

**HOBBY**

SPRING 2016 VOL.38 NO. 2

SPRING 2 2016

**GREENHOUSE**

**THE MAGAZINE OF INDOOR GARDENING**



**Feature Article: Fran Turner's Alaskan Greenhouse. Conclusion of two parts.**

**Epiphyllum Orchid Cactus**

**Attracting Amphibians - The Green Thumb**

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# CONTENTS

SPRING 2016 VOLUME 38 No. 2

## ARTICLES

- 7 Part Two of the ALASKAN GREENHOUSE by FRAN TURNER, FAIRBANKS, AK
- 14 Epiphyllum - The Orchid Cacti by Tom Eckert
- 17 Robot Flower - Gizmodo.com
- 19 Bryn Mawr College Tribute to Bernie Wiener
- 22 Attracting Amphibians by Michael Zielinski
- 25 Tilling Your Soil Till It's Workable by Steve Aegerter
- 26 The Green Thumb by Doc & Kath Abraham
- 27 Book Review by Paula Szilard
- 29 Deadheading Your Plants by Wally Wolfgang
- 30 Tips & Hints by Richard Schreiber
- 31 Plant Pests We Have To Deal With by Tom Eckert
- 32 Schlumbergera Cactus by HG Staff



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**Hobby Greenhouse Magazine Mission Statement** (ISSN 1040-6212) is published quarterly by the Hobby Greenhouse Association, a non-profit 501-c-3 organization, to promote greenhouse and indoor gardening as a hobby or avocation, and to disseminate practical and instructive information related to the erection, maintenance, and operation of a greenhouse by a hobbyist. The magazine carries advertising and is available to the public.

**SUBSCRIPTIONS:**

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Member: Magazine 1 year \$35. US funds  
(two years \$68.00)

Digital Magazine Version \$15 1 year,  
\$28 dollars) for two years)

Canada and Mexico \$40.00

International \$75.00

Single copy non-member price US \$7.50,  
overseas \$9.00.

Contributing Member \$75.000

Sustaining Member \$120.00

US bank check or money orders payable in

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## Write for Us

Tell our readers about your experiences in your greenhouse. Hobby Greenhouse magazine is looking for stories about greenhouse gardening, growing techniques, and raising plants both outdoor and under cover.

All indoor gardeners have a plant (or plants) they love to grow. Many of us have discovered new growing techniques and tools that others want to know about. Many of us built our own greenhouse and learned several valuable lessons. Why not share your knowledge with other readers?

Write about your passion. *Hobby Greenhouse* magazine is looking for articles about 800 to 900 words in length. If you write one you'll get free membership for one year in HGA. (Shorter articles compensated proportionately.) If you have or can take photographs that's even better. (Contact the Editor for ways to submit a story)

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### Deadlines for stories and advertising:

Spring issue: Jan 15th

Summer issue: April 15th

Fall Issue: July 15th

Winter issue: Oct. 15th

# Editor's notes

Roger Marshall has stepped aside as the HGA Magazine editor to pursue his many other interests in horticulture. As many of you know Roger is an accomplished author with many horticultural books in print. We wish Roger well in his future projects.

President Tom Karasek and the HGA Board of Directors held many discussions about the new directions of the association. The problem area was finances catching up membership dues. The membership dues had not been increased since 2004, thus the association treasury has slowly been depleted over the years.

Options available to the Board of Directors were few. Option 1 was to raise the membership dues across the board and retain the printed magazine. Option 2 was to convert the printed magazine to a digital edition like the HGA Newsletter. The board of directors felt that the membership wanted to keep the printed magazine and the digital newsletter based on membership input.

However a small membership dues increase was necessary to keep the HGA a viable association and

to provide the benefits the members have been used to receiving.

Changes are also being incorporated so members can easily submit articles relating to their greenhouse and growing interests. The magazine editorial staff will help you put your thoughts into article form for the magazine. Digital pictures are always a welcome input for articles.

Spring is just around the corner, That ground hog named Phil, in Pennsylvania that has been predicting the spring weather has predicted an early spring. I'm ok with that! He has been predicting the spring weather over 20 years and has been more right than wrong.

Of course predicting six more weeks of winter in early February is a no-brainer.

I do look forward to your articles and thoughts for our publications. Have ideas for improvements? Want to see articles on other areas of interest in the growing areas? Send me an email and I will get back to you.

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## Part 2 of Fran Turner's Alaskan Greenhouse.

This article is the conclusion of the Alaskan Greenhouse printed in the Fall 2015 HGA magazine. Fran Turner continues her adventures building her greenhouse with logs and Visqueen sheeting in the Alaskan bush, 300 miles from the nearest town. This article was originally printed in the Winter and Spring issue of the HGA magazine in 2002.

**T**he primary function of the greenhouse is food production. During the summer, my goal is to produce enough vegetable and fruit goods to feed three people for the entire year. With the exception of corn, which takes extra room and attention, we buy no other vegetable product from town.

What it takes is a greenhouse with 32 tomato plants in beds and 9 in hanging baskets, 24 pepper plants (bell and hot), 12 tomatillo plants and 12 cucumbers, (four of them slicers). The corn and eggplants in there give us a treat and not much more. The three outside gardens produce 20 plants each of cabbage, cauliflower, broccoli, Brussels sprouts, kale, celeriac, witloof **chicory**, 100 celery plants, 18 pumpkins and various summer and winter squashes, one whole garden of potatoes some started from actual seeds and some from leftover potato chunks, and a few little odds and ends that were started in the greenhouse the last week of March.



