

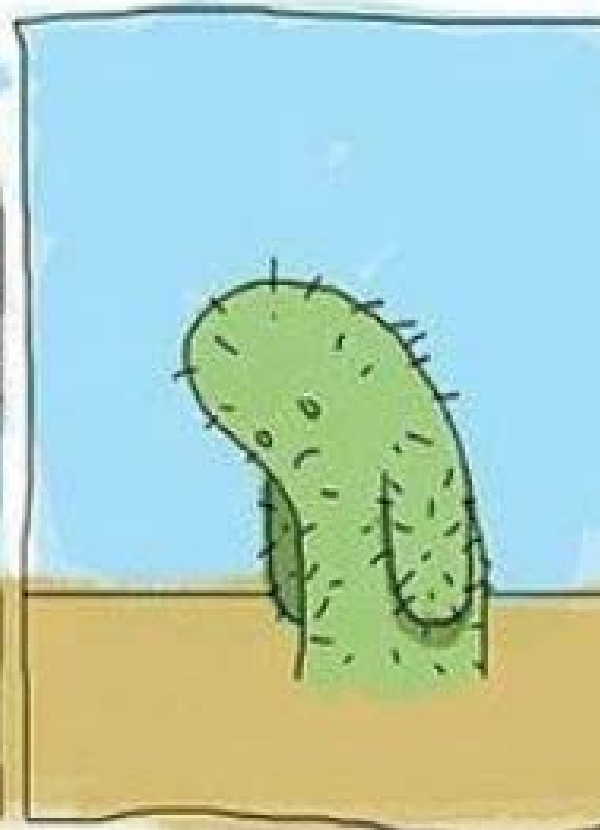
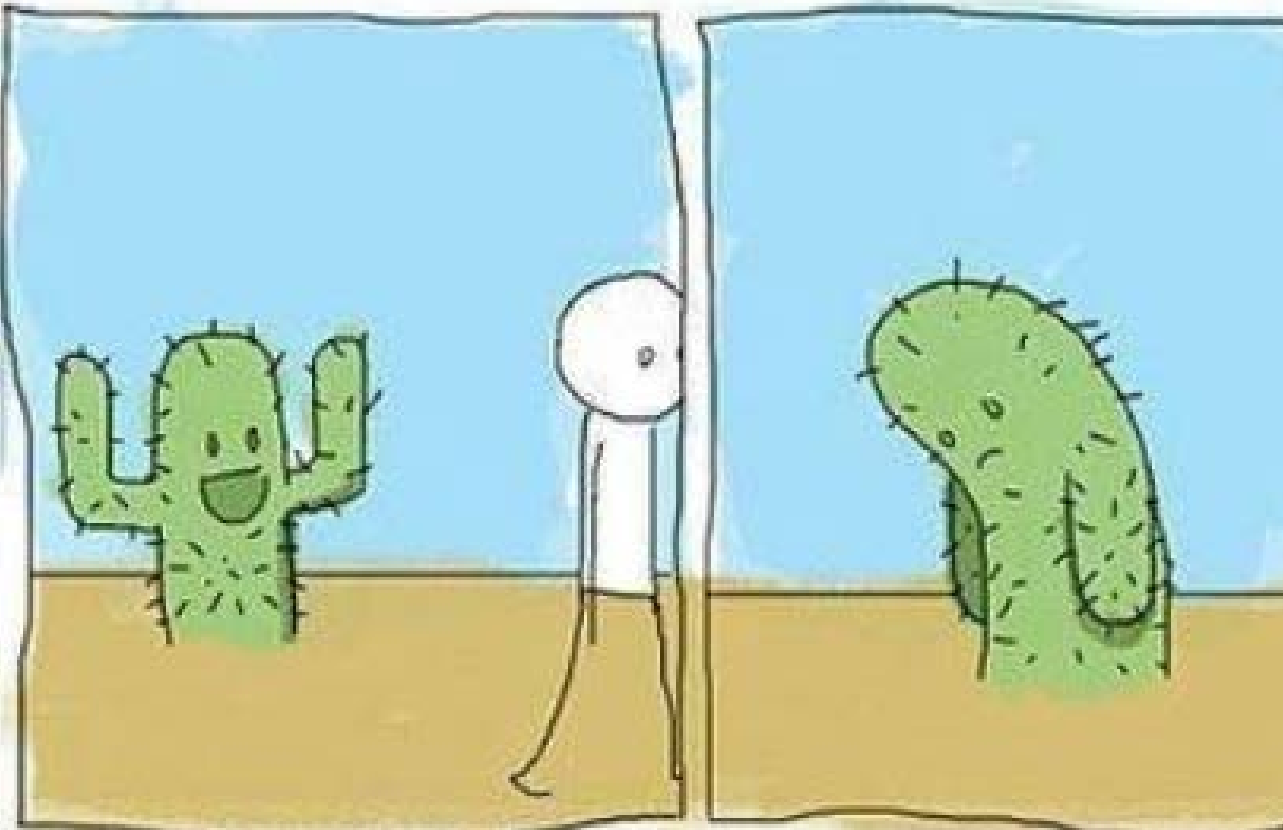
