



## Colorado Cactus & Succulent Society

### Meeting Details:

- Bring a snack for yourself or to share
- Arrive early to find parking
- And prepare for fun!

### *mini plant show!*

Bring your Astrophytum and Aloes to the meeting for our mini plant show... there will be ribbons!!

### *call for photos*

Send us your cactus photos  
[cactuscolorado@gmail.com](mailto:cactuscolorado@gmail.com)

use the subject line

**newsletter photos**

### *save the date*

2019 Show and Sale

**April 5, 6, & 7**

**THIS LOCATION AND DATE  
HAS CHANGED to the  
SUMMIT EVENT CENTER**

*January 2019, Vol 23 No. 1*

The Colorado Cactus & Succulent Society promotes knowledge, enjoyment, cultivation and conservation of cacti and other succulent plants amongst its members, other individuals and organizations throughout Colorado.

# January Club Meeting:

**Speaker: Jackson Burkholder**

**Topic:** Cacti: Knowing, Sowing, Growing & Showing

**Featured Plants:** Astrophytum and Aloes

**Date:** Tuesday, January 22, 2019

**Time:** 6:30 pm - 9:00 pm

**Location:** Denver Botanic Gardens Plant Society

1007 York Street

Denver, CO 80206

### Details:

6:30 pm - Social Hour

7:00 pm - Club

7:30 pm - Speaker Jackson



# PRESIDENTIAL MUSINGS

Hello Everyone!

I wanted to make sure everyone knows we're alive and kicking. We have a lot in store for you this year! We have all the dates and meetings outlined for you to easily plan ahead and we are looking forward to adding workshops along the way. Check out [ColoradoCactus.org](http://ColoradoCactus.org)

## **THE BIGGEST CHANGE: SHOW AND SALE UPDATE**

As you know there is a lot of amazing changes happening at Denver Botanic Gardens and the date that was given to us for the show and sale was July 4th weekend. We were excited to be able to utilize the outdoor area, but after hearing from our growers, vendors, members and others who were willing to compromise but hesitant, we felt that because we would be competing with other cactus show and sales out of state, the board has decided to move our venue to the SUMMIT EVENT CENTER in Aurora right off I-225 and 6th Ave. It's a really convenient location with a TON of parking, the staff has been great to work with and the space is larger than Mitchell Hall. Please take a look at their website. <http://www.summiteventcenter.com/>

I know this is very different than years past so feel free to ask questions. We are looking for volunteers and you know I will work really hard to make sure it's a beautiful success. Here's a little more information:

**April 5, 6, and 7**

**Set Up and Member Sale Friday April 5th.**

**Open to the Public Saturday & Sunday.**

**There will be a small entrance fee to non members.**

Other Update: We are looking for a **newsletter editor**. We have the layout, ready to go, so your job would be to make sure the newsletter has accurate information, you're willing to coordinate with other members and is timely. The job description includes:

Assemble all information for the Newsletter. Attend all society, Board and committee meetings, or have somebody assigned to report accurately on actions taken at said meeting.

Keep members informed of activities of the organization and its members, remembering to include all pertinent information: who, what, where, when, why. A few diligent members acting as reporters can be helpful, but their efforts must be coordinated by the Editor.

Prepare copy that is print-ready and mail the newsletters to members who utilize printed copies.

I love you all and I will see you next week! - Sara

# SPEAKER OF THE MONTH

## Cacti: Knowing, Growing, Sowing, & Showing

By Jackson Burkholder

Jackson Burkholder is a professional horticulturist who has been growing cactus and succulent plants for as long as he can remember, showing his first cactus in the CCSS Show when he was in the first grade. Currently, Jackson is the owner of Precision Cactus Growers Ltd., a nursery specializing in cactus seed production. He also continues to be involved with the CCSS as the chairperson of the annual plant show and also as a show judge.

The presentation he will give this month will focus completely on the Cactus Family. He will start out by describing the evolution, taxonomy, and unique morphology of the Cactaceae, as well as many of the modifications that make the family so distinctive. The second part will cover cultural information about how to care for adult cactus plants as well as how to propagate them from methods like seeds and cuttings. The presentation will end by briefly discussing how to prepare them for entry into Cactus and Succulent Shows.



