UCCE Master Gardeners of El Dorado County

Todays class will be recorded

We are here to answer your gardening questions!
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Find us on Social Media:

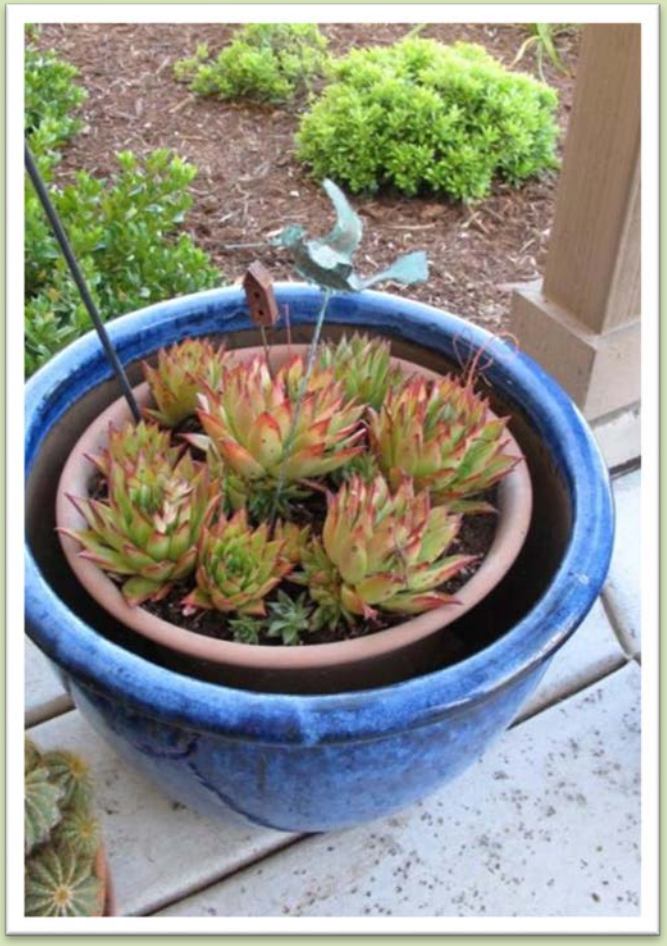
Cactus and Succulents, I Have Known

You will know them, too!

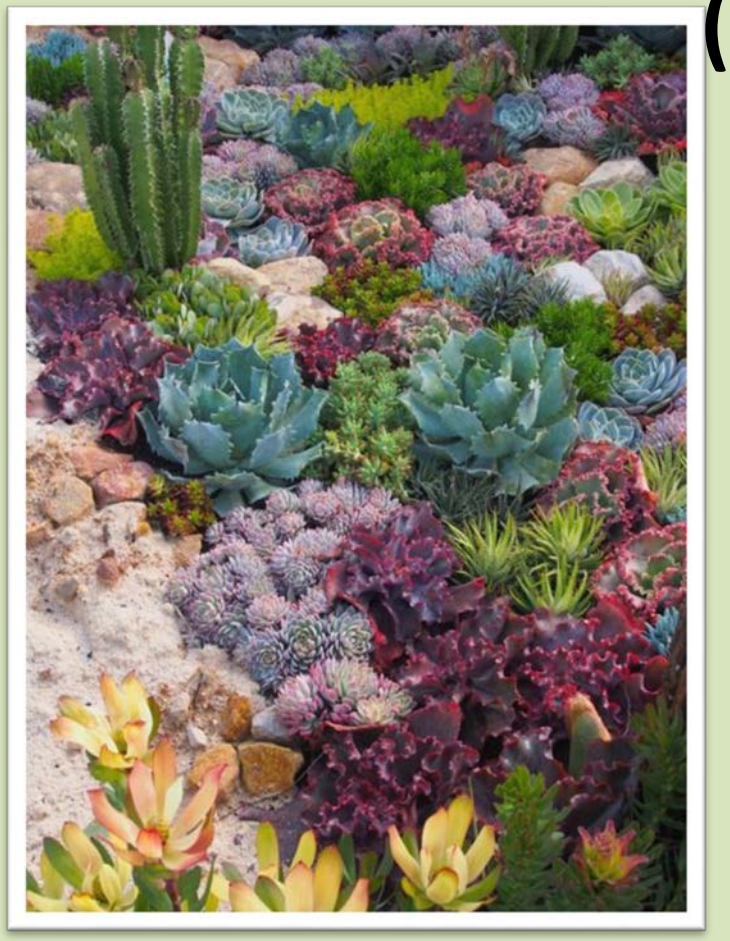
Presented by
Master Gardener Bobbie Handen

Quote from Succulent Garden - Australia

"Succulents are water-retaining plants endemic to arid areas of the tropics and subtropics."