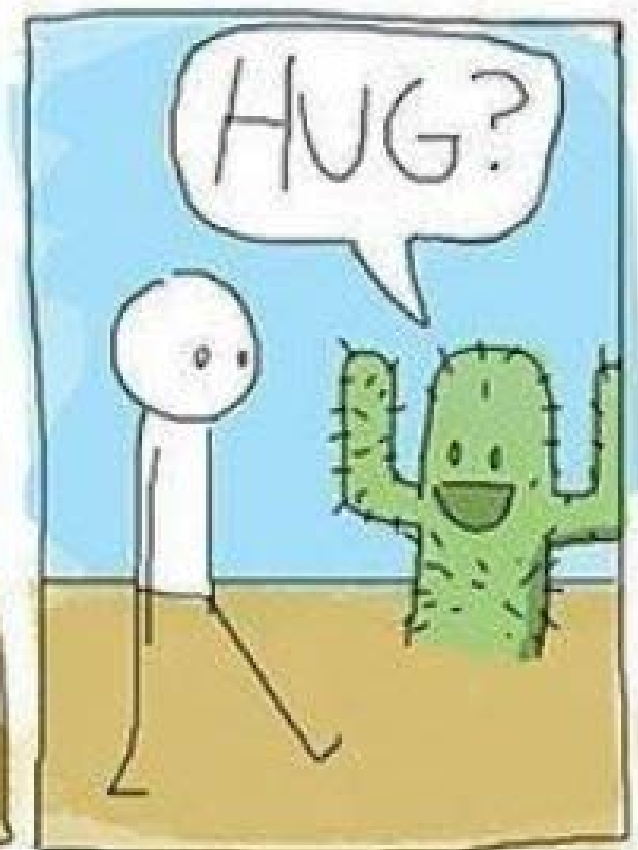
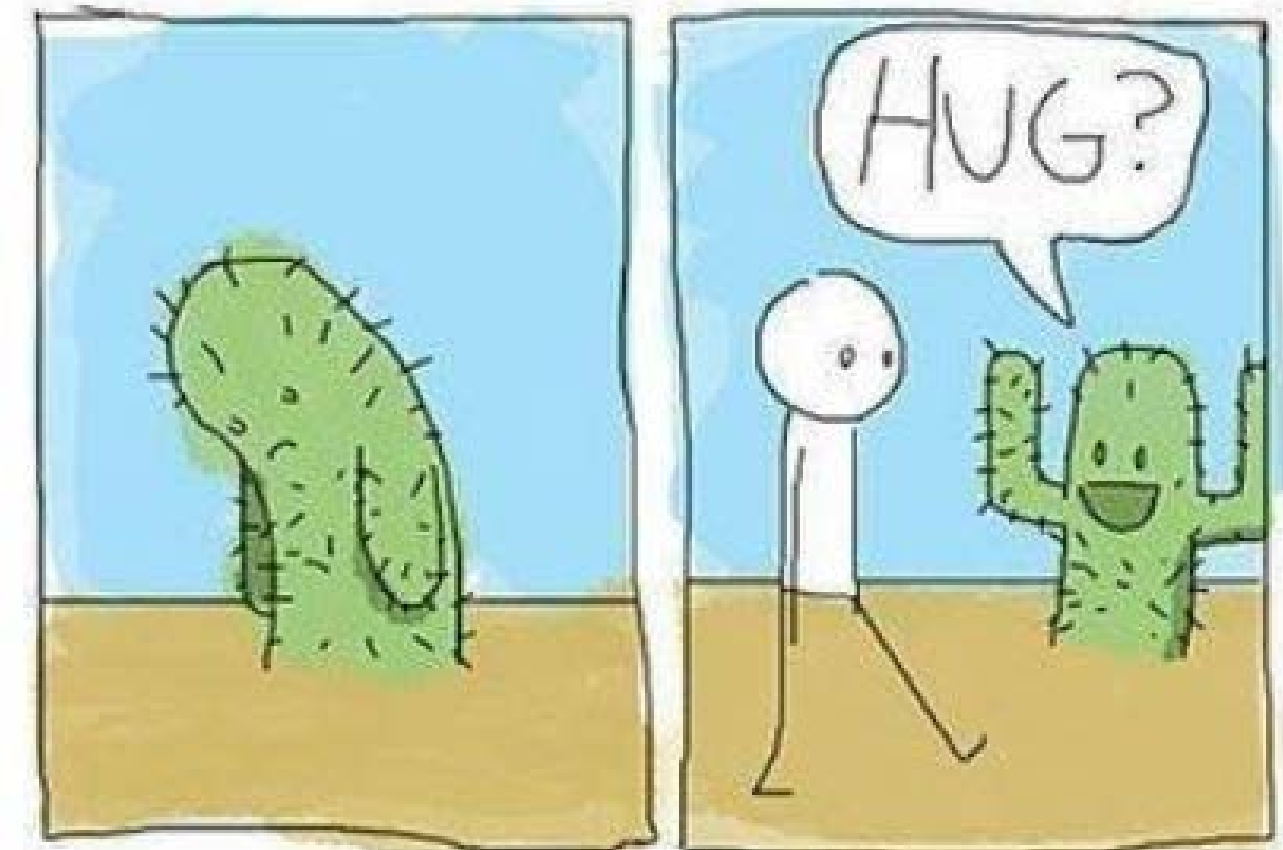
Cactus and Succulents