Fran's greenhouse from the back. A raised bed around the outside is home to annuals and culinary herbs. Patches in the Visqueen glazing mark the places where the wolverine broke in last winter.



Vegetables growing in the summer greenhouse. 200 potato plants are raised from pelleted seed. Butter tubs containing young squash plants. Also shown is the 55 gallon steel drum wood burner used for heat in the greenhouse. Kettle on the stove is used to melt snow and warm water for the greenhouse.





Pussy willows in the propagation unit will later be transplanted to the river bank to help control erosion. Normally, the plastic on top of the unit is closed. The plants inside are misted frequently with a spray bottle.

Strawberries, rhubarb and raspberries in one of three main outside gardens.  
Date of the last frost is the first week of June!



The second function of the greenhouse is producing "necessary plants" like erosion-combating native species for our riverbanks; pyrethrum, tobacco, pennyroyal, and castor bean for various pest controls; saponaria for a mild soap; a few herbs for companion planting and medicinal use, and a few more culinary herbs.

The third purpose is pure fun. Last year I began an everlasting collection for winter cheer. Also, I grow literally hundreds of annual flowers, many of them shade plants since aside from the riverbanks, we really live in the woods.

I've gone mainly to natives and some of their related cultivars for my perennials, since so very few can survive my Zone 1 climate. Not only are they very pretty under cultivation, but many natives also have practical uses, like wormwood, coltsfoot, pineapple weed (chamomile), and yarrow, among others.

I've discovered the 30 below zero average winter temps, with dips into the 70's below (yup, you read that right), are not the absolute biggest problem with growing perennials in Alaska. The biggest thing is photoperiodism. Common folk like me call that day-length sensitive. Varieties not adapted to Alaska's long summer days don't know it when winter is right around the corner because they are waiting for the days to get shorter as their cue to drop above ground production in favor of root storage and dormancy.

Some Zone 2 and even a few Zone 3 cultivars could actually make it through if they had only been ready. Alaskans have had varied success with mulching to help these along.

Certain summer garden plants are also affected by photoperiodism. Corn and eggplant are slow to do anything. Butter-nut and acorn squash produce only male flowers until the days get shorter - in Alaska that's fall. Most lettuce, beet, chard and spinach cultivars bolt, as do some brassicas, like mustard, Chinese cabbage and bokchoy.



The front side of the greenhouse

Some of the large dry onion varieties don't do well here either. I get around some of this by growing lettuce in the greenhouse in early spring and late fall, and by growing spinach alternatives like Malabar spinach, New Zealand spinach, and my favorite, orach.

The University of Alaska and the Cooperative Extension have been doing research on this problem, covering their subject plants with black plastic to give them a simulated night period. They have found it critical that every tiniest scrap of light be blocked out. Interesting to me, is ongoing research into the possibility of only needing to do it during a critical phase of the plant's life rather than covering huge areas of your garden every night all summer. I am doing some of my own experimenting on that here by having my Chinese cabbage, bok choy, corn and eggplants up and going in April when the days are naturally shorter. The brassicas bolted anyway, and we are still evaluating the end result on the other two. I had 20 okay-looking ears of corn and a few tiny eggplants last summer.

Fall is when the real work begins. Drying is our preferred preservation method. This year I harvested a few dryer loads of broccoli, cauliflower, Swiss chard, zucchini and rhubarb. We dry the celery, tops and all.



Fran, on the left, hangs up lynx furs at the winter cabin. Also hanging are the pelts of marten, squirrel, a wolverine, and a couple of wolves. The fur buyer will be along today.

Seed saving is another fall activity. The tomatoes, peppers, cucurbits, root crops and many annuals are a cinch, but I still have to buy the biennials that I can't overwinter and, of course, new experiments every year.

Our other fall activities of putting things to bed for the winter are probably not much different from anyone else's. Because of extreme cold and lack of daylight, the greenhouse becomes a meat locker for the winter. By late fall, we always have a moose and sometimes a bear hanging in there.

Although we do live a subsistence lifestyle, Mike is always quick to point out: "We aren't home-steaders, we're trappers." His oldest son Matt stays here for the winter and works his trap line while Mike, younger son Nate, and I spend the winter 100 miles west in the Kuskokwim Mountains doing the same. It takes four bush-plane loads to take the sled dogs, and two more with winter food and gear to get us moved. Now you know why drying is my food preservation method of choice.

Springtime sees us back in plenty of time to get out those seeds, flats and 200-cell inserts, bake that home made potting mix, and do needed repairs.

Every three or four years the plastic needs replacing, and there are always minor things. Sometimes though, we are not quite prepared for what we find. Since Matt worked out at town last winter, in his absence a pair of wolverines moved into the greenhouse. They must have marveled at their luck. All that meat hanging there, a nice planting bed to sleep in, the whole north end to use as a bathroom ... everything right there under shelter. All they had to do was tear a hole in the wall and move in.

When I got back here and shoveled my way out to the greenhouse, what was there but a dead wolverine! There were fresh tracks of the second one who moved on as soon as we came home. At first we joked about him dying of overeating, as all the meat was gone. Upon closer inspection, it was obviously old age.



Stump, carved with chain saw, holds harnesses for the sled dogs.

