



Amazing Succulents!

Martin Bartz

A brief look into these intriguing plants and how to grow, care for, and utilize them in containers.



Succulents!

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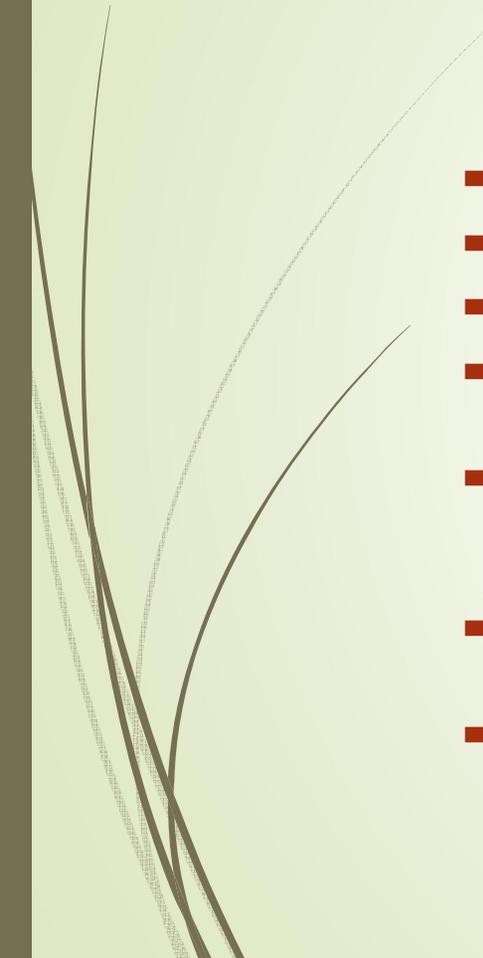


What is a succulent?

- ▶ A plant that holds excess and available water in its leaves, roots and/or stems
- ▶ Generally adapted to harsh/dry conditions
- ▶ Native to the Americas, Africa and Asia. Some from the coastal mountains of Europe
- ▶ Have thick, waxy flesh to reduce evaporation and help shield from the sun.
- ▶ Root systems are generally shallow to use water close to soil surface, rains short and sparse.
- ▶ All cacti are succulents/ but not all succulents are cacti
- ▶ Christmas cactus, Hoya, Mother-in-law's tongue.
- ▶ Hens and chicks, Jade, Kalanchoa, Aloe vera



Succulents



- Term from Latin *succulentus*, *succus* means 'juice'
- Many will flower and form seeds under proper conditions
- Most are from sunny/arid locations where nights can get cool
- Some are from moist, jungle-like environments or grow high in trees usually shaded by tree canopy (Sanseveria, Hoya, air plants).
- Native to Mexico, Asia, South America, Africa (Madagascar), Europe (coastal regions/hens n chicks, cold hardy sedums).
- Cacti are succulents but flower structures are different and utilize stems for photosynthesis and storage rather than leaves
- Hundreds of Genus and Species from about 25 different plant families

Common Succulents

Many are Familiar with These Long-Lived and Easy-To-Grow Plants



Common Succulents



...But What if I Told You That These Are Available and Easy TO Grow?





Echeveria



- ▶ Native to South America, Mexico, Central America
- ▶ Generally stay shorter than 12in.
- ▶ Form rosettes and occasionally small plantlets
- ▶ Flower late Summer or Fall
- ▶ Propagate by stem cuttings, plantlets, seed(difficult), leaf cuttings
- ▶ Full Sun(keep dry during cool/short days)

Aeonium



- Native to Canary Islands, Morocco, East Africa
- Prefer moderate temperatures not too dry, not too hot
- Some shade helps if very hot sunny location
- Flowers from middle of rosette, then dies back. Pups keep going
- Late Winter to Spring
- Some grow almost flat/some branch into small shrubs
- Propagate from stem cuttings or seed/Leaf cuttings not as easy

Sempervivum(Hens and Chicks)



- ▶ Native from Morocco to Iran, eastern Europe
- ▶ Most are from high elevations
- ▶ Some are Perennials
- ▶ Full sun and well – drained/slopes/rock nooks and crevices
- ▶ Flower from mother plant/dies/offshoots remain
- ▶ Propagate from plantlets(chicks), seed.