Class will begin shortly! :D



Cactus Perceptions

- 1940's western films
- Cattle skulls and rocks
- Not lush and beautiful



Cactus Perceptions Revived

- Add amazing variety and texture to a landscape
- Can be incredible statement plants
- Incredibly drought tolerant
- LOW maintenance
- Winter interest
- And those blossoms!



Companion Plants

- Make great companion plants
- Grow likes with likes
 - Hydro-zoning
- Think of our own mountains



Design

- Repetition of forms or color
- Statement plants
- Mix textures
- Contrast colors



How to Grow

- Planting
 - Good drainage is an absolute **MUST**
 - Do **NOT** add organic matter
 - Remove artificial soil from pot
 - Go for full sun in summer and winter
 - **LIGHTLY** fertilize and go organic
 - Plant in spring while it's cool, not in winter



How to Grow

- Watering
 - Cacti and succulents are thirsty in the spring when they're breaking dormancy
 - Additional water during hot months will encourage growth
 - Keep dry while resting during cool months
 - Water extra during their first season



Handling Cacti Safely

- Gently squeeze container to loosen soil and gently tip by the pre-dug hole
- Twist newspaper to make a "rope" to wrap around the cactus
- Kitchen tongs
- Heavy-duty leather gloves



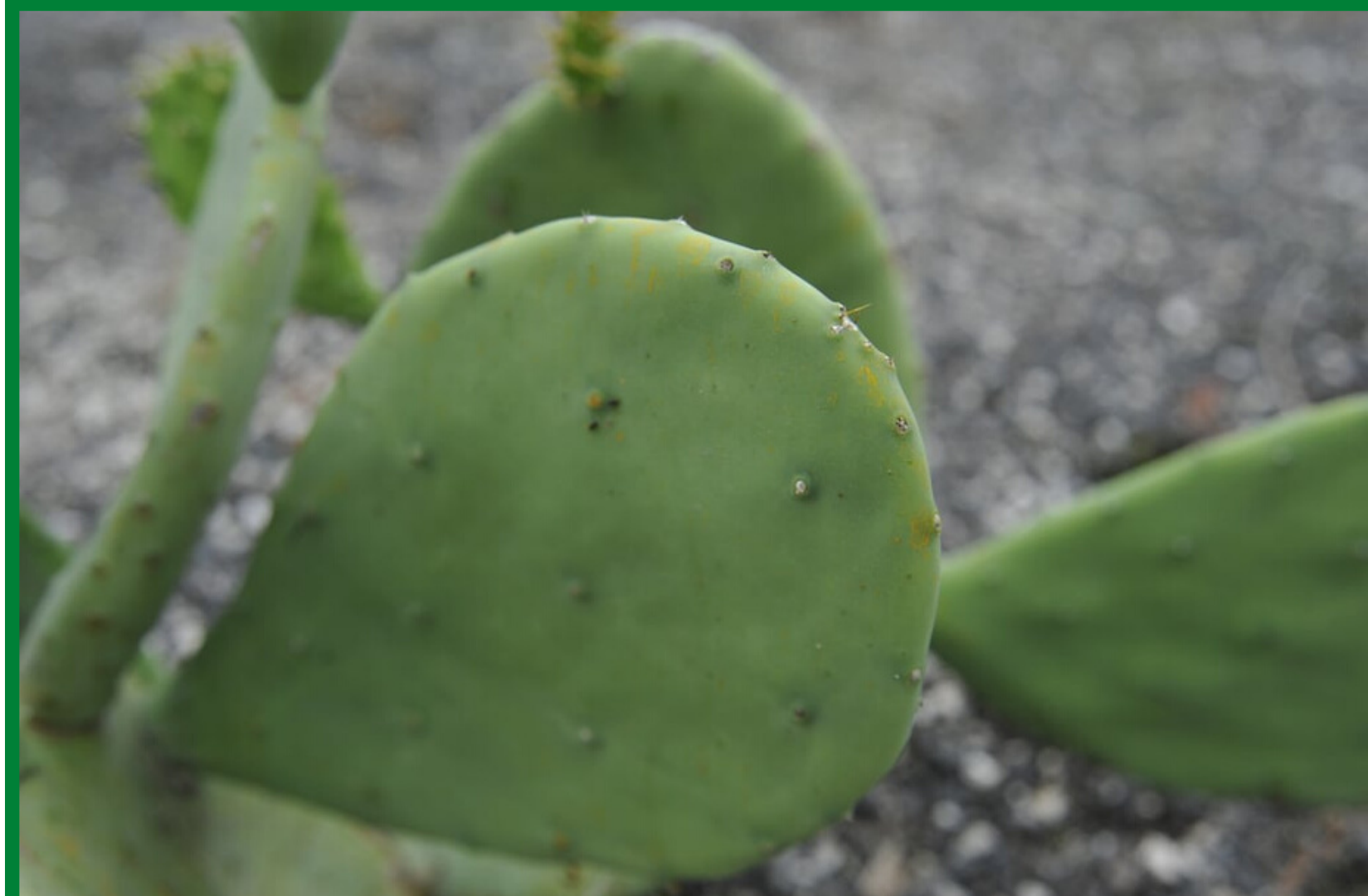
Cactus Tid-Bits

- Store water in stems
- Typically have shallow roots
- Protective spines
