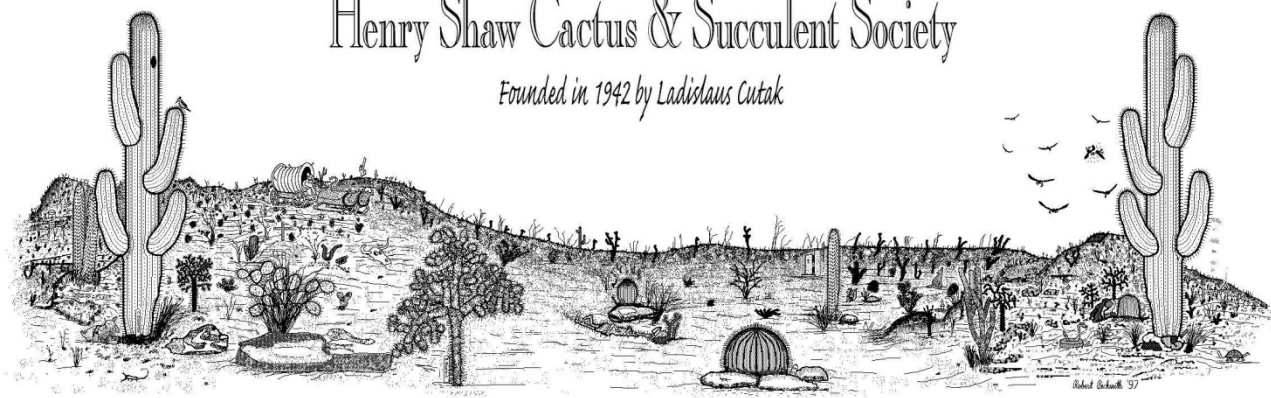


Henry Shaw Cactus & Succulent Society

Founded in 1942 by Ladislaus Cutak



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GREENHOUSES

This Month's Program



Mission Statement: The purpose of the Henry Shaw Cactus & Succulent Society (HSCSS) is to promote and increase knowledge of the culture, propagation, and conservation of cacti and other succulent plants from arid regions around the world.

- The Henry Shaw Cactus & Succulent Society is an affiliate of the Cactus and Succulent Society of America
- All donations made to the Henry Shaw Cactus & Succulent Society, a non-profit organization, are tax deductible.

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*Mobot's Desert House, now
destroyed* . Photo taken circa
1975

It's March. In it we find the first day of spring, bulbs poking through the ground and blooming, birds in spring song, days getting longer, thunderstorms, and so much more that will take us into the next growing season. Finally.

Now is the time to think about and even prep your outdoor staging areas. If you've never taken your plants outside before, please consider doing it this year. All plants respond so much better to outdoor growing conditions than to the confines of the indoors.

The first show meeting is behind us and the wheels are in motion to, once again, treat the St. Louis area to an incredible show and sale. The annual spring plant sale is next month as it is each April. Tom Degnan is putting together a list of neat plants from both Out of Africa and Grigsby's that will give us all something to take home and enjoy.

Gladys and Fred Drummond have returned from a buying trip to Out of Africa. Many neat and rare plants are there and waiting. Pick a day and make the trip. You'll be glad you did.

See you all at Sunday's meeting.

Mike Hellmann
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CACTUS *Echinomastus intertextus*

By Chris Deem

It had been an early spring snowstorm, unexpected and fleeting. Everywhere, the vast landscape had been covered by a blanket of white crystals, soft as talc. The unblemished snow had been like the stolen moments of semi-conscious sleep, after the alarm clock had sounded, as one chose to face the day or to dream on. It couldn't last. I think back to yesterday, when a cream colored basket woven from the stems of grass-like rushes was trapped in a snowdrift. Now, once again, the basket tumbles free. On this day, a soft embrace of warmth and the sparkling sunlight seem to dance in a swirling breeze. The basket rolls, to and fro, over patches of green and over the woven spines of several small cacti that also can be seen. Atop these woven cacti, the melting snow reveals a mystery. A scattering of wet, white flowers, some tinged pink, are strewn across the greening landscape, yet, no



Echinomastus intertextus in the photographer's collection, purchased from Rio Grande Nursery in Socorro, New Mexico. Photo by Peterb, www.cactiguide.com



Echinomastus intertextus growing in Arizona. Photo from www.cactiguide.com by Peterb.

pollinators are seen. I feel, some-how, that deep questions should be pondered here. Yet, I feel no need for answers, as I watch the basket tumble in the breeze. As I watch I begin to wonder, was this basket once a precious possession, now lost? Yet, I don't really need to know, it's just another mystery like the flowers in the snow.