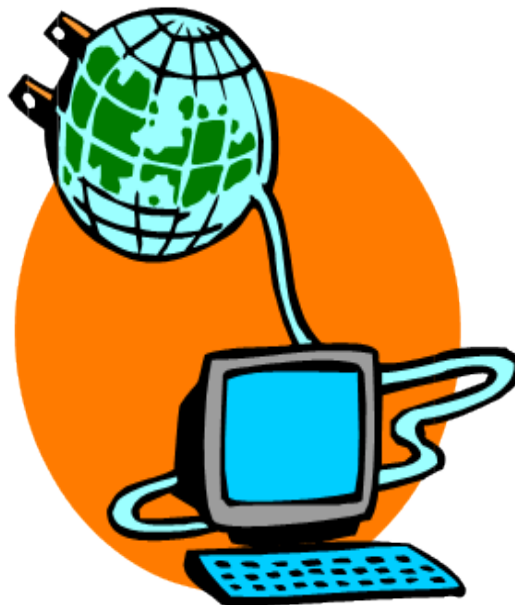


Sled dogs provide the Turner's with winter transportation

## HELP!

We need your help in three areas relating to the internet:

1. Please check your spam box weekly for HGA and other good mail being dumped in thereby your internet carrier. You can read it there but you should transfer back into your inbox and hopefully your internet carrier will have a way to "learn" from their mistakes.
2. Also we get a fair amount of "mail box is full" return email when sending out the digital copy of the HGA magazine and the HGA Newsletter. You should periodically go in and delete old email to keep your mail box from overflowing.



## HELP!

3. Keep us updated when you change your email address and or internet carrier. Returned email with "has no account with us" or "address rejected" is a common problem for the HGA.

These three items result in the staff of the HGA spending numerous hours monthly trying to sort things out and getting your publications to you. We greatly appreciate your help in these areas.

# HOBBY Greenhouse Association

## **Membership Services**

HGA is a non-profit organization of people who garden in hobby greenhouses, window greenhouses, light gardens, and other indoor areas. Membership in HGA includes a subscription to *Hobby Greenhouse* magazine and the HGA Newsletter. Other membership benefits include round-robin letters, email correspondence, help and advice on greenhouse gardening, and discounts on greenhouses and supplies.

**Membership questions:** Send email to Richard Schreiber, Iowa 515- 981-4360 or email: [hgamembershipdirector@hotmail.com](mailto:hgamembershipdirector@hotmail.com)

## **Membership Renewal**

Your membership in HGA expires two weeks after the date printed in the HGA membership card on the back cover of Hobby Greenhouse magazine. In order to avoid missing any issues, please renew your membership before this date. You may renew by mailing a check of money order or online using Paypal. The HGA covers the cost of using Paypal and you can use most major credit cards. Online go to [www.Hobbygreenhouse.org](http://www.Hobbygreenhouse.org) to renew your membership.

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## Epiphyllum Orchid Cactus

By Tom Eckert

The Epiphyllum orchid cactus family is one of the most beautiful flowering cactus there is. The problem is to get it to flower in the spring and summer months when it supposed to flower.

The orchid cactus is best suited to hanging baskets so its brackets (stems), can hang over the side of the basket and provide a very beautiful display of buds and 6 to 8 inch flowers.

This cactus is native to the jungles of South and Central America. Like orchids they grow in rain forests and prefer more humidity and water than cactus that live in the desert area.

The long stems or some refer to them as stalks have

scalloped edges. Some are basically flat and some develop three sided branches or stem. This cactus does not have thorns but fine hairs along its surface.

They can flower in many colors from white, yellow, red, lavender, orange and green and variations in between. Pictured is the yellow variety I have grown or many years.

The orchid cactus can be difficult to flower due to its sensitively to light conditions. They prefer indirect or filtered light and not direct sunlight. If the leaves turn a yellowish color and look like they are wilting, the orchid cactus is receiving too much light. The flower may last only a few days to a week depending on its growing conditions.



If the stems and stalks look sickly or spindly, the orchid cactus is not receiving enough light. Ideal conditions will produce shiny green growth with a slight red edge color on the leaf edges.

Watering the orchid cactus can take some getting used to. Allow the soil to dry out in between watering and then water until it drains from the pot.

This can bring up another problem area. Every two to three years I would suggest repotting the orchid cactus into a new hanging basket and use a new hanger, especially if you are using plastic hangers. The weight of the 10 inch basket is quite heavy when watered. That coupled with a plastic pot and hanger that is slowly detreating from the sun's ultra violet rays will eventually result in the hanger breaking or the pot breaking where the hanger is attached. The fall will greatly damage the leaves or stems and any other plants it falls onto. Should this occur, simply prune the leaves close to a undamaged leaf node. New growth should appear in a month.

A dedicated orchid grower may well call you on using the name "Orchid Cactus" for this plant. You may be reminded it is called an Epiphyllum because it bears little resemblance to "real" orchids.

Growing from cuttings is somewhat easy and only requires some patience. Use about 4 inch cuttings from a healthy stem. I prefer using top or "4 inch tip" cuttings as they are the more recent growth and root faster than old growth. Set them aside in a cool place so the sun cannot reach them. Allow about 10 to 14 days for a callus to develop over the cut area of the cutting.

Note the date of the cuttings to insure they receive the proper callusing time. Actually I have direct stuck cuttings into flats on my propagation bench with success but you have to expect some to develop rot at the cut area and those cuttings need to be trashed at that point.. I always dust cuttings with rooting hormone of the 0.10% to aid the rooting process. There are stronger rooting hormones on the market, but the 0.10% Indole-3-butyric acid formula is preferred and will not burn the cutting.



Use a potting soil that is loose and will provide good drainage. Do not purchase cheap potting soil as it will compact and strangle the roots. Do not over water the cuttings while they are rooting. This will rot the cuttings. After a good month in the pots try to lift the cuttings from their location but not removing them. If there is resistance to a light tug then they are rooting. This is a critical time for the young cuttings. Give them a light feeding of a balanced Miracle Grow type feed when watering. Follow the directions on the package to insure you do not mix the water and fertilizer too strong which would burn the developing roots. While the roots are developing use a half recommended strength mix. The use of a slow release fertilizer is good to spread on top of the soil. These fertilizers usually provide a slow feeding over the three months while they are actively dissolving. These fertilizers are especially good during the summer months when the cactus is flowering.

