

JOEL'S GREENHOUSE SUCCULENTS

At Joel's Greenhouse we have over 100 different succulents. Joel and his brother, Ron, have been collecting them for decades. What follows are pictures and descriptions for about half of our succulents.

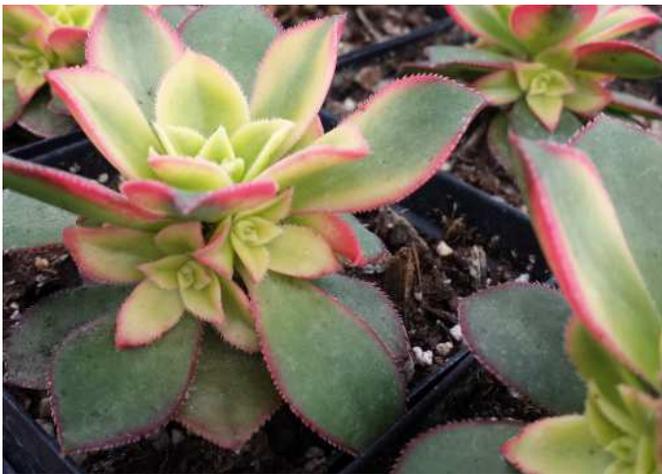
Stop by and see our collection, including many mature plants that are quite large. You might just find one to take home with you.

Warning: studying and collecting succulents can be an addicting hobby. The architecture of the plants is fascinating. The colors vary widely by plant, from reds and greens to purples and blues. Color also varies by amount of sunlight. Some succulents look totally different in the summer than winter.

The origins and classifications of succulents are sometimes hard to track down. Often, plants were named two different things in two different parts of the world. There are also many hybrid succulents.

Most succulents thrive on neglect, so go ahead, take that two week vacation and they will be just fine when you get back.

Aeonium (genus)



Aeonium kiwi

Native to Morocco (Africa)

Yellow flower blooms in summer

H 2-3 feet, W 1-2 feet, Cool Sun/Light Shade

Offsets freely. This plant is considered to be a *Aeonium haworthii* hybrid though its origin is a mystery. In Australia the plant is called 'Tricolor' and in Europe it is called 'Kiwionium'.



Aeonium arboreum 'Zwartkop'

Origin: Canary Islands (Atlantic Ocean)

Red/Purple Foliage, Yellow Flower that blooms in summer

H 3-4 feet W 1-2 feet, Cool Sun/Light Shade, Low Water Needs

There is some disagreement on this name, mostly due to whether the Dutch name 'Zwartkop', meaning "black head" or the German name 'Schwartzkopf' (or alternatively 'Schwarzkopf') with the same meaning is correct. The story varies whether this plant originated in Holland and was originally named there. This is the story that is portrayed in "Dry Climate Gardening with Succulents" edited by Huntington Botanic Garden Director James Folsom but in an article on the Ruth Bancroft Garden website describing this plant, Dr. Dean Kelch, Garden Director at the Ruth Bancroft Garden (and noted *Aeonium* expert) uses the name 'Schwartzkopf' and relates that this plant was a seedling raised in Europe and that the UC Berkeley Botanic Garden was the first institution to obtain plants in the US. Dr. Kelch also notes that many dark forms of *Aeonium arboreum* in nurseries are mislabeled as 'Schwartzkopf'.

Agave

Genus Native to Mexico, there are over 400 species.

These succulents prefer a sunny situation in well draining soil.



(left) *Agava maculosa*,
Manfreda maculosa



Agave filifera - Thread Agave - Rosettes of spiny leaves with long white fibers produce dramatic spikes of yellow flowers in autumn and winter.