The genus *Echinomastus* is a mystery. I try to give you truthful information, no, I really do. Sometimes it's difficult. In the book, *The Cactus Family*, I read that according to the International Cactaceae Systematics Group, *Echinomastus* species are really *Sclerocactus*. In this same book, however, a researcher named Porter seemed to have D.N.A. proof showing the two genera had separate evolutionary paths. Just who is right, I could ponder, yet I don't really need to know. It's just another mystery like the flowers in the snow. ■

SUCCULENT: *Anacampseros*

By Eric Driskill

The genus *Anacampseros* is in the family Portulacaceae. In 1994, the genus suffered a tragic loss when it was split into three smaller genera: *Anacampseros*, *Avonia* and *Grahamia*. Sometimes when names change, my plants get new tags with new names. Sometimes they get a new tag with the new name and the old name and sometimes they get a new tag with the same name regardless of what new name a plant is given. With *Avonia* being one of my favorite genus; I have tags representative of all three of the above scenarios. I would say any genus which loses a gem like *Avonia* has suffered a major blow. Nonetheless; *Anacampseros* persists.

Plants are all from South Africa with around thirty-five species. Some of these species can be found abundantly in any big box store and other species may well be very difficult to locate for sale. Plants form rosettes with leaves alternate, often spirally arranged up the stem and thick. Many species are also adorned with bristly hairs or bristles arising from the leaf axils. Some species have leaves which look like they are covered in cobwebs. All species have succulent leaves and a few species have tuberous roots or a small caudex. Of course the latter are, in my experience, harder to find and much more expensive, if you can even locate them at all.

Flowers are terminal and scorpioid (a cyme in which the axis is curved and the flowers arise two-ranked and on alternate sides of the axis; as in the forget-me-not) and self-fertile. Flowers range from white to pink and open for only a few hours, if at all. Plants require a porous soil mix and a light hand with the watering can. The caudiciform species are more susceptible to rot and should be watered very sparingly.

Some plants are slow growing and very small but most of the species are easy to grow and don't take up much bench space. Plants do not tolerate frost but can survive extreme heat and better so if given ample air circulation. Like so many of the other plants we grow; the rosette species often look like two different plants if given strong light versus low light. Lower light usually produces much brighter green leaves with extended leaf internodes. Brighter light results in plants with much more color and much tighter growth. This is demonstrated in the two accompanying photos. Photo 1 (below) is a picture of two ***Anacampseros rufescens***. The plant on the left has been grown on a bottom shelf in the greenhouse. You can see the plant is much more loosely grown and vivid green. The plant on the right is on the top shelf near the glass. It is much tighter and dark purple color -- same species; two different amounts of light.

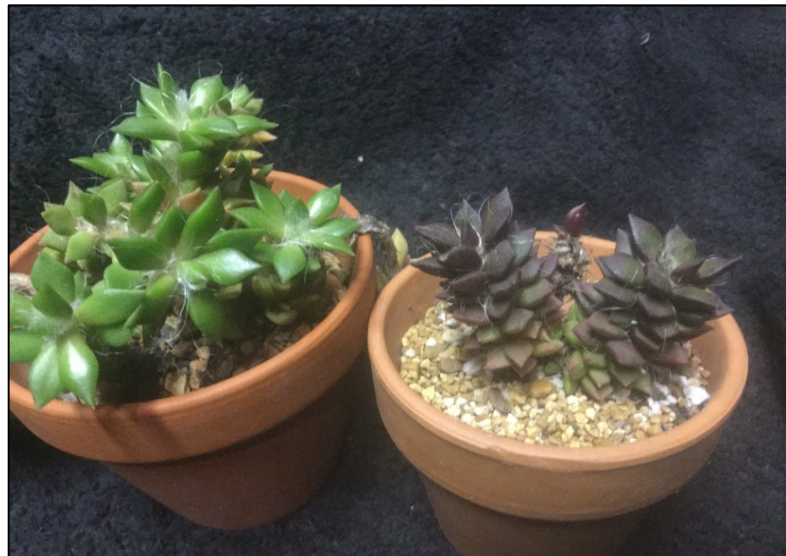


Photo 1: Both plants are ***Anacampseros rufescens***, but grown under different light conditions.

Photo 2 (right) is a close up of the purple plant in Photo 1. The purple is so dark it almost looks brownish black. You can see the leaves near the bottom are greener from the shading of the leaves above. The bristly hairs arising from the leaf axis is much easier to see in this photo.