- Spectacular flowers
- Most are happy with only the water they get from the rain



Cactus: Prickly Pear

- Spineless Prickly Pear
 - *Opuntia cacanapa*
 - 'Ellisiana'
 - Edible
 - 3' tall x 4-6' wide
 - Zone 6-7



Cactus: Prickly Pear

- Beavertail Prickly Pear
 - *Opuntia basilaris*
 - 1' tall x 2' wide
 - Zone 6
 - Utah Native
 - Glochids!



Cactus: Prickly Pear

- Starvation Prickly Pear
 - *Opuntia polyacantha*
 - Lots of varieties
 - 2' tall x 4' wide
 - Zone
 - Utah Native



Cactus: Cholla

- Cane Cholla
 - *Cylindropuntia spinosior*
 - Up to 6' tall and wide
 - Zone 5
 - Ornamental rose colored flowers
 - Shorter, interesting patterned spines



Cactus: Cholla

- Silver Cholla
 - *Cylindropuntia echinocarpa*
 - Up to 4'-5' tall x 2'-3' wide
 - Zone 5
 - Arms don't droop in the winter
 - Yellow flowers
 - Utah native



Cactus: Cholla

- Tree Cholla
 - *Cylindropuntia imbricata*
 - Over 6' tall x 3-4' wide
 - Zone 5
 - Large pink to purpleish flowers followed by showy yellow fruit
 - Cold and wet tolerant
 - Cool spinless variety available



Cactus: Barrels

- Claret Cup Cactus
 - *Echinocereus triglochidatus*
 - 6" tall x 2' wide
 - Zone 5
 - Colorado State Cactus
 - Pollinated by hummingbirds
 - Utah Native



Cactus: Barrels

- Uinta Basin Hookless Barrel
 - *Sclerocactus glaucus*
 - 12" tall x 12" wide
 - Zone 5
 - Utah Native
 - Teeny-tiny and cute!