## NEW FEATURE – MEETING RSVP

To accommodate the growing club we've started a meeting RSVP system using survey monkey. Don't worry if you don't RSVP, or if your ability to attend the meeting changes. The RSVP is for planning purposes and we

Tuesday January 22, 6:30 @ Plants

[click here to RSVP for the December Meeting](#)

Scan to RSVP





# PLANT OF THE MONTH: ASTROPHYTUM

**Etymology** -The generic name "Astrophytum" derives from the Greek words *astron*, meaning a "star" and *phyton*, meaning "plant". The Genus name implies: "star plant".

The *Astrophytum* genus is comprised of 4 species of globose to short cylindrical cacti and one sprawling, octopus-like member. The first four were discovered between the years 1828 and 1845. Two of these are spineless and two have prominent spines. While each species is quite distinct, one from another these four feature a star-shaped appearance when viewed from above. Hence the name *Astrophytum*, which means star plant. *Astrophytum* species have been frequently compared to marine life, in particular *A. asterias* for its striking similarity to sea urchins.

The fifth member of this group was newly discovered in 2001. *A. caput-madusae* is quite distinct from the other members of the genus and actually very distinct from all other cacti genera as well. Hence, many enthusiasts feel it should be part of its own genus and consider it to be the sole species in the genus *Digitostigma*. The name *Digitostigma* describes the long digit-like tubercles that grow something like an octopus.

Despite the noticeable differences, all 5 species including *caput-madusae* feature a sort of flocking of white trichomes (or bumps) on the epidermis. Although in cultivation some forms are bred for their lack of flocking. Plants in this genus also all have yellow flowers with fuzzy floral tubes. Some have a red-centered flower, all are radially symmetric and eventually turn into dry, fuzzy seed pods bearing relatively large, black seeds that are among the easiest to germinate.

The four original *Astrophytum* members have been extremely popular in cultivation and numerous exotic hybrids have been created that accentuate various features such as amount of flocking, number of ribs, lack of spines, etc. With the uniqueness of *caput-madusae* coupled with its late discovery, it is currently one of the most sought after cactus species by collectors world-wide. And in that sense, it fits in quite well with the other *Astrophytum* species.

*Astrophytum* is a Chihuahuan desert native occurring in north/central Mexico and southern Texas, USA .



-Info from CactiGuide.com  
-Photos from Jackson Burkholder

# CACTUS UP-POTTING METHODS SURVEY

Article by: Katherine McCoy, Buena Vista CO 11.4.18

Images by: Don Campbell

This summer, as I was repotting a big batch of cactus with my usual methods, I started wondering if these were actually horticultural best practices. So I emailed a little survey to seven distinguished Colorado and New Mexico C&S growers, known for their exceptional plants. Here's a summary of their enlightening recommendations on some of the fine points of repotting, beyond those first concerns of soil recipes and pot materials, shapes and styles. Our contributors are Steve Brack (formerly of Mesa Garden, Belen NM), Don Campbell (Grand Junction CO), Mike Crump (formerly of Crump Greenhouse, Buena Vista CO), Joyce Hochtritt (J&J Cactus & Succulents, Oklahoma), Sig Ludwig (White Rock NM), David Salman (High Country Gardens, Santa Fe NM), and Keith Woestehoff (Larkspur CO). There's considerable consensus, but also some interesting contrasts. This reminds me of Steve Brack's response to a novice's question about the best potting soil: "Well, that's like asking what the best religion is!"

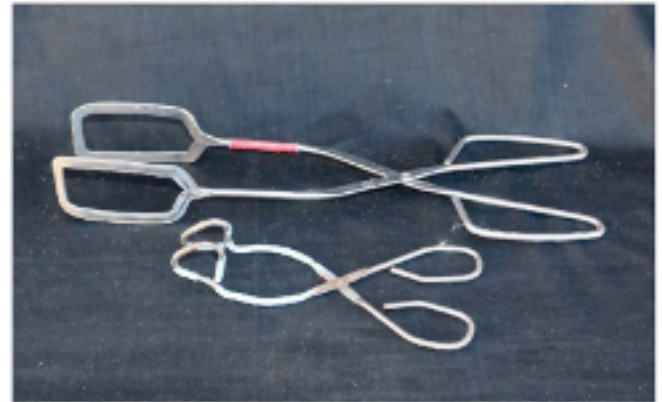
## **When removing a plant from its old pot, should its roots and soil be dry or moist?**

Our experts nearly all prefer plant roots and soil to be dry when removing a plant from its old pot. David Salman feels dry soil minimizes root damage when unpotting a plant.

Mike Crump likes soil to lean towards the dry side but not dusty dry. Don Campbell opts for soil in the "Goldilocks Zone:" not too moist nor too dry. Joyce Hochtritt usually waters a plant about a week before repotting. Sig Ludwig prefers a dormant plant to be dry, but thinks a growing plant is fine either way.