A.baeseckeii is a nice species with more of an upright habit with leaves that are cobwebby. **A. retusa** is another nice species, rosettes, much shorter than baeseckeii but also with cobwebby leaves. **A. refuses** is pictured above with some plants with more or less bristly hair. **A. tomentosa** is another nice species and not too difficult to find. Maybe one of the smallest, most unusual and difficult to find is **A. comptonii**. This species has a very small caudex only 1-2 cm in diameter. These plants are quite charming. If this plant makes it to your wish list you may need some patience before you find one, but I'm sure it will be well worth the wait.

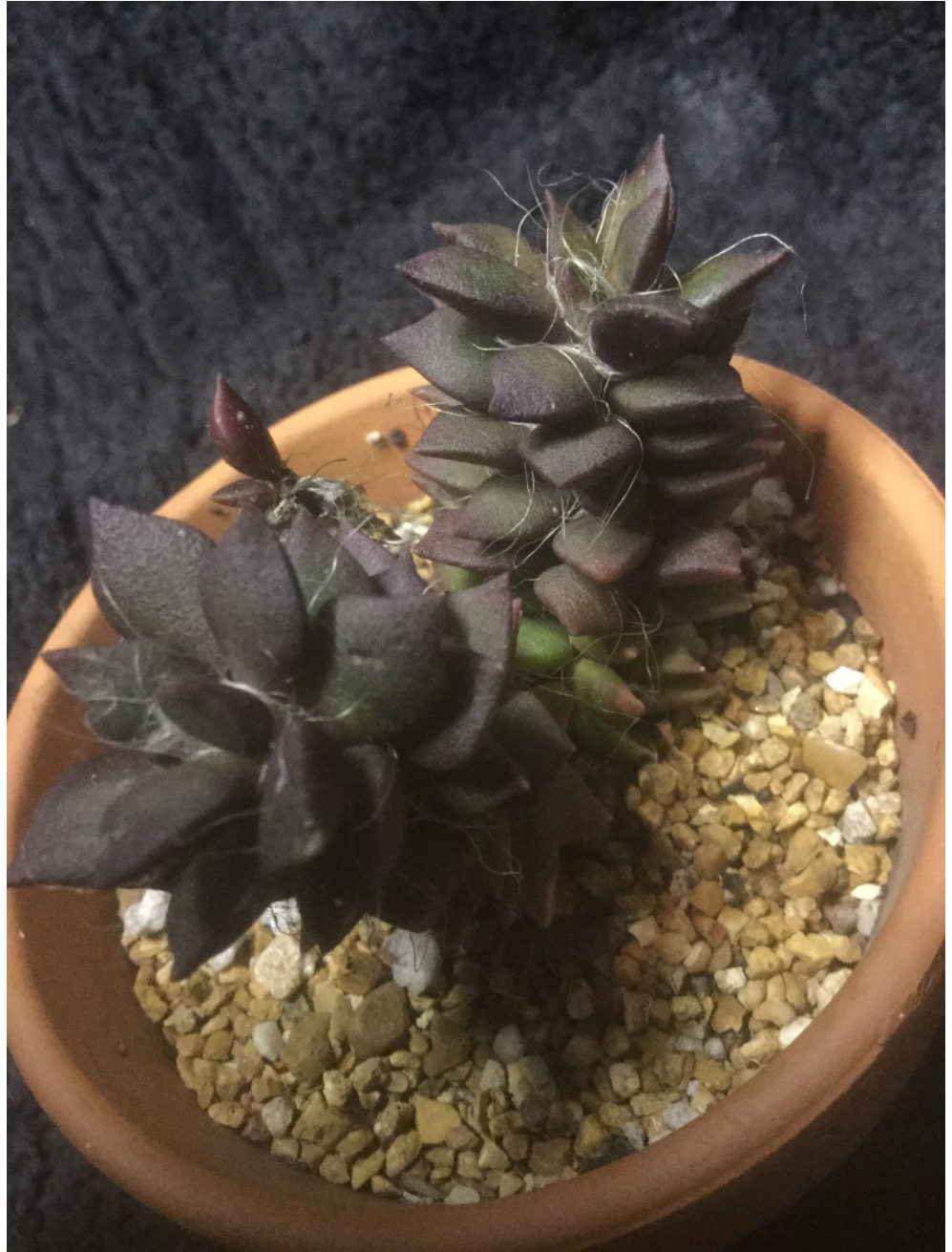


Photo 2: A closeup of **Anacampseros rufescens**. Less sun reaching the bottom of the plant causes the bottom leaves to be greener.