Haworthia



- ▶ Native to South Africa
- ▶ Many common ones tolerate lower light/may burn up in full sun
- ▶ Usually quite compact
- ▶ Common houseplant
- ▶ Propagate by division
- ▶ Flowers form on long stems from center of plant

Jade Plant (Crassula)



- ▶ Very commonly grown and available as houseplant
- ▶ Native to Southeastern Africa
- ▶ Sensitive to cold
- ▶ Rarely flowers until old
- ▶ Used in Bonsai
- ▶ Long stems on shrubby plants
- ▶ Stores water on stem
- ▶ Handles lower light, but leggy
- ▶ Propagate by stem or leaf cuttings

Agave



Native to North and South America

Used to make tequila

Generally very Large, may outgrow a container quicker than most

Lots of water for large leaves

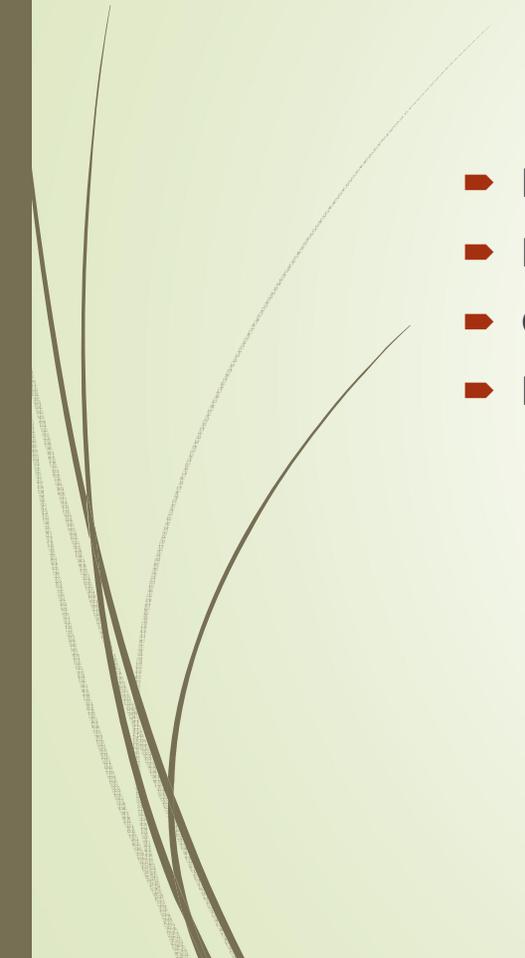
hooked spines

Propagate by plantlets or divide shoots

Great for larger containers many can get 2 to 3 ft. wide or larger



Where Can I Get These?

- ▶ Local Garden Centers
 - ▶ Big Box Stores(Home Depot actually has a great selection)
 - ▶ College Of DuPage Plant Sales!
 - ▶ Friends/Neighbors/Family (i.e. the neighbor w too many hostas)
- 



How Can I Grow Succulents?

Here are Some Basic Guidelines:

- ▶ Choose A Container w Drainage (and a saucer under to collect water)
- ▶ Plastic or Terra Cotta Works
- ▶ Not Too Big! Succulent Roots Like to Be Cozy/Avoid Overwater
- ▶ Terrariums are not for succulents!
- ▶ Select a Plant To Fit Your Space
- ▶ A Small, Cute Succulent can end up Growing Quite Large
- ▶ Only Re-pot When Soil is Heaving or Container is Bulging out/Use next size up
- ▶ There are some exceptions if you have experience growing...

Containers





What Soil/media Do I Use?