Agave Dragon Toes



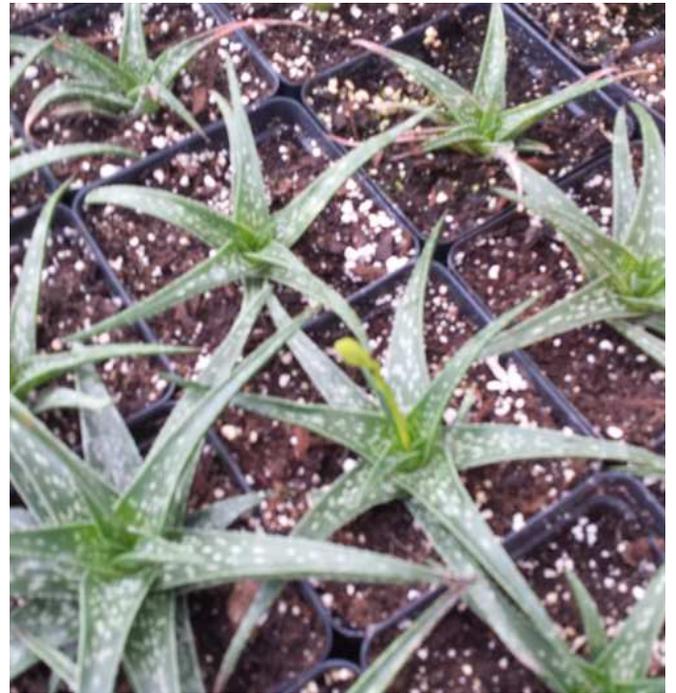
Aloes

Genus Native to Africa, Madagascar and the Arabian Peninsula



Aloe Vera

The healing sap of this familiar medicinal plant has been used for centuries to treat wounds and sunburn. However, the sharp “teeth” along the leaf margins can cut an unsuspecting passerby, so place it where it can’t be brushed accidentally. Allow the soil to dry out between soakings. Don’t let the plant stand in water. Keep it in direct sunlight or the greatest amount of light possible. Avoid fertilizing in winter. You don’t need to repot unless the roots are obviously pushing their way out of a pot. If so, use a potting mix designed for cactus.



Agave or Aloe - how do you tell the difference?

Most agaves bloom only once in the entire life of the plant and then die, but many aloe have flowers that return throughout the plant’s life.

The leaves of the aloe and agave may look similar, but they are actually quite different. The agave leaf has a vascular system of fibers running the entire length of each leaf. These fibers are used to make rope. Sap from agave leaves are used as a sweetener and for tequila. Aloe, on the other hand, has leaves with a gelatinous (gooey) interior. Fibers are not present and they are not edible. Another difference is the distinct, sharp teeth on its margin of the agave and the very sharp tip. Aloe has what appear to be teeth, but are actually just elongations of the leaf.

Aloes (continued)



Haworthia Cymbiformis

Window Plant

These plants like partial shade and bright, indirect light. Partially shaded sites are those that get some shade for at least half the day.

Amend the soil, if needed, with sand, pumice or decomposed granite to ensure that it is fast-draining, or purchase a potting soil specifically designed for succulents if you plan to grow your plant indoors.

Water your plant just enough to keep its leaves rounded and fleshy. The timing depends on your weather conditions, but haworthia generally needs little to moderate watering, such as a thorough watering once every two or three weeks.



Haworthia fasciata

Origin: South Africa

White flower blooms in spring

H <1 foot W <1 foot

Full Sun, Low Water Needs

Small (6-8 inches across) stemless rosette of triangular fleshy but firm leaves. The upper side of the leaves is flat and the backside is convex with white tubercles which form bands. Best in full sun, drought tolerant.



Gasteria, Aloaceae family Native to South Africa

Can be grown in part shade
Named after the shape of the flower (like a stomach)
Common names include ox tongue, or lawyers' tongue, because the leaves resemble tongues.



Cactus

All cacti are succulents, but all succulents are not cacti.

Cacti are native only to the western hemisphere, from Canada to Patagonia

Cacti, cactus, and cactuses are all acceptable plural forms of cactus.

The family Cactaceae is divided into four subfamilies (Pereskioideae, Opuntioideae, Cactoideae & Maihuenioideae), around 125 – 130 genera and 1,400 – 1,500 species of flowering plants with succulent (water-storing) stems.