Agave Tid-Bits

- Incredible focal points
- Used to make tequila
- Used by Native Americans for food and fiber
- Rosettes die after flowering
- Shallow roots



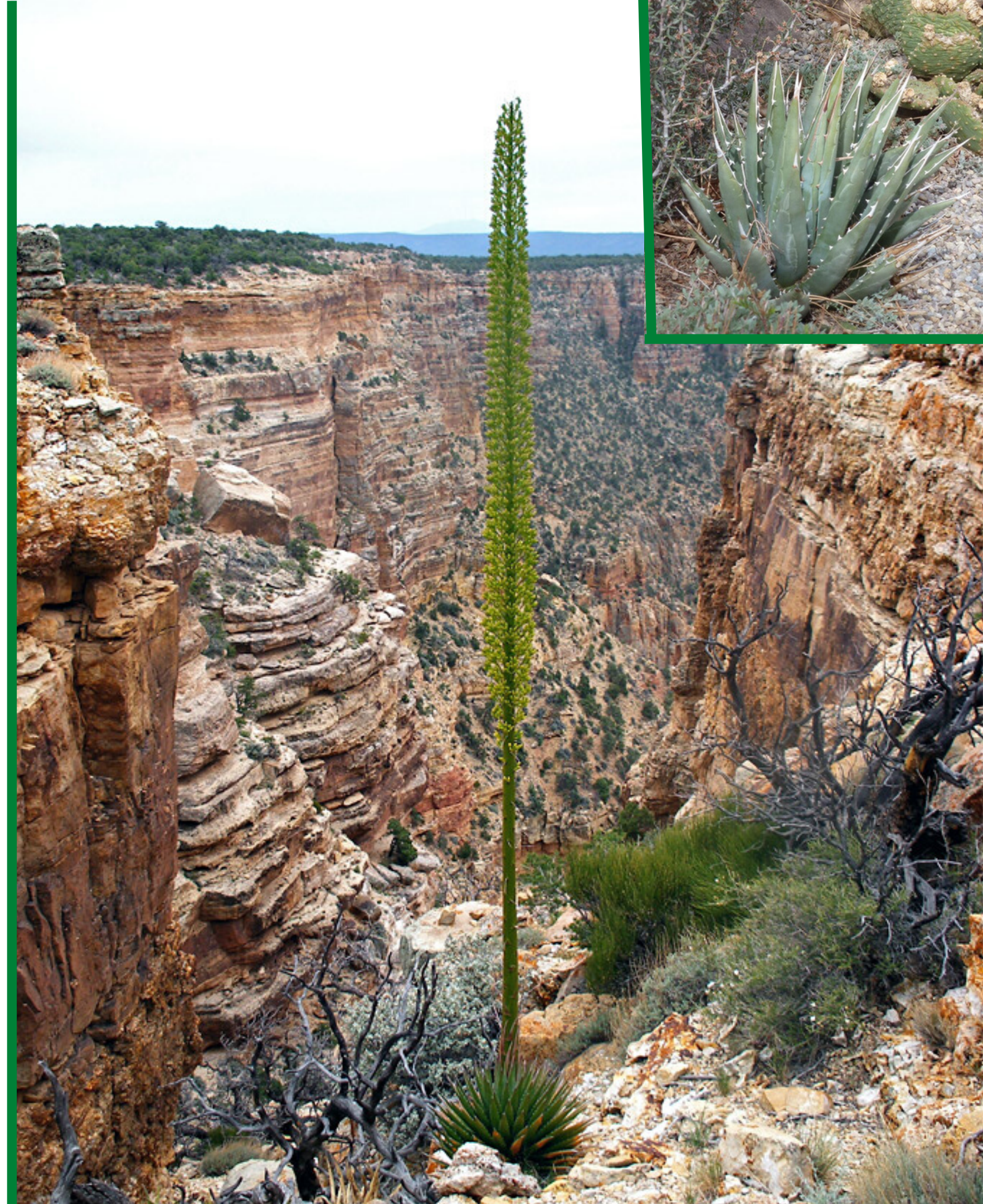
Agaves

- Havard Agave
 - *Agave havardiana*
 - 2-3' tall x 3-4' wide
 - Zone 5
 - Takes almost 20 years to bloom
 - Blooms are 16' tall!



Agaves

- Utah Century Plant
 - *Agave utahensis*
 - 1-2' tall x 1-3' wide
 - Zone 6
 - Although super cold hardy, is sensitive to too much moisture in winter
 - Utah Native!