Ask 10 people, they will have a different recipe

Soils are found outside and are inconsistent. Do not use topsoil(clay) too heavy

Potting mix is for pots, soil for outside

Must be well – drained, yet holds moisture and nutrients

Potting mix with added perlite/small, porous stones/ very coarse sand

Most potting mixes have peat and bark fines w perlite

I use pbh: same as I do for petunias and cuttings and sowing seeds in GH

Peat/pine bark fines/rice hulls (in place of perlite

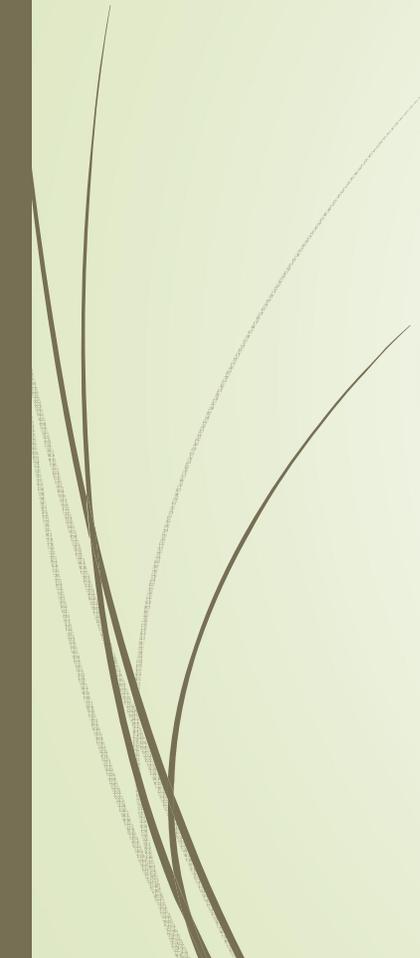
I add a rooftop mix for sedum on green roofs w coconut coir and different sized porous stones
4:1 ratio

Drains quickly, but holds enough water and nutrients to make available

Allows water to pass through and not pool or repel when peat dries out

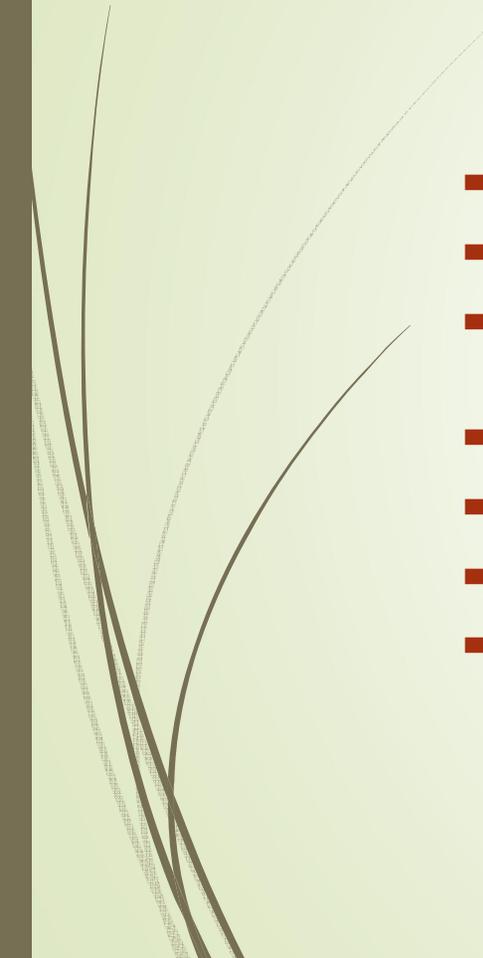


How do I plant a Succulent?

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- ▶ Pot should accommodate roots with a little extra room
 - ▶ Never plant too deep, unless stones are used at top to support
 - ▶ Do not use sand/gravel at bottom of pot, consistent to see moisture
 - ▶ Gravel at bottom does not improve drainage especially if the pot has no drainage. Larger stones used for weight
 - ▶ Large particle have less pore space for available air than small/medium
 - ▶ Try not to pack potting mix too firmly, especially if it is wet/closes up pore space only enough o support.
 - ▶ Let water do the settling it will push excess air out
 - ▶ Gravel on top can help watering when dry/hold some moisture in mix that is too porous/keep leaves touching from contact w wet soil



When do I repot?