Bunny Ears Cactus *Opuntia Microdasys*

3 feet high, six feet wide, pale yellow flowers in the spring

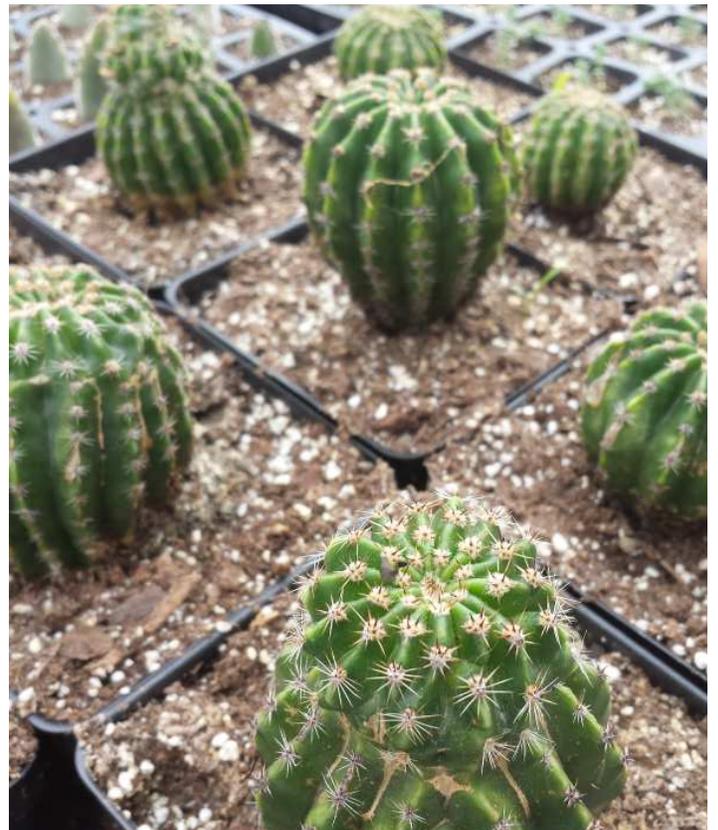
The Bunny Ears Cactus is native to northern Mexico and desert regions stretching into Arizona. This plant has the appearance of a shrub as a mature plant. Named for its visual appearance, the Bunny Ear Cactus is also called the Polka-Dot Cactus. The closely spaced glochids, or small mounds of prickles, come off with a simple touch, can sometimes go airborne, and are moderately irritating to the skin. They are best removed from flesh with tweezers or duct tape.

This cacti has no central stem or leaves. The individual segments which constitute the cactus body are oval shaped pads from which additional segments form. These new segments always grow in pairs, giving new growth areas the appearance of bunny ears. Flowers will always sprout from the terminal ends of segment pads.



Thimble Cactus

Mammillaria vetula ssp. *gracilis* or Arizona Snowcap



Crassula

Jade Plant (*Crassula ovata*)

The jade plant is an old-fashioned favorite for a reason: It's so easy to grow! This long-lived South African native grows thick stems and thick, glossy green leaves tinged with red.

Allow the soil to dry completely between waterings. Although some gardeners water jade only when the leaves begin to pucker or lose their shine, these are signs the plant is already stressed, so it may begin to drop leaves. Jades are most commonly killed by overwatering. A plant may adopt a weeping form if chronically overwatered.

Prune jade as necessary to keep it symmetrical, so one side doesn't cause the entire pot to topple. Simply cut off a branch or leaf, and plant it to create new plants. Rooting new plants around the base of a plant creates the look of a shrubby thicket.



***Crassula ovata* 'Variegata'** is an elegantly branched shrub up to 4 feet (1.2 m) tall, with attractive green foliage striped in ivory and pale yellow. The succulent leaves are up to 2 inches (5 cm) long and are often tipped with a pink margin on the new growth and when grown in the sun. The white, star-shaped flowers with pink overtones grow in showy clusters at the ends of the branches from late winter to early spring.



***Crassula ovata* 'Gollum'** (Gollum Jade)

A small shrubby succulent to 2 to 3 feet tall by 1 to 2 feet wide with interesting tubular leaves that have a reddish tint. As with Jade plant this cultivar has pinkish white star-like flowers, that often appear in late fall and early winter. Plant in full sun to bright shade in a well-drained soil



Crassula



Variegata Crassula



String of buttons *Crassula perforata*
Native to South Africa, likes bright light and good drainage.



Watch Chain, Lizard's Tail

CRASSULA muscosa

Description: A unique, branching succulent from South Africa that can provide texture and be used as a filler for troughs or rock gardens. Slow growing.



Green Crassula

Cyanotis

Furry Kitten

Commelinaceae family
Cyanotis Genus
somaliensis species from Somalia



Dorotheanthus

Genus name honors Dorothea Schwantes, mother of the German specialist on succulent plants, Dr. Martin Heinrich Schwantes.



Dorotheanthus beilidiformis 'Mesbica' or Mezzo Trailing Red, Livingstone Daisy

Full sun, easy to grow, red flower blooms June to October
H 3 - 6 inches, W 6 - 12 inches

is a succulent mat-forming tender perennial/annual that is native to somewhat poor infertile soils in desert areas of South Africa. It is noted for its dense, prostrate, free-branching, spreading form with abundant late spring-summer bloom of small daisy-like flowers. Plants typically grow to 3-6" tall and spread to 12" wide or more.