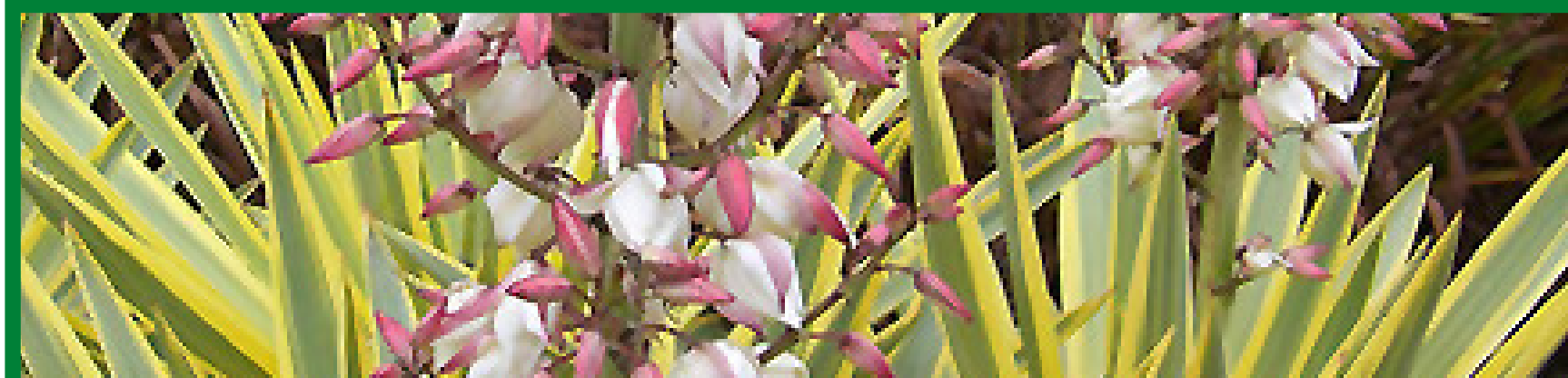
Agaves

- Parry's Agave
 - *Agave parryi*
 - 18" tall x 2-3' wide
 - Zone 5
 - Classic artichoke shape
 - Make sure to get cold-hardy varieties!
 - Blooming shoots can be 20' tall!



Yucca Tid-Bits

- Store water in stems and roots
- Typically have a deep tap root
- Sharp tipped leaves
- Most get by only on rainfall



Yucca

- Joshua Tree
 - *Yucca brevifolia*
 - 8-16' tall x 6-12' wide
 - Zone 6
 - Utah Native
 - Hard to transplant



Yucca

- *Beaked Yucca*
 - *Yucca rostrata*
 - 12-15' tall x 6-8' wide
 - Zone 5
 - Slow growing



Yucca

- Soap Tree
 - *Yucca elata*
 - May get to 15' high, but are SLOW growers
 - Zone 5
 - Hard to transplant



Hesperaloe Tid-Bits

- Store water in leaves and roots
- Typically have shallow roots
- Semi-sharp tips
- Reliable bloomers
- Tolerate a wide range of soils and moisture levels



Hesperaloe

- Red Yucca
 - *Hesperaloe parviflora*
 - Not a true yucca
 - Some irrigation is necessary for profuse flowering
 - 3-5' tall x 4-6' wide
 - Zone 5



Sedum Tid-Bits

- *Sedum*
- AKA Stonecrop
- Can grow in some unfriendly places
- Water once a week during the hottest part of the year