For the more serious grower of these wonderful plants try the following routine, a few steps that have worked for me. After you have a orchid cactus established and after the first year of growth: in the late fall

and winter months give the cactus a rest using very little watering. Eight to ten weeks will allow for the set of new buds. During the rest period do not fertilize the plant as this will encourage growth instead of budding.

Indirect sunlight is necessary all year long. Orchid cactus do not like direct sunlight on them. In early spring around March give the plants a high potassium fertilizer to encourage blooming. Continue this feeding through the fall months. Again, follow the directions on the fertilizer package so you do not over mix the fertilizer and burn the plant roots. Remember every location has its own growing requirements for various plants. You are the best one to know how plants grow in your area. But do try to grow these beautiful Epiphyllum.





## Garden Under Glass

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A report on **Gizmodo.com** describes the development of a “cyborg flower” where by a rose is manipulated into an electronic circuit. It has been proven over the years that all plants and trees have what some call feelings. The report states “Think about smart plants that can sense and display environmental changes, or crops whose growth can be regulated at the flick of a switch. Or plant based fuel cells that convert the photosynthetic sugars into electricity.”

The very first electronic plant, developed by researchers at the Linkoping University in Sweden, is a step toward any one of these applications and more,

“First, the researchers introduce a synthetic polymer called PEDOT-S into the rose through its stem. The plant sucks up the polymer using the same vascular system, (xylem) that transports water.



Picture by JR & Donna Smith

water and nutrients to move around. By connecting these wires with naturally occurring electrolytes in the plants tissue, researchers are able to create an electrochemical transistor.”

### Robotic Flowers? From Gizmodo.com

The first cyborg plant is the culmination of two decades of work, according to the report. The research

first tried to hack electronics into trees in the 1990’s but funding fell through.

“Now we can place sensors in plants and use the energy formed in the chlorophyll to produce new materials,” says the study’s lead author Magnus Berggen.

Editor’s comment: Remember they said we would never put a man on the moon. Now they are planning to put humans on Mars and colonizing that planet.

Once inside, the polymer self-assembles into a ‘wire’ that conducts electrical signals, while still allowing

# The HGA Is Looking for a Few Good People

The staff behind our Hobby Greenhouse Association is made of approximately 9 volunteers and a handful of dedicated members that enjoy writing about their passion of growing plants. There is not a brick and mortar building with HGA's name in brass letters above the door, and we don't have company cars or business lunches. Rather we live miles apart, scattered across the country and rarely see each other.

We communicate and conduct business via email, with discussions, ideas, issues, money matters, articles, and the rewards of creating an association that provides growing valuable gardening resources for members. We each give something to the organization with a skill in; editorial, bookkeeping, guidance, balance sheets, photography, article writing and recruiting new members. Now, we would like your help.

We are currently looking to fill 4 vacant positions, ranging from Vice President as an Officer, to Director of Programs and Activities, to Publicity Chair and finally Round Robin Chair. These are volunteer positions and require perhaps an hour a week to perform, answering emails, creating an email or sharing an idea. No traveling is required, take a break anytime and the working hours are terrific. If this sounds inviting and something possible for you, please contact me and I can provide the details of the positions offered.

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# BRYN MAWR COLLEGE GREENHOUSE COMES to LIFE, with HELP

By Heather Taddonio - Staff Writer Bi-College News



Bernie Wiener in the Bryn Mawr Greenhouse at the tender age of 88 years young. Note the Longwood Gardens sweater from the 2002 HGA convention in Philadelphia.

From the Bi-College News, February 2, 2010  
Heather Taddonio, Staff Writer

Bernie Wiener is a propagator—he breeds plants. So he found himself with an overabundance of plants in his house and an irritated wife.

“How do you move your plants to a good cause? He wonders. “You need a home for overgrown plants - my wife is annoyed with the overflow of plants in our

house.” And so the inconspicuous greenhouse nestled between the back of Bryn Mawr College’s Radnor parking lot and the Park Science Building caught his eye. “I was concerned when I saw the greenhouse empty,” Wiener says. “Wherever there is a greenhouse I find myself attached to it.”

One thing led to another and this year he was granted a permit to use the greenhouse. The greenhouse on campus was originally started about 12 years ago and used

as a research greenhouse by two former ecologists in the biology department. But for the past four or five years it has remained empty. Rather than having it continue to sit empty, the Biology department has allowed others to use it until they hire someone who needs it for teaching or research, says Biology professor Peter Brodfuehrer.

Once he got his permit, Wiener quickly filled the greenhouse with allsorts of plants ranging from small succulents, to geranium, to more exotic species of bromeliads—there is even a tangle of Spanish Moss hanging from the greenhouse ceiling.

He has posted a sign on the door encouraging student visitors to drop by on a Saturday morning to learn about the greenhouse and pick out a plant to take back to their dorms with them.

Wiener's interest in plants began when he was overseas fighting in World War II. My brother had a victory garden, he says. "When I came out of the army

I was impressed with his growing things. The next thing I knew I had all kinds of growing things in my house". His father helped him buy a greenhouse and his interest took off.

In addition to his backyard greenhouse, Wiener has outfitted the basement of his Havertown, PA home with artificial lights for growing and converted his fireplace into a light garden. "you get addicted," he says. "You find that Mother Nature is remarkable."