Common name of Livingstone daisy presumably honors David Livingstone (1813-1873) Scottish missionary and physician who explored the African continent.

Echeveria

Crassulaceae family

Native to Central and South America

Most of the common Echeveria species are not complicated succulents to grow, provided you follow a few basic rules. First, be careful never to let water sit in the rosette as it can cause rot or fungal diseases that will kill the plant. Additionally, remove dead leaves from the bottom of the plant as it grows. These dead leaves provide a haven for pests, and Echeveria are susceptible to mealy bugs. As with all succulents, careful watering habits and plenty of light will help ensure success.



Echeveria nodulosa
H 8-12"



Echeveria rosea
H 2-6"



Echeveria 'Perle Von Nürnberg' is a beautiful succulent that has interestingly colored acuminate leaves that are a pale grayish brown with pink highlights and have a white powdery dusting. The leaves overlap in solitary, up to 6 inches (15 cm) wide rosettes. The flowers are coral pink in color on the exterior with a yellow interior and appear in summer on 1 foot (30 cm) long reddish-stemmed inflorescences

Echeveria (continued)



Echeveria
Black Prince
young (left)
mature (right)

Echeveria 'Black Prince' is a slow and low growing succulent plant. It produces clumps of short rosettes up to 3 inches (7.5 cm) wide with thin dark triangular, blackish leaves. These leaves first emerge greenish but darken to a deep lavender brown and with age the lower leaves widen out to as much as 1 inch (2.5 cm) at the base with an acuminate tip that has fine yellow edges. The dark red flowers appear on short stalks in late fall to early winter.



Echeveria runyonii 'Topsy Turvy' is a fast growing rosette-forming succulent, up to 10 inches (25 cm) in diameter. The leaves are pale blue-green to silvery-grey, up to 5 inches (12.5 cm) long and up to 1 inch (2.5 cm) wide, often with pink tips, spatulate, strongly inversely keeled on the lower surface with leaf tips pointing inwards towards the center of the plant. The showy bright orange flowers rise above the foliage on tall arching inflorescence, usually in late summer or fall.



Echeveria 'Violet Queen' is a fast growing and hardy rosette-forming, gray-leaved succulent which freely offsets to form a dense small mound or groundcover up to 5 inches (12.5 cm) tall with each rosette spreading up to 8 inches (20 cm) wide. The leaves are long and narrow and curve up slightly towards the tips to form an open lotus blossom shape. The leaves, especially the tips, take on a rose pink coloration in late fall and winter that is enhanced by cold evenings and even light frosts

Euphorbia



Sticks on Fire

Euphorbia tirucalli

H 4-8 feet, W 3-5 feet

Full Sun to retain the red color

Native to Madagascar, subtropical Africa, the Arabian Peninsula and India.

It was first described by Linnaeus in 1753 with the specific epithet taken from the Indian Malayalam names 'tiru' meaning "good" and 'kalli' a name for any of the Euphorbia in reference to some medicinal qualities of the plant.

This cultivar is from the late great plantsman, Gary Hammer, who brought a couple cuttings back from a trip to South Africa in the late 1980s and later dubbed the plant 'Sticks on Fire'.

Faucaria

Tiger Jaws

Faucaria tuberculosa

H 3-4"

From South Africa



Graptopetalum



Graptopetalum paraguayense

Ghost Plant from Mexico

White flower blooms in spring. Leaves turn green in less than full sun.

H 1 foot, W 2-3 feet, full sun- light shade, water occasionally, does not like wet feet

This plant, originally thought to be native to Paraguay was discovered on cactus plants imported to New York in 1904 and only later determined to be from Mexico, though no plants of the species have been rediscovered in the wild since. A closely related plant, now called *Graptopetalum paraguayense* ssp. *bernalense* was discovered by Alfred Lau in in 1979 the state of Tamaulipas in NE Mexico, so there is some presumption that this may be near to the origins of *Graptopetalum paraguayense*. The name for the genus comes from the Greek words 'grapho' meaning "to write" and 'petalum' meaning "a petal" in reference to the line markings on the petals of the flowers. The specific epithet comes from the mistaken belief that the plant's origin was Paraguay. Another common name is Mother-of-pearl-plant.