Cascade



Pacific

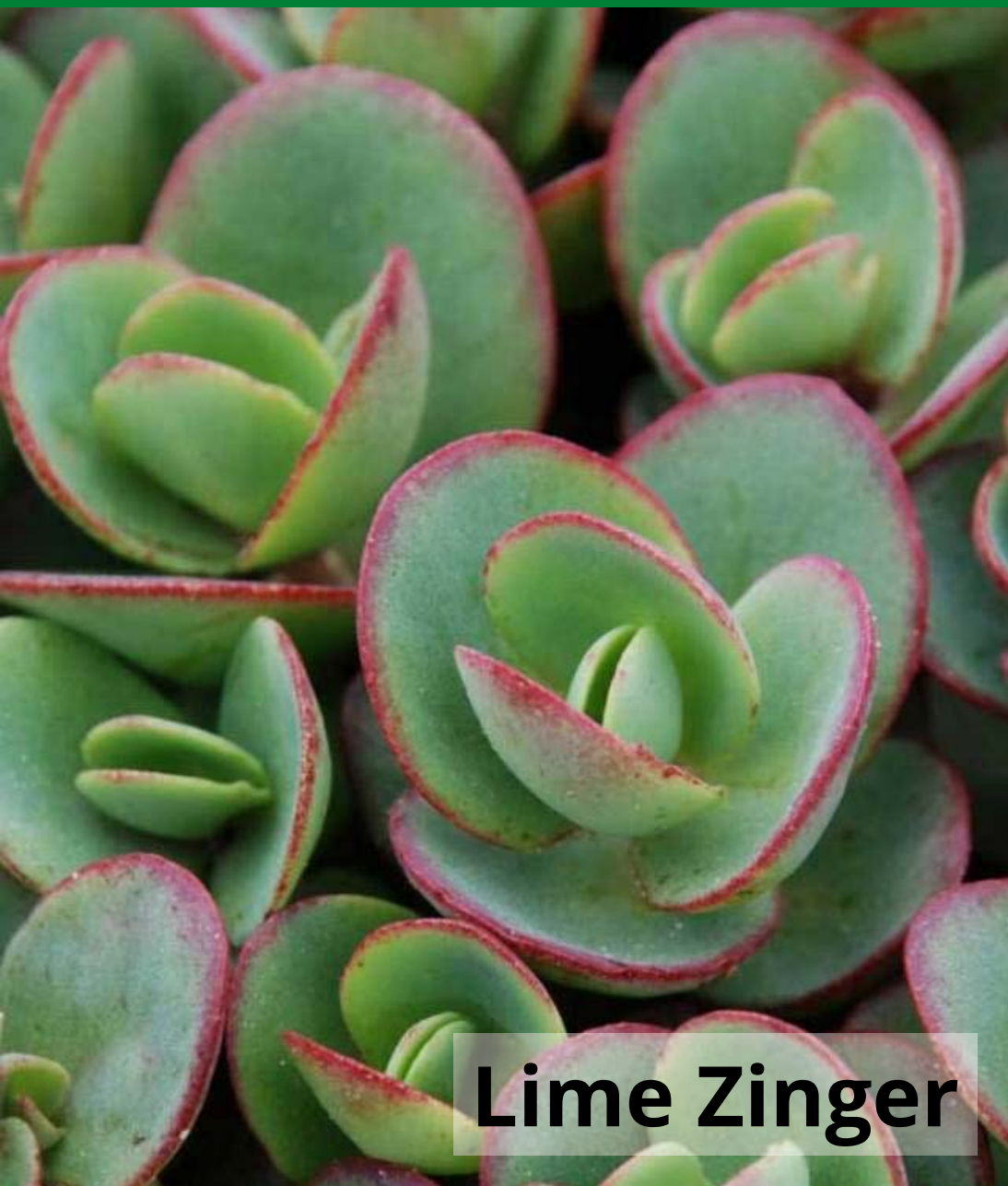
Sedum



Voodoo



Utah



Lime Zinger



Dragon's Blood



Autumn Joy

Ice Plant Tid-Bits

- *Delosperma*
- Profusion of blooms
- Water once a week in the hot part of the year
- Flowers come in a HUGE range of colors
- Some clump, others spread



Jewel of the Desert 'Moonstone'



Jewel of the Desert 'Ruby'

Ice Plant



Lavender Ice



Jewel of the Desert
'Garnet'



Hardy Yellow



Purple

Hen and Chick Tid-Bits

- *Sempervivum*
- Really cool form
- Water once a week in the hot part of the year
- Interesting colors
- Spread by putting out "chicks"



Red Rubin

Hen and Chicks



Cobweb Buttons



Oddity



Pacific Blue Ice



Royal Ruby



Fuzzy Wuzzy

Living Arrangements with Succulents

Can use:

- Hardy succulents and cactus
- Non hardy succulents
 - Echeveria
 - Crassula
 - Graptoveria
 - And so many more!!



Living Arrangements

- The KEY to succeeding with succulents is to neglect them **NEARLY** to death.
- **Indoors:** Water every few **WEEKS**
- **Outdoors:** Water 1-2 times per week, part shade



Living Arrangements

- Soak the plants **SUPER** well then allow all the excess to drain away.
- **DRAINAGE, DRAINAGE, DRAINAGE!!**
- Can add rocks to the bottom, then water **SPARINGLY!**