Quote-Succulent Garden- Australia (Continued)



"They have evolved to withstand high temperatures and low precipitation by collecting and storing water in their leaves, stems and roots to survive long dry periods."

What they are

Xerophytes

- Store Water
- Fleshy Leaves
- Plump Bodies

CAM Plants

CAM

Crassulacean

Acid

Metabolism

Succulents are CAM Plants

Reverse Photosynthesis

- Adaptation to arid conditions
- Stomata open at night instead of daytime to preserve moisture

CAM Overview

- During the night, the CAM plants stomata are open CO2 enters and is stored
- Stomata closed during the day, carbon is released, photosynthesis takes place

Need to Know

1. KYP
2. KYS

What You Need to Know

Know Your Plant (KYP)

Native Habitat

1. High elevation to desert temperatures
2. Dormancy Periods to growth Stages

What You Need to Know (continued)

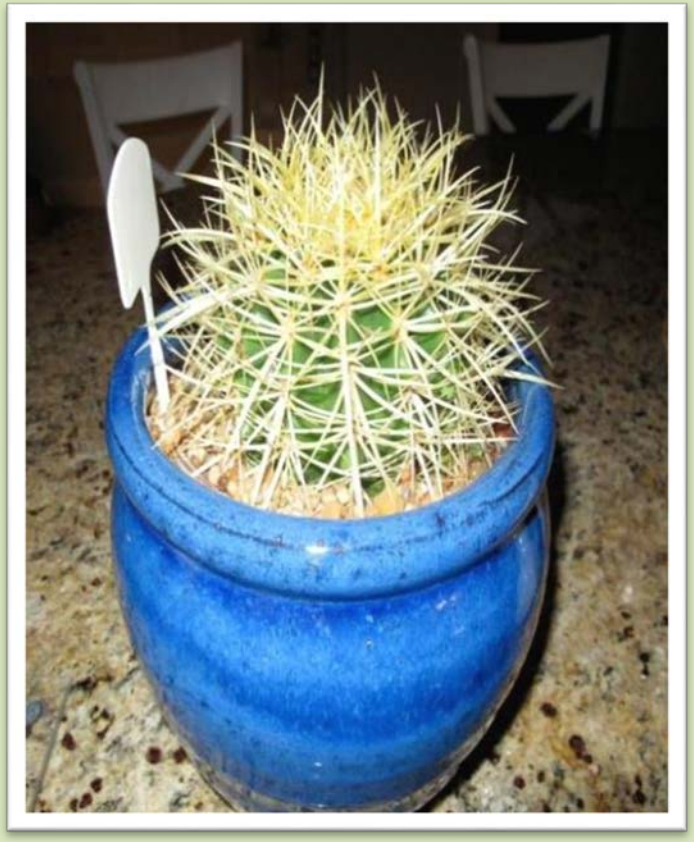
Know Your Space (KYS)

A. How to Meet Their Needs

1. Indoors/Outdoors
2. Methods of Protection

What They Need

1. Soil
   - Sand to Clay
2. Good Drainage
3. Light
   - Full sun to part shade



What They Need (continued)

D. Moist
   - Dry to Wet

E. Correct Temperature
   - Heat to Freezing

What They Need (continued)

F. Fertilizer
   - N1; P7; K6; Ca 1
   - Only in growing season

What You Need To Know (continued)