Steve Brack mentions that on the rare occasions when a plant's roots are very difficult to clean, he soaks the old root ball and rinses it. Joyce says that when she finds it necessary to wash the soil off roots, she lets the roots dry for two or three days.

BBQ & kitchen tongs



Use with thin foam to protect gardeners & plants

Forceps (tweezers)



Many obvious & not so obvious uses

# CACTUS UP-POTTING METHODS SURVEY

**Do you remove old soil from the roots? Do you bare-root the plant? Or do you place the plant's intact root ball in a larger pot with additional soil?**

David Salman says, "It is essential that cacti be transplanted bare-root, even seedlings. The soil should be dry to minimize any damage to the roots as one gently teases away the soil." Steve Brack also removes most or all of the old soil from the roots when repotting. Don Campbell likes to free most of the roots without doing too much damage in the process and to rearrange the roots to be compatible with the new pot's configuration.

Joyce Hochtritt, on the other hand, says that if the plant is healthy and has already been growing in her own mix, she only removes the old soil and gravel from around the neck of the plant, and then gently loosens the soil around the edges and bottom of the root ball. Keith Woestehoff also likes to retain an intact root ball, unless he's unhappy with the soil quality, or finds bugs or unhealthy roots. Sig Ludwig says, "Never mess with the root ball!"

Everyone agrees that it's essential to look for problems when repotting. Mike Crump removes old soil only if it has signs of bugs, or if he's changing to a different soil type. Also, if the plant has been in the pot for an extended time, Mike feels that removing some of the soil from the roots helps new roots move into the new soil.

Mike cautions that some cactus have very delicate root systems that should not be disturbed any more than absolutely necessary. Species that dislike having their roots disturbed include Melocactus that have begun to grow a cephalium, and also Discocactus and Astrophytum.

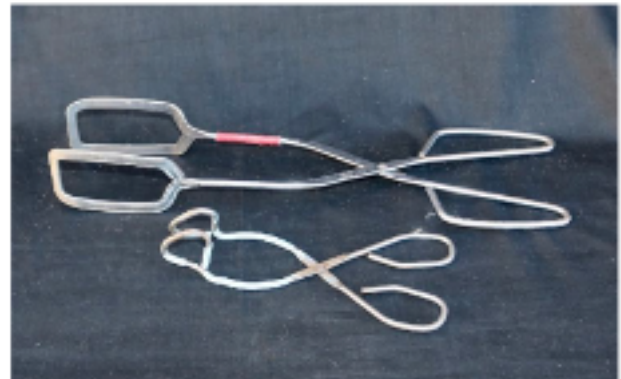
**Do you immediately repot? Or do you leave the plant bare-root for the roots to harden off? If so, for how long?**

Dowel stick, BBQ skewers, etc



Protect gardeners from spines, barbs, etc  
Tamping soil during repotting  
Help by pushing plant out of pot through drain hole  
Holding plants in place while roots reestablish

BBQ & kitchen tongs



Use with thin foam to protect gardeners & plants



# CACTUS UP-POTTING METHODS SURVEY

Mike Crump, Joyce Hochtritt, Sig Ludwig and Keith Woestehoff usually repot their plants immediately. Don Campbell and Steve Brack both say a plant can be repotted right away if the roots have not been damaged.

On the other hand, David Salman likes to set aside the bare-rooted plants in a shaded spot for a couple of days before re-potting. This allows air circulation to assist any cut or torn roots to callus over. Mike also lets a plant callous for a few days if it has been completely bare-rooted or has a sensitive root system. Steve agrees that if roots have been cut, leaving a wound, a plant should sit out until the tissue has calloused. Joyce says that if roots have been severely damaged or have rotted and need to be removed, she washes the roots off and lets them dry for at least a week – and sometimes up to several months.

Thin aluminum strip, old fork, screwdriver, part of a small garden hand-rake



Soft metal strip loosens old soil from inside edge of pot  
Various smaller, pointy tools separate roots from soil

## Do you trim the roots? If so, how much?

David Salman believes that trimming the roots is highly beneficial and helps increase the number and density of the roots. For seedlings, he trims off half of the fine hair roots, and for larger plants about a third of the hair roots. But he cautions NOT to cut a tap root, and to trim only the hair roots around a tap root.

Steve Brack likes to trim long very thin roots and roots that are less than about 1 mm thick, so that new roots can grow. For a plant with very thin roots, he suggests leaving an inch or so to start the new root system.