Graptopetalum macdougallii

Native to Mexico

Likes some shade

Kalanchoe



Kalanchoe tomentosa

“Panda Bear “

Crassulaceae from Madagascar

Rare green/yellow flower blooms in summer

H 1-3 ft, W 2-3 ft

Full sun, low water needs

Oscularia



Oscularia deltoides, Lampranthus deltoides

Family: Aizoaceae
Genus: Oscularia

Full sun to part shade, 12
inches high

Pachyveria



Pachyveria Blue Haze

Sansevieria

This succulent can take a beating. Stories abound about forgotten, dead-looking snake plants coming back to life upon watering. Long, pointed leaves grow with patterned markings reminiscent of a snake. You can leave this plant in a pot for many years, allowing the rhizomes to multiply into a thick clump.



Allow the soil to dry out slightly between waterings. Overwatering causes leaf and crown rot. It tolerates low light but performs best with medium or high light. Prune out any damaged leaves so the overall plant looks better



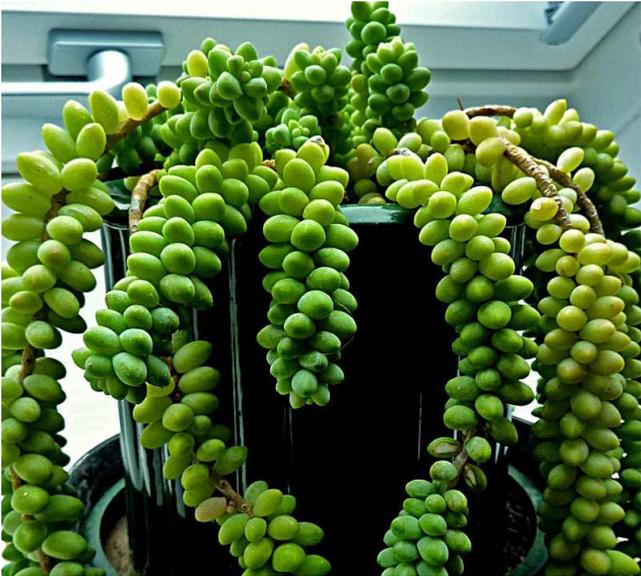
Sansevieria trifasciata, Golden Hahnii, Golden Birdnest Sansevieria

Native to tropical West Africa from Nigeria east to the Congo.

Very drought-tolerant, this plant will also tolerate low light, but grows best and flowers if given bright light, but not hot, west sun in the summer. A lovely dwarf cultivar that is only about 6-8 inches tall. Its foliage is arranged in an attractive rosette, the leaves are darker green with creamy-yellow stripes of variable width/length. This species can bloom in summer with sweetly fragrant greenish white flowers but this cultivar rarely seems to do so.



Sedum



Sedum morganianum, Burro's Tail

Overlapping, leaves grow up to 3 feet long. A native of Mexico, it prefers medium to high light.

Allow the soil to dry slightly between waterings, and keep soil on the dry side during winter dormancy. Although burro's tail rarely blooms, pink or red flowers may appear at the end of the stems in summer.

The leaves fall off with even a light touch, so keep burro's tail where it won't be disturbed. If you move it from the house to outside for summer, keep it in a shaded location. Even though burro's tail likes bright light, sudden exposure to direct sunlight may cause sunburn.



Sedum Pork and Beans, Jelly Beans,

Sedum rubrotinctum from Mexico

Pale yellow flower blooms in late winter

Leaf tips turn red/bronze

H 6-12 inches, W 6-9 inches, Part shade



Sea Urchin Sedum

Trailing



Sedum Ogon

Sempervivum

Sem-per-VEE-vum, literally “always/forever alive” because this perennial plant keeps its leaves in winter and is very resistant to difficult conditions of growth.

A genus of about 40 species of flowering plants in the Crassulaceae family, commonly known as houseleeks, liveforever, and hen and chicks, a name shared with plants of other genera as well. They are succulent perennials (even in Minnesota!) forming mats composed of tufted leaves in rosettes. In favourable conditions they spread rapidly via offsets, and several species are valued in cultivation as groundcover for dry, sunny locations. Their natural habitats are typically 3000 - 8000 ft above sea level in mountainous regions of central and southern Europe and Mediterranean islands.



Senecio

String of Bananas

Senecio radicans glauca

Description: Quickly forms plush, trailing, banana-shaped leaves. White, pom-pom, fragrant flowers. Plant in bright light; water when dry



String of Pearls

Senecio rowleyanus

When pearls are thirsty they get a dull look to them...they need more water than other succulents. And they like more shade than most.

