Growing Succulents (Including Cacti) in Victoria

Overview

Succulents and cacti are often raised because of their low moisture requirements and relative ease of care -- but no plant is completely trouble free, and these plants do require the appropriate conditions and care in order to thrive.

Definitions

All cacti are technically succulents, but not all succulents are cacti. The two categories are commonly divided this way:

1. **Succulents** have leaves, and are adapted to dry habitats and have fleshy leaves or stems in which they store water. They are easy-to-grow houseplants, and some can also be grown outdoors in sunny, well-drained conditions. Readily available and generally easy to propagate, succulents are inexpensive and varied.
2. **Cacti** have spines or other structures, but lack leaves. Their stems can photosynthesize. They are plants of one family, the Cactaceae, and are found in the wild in arid, but also tropical, regions. Exclusively new world plants, they range from South America to Fort St. John, BC.

Growing Conditions

Light

Indoor succulents thrive in north or east windows where the plants get bright but not direct sun. They require water about once a month, sometimes even less. They require no fertilizer and are not bothered by pests.

Moisture

Succulents generally like low moisture, dry air, good drainage and high temperatures. However, some do grow well in semi-shade and humid conditions. Succulents employ a means of photosynthesis that makes good use of limited water, but is quite inefficient. This is why they are typically slow growing.

Too much water can stunt growth or lead to rot, while too little water causes shrivelling. Cold temperatures also increase the likelihood of rot. Most are sun-lovers and aren't happy in poor light away from windows. They require fast-draining grit soil.

Outdoors, succulents should be planted in well-draining soil and largely ignored. Established outdoor succulents should not require watering under normal conditions.

Temperature

Some varieties can overwinter outdoors successfully in Victoria, whereas others require winter protection.

Propagation

Most succulents can be propagated by stem cuttings, leaf cuttings or division.

Indoor succulents

- Start cuttings in north or east windows where the plants get bright but not direct sun
- Use a well-draining pot and potting mix such as cactus mix
- Water them about once a month

Outdoor succulents

- Place new cuttings in the shade for a day or two to let them scar over
- Pull off the dead, outside leaves
- Use a chopstick to make a hole and stick the plant in the ground in a spot that gets full sun
- Water it once, then ignore it. It will likely start growing without coddling.

Common Problems and Issues of Succulents

Succulents have relatively few pest and disease issues.

Insufficient light

- Symptoms -When light is insufficient, leaves of succulents like *Echeveria* will often lay flat and develop a pale color
- Prevention – Ensure that your plant is positioned to receive sufficient light
- Remedy – Move plant, or move other plants or objects that might be shading it. Add artificial light if sunlight is insufficient.

Over Watering

- Causes/Symptoms - Plants that are growing in wet conditions will have yellowing leaves as well as soft and mushy leaves and stems. Over time, leaves will drop off.
- The soil surface will be wet or damp to the touch and when severe you will see mold or fungus gnats.
- Prevention - Make sure the container has a drainage hole that excess water can freely drain from and ensure that trays or sleeves are not left full of water.
- If soil is too organic or fine-textured, it will hold too much water. Pot plants with sharp-draining soil.
- Remedy - Stop watering if over-watering is suspected. Allow the soil to dry out thoroughly between watering.

Under-Watering

- Causes/Symptoms – When under-watered, leaves often turn yellow, shrivel, and brown before dropping off.
- Stems and leaves may become wrinkled and mottled.
- Roots die due to lack of water and then when succulents are finally watered again, may not recover well because the root mass is not large enough to provide adequate moisture.
- Prevention – Check plants frequently and water when the soil is dry to the touch. One method to determine if plants need water utilizes a chopstick. Insert a wooden chopstick into the soil and if it comes out with moisture on it, as indicated by a darker color, then the plant does not yet need to be irrigated.
- Remedy – water the plant and observe its recovery. Remove any parts that don't recover. Check regularly and water when soil is dry. Use the wooden chopstick method to assess dryness of the soil before watering again

Root Rot

- Causes/Symptoms - plants begin to drop leaves or shrivel up, a symptom often mistaken for under-watering.
- Root rot is caused by waterlogged soil, which causes low soil oxygen levels – resulting in root death. With fewer live roots to absorb water, plants begin to drop leaves or shrivel up.
- Prevention - Allow the soil to dry thoroughly between waterings. Setting up a wet-dry cycle where the soil is completely wetted and then allowed to completely dry out is the best way to avoid root rot in succulents.
- Remedy – Allow the soil to dry out, discard any dead portions of the plant. Water again only when the soil is fully dry.

Insufficient Light

- Symptoms - Tall, spindly, lanky new growth that is pale in color is an indication that light levels are too low. Those succulents with rosette growth forms often open up and leaves flatten out in an effort to collect more light.
- Prevention – . . Provide abundant bright, indirect light. Ideally, plants receive ten or more hours of light a day. If a bright enough location cannot be found by a window, then provide supplemental light utilizing high output, full-spectrum fluorescent or LED grow lights. Set plants within 12 inches of the light source and put lights on a timer to turn on for 12 to 16 hours a day.
- Remedy - If light levels are too low move plants to a location that receives more light Some species of succulents will recover from low light conditions over time and others will require pruning or cut back to remove lanky growth and allow new growth to form under sufficient light. Other species, in particular many barrel-type cacti, will develop misshapen, narrow spindly growth that will permanently be with the plant even if more light is introduced.