Greenhouses: A tour of Mobot's Desert Plant Collection

By Chris Walker, Program Chair

I have a memory from long, long ago of first visiting the Climatron with my girl scout troop, and being amazed by all the great foliage there, and then proceeding through the desert house next door and being completely blown away by all the cacti and aloes and other succulents stretching up to the top of the greenhouse in a lush profusion of plants. To me, as a child, the desert greenhouse was old and

too. Visiting Greenhouses in winter wherever they were became a practice every winter and whatever little section they allotted to arid plants was a must to visit and enjoy. There is nothing like walking through a sunny warm greenhouse in winter. It makes you FEEL summer like it is still here, even though once you step outside to 15 degree temperatures (the current temperature, as I write this article) you snap back to reality.



Archival photo of the Desert House (left) next to the Climatron (right) at Mobot.

quaint and I loved it in much the same way as I love the Linnean House today for its dignified architectural lines. And the cacti and succulents! Being a native St Louisan with limited travel experience, the cacti and succulents of the desert greenhouse were more exotic than anything I had ever seen. The desert greenhouse became a place that I enjoyed yearly as much, if not more, than the modern marvel of the Climatron, and I was so sad when I heard that they decided to tear it down. I knew the desert greenhouse before I ever knew there was a Henry Shaw Cactus and Succulent Society. It helped me to love arid plants and greenhouses

After the desert greenhouse was torn down, the collection was largely moved to greenhouse C3 and has more recently been moved to C4 as they have increased their collection. I have received requests by members many times to book a tour of Mobot's desert plant collection, and thanks to Mike Hellmann and his close relationship with the staff of Mobot we have finally scheduled a tour this March 8th.

Program Schedule

Our Social hour/library access will be at 1 pm as usual and our tour at 2 pm. Please come to the Missouri and Botanical rooms as usual. Due to our member size, we may be divided into two groups. It is a five-minute walk to the greenhouse. Due to close quarters in the greenhouse, we will be given a few rules/courtesies to follow. Other details will be given on the day of the tour.

Our tour guide will be Deborah Lalumondier. Deb has worked at Mobot for 28 years and is a Senior Horticulturalist. In fact she started work at Mobot just 2 weeks after graduating from University of Missouri at Columbia. Deb was instrumental in the renovation of the Climatron from 1988 to 1990. Some may remember that the Climatron was closed during that period of renovation. This should be a great program. Plan to attend! ■

The Do's and Don'ts of Owning a Greenhouse: Interviews with HSCSS Members

By Pat Cosgrove

Does enduring the never-ending winter in St. Louis make you dream of having your own greenhouse? What would it take to turn your dream into reality? I spoke to several HSCSS members who are "living the dream" and who shared with me their greenhouse experiences to make that path easier for you to follow.

A Romantic Wood-and-Glass Greenhouse in the Country

PAM SCHNEBELEN dreamed of having a greenhouse when she lived in an old house in an historic district of the city of St. Louis. At the time, she kept her plants on glass shelves in a charming solarium-like room, but the cost of building a greenhouse that would comply with the requirements of the historic district would be prohibitive. She found a new house in the country that had a detached workshop/studio where she set up her plants under shop lights, but she wanted to grow better plants and knew she could achieve that with a greenhouse. She wanted a traditional wood-and-glass greenhouse for its romantic image and after researching options on the internet and in gardening magazines and vendor brochures, found a structure from Sturdi Built that she could attach to the workshop. The company sold all of the wooden and glass parts pre-cut. She hired a contractor, more windows were added to the workshop, a doorway was cut in the wall and the foundation for the greenhouse was poured. The dream was built.

Reality hit during the first winter when the outdoor temperature dropped to -8F and the sub-panel in the workshop blew out. There was no temperature alarm in the greenhouse but the computers on the UPS system started beeping at 4 AM and awakened her. The temperature in a greenhouse falls rapidly. Pam quickly set up

propane heaters and some emergency electric heaters using extension cords. In the spring, the entire house was rewired to bring in more electricity and prevent this from happening again.

Pam's 10'X20' greenhouse is now 17 years old and is showing its age. She would not recommend a wooden greenhouse. Repairs are needed frequently, perhaps due to poor construction. Water collects on the pea gravel floor. The ventilation didn't work properly at first and the greenhouse got too hot. A recently purchased fan is proving too strong and is drying out the plants.

In the summer, shade cloth and paint offer protection from the sun. She moves some plants outside. In the winter, she keeps the minimum greenhouse temperature between 45-50F degrees, and brings the cold-sensitive plants inside her house. It is hard work to move all those plants twice a year.

There is a steep learning curve to owning and operating a greenhouse; nonetheless, having one changes your life for the better. It is a wonderful place to be and you'll want to spend time there on winter afternoons or summer mornings. The big advantage is that it provides a longer growing season for the plants.