Pests and Diseases

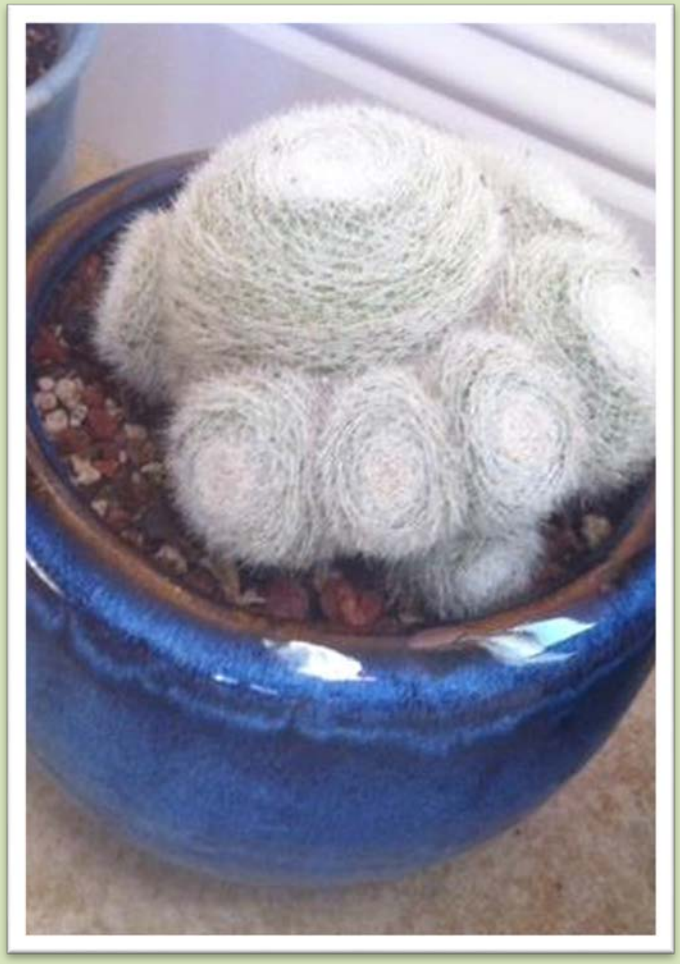
- Aphids and Black Mold – non-toxic spray and/or systemic
- Mealy Bugs - non-toxic spray and/or systemic
- Fungus Flies and Rot- mostly from overwatering.

Protect From Frost

- Succulents that are not frost hardy need to be protected from freezing temperatures and hail
- Plants will be permanently scarred from either one
- Can be purchased at big box stores
- Fold for easy storage

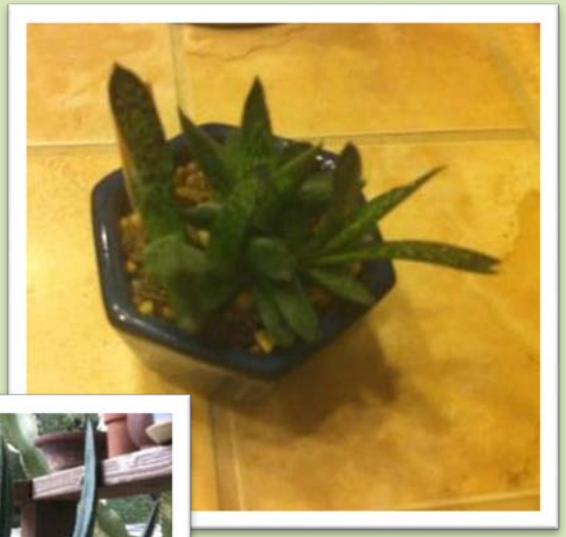
Mammillaria (Cactus)

- 300 Species of Mammillarias
- Most are native to Mexico
- Found at sea level and high elevations
- Require excellent drainage



Gasteria

- South Africa origin
- Closely related to Haworthias and Aloes
- Winter growers
- Little water in hot weather
- Excellent potted plants
- Like a lot of light but will burn in direct sun



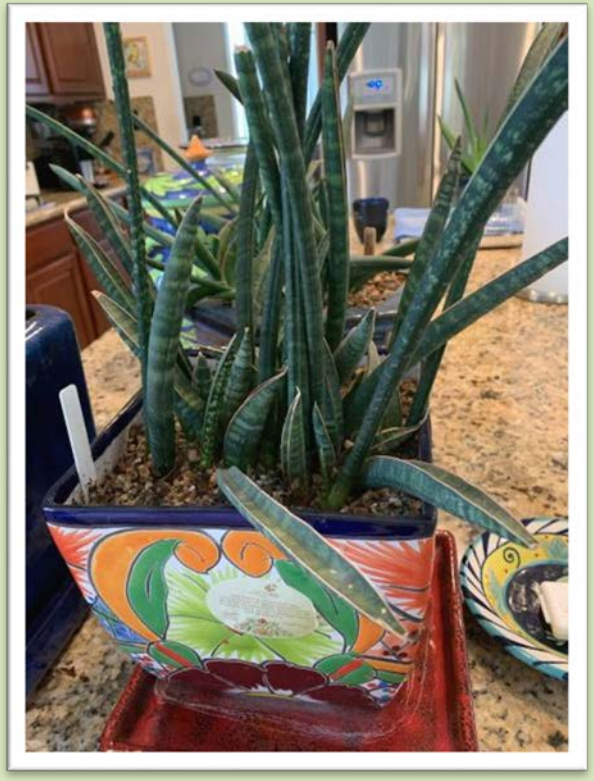
Aloe (Succulent)