"My endeavor is to pass the word onto people about how to keep the plants alive, how to maintain them," he says. In addition to his work at Bryn Mawr, Wiener gives presentations at local elementary schools. At the end of each presentation, he sends each child home with a succulent plant and instructions on how to grow more plants from the leaf cuttings of their gift plants so they too can become propagators. He visits schools around Earth Day to teach children "how Mother Nature evolves."



### Bernie Wiener outside the Bryn Mawr's Greenhouse

Wiener also brings his plants to the local library and various senior centers in the area to spread his love of horticulture. "The important thing is that a plant has more than one purpose," Wiener says. He explains that plants can be helpful to people who are not well by giving them something to take care of as they take care of themselves. They are also to

children and seniors by giving them the responsibility of having a daily chore, as well as providing something to wake up to.

Plants also have a more practical purpose since they also help to purify the air we breathe. As he shows me around the greenhouse, he stops at a potted plant that has grown to be about a foot tall.



Some of Bernie's plants at the Bryn Mawr College Greenhouse

A banana plant, he explains. "Why am I growing a banana?" he says. "I will never see a banana. There are some things you grow because they will make you happy because you'll have an offset." Wiener has had this particular banana plant for about two years. "After some time, this comes up he says, pointing to a smaller version of the plant alongside of the parent. They keep having offsets. Isn't it wonderful? I can give this other banana plant to a friend. You are making contact with people."

Editor's Note: Bernie is a tireless supporter of the growing areas and helping to educate the young to become future gardeners. During one's life you meet a very few fine people whom you cherish as very dear friends. Bernie Wiener is one of those people.

**Bernie celebrated his 94th. birthday on March 29th of this year.**

Bernie Wiener has been an HGA member since 1988 and is a member of the HGA Board of Officers. He is also a member of the Delaware Valley Chapter in Philadelphia which he founded around 1989.



## Attracting Amphibians



A gray tree frog rests on a cattail.  
Photo: Michael Zielinski  
Article by Leslie Finical Halleck, CPH

Did your garden seem a bit too quiet last season? There is something disconcerting about summer nights that are devoid of a single chirp or croak from once abundant garden frogs and toads. Silence in nature is generally not a good sign. One of the fastest ways to judge the health of your backyard is by the presence, or lack thereof, of amphibians. A garden filled with frogs indicates balance and a healthy ecosystem

Frogs and toads act as indicator species that signal problems in the environment when their population declines or they show specific health problems. With wildlife habitat creation and landscape restoration becoming the responsibility of every urban dweller, IGCs have a unique opportunity to educate their customers about gardening with frogs in mind. For fun, we'll call it "frogscaping".

What's the problem?

Amphibians, such as frogs and toads, are going extinct at an alarming rate. According to the International Union for Conservation of Nature, one in three out of all amphibians are on their red list of endangered species.



Southern leopard  
Photo Rusty Wilson

Jennifer Fields, communications coordinator for The Association of Zoos and Aquariums' (AZA) FrogWatch USA team, warns that there are a number of factors contributing to the decline of frog populations around the world. Habitat destruction and fragmentation are big contributors to wildlife decline, as are pesticides, pollution, invasive species, increased UV radiation, climate change and over-collection of food by humans. We aren't exactly making it easy for amphibians to thrive.

Creating a frog friendly backyard benefits us as much as it does the frogs. Mosquitoes, slugs and plant-damaging beetles fall victim in droves to these amphibian predators. Frogs and toads are a supremely effective, natural form of pest control. If your garden center promotes integrated pest management techniques and eco-friendly gardening products, frogs and toads are an important part of the natural pest control arsenal.

However, if you and your friends want to boost frog populations, you're going to have to make some important landscape maintenance choices.



Green tree frog

Photo: Louanne Adair

Where can home gardeners start first to make a meaningful impact? When it comes to making changes right at your own doorstep, the first thing to do is evaluate chemical use in the garden. Because amphibians have permeable skin, they are highly susceptible to pollutants, pesticides and chemical fertilizers. Many pesticides and herbicides used in agriculture and home gardening are either lethal to frogs or can cause serious genetic and birth defects. If you regularly use chemical pesticides and herbicides in the landscape, they'll have a hard time accomplishing a frog-comeback in their yard. Not all organic

or natural pesticides are non-toxic to wildlife and so equal caution should be taken when using them as well.

Due to their sensitivity to environmental factors, frogs are great indicators of the health of gardens and habitats.

Frogs and toads play a very important part in the ecosystems of all wetland environments as well as our own backyards. As homeowners become more invested in restoring habitats for wildlife within dense urban spaces, they'll turn to their local garden centers for advice and solutions. The FrogWatch USA team advises that when home gardeners want to create frog friendly spaces, anything they do to make their outdoor spaces more wildlife friendly in general will ultimately help frogs as well.

When you consider birds, butterflies, bees, and other native wildlife in your gardening choices, you'll help frogs and toads by default.

The FrogWatch USA team and the National Wildlife Federation offers some basic tips for creating a frog friendly space:

- ◆ You are encouraged to build safe spaces for frogs. Structures will help attract frogs. Anything that a frog can crawl inside of and hide will work.
- ◆ Water is the No. 1 frog attractor, so consider building a frog pond. Specifically, a fishless body of water that is shallow and sloping. Frogs and toads need a lot of moisture in their environments in order to reproduce. But frog ponds don't need to be large or elaborate. They should be a "left to nature" pond, meaning you don't want to clean it or add any chemicals. It's desirable for natural fertilizers and debris to fall into the frog pond, as it enables frog food sources to breed. Frogs and toads also prefer still-water ponds, as opposed to ponds with pumps and waterfalls.
- ◆ Create cover. Include nearby plantings where frogs and toads can retreat to find shade and places to hide. Plantings of ferns and other understory shade plants around the pond are useful. You can also install toad houses to encourage them to move in more quickly.