Going All the Way with a Greenhouse

MIKE HELLMANN joined HSCSS in the mid-90s. Three members had greenhouses then. He had always liked the plants, but it wasn't the right time. As he likes to say, he doesn't do things half-way, so when a former member offered to sell him her 6'X21' Lord and Burnham greenhouse and gas heater for \$300 in the late 90s, he jumped at the opportunity. He had built half- and one-acre ranges in the course of his work, so it wasn't too difficult for him to dismantle the glass greenhouse, mark the pieces and put them back the same way. He purchased about \$100 of extras.








Due to the cost of heating, he replaced the glass with polycarbonate double-walled plastic. This filters out UV light and holds in the heat. It does not yellow, which reduces light levels, and it saves on fuel. Since it would cost about \$800-\$900 to replace the gas heater, he bought two \$40 Craftsman electric heaters. They are better and more efficient than the gas heater. During extreme cold, he runs a third heater from a different circuit. He has replaced

the fans and vent louvers to his greenhouse, typical replacements due to wear. The fans move the air, they don't cool it. The temperature cools at night providing a therapeutic difference to the plants.

During the summer, he moves most of his succulents out of the greenhouse and waters them early in the morning, while most of the cacti stay in to avoid dangerous cold and wet conditions that are the kiss of death.

During the winter, he doesn't worry about the high temperatures but keeps the night temperature low at 50F, or if a really cold night, 45F. He is aiming for slightly warmer winter night temperatures currently as he is following Woody Minnich's advice of watering based on the CAM principle, humidifying the soil around the appropriate plants (not their roots) in the early evening, especially on sunny days, when the stomata are open so that the plant can absorb moisture more efficiently. He thinks he notices that the plants are not as shriveled and dehydrated as they usually are in winter. He always followed this principle when watering plants in the summer, but this is the first time he

GREENHOUSE Realities

-  Before you purchase your greenhouse, learn what are the building codes in your area and if your neighborhood association has any restrictions. Some areas require that a foundation be built for any free-standing structure; others prohibit detached buildings on the property.
-  Ensure that your greenhouse has an adequate power supply that can handle the higher energy needed to keep the greenhouse warm when winter temperatures plummet.
-  Install a temperature alarm on your greenhouse.
-  Have a back-up system for power failure, i.e. generator.
-  Have a back-up heating system, i.e. propane or kerosene heater.
-  Figure out how fast your greenhouse heats up and cools down, and how to achieve the right amount of air circulation with vents and fans.
-  Make sure your greenhouse is firmly anchored to the ground.

is trying it during the winter.

Even with a greenhouse, Mike still has plants in his house, typically fewer, larger plants, with the smaller plants filling up his greenhouse.

The greenhouse offers a way to give the plants what they need. Natural daylight is hard to beat. Plants in a greenhouse on all those cloudy St. Louis days benefit more than those that are confined beneath grow lights inside a house. The temperature change in the greenhouse, from 90F during the day to 50F at night, is beneficial to the plants. They show better color, form and growth.

There is a learning curve to having a

greenhouse. The plants humble you. There is no bullet proof method.

Mike is thrilled to have the opportunity to own a greenhouse. He gets poetic describing how there is nothing better than to spend time in the 90F greenhouse on a sunny winter day, observing the actively dormant plants that appear to be asleep, appreciating their beauty, the bare shapes, the texture of the bark, breathing in the humidity of the soil, watching the winter growers frolic out of their pots. The same goes for summer. The time spent watching the plants in their safe haven is a bonus. It is therapeutic, like going to Mexico without leaving St. Louis.

The Two-Year-Old in the Backyard

T DON LESMEISTER wanted a greenhouse because he naively thought it would be easier to take care of his plants. He was collecting more. The alternative was to keep them all in the house which turned into a big mess because he didn't have the right place for them. They would be treated better in a greenhouse than in the basement, bedroom and everywhere else in his house. Other members had them and were positive about them. He decided to give it a shot.

Don's 10'X14' greenhouse will be two years old in June. There is a big learning curve to having one. His approach to learning what was involved was to talk to everyone who had one and search the internet. He purchased an onion-shaped Riga greenhouse made in Germany. It has no angles. Snow slides off of it. It is a strong structure, he liked the look of it and it was within his price range. His first challenge was convincing the trustees in his subdivision to waive the by-law prohibiting homeowners from building free-standing outbuildings in their yards. This had prevented him from getting a greenhouse before but this time he spoke to a trustee and explained that it was not an ugly, metal shed but a greenhouse that would *accentuate* his backyard. As luck would have it, this trustee's great grandfather

hscactus.org



Defining the dimensions and preparing the foundation of the Greenhouse.

knew Henry Shaw, so he considered Don's request and discussed it with the other trustees. The only requirement was that Don get his neighbors to sign a statement saying that they agreed to let him build a greenhouse in his backyard. His neighbors were actually *enthusiastic* about the idea. The greenhouse arrived piecemeal on a flatbed truck and it took Don, a friend and his son three days and a lot of work to clear and level the ground and put it up. Fortunately, the neighbors were out of town at the time.