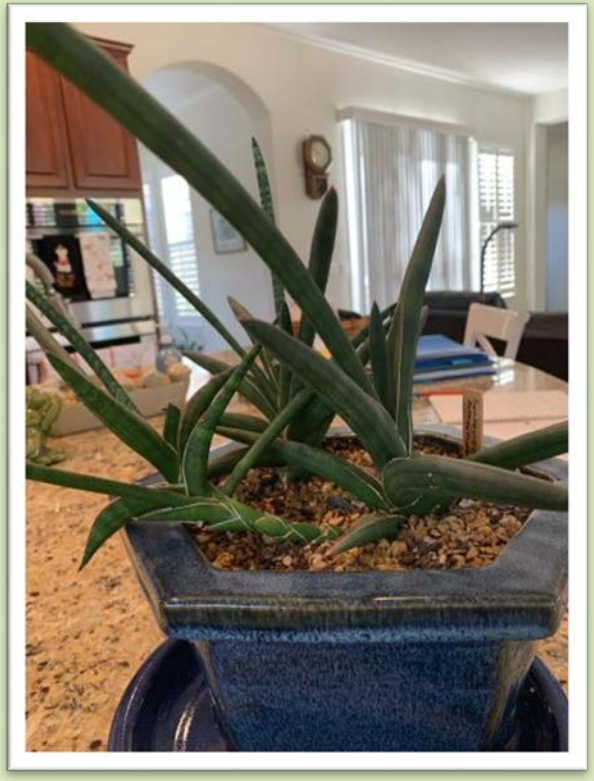
- 400 Flowering succulents species in this genus
- Native to mountains of tropical Africa
- Closely allied genera are Haworthia and Gasteria
- Need well drained soil

Crassula Ovata (white form)

- Crassula are the largest genus of succulent plants
- Native to South Africa and Madagascar
- Require light but not direct sun
- Requires winter protection in our area

Sansevieria





Sedum

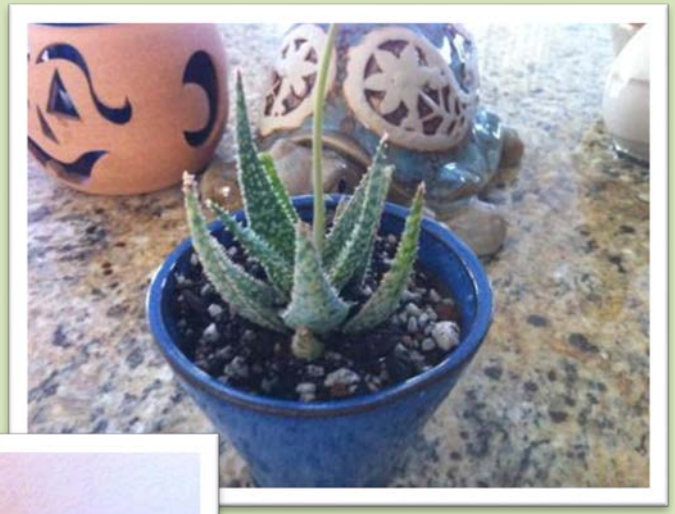
- Sedum are often referred to as stonecrop
- Sedum spathifolium pictured
- Most are frost hardy
- Like sun and good drainage

Zygocactus

Mestoklama tuberosum

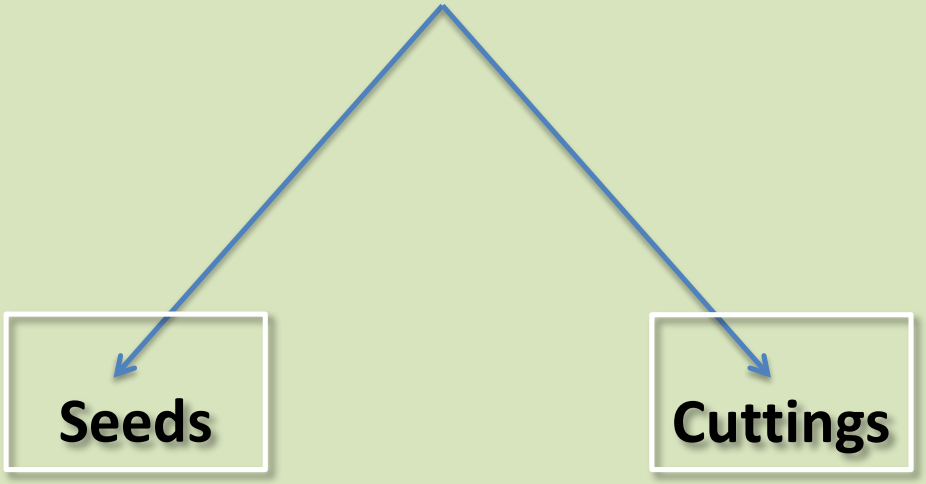
Succulents As Houseplants

- Same rules of KYS and KYP
- Many succulents do well in bright (not hot) windows.
- Watering cautions; beware of overwatering or letting soil dry out