- ◆ Never introduce non-native frogs or toads to your backyard. Not only is this illegal in many places, non-native species can become invasive and destructive. Even transplanted native specimens can disrupt the surrounding eco-systems. Take the “if you build it, they will come” approach. Provide water, cover and reduce chemical use, and over time, local amphibians will find you.
- ◆ Minimize disturbance of your backyard pond or local wetland areas. Plant native species and keep an eye on pets. Cats and dogs, especially cats, are very destructive to wildlife habitats and will eat frogs and toads.  
GET HOPPIN!

Leslie Finical Halleck, CPH owns Halleck Horticultural, LLC, through which she provides horticultural consulting, digital content marketing, branding design, advertising and social media support for green industry companies.

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Article originally published in Garden Center magazine Dec. 2015 issue:  
[www.gardencentermag.com](http://www.gardencentermag.com)

## Hobby Greenhouse Digital Newsletter

Some of you may not realize that the HGA digital Newsletter is another member benefit. The newsletter contains small news notes and pictures provided by members and other interesting updates.

Email Dick Schreiber, Membership Director at [HGAmembershipdirector@hotmail.com](mailto:HGAmembershipdirector@hotmail.com) and request to be put on the digital email newsletter list.





# Tilling Your Soil Till Its Workable

By Steve Aegerter

You don't have to be a kid to enjoy digging in the dirt. Gardeners do it all the time, but it's not just for fun and games. Digging in the dirt can actually improve your plants performance over time.

Regular tilling and amending of the soil will make it easier to work with as years go by. You will notice that it holds water at an appropriate rate and that it supports healthy plant growth.

Preparing garden soil is a long-term continual process. It can't be accomplished in one growing season. Fall may be the best time to begin soil improvement, but it is possible to begin now.

Over the top of your garden soil or planting beds, spread an inch or two of well-broken up peat moss and compost. As we know, compost is chocked full of nutrients and increases the water holding capacity of the soil. On the other hand, peat moss actually contains few nutrients, but is a wonderful soil additive that not only increase water holding capacity, but also provides for lighter soil and improved tilth. Then spade-over or rototill the entire area you've top-dressed.

Then in the autumn, layer a couple of inches of leaves over the top of your beds and spade-over and leave rough. Then place another couple of inches of leaves on top and you're done until spring. Leaving the soil in this manner, which is a form of sheet composting, will allow you the benefit of working your soil much earlier—which means planting mush earlier. Repeating the process over a couple of years and you'll have soil the envy of all your gardening friends.

Double digging is another process of working and amending your soil—but this one is a little labor

intensive, but provides the deeply amended soil your plants love. Let's just assume the bed is 4 foot wide by 8 feet long. First spread 2 inches of compost on top of the soil. Now, working backward, dig out a section of soil at the end of the bed 4 feet wide by the depth of your spade (a depth of earth as pierced by the spade at one time) and place it in a wheelbarrow. Next, place about an inch or two of compost in the bottom of the trench and then spade that over where it is. Then from the top of the level of soil, dig another shovelful of soil and place it over the section that was double dug. Continue this process for the entire bed using the soil in the wheelbarrow to fill in the final trench.



Some gardeners prefer, as they believe it is easier, to use a shovel for the top layers of digging and a garden fork for the lower levels.

Those fortunate gardeners who garden in raised beds will find that loosened soil compacts over time simply by the effects of weather. By double-digging every two or three years, you'll significantly improve the soil structure and hence your resulting harvest.

Steve Aegerter is a Master Gardener and landscape designer in Denver, Colorado. Steve is a HGA member  
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## The Green Thumb

By Doc and Katy Abraham

**MASTER GARDENERS:** There's a group of people in American who are known as Master Gardeners. They volunteer to answer questions on gardening and deserve highest credit for their efforts. Many are very knowledgeable and some aren't, but on the whole they do a good job. Many who read this column are knowledgeable and would make good volunteers for the Master Gardening Program. We're all put on this earth to help fellow man. Helping other people brings real physical benefits as well as psychological ones. In a study among 2,700 people who did things for other people, volunteers increased their life expectancy, especially men. "Men who did no volunteer work were 2 times as likely to die during the study as men who volunteered at least once a week." Volunteering - doing good for others is good for your own health because it keeps your nervous system from going into overdrive.

### THE GREEN THUMB QUESTION BOX

***"We have a lot of moles that damage our tulip bulbs. How can we get rid of them?"***

People have a false notion as to the damage moles do. They do not munch on bulbs or roots. In fact, 99 of their diet consists of grubs, bugs, and worms, hence they are beneficial. The only damage they do is make tunnels in the soil in search of grubs and earthworms. When you see mole tunnels and damaged plants, you should suspect field mice and voles (repeat voles). These rodents use mole tunnels for protection and as avenues to food supplies. Moles eat insect pests, including

Japanese beetle grubs. A mole has a tremendous appetite and can eat half its own weight in food daily.

The common mole has broad, shovel-like front feet. They stay underground, seldom venturing out of their burrows. They are most active early in the morning and late in the evening. They give themselves away by making above ground ridges.

**Control:** No need to control them. If you kill off their food (insects) they go elsewhere. Probably the only way to fight them is with traps, which is tricky because moles are very suspicious and will avoid traps. Don't disturb the tunnels any more than necessary. Soon we'll discuss mice damage to landscape plantings.

