality of the palette, perhaps with an echeveria that is the vivid violet of Tradescantia pallida 'Purpurea'.

Going Forward

In horticulture, breeding is a very powerful tool that can be used to innovate, or to merely enhance nature. Breeding can change the way a plant looks, how it



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Echeveria 'Swirl

performs how it flowers and much more. The concept is simple... it begins with a visualization of the desired plant, then careful selection of parent plants that express the desired characteristics. Those parent plants are then "cross-bred" in order to recombine the genetic material, resulting in the enhancement of the desired traits. This process may take many generations, and much research has to be done to determine which varieties are compatible (not all will produce seed). But it is worth the wait as this opens up unlimited potential. Altman Plants has breeding programs for the purpose of enhancing aesthetic aspects of the succulents, such as flowering, structural forms, and foliage colors, as well as the utilitarian aspects such as disease resistance, cold tolerance, heat tolerance and drought tolerance. With such a breeding program, a plant can be "custom designed" with a particular use in mind. With enough time and generations of breeding, virtually any custom concept design can be realized.

Given the wealth of beauty, diversity and benefits that succulents offer, and the unlimited possibilities that exist when breeding expands the perfection of nature, I believe this is the genesis of succulents, and those amazing succulents are the future.

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