Roof vents and a hinged front door will help to provide ventilation.

Don felt confident that he was doing everything correctly. He had asked greenhouse owners what would they do differently, where did they screw up. He felt he had built his greenhouse with sufficient information. However, in January 2014, with temperatures in the 50s, unusually strong winds ripped through the area. Don was in the greenhouse with the doors open and heard the high winds and saw the back right corner fluttering, trying to lift off the ground as he mustered all his strength to hold it down. Although he had bolted it onto the base that came with it, more was needed to make it secure against high winds. Other than that, he has had no serious problems with his greenhouse. Because it is built where the ground slopes from two angles, he put in a French drain to prevent standing water during a rain.

His Riga greenhouse has ventilation provided by a 3'X4' hinged back door that opens and a Dutch front door. There are two vents in the roof that open automatically by a paraffin-filled tube when the wax heats up and expands when the temperature is above 75F. In the summer, the doors and the vents are open. In the winter, the vents open when it is 80-100F in the greenhouse and 30-40F outside. The paraffin-filled tubes cost \$25 and last for several years. It is a simple mechanism used by lots of greenhouses.

Heat is provided by electric heaters powered by two or three lines going to the

greenhouse. Don has two wireless remote control thermometers and humidity gauges that he can operate from his house. An alarm sounds if the electricity goes out or the heater fails. He has a backup portable propane heater. He warns that once the plants are out of the protection of your house, you cannot waste any time if something goes wrong in the greenhouse.

Air circulation is important to prevent mold. Don's greenhouse has several high speed fans in opposite corners that blow the air onto the wall, not on the plants, to avoid drying them out.

When estimating the cost of a greenhouse, be aware of hidden costs such as



The completed Greenhouse with surrounding landscaping.

labor for prep work done on the site where the greenhouse will be built, wiring, electricity, pea gravel for flooring, fans, heaters, thermostats, alarms, but *don't think of it*, just go ahead and purchase more plants.

The disadvantage of having a greenhouse is that you are, in a sense, tethered to the greenhouse and can't leave for any length of time. The advantage is having control over the plants' environment. It is like having a fish tank: the bigger it is, the more expensive, but it is the perfect environment that enables you to maintain more plants and keep them alive and healthy.



Third Time's a Charm

MIKE CUSHNER understands that it is an advantage to have a greenhouse if you have a large number of plants in your collection. His current greenhouse, a 12'X10' structure purchased from BC Greenhouse, is his third one. Because his house is built on a steeply sloping lot, Mike built a deck on the back of his house, and built his greenhouse on the deck with one wall adjoining the house although there is no entrance to the greenhouse directly from the house. The measurements of the greenhouse had to be very precise in order for it to fit on the deck and to



Mike built his Greenhouse on the deck of his house.

avoid obstructing the view from two windows on the back of the house, although he wonders whether it was worth limiting the size of his greenhouse. He, too, faced restrictions from his homeowners' association that prohibited free-standing greenhouses in the yard. He asked a board member if a greenhouse could be built on his deck and she said, "Yes," but other board members said she had no right to tell him that. To avoid a law suit, they worked out a deal with him. He could have had a free-standing greenhouse, but the lean-to style with a common wall conserves energy.

Built with a southern exposure in 2007, Mike's greenhouse captures a lot of light. At first he thought the more light the better, but the

temperatures get very high. He uses shade cloth to cut back on the amount of light and multiple fans and vents for air circulation. Hindsight hints that he could have opted for 5-surface polycarbonate panels that would have provided more insulation from the cold and reduced the amount of light that enters the greenhouse. The flooring of the deck consists of plastic sheeting covering the deck boards and topped off with indoor/outdoor carpeting. Although the plastic and carpeting provide some insulation, when temperatures plummet into the single figures, the greenhouse is fighting for heat. Heat is provided by fan-forced heaters set on the floor, warming the benches and plants before warming the air. The heaters are on thermostats which are set between 40-55F in winter to ensure that they cycle on long enough to keep the plants at 40F.

During the winter, Mike brings the non-cactus succulents into the house. He and his wife have done much calculating to determine how much room people need to live in, and the rest goes to the cacti. When the temperature is warm in the greenhouse, he waters the plants, then turns on the fans to prevent rot.



Cacti are stored in crates for easy transport in and out of the Greenhouse.