***"I heard there is a new blue ageratum which grows 2 feet tall. Is this true?"***

There is a new variety called "Blue Horizon" which we grew in our test gardens this year. It'll be available to gardeners this spring, we expect. It grows 2 ft. tall, holds up well, and is excellent as a cut flower in vase arrangements. Since blue flowers are in a minority, we think it's something florists and home floral arrangers should consider growing.

**Growing tip:** Try vacuuming Whitefly and spider mites from your plants daily for a month. Use the duster attachment.

**FUCHSIA:** The lady's earrings, Fuchsia (pronounced "foo-shuh"), has a bad habit of losing its buds and blooms when growing in hanging baskets outdoors. The reasons are soil too dry, air too dry, too much sun, hot, drying winds, and fertilizer burn.

Keep the plant well watered during the day and avoid direct sun. Allowing it to dry out just once or twice can cause the buds and blooms to drop prematurely. In fall, you can bring the plant indoors and grow it in a window all winter. Cut it back halfway, keep it watered regularly, and feed once a month. Give it a bright, cool window and you'll enjoy plenty of blooms. Or, you can put the plant in a basement (with some light) and keep it slightly watered all winter. In February, bring the plant up, cut it back one half, and grow it in a bright window.

Doc & Katy Abraham provided articles for the HGA for many years. This article was reprinted from the Spring 1990 Hobby Greenhouse magazine.

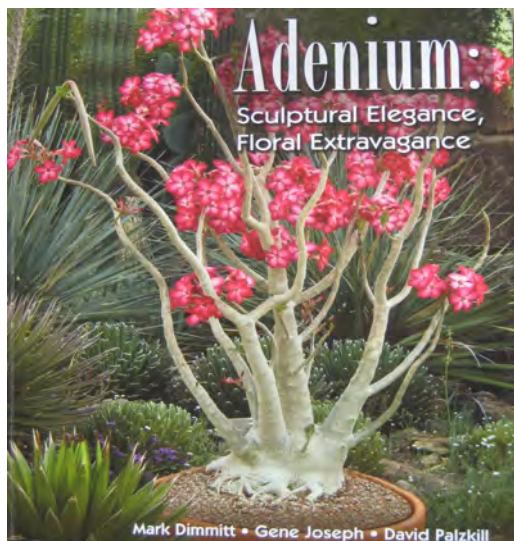
Good information never goes out of print.

Look for more of Doc and Katy Abraham's articles in future magazines.

# BOOK REVIEW

By  
Paula Szilard

Dr. Mark Dimmitt, Gene Joseph and David Palzkill. *Adenium: Sculptural Elegance and Floral Extravagance*. Tucson, AZ: Scathingly Brilliant Idea, 2009. \$29.95. (Address: 2745 East Camino La Brinca, Tucson, AZ 85718. ( Available from ExoticPlantBooks.com. Amazon has it too, but



If you've grown adeniums or are growing them, you'll love this beautiful little book! If you haven't, you'll likely be inspired to grow this very special caudex-forming succulent. An adenium in full bloom is after all one of the most gorgeous succulents on the planet! The authors bring a tremendous amount of experience to this book. Until his retirement, Dr. Mark Dimmitt, a Fellow of CSSA, was director of Natural History at the Arizona-Sonora Desert Museum with a side career as a plant breeder. Dr. David Palzkill is a horticulturist and plant pathologist who now operates a nursery specializing in adeniums and other succulents and Gene E. Joseph is a plant propagator who started Plants for the Southwest/Living Stones Nursery.

Adeniums are fairly new arrivals on the horticultural scene. In the United States, plants were generally not available until the 1970's and most plants sold were *Adenium obesum*. Lead author Dr. Mark Dimmitt has been focused on breeding adeniums for three decades, creating among many others, the cultivar 'Crimson Star,' which blooms nearly all year. In the last decade breeders and growers have been busy creating an unprecedented variety of stunning adenium cultivars, the result of conventional breeding and growing from seed and later by grafting the hybrids onto existing caudexes. The newest

cultivars come from Thailand and Taiwan and are often incredibly full doubles and singles with unusual patterning and rich colors generally grafted onto a sizable caudex. Unfortunately, the double blossoms are heavy and they tend to droop. Most of these Thai and Taiwanese hybrids were released after the book was published, so are not discussed. In e-mail correspondence Dr. Dimmitt stated that many of the beautiful older hybrid singles have been superseded by newer and better cultivars.

The genus *Adenium* is in the *Apocynaceae* family, along with plumerias, mandevillas, oleander and pachypodiums. *Adenium* is occasionally confused with *Adenia*, a genus of caudiciform plants in the passionflower family, but other than the caudex, they have little in common.

Adeniums are found in the Arabian Peninsula, Somalia, in parts of Kenya and Ethiopia, on the island of Socotra, in Swaziland, South Africa, Namibia and in a broad band of territory across the middle of Africa (Sudan, Chad, Niger, Nigeria, Burkina Faso, Mali, Senegal and Mauritania). In addition to the commonly available *A. obesum*, there are about 10 other species or species-like groups. The authors consider some of the adenium taxonomy shaky and anticipate changes will be made in the future.

The book describes the different species and species-like groups and their hybrids and discuss their environments in their native habitat as well as their requirements in cultivation. There are extensive charts detailing the characteristics of each species, everything from the type of leaves, the development and shape of the caudex, dormancy, growth rate, ease of culture, characteristics of flowers, fruits and seeds. In fact, there is so much valuable information in this book, that it's more of a reference book than a book you just read from cover to cover. And because it is so packed full of information, it doesn't exactly read like a novel. It requires concentration and effort on the part of the reader.