Propagation of Succulents

Succulent Propagation



Principles of Succulent Propagation

- Always take cuttings from clean healthy plants
- Take cuttings or sow seed at the appropriate time of year
- Use clean tools (saws, pruners, knives, etc. to remove cuttings)
- Plan ahead, have all the correct tools and other materials readily available

Advantages of Seed Propagation

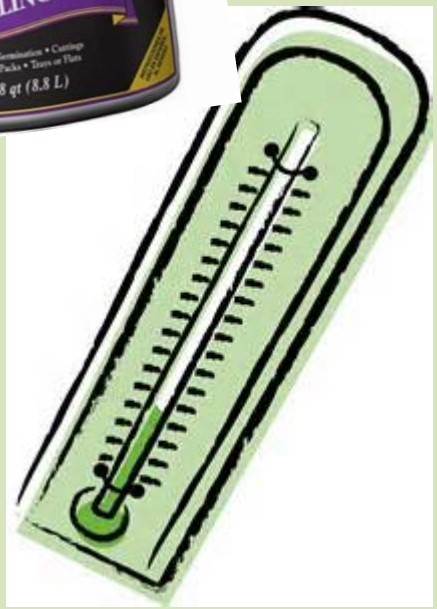
- Relatively inexpensive
- No greenhouse normally required
- Produces numerous plants
- Produces numerous ‘types

Disadvantage of seed propagation

- Some seeds are very small, dust like
- Large seeds (match head size) are slower to germinate
- Cactus seeds can take up to a year to germinate

Seed basics

- Timing mid spring
- Best to use Individual pots at least 1.5 inches deep
- Can use all purpose seedling mix
- Temp 60º-70º
- Keep moist
- Cover to keep in moisture



Seed Propagation

- Once seed is sown, water regularly to keep soil mix damp
- Always label the pot or propagation tray with the date sown, the botanical name and seed supplier
- Keep track of your successes and disappointments

Propagation by Cutting

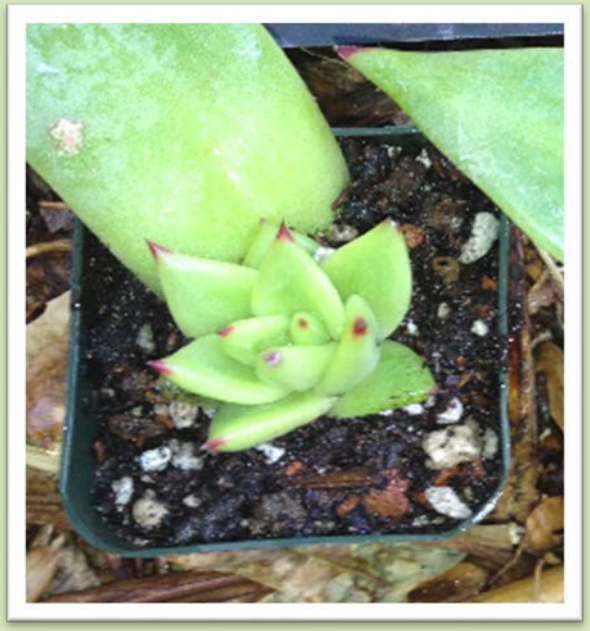
- Take cuttings from healthy plants
- Take cuttings at the start of the growing season
- Decide whether to cut individual leaves or a larger cutting