In the summer, many cacti stay in the greenhouse. The succulents are placed under another deck where they get a half day of sunshine. They do well there.

Mike keeps his plants in black plastic crates. Although that conceals the pots, it is a very convenient way to quickly move a number of plants at one time.

BC Greenhouse prides itself on the strength of its greenhouses. Mike can attest to that. He usually removes snow from the top of the greenhouse's curved roof line with a broom,

but four years ago, the snow was followed by a wintry mix and freezing temperatures. Six to seven inches of snow sat on top of the greenhouse, iced over. When it warmed slightly, the mound of snow and ice slid off the greenhouse roof and took the railing and banister off the deck, with no harm to the greenhouse.

Greenhouses With a Twist

Like the equatorial plants he cultivates, NEAL BOHLMAN enjoys being warm. Absorbing the heat produced in his greenhouse on a sunny day in the middle of winter is a pleasure he appreciates more and more as time passes.

Neal's house sits on a hilly lot. He created his first greenhouse by enclosing the area beneath his deck off the walk-out basement and opening the basement door. His second greenhouse, built in 1985, was plagued by water running through it in wet weather, causing it to get muddy and messy. In 2007 he built another greenhouse of polycarbonate and wood. This time, he built it very close to his house. It is free-standing, although shaped like a lean-to, and slopes from a height of 10' closest to the house down to 8' at the lower end. The flooring is made of treated plywood. The 9'X17' structure houses his specialized collection of 500 plants, mostly equatorial succulents, 300 of which are Somalian euphorbias. To allow these plants to flourish, he keeps the greenhouse warm in winter, usually setting the thermostat at 60F, rarely below 50F, using an electric heater supplemented with propane if the weather gets colder than 15F. With this treatment, many of the plants are not actively dormant and do not lose all of their leaves. The greenhouse's southern exposure ensures maximum sunshine and warmth.

Neal's greenhouse is unique in that it

contains a 9'X2'X2' free root run bed at the closed end. To be more precise, it is a raised tub filled with a mixture of Dyna-rok and 15% potting soil. He keeps 15-20 plants in the bed at one time that stay there for two to three years.

He keeps some plants in his house, in an insular bathroom, "the nursery," that stays very warm in winter when the door is kept closed. This is an ideal location to root plants and germinate seedlings. Once established, he keeps a few seedlings for himself and gives away the rest. These are seedlings that come from plants that do not produce many seeds and are somewhat rare. Neal devotes a portion of the one to two hours per day that he spends in his greenhouse to pollinating and propagating his rare plants. It takes a long time to master their cultivation.

Due to the hilly location, Neal had to build up a section of the backyard using concrete blocks to install the raised swimming pool. This also created a raised bed. Every year he plants about 100 succulents around the pool, then repots them and brings them into the greenhouse at the end of the growing season. This year, he is experimenting with building a temporary greenhouse around a few of the succulents that he intends to leave in the ground year-round. An electric infra-red heater provides warmth, supplemented with a propane heater when needed. In a few months he will know whether the experiment succeeded or failed.

Thoughts on Greenhouses

ERIC DRISKILL purchased his greenhouse about 10 years ago as a kit from Worm's Way based on another member's recommendations. The 8'X16' structure is a Sunshine greenhouse consisting of redwood and double-walled polycarbonate. Eric dug a 2' floor and filled it with chert so that he wouldn't have to sweep and so that he would be able to adjust shelf height by removing or adding chert. Sometimes he thinks he should have opted for a poured concrete floor, but it is too late for that at this point.

Heating is provided by an electric heater on a thermostat. In choosing this option, he looked at the suggested area the heater could cover and then purchased the next size larger. If he could do it over now, he would try to run more electric power to the greenhouse because he continuously runs his fans. During some severe winters, he felt that he was reaching the limit of his power supply at times. When needed, he brings in supplementary heat with propane and kerosene heaters. He also takes advantage of a heating method using solar energy with a 30-gallon trash can painted black, filled with water and covered by its lid, assuming that the sun will hit the container, heat the water and release the residual heat at night. An accent runner-type carpet placed in the aisle of the greenhouse also functions on the same premise.

The greenhouse temperature is adjusted throughout winter. Eric keeps the temperature warmer for about a week after watering and cooler when the plants are dry.

Eric is a strong proponent of vigorous air circulation in the greenhouse, believing that it helps plants tolerate heat and cold temperatures better, acts as an insect repellent and results in no negative effects. He has 2 large fans running at all times at each end of the greenhouse, oscillating to cover more area.