Living Arrangements

- Mix potting soil or succulent soil with
 - Gravel
 - Turface
 - Perlite



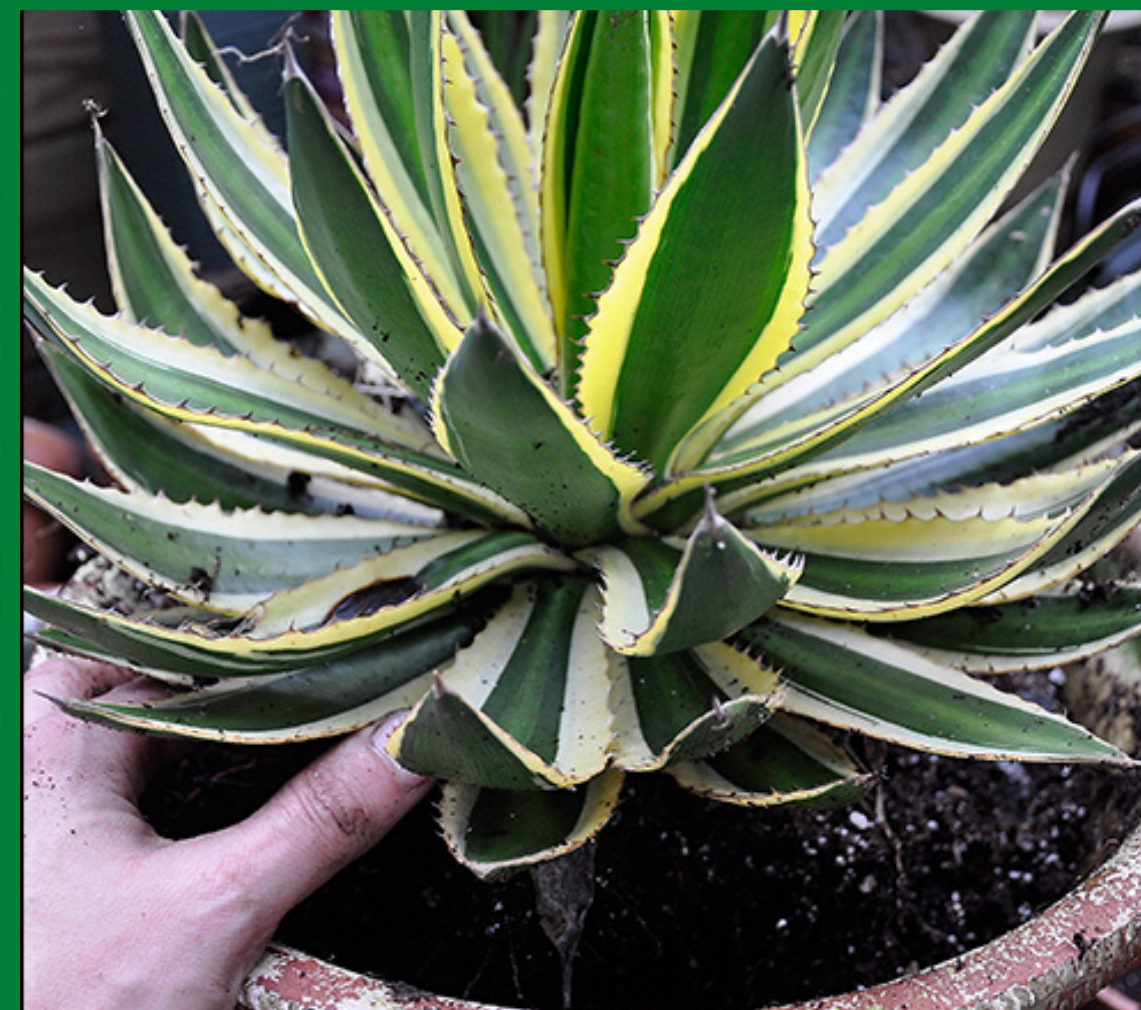
Propagation

- Cut off a pad
- Let cuts scab for a few days
- Stick them in some soil



Propagation

- Carefully separate pups
- Let sit a few days before repotting



Propagation

- Some will already have roots and can carefully be separated and planted



Propagation

- Pads can be laid on top of the soil
- Mist new little roots regularly after they've been carefully planted



Resources

- <http://www.growingwithplants.com/2011/11/dividing-prized-agave.html>
- <https://www.gardenersworld.com/how-to/grow-plants/how-to-take-cuttings-from-cacti-and-succulents/>
- <https://butterfieldgardens.com/products/>
- J&J Nursery
- Cacti and Succulents for Cold Climates by Leo J. Chance
- In Defense of Cactus by Ryan White, Washington County Water Conservancy District
- Living Arrangements by Cynthia Bee, Jordan Valley Water Conservancy District
- Google Images
- Canva.com