- ▶ If you want a bigger plant
 - ▶ If it is bulging or heaving out
 - ▶ If the plant is falling over/too leggy, cut and root new piece or cut back to shape
 - ▶ Make sure potting mix is moist or will stick and tear root(terra cotta)
 - ▶ When you have plantlets to cut off/after flowering
 - ▶ Generally in late spring to early fall. Many slow down in winter
 - ▶ If roots or plant is rotting, cut above rot/ let heal and re root
- 



How and When to Water

- Once a week? About a cup or two? When its dry?
- No, No and No!
- Dependent on location/lighting/age and type
- If rooting new plants/keep moist, not soggy until new growth starts
- Don't feel the soil! Feel the leaves!
- Succulents store water,
- overwatering=root rot stem rot/no turning back
- Adema /bumps wont go away
- Dry plant=happy, encourages growth/natural/bounces back
- Leave and stems are designed to expand and contract
- Water only soil or soak pot/put on saucer to absorb
- Water staying on leaves causes disease
- Let soil dry between waterings to allow for air



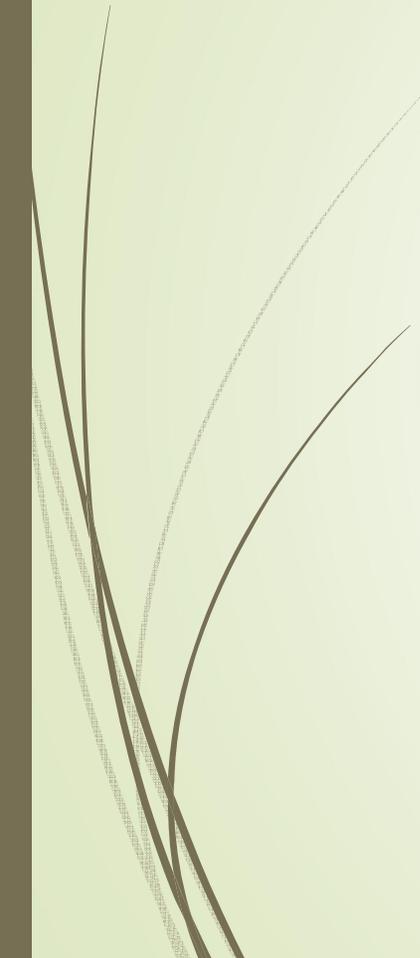
Creating a Container Garden (Not Just a “pot”)

- ▶ Select common needs. Water and light
- ▶ Watch your size
- ▶ Is it spreading? Trailing? Upright?
- ▶ Use different textures and colors
- ▶ Large plants stand alone(agave)
- ▶ Hens and chicks, Echeveria(together in groups)
- ▶ Roots can be reduced/plants can touch for full look
- ▶ Stones on top/décor/driftwood
- ▶ Can you lift it? will it fall over?
- ▶ Hanging plants will be very heavy/water holding leaves
- ▶ Most all look good together, have fun and experiment
- ▶ Cuttings can be directly planted to root, especially in small spaces
- ▶ Can I water it? (wreaths, containers w no drainage, hanging plants)





Propagation Making New Plants

- ▶ Stem Cuttings
 - ▶ Division
 - ▶ Seed
 - ▶ Leaf Cuttings
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Stem Cuttings



needlesandleaves.net



- ▶ Echeveria, Hens and chicks, Jade, Aeonium, Hoya.....
- ▶ Taking rosette with a piece of stem
- ▶ Roots in about 2 -3 weeks
- ▶ Large, let callus 1 or 2 days
- ▶ Can be from main or plantlets
- ▶ Set stem in potting mix
- ▶ No plastic or misting

Division



www.growingwithplants.com



- Aloe
- Agave
- Sanseveria, etc
- Leopard Plant
- Generally has roots attached below surface
- May not require cutting

Leaf cuttings(leaf bud cuttings)



- Usually leave that are from bottom or middle/flower stalks(Echeveria)
- Must come off clean from stem
- Sanseveria , Echeveria, and most succulents with leaves coming from a stem
- Lay leaves on soil or place bottom of leaf slightly in
- Snap leaves cleanly/ do not cut!



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Thank You!

Questions?