The general chapter on adenium culture emphasizes seasonal adjustments in watering, a very important feature of good culture. As a general rule adeniums do not grow in deserts, but in woodlands and grassland savannas as well as steppe climates, chiefly in the tropics and subtropical areas.

Adeniums in tropical areas naturally do their growing in the summer rainfall season and are then dormant in the drier months of the year. Like their parent plants, most of the hybrids created from them also grow in the summer heat when liberally watered and then go dormant in the winter. You can water more and fertilize more liberally in the hot summer months when the plant is outside, but restrict water in the winter months.

Interestingly, the authors say that when adeniums were first cultivated in the United States, the conventional wisdom was that they were very slow growing plants that would easily rot. People watered them sparingly regardless of the season and as a result the plants could never grow to their full potential. But,

according to the authors the more you water outdoors in hot weather the more adeniums will grow. They also say that during the hot summer months outdoors it is virtually impossible to overwater these plants.

The book is profusely illustrated with beautiful color photographs of species and cultivars, however, the authors do not claim to describe all of them. Many of the plants get their own bar graphs showing month-by-month data on flowering. There is information on pests, but no mention of scale, a recurring problem on my plants, and for the very serious among you, a chapter on propagation and grafting.

The book has a bibliography, but alas, no index! A detailed table of contents is helpful in finding specific information. If you grow adeniums, get this beautiful, useful and highly informative book before it goes out of print! On second thought, maybe you should consider it even if you don't grow them. Before you know it you will!

**Reviewers Note:** According to Dr. Dimmitt, you can mail order some of the older hybrids from **Living Stones Nursery & Plants for the Southwest** ([www.lithops.net](http://www.lithops.net)), **Arid Lands Greenhouses** ([www.aridlandswholesale.com](http://www.aridlandswholesale.com)) and **Miles' to Go Nursery** ([www.miles2go.com](http://www.miles2go.com)) only for shipment within the USA. He says that these plants may not necessarily be in the companies' plant lists. You may have to ask for them. Many of the full-flowered hybrids from Thailand and Taiwan are available from **Logee's Greenhouses** ([www.logees.com](http://www.logees.com)). **Top Tropicals** ([www.toptropicals.com](http://www.toptropicals.com)) in Florida also sells adeniums.

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## NEW VARIETY SPOTLIGHT



Colibri is a new series of compact calibrachoa bred to be grown in smaller pots, quarts and 6-inch containers. They are very early and can be grown without much manipulation. Although compact Five colors are available; Cherry Lace is pictured.

Bred and grown by the Daziger group.

## DEADHEADING HELPS YOUR PLANTS

By Wally Wolfgang

**D**eadheading is a term used to define the process of removing dead blooms and those that are fading away. Dead heading greatly improves the appearance of plants by removing old growth, seed heads and spent blooms allowing for room to develop new growth and blooms.

Remove the old blooms and even damaged stems by pinching them off or by using pruning snips cutting the blooms off just above the first set of leaves below the spent bud. In the case of geranium, simply follow the old stem down from the dead bloom to the point where it grew from the main stem of the plant. Snip off the old bloom and its stem at this point or simply just “snap” it off. This is also a good time to inspect your plants for any disease or pest problems.

Deadheading also prevents seed pods from forming and taking nutrients to form the seed pods instead of directing these nutrients to forming new growth and blooms. Tulips and daffodils are excellent examples of bulbs that should be deadheaded. As the blooms die back seed heads will quickly develop and rob the plant’s bulb of nutrients it needs to grow in size and develop bulb lets for next years bloom cycle.

The spent flower should be cut off at the point where it emerges from the soil.

Annuals like petunia and impatient will benefit from deadheading, and they somewhat self clean themselves by dropping their spent flower buds. Simply pulling off the spent flowers encourages new blooming.

On the opposite end, some perennials should not be deadheaded because they self sow their seed for next years growth . Some perennials use the self seeding process to spread across the flower beds and fields. Forger-me-not, Hollyhock and Foxglove are a few examples.

There are a wide range of plants that produce seed pods that the birds enjoy eating in the fall and winter months. Although coneflowers do not look appealing after their flowers have faded, the seed head after it forms becomes a mecca for various species of small birds. Of course if they have not already visited your gardens, deer will also enjoy eating the seed heads in the winter months.

Take time to research plants and they can reward you with dual purposes in your gardens and along your wood lot borders.

## Tips and Hints # 16

This continues the feature that deals with ideas (new and vintage) of unique tips for the plant lover. We welcome your tip or hint and if published we'll extend your membership 6 months. Hopefully everyone can find something of interest to try or improve on. Please send them to Tips & Hints, 922 Norwood Drive, Norwalk IA 50211 or [HGAmembershipdirector@hotmail.com](mailto:HGAmembershipdirector@hotmail.com). Pictures are a welcome addition to accompany your tip or hint for better understanding. Or let me figure out the best way to demonstrate it, you still get credit. The one below is vintage and easy, and submitted by Kathy B. in Nebraska.



### *The Self Watering Seed Starter*

Start with a two or three liter plastic soda bottle with the cap intact. Rinse out and remove the label. Cut the top 5 inches off the bottle, being careful not to injure yourself. I found that an Exacto knife or scissors works well. Next, drill a small hole through the center of the cap. Place a 6" or 8" piece of heavy shoe lace or thick cotton string through the hole so that at least 3 inches of string extends out of both sides.

The wick should touch the bottom of the bottle. Fill the bottom of the bottle with 2" to 3" of liquid fertilizer water or compost