Sun Damage

- Symptoms - Brown or tan patches that form on leaves and/or stems, especially interior leaves or on new growth, are common symptoms of sun scald or sun damage.
- Causes - The primary cause of sun scaled is when succulents are exposed for a length of time to low light levels and then suddenly transitioned to bright or direct sunlight.
- Prevention – Succulents should be positioned with protection from the hot afternoon sun and most do best in bright, indirect light. Transition sun-damaged succulents to new light conditions slowly to avoid damage in the future.
- Remedy - The dead areas burned by the bright light will not recover, and typically leaves with sun scald will eventually drop. Stems with sun scald damage will callus over creating a permanent scar. Remove dead areas and discard.

Mealybug

Mealybugs show up as cottony masses. Look for them along the veins or where leaves join the stems. You might notice their sticky honeydew before you notice the bugs themselves.

- Isolate plants
- Rinse foliage with water and remove any masses you see.
- To kill the insects, touch them with a cotton swab dipped in rubbing alcohol. Insecticidal soaps or Neem oil may also work.
- Multiple applications may be needed. Uncontrollable infestations can only be dealt with by discarding the plant.

Dead Leaves

Lower leaves often dry up, especially on rosette types. Gently remove dried leaves and discard.

Succulents will frequently have dead areas after winter, so remove any damaged or desiccated leaves. If the plant is badly damaged, just propagate a new one rather than having an ugly one on display.

Overwintering

Indoor Succulents

Schlumbergia and *Kalanchoe* can be moved outside during warmer summer months but bring them indoors well before the first frost and maintain drier soil. The colder temperatures should spur bud production. You should begin to see buds forming by October.
Schlumbergias enjoy very warm temperatures during their growing season, but once back indoors in fall, they require +12C. They also need 13 hours of darkness to set blooms.

Outdoor Succulents

Outdoor succulents should be overwintered in a sheltered place under an overhanging roof to prevent soil from becoming waterlogged.

Types hardy to –10C
Echeveria
Sempervivum
Sedum
Rosularia
Graptopetalum

Types hardy to +5C
Agave
Oscularia

Outdoor Cacti

Outdoor cacti should also be sheltered, and may be brought indoors or covered during very cold or wet winter weather.

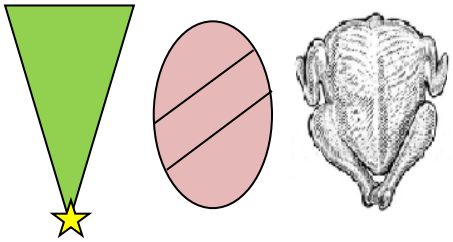
Types of Hardy Cacti	
Eastern Prickly Pear (Opuntia humifusa)	-11C
Lace Hedgehog Cactus (Echinocereus reichenbachii)	-11C
Texas Barrel Cactus 'Ferocactus hamatacanthus'	-11C
Tree cholla (Cylindropuntia imbricata)	*-6*
Claret Cup Cactus (Echinocereus triglochidiatus	*-6*
Echinocereus triglochidiatus var. Inermis	*-6*
Old man of the Andes (Oreocereus celsianus)	*-6*

Fun Succulent Facts

1. The ancient Aztecs revered the prickly pear cactus as a fertility symbol.
2. Cacti have areoles – the special sites from which the spines and flowers emerge.
3. Saguaro cacti can live for over 200 years.
4. Saguaros can fight back. When a man was vandalizing a giant saguaro by shooting it with a shotgun, a heavy, 4-foot-long arm broke and fell on him. The saguaro lived. The man did not.
5. *Schlumbergia* (Christmas cactus) don’t have leaves. The flat stems perform photosynthesis.
6. In their native habitat, Christmas cacti are epiphytes and live in trees.



Note the similarity between leaf shapes and the holidays in the names of the plants.



References

https://bcinvasives.ca/play-your-part/plantwise/grow-me-instead/broadleaf-stonecrop/

https://www.clevelandcountymastergardeners.org/dishing-the-garden-dirt-the-ccmga-blog/its-time-for-holiday-cactus

https://extension.oregonstate.edu/news/carefree-succulents-continue-grow-popularity

https://floweryprose.com/2020/12/30/fun-and-interesting-facts-about-holiday-cactus-schlumbergera-spp-and-how-to-keep-them-alive/

https://mgnv.org/houseplants/why-beginners-struggle-with-succulents/

https://planetdesert.com/blogs/news/20-cold-hardy-cactus-care-types-and-growing-guide#

https://planetdesert.com/blogs/news/cactus-facts-20-facts-about-cacti?srsltid=AfmBOooUZGU4EWP9g6nOZPpgDpxnsfVjXgoD4dXraD2taFDsgXIgby25

https://www.naturetrust.bc.ca/news/brittle-prickly-pear-cactus-hidden-beauty July 27, 2023 by Rachel Brown

https://www.rhs.org.uk/plants/96682/sempervivum-calcareum/details

https://www.rhs.org.uk/plants/types/cacti-succulents

https://www.rhsplants.co.uk/plants/_/aloe-vera/classid.2000027723/

https://www.theplantedfarm.com/

https://www.thespruce.com/christmas-cactus-4176983

https://yardandgarden.extension.iastate.edu/how-to/common-problems-and-issues-succulents

dreamstime.com/vector-carcass-chicken-turkey-hand-drawn-baked-poultry-engraving-vintage-food-style-illustration-image196852377