Stem & Leaf Cuttings

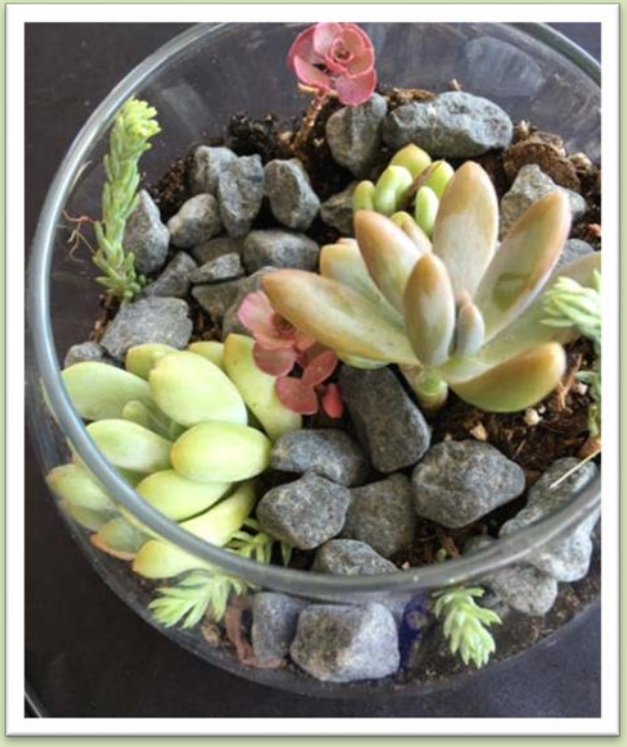
- Strip leaves from the lower part of the stem
- Dip the cut end in a rooting hormone (optional)
- Let the cutting/leaf dry out in a lightly shaded location
- Prepare a succulent potting mix
- Select an appropriately sized pot
- Plant the cutting/leaf

Stem & Leaf Cuttings

- Place the plant in a warm, airy location 68º
- Keep the soil slightly moist
- Reduce watering as the plant develops
- Use fertilizer cautiously



Making Succulent Gardens

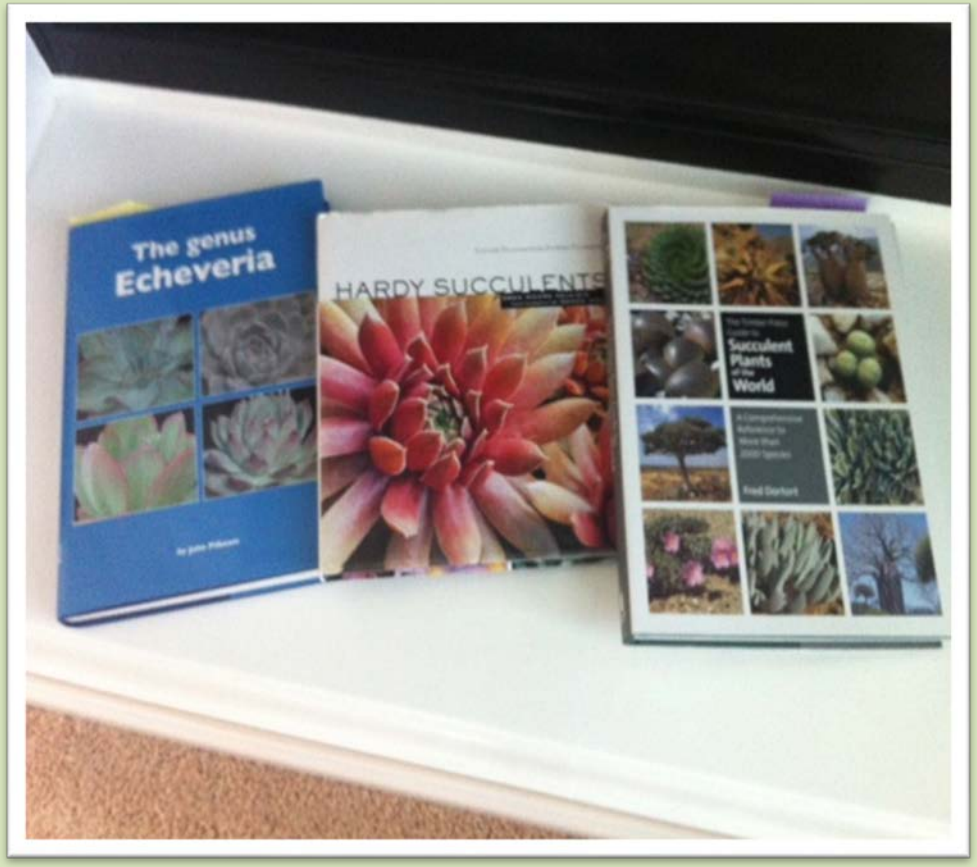


Sources of Information

Nurseries

Specialty Books

Internet - Google Is Your Friend



Help us Grow!

Our follow-up survey provides us the tools we need to grow and improve the quality of our program.