During the winter, Eric keeps the vents closed so that the greenhouse can reach the

highest temperature possible. He uses the greenhouse in summer but finds that he is bringing more plants outside. On his wish list is a greenhouse whose walls can be removed, leaving the supporting structure and roof intact. The fresh air and cross breezes would benefit the plants; the roof would control the amount of water the plants receive.

Although winter is a slow time for plant activity, it is one of the most pleasant times to be in the greenhouse, especially when there is snow, ice and harsh winds outside. Eric is happy to have an 8'X16' patch of land in his yard where it is summer all year long.

Many of his plants spend summers in his outdoor free root run bed, a 16'X4' plot raised 2 cinder blocks off the ground. The soil in this bed is the same as what he puts in his pots, replenished with home-made charcoal, pumice, rice hulls or whatever leftovers he has.

If he could do it over, he would like to try an ebb-and-flow watering system. This is a type of automatic or programmable watering system whereby reservoirs or shallow tubs fit on the shelves end to end, the potted plants are placed in them and the tray is filled with water, then drained. Having 3 or 4 reservoirs would permit plants to be grouped by watering needs.

If he could do it over, he would also explore different heating systems to see what is available now that wasn't when he purchased his greenhouse.

To Eric, the biggest advantage of having a greenhouse is the consistently higher levels of light it provides the plants. Plants just grow better in those conditions.

Eric is aware of the learning curve that comes with acquiring a greenhouse. A simple decision such as where to place that new plant in your greenhouse can result in its life or death. It is important to research your plants so that you understand their growing needs.

Members' Advice to Prospective Greenhouse Buyers

Pam Schnebelen



Have a temperature alarm, power alarm and more money than you think you need.

Mike Hellmann



Don't be afraid - just build it! You can get blueprints at Worm's Way. You can buy one secondhand--Craig's List?--and improve it. If you have the opportunity and are into plants as a hobby, grab it. It is wonderful.



If you are installing your own polycarbonate panels, make sure the thicker side (the UV-coated side) is facing out.

Don Lesmeister



No matter what size greenhouse you have, you'll always want one bigger.



Join the Forum to ask questions about any aspect of owning a greenhouse. It is a discreet, open way to share information that is relevant to our geographical area.

Mike Cushner



Before buying a greenhouse, talk to others who already have them.

Neal Bohlman



Make your greenhouse 30% bigger than what you think you need.



Be sure that the ventilation and circulation systems in the greenhouse are ready before moving your plants in.

Eric Driskill



Find the size of greenhouse that you want and need, and then get one that is bigger.



A greenhouse is a big, long-term investment. It is worth it to do a lot research, ask a lot of questions and investigate options before purchasing one.



Figure out how much time you can devote to your greenhouse, and then match your soil mixture to how often you will be able to water your plants.

Come to the *HSCSS Member forum*.....

By Don Lesmeister, Forum Director

Q. Can February March?

A. No but April May

Q: What season is it when you are on a trampoline?

A: Spring-time!

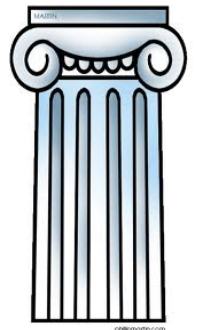
Get your dancing shoes out of the closet and dust them off. It is almost time to do the spring plant dance. You may change the record but the dance is the same. With a door slam here and an elbow there.....check the sun and temperature and oh! It's starting to rain or is that sleet? Bring them in and wipe the floor. Wait a few days and do it again. No matter how long you have been dancing with the plants no one I know has it down to just one move unless it is well into spring. We all do it . So.....let's talk about it. What is your technique? What do you put out first? Is your entire collection on wheels now? If you have any secrets or ideas you've developed over the years? Let us know in the forum.

If you haven't used the forum, it is easy. Simply:

- go to www.hscactus.org
- click the **MEMBERS FORUM** icon.



You will then be sent to the forum and its registration page. Registration is painless and only takes a minute. After you are approved as a member in good standing, you have access to the entire forum, and remember it is just for us so you are among friends. Chat with other members about plants, or sell and swap them. It's all there 24/7.



Henry Shaw Cactus & Succulent Society
PO Box 510106
St. Louis, MO 63151-0106

FIRST CLASS MAIL

This month's program:

A Greenhouse Tour of Mobot's Desert Plant Collection

MEETING: Sunday, March 8, 2015

TIME: 1:00 P.M. Social Hour and Library; 2:00 P.M. Program; Business Meeting follows.

PLACE: Missouri & Botanical Rooms, Ridgway Visitor Center (the main entrance to the Missouri Botanical Garden), located at 4344 Shaw Blvd., St. Louis, MO.

Deadline for April Digest: March 22, 2015

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