Joyce Hochtritt, Don Campbell, Keith Woestehoff and Mike Crump only trim roots that are unhealthy or damaged. Sig Ludwig says he prefers not to “mess with the roots.”

## How dry or moist should the new potting soil be?

Steve Brack and Joyce Hochtritt both use dry potting soil because it flows better around the roots with no empty air pockets. Don Campbell likes his soil “on the dry side” for the same reason.

David Salman, Keith Woestehoff and Mike Crump all prefer slightly moist potting soil. Sig Ludwig feels either is fine for a growing plant, and dry is OK for a dormant plant.

## How soon after repotting do you water?

Joyce Hochtritt says she waters 98% of her cactus plants right after repotting and Don Campbell generally likes to mist or lightly water the soil of a freshly repotted plant. But David Salman waits a day or two before watering in the new transplant just to make sure there are no damaged roots that might become infected with pathogens.

Steve Brack feels that small seedlings can get a light watering soon after repotting, but

# CACTUS UP-POTTING METHODS SURVEY

cautions that large or more mature plants should not be watered right away to avoid soggy soil that could cause root rot. He recommends just a splash of water on the body of a large plant in the first few days; then 3–7 days after repotting, a good soak is beneficial, but only during the growing period. During dormant times, soaking the soil should be avoided.

Steve also recommends waiting a day or two before placing the plant back into a hot bright location; the root system helps cool the plant and needs a chance to acclimate to its new environment.

## When should a plant be up-potted?

Joyce Hochtritt thinks that cactus grown in a greenhouse environment (rather than a windowsill) can tolerate more year-round horticultural activity, including repotting, propagating and pruning.

Sig Ludwig recommends fertilizing rather than up-potting. He up-pots only when he wants to grow a plant bigger for showing; to produce flowers and seed, he relies on generous fertilizing during the growing period.

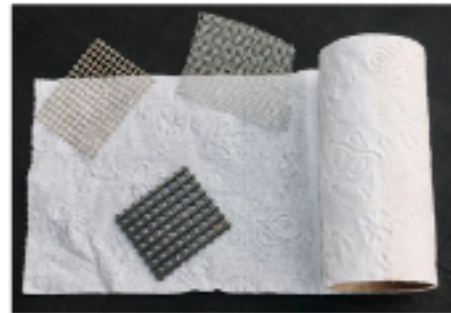
Mike Crump cautions not disturb a plant's root system any more frequently than necessary: "Cactus do not necessarily like new digs as much as most humans!"

Soup can & aluminum flashing



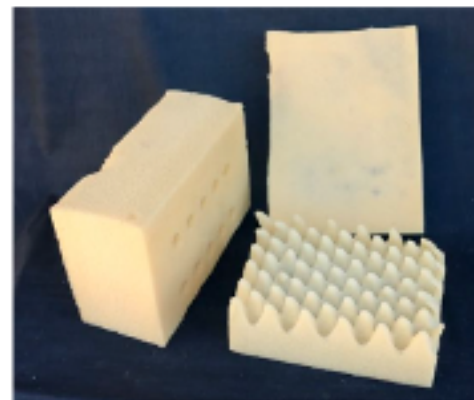
Adding soil & top dressing during repotting

Toilet paper, hardware cloth & window screen



Add hardware cloth or screening over drainage hole & then cover with toilet paper  
Initially keeps soil in pot & later provides a firmer surface for dowel stick to eject root wad from pot

Foam in various sizes & thicknesses



Thin pieces used to protect spines & gardener  
Thicker pieces used to support larger/taller plants laid on side



## SARA RANDALL

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## UPCOMING PROGRAMS:

January 22 - Jackson Burkholder

February 19 -

March 19 -

April 16 -

May 21 -

June - Date TBD

July - Cactus Cut Up at Dixie's

August 20 -

September 17 -

October - Date TBD

November - Date TBD

December 17 - Member Holiday Celebration



Turbinicarpus jauernigii by Jackson Burkholder

## CCSS MEMBER-GRANT RECIPIENTS:

DEVRA & MICHAEL ROLL (2017)

DONNIE BARNETT (2017)

MIKE BONE (2016)

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## JOIN THE CONVERSATION:



<https://www.facebook.com/CoCSS>

<https://www.instagram.com/coloradocactus/>

<http://www.coloradocactus.org/>



Colorado Cactus and Succulent Society

[coloradocactus.org](http://coloradocactus.org)

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Address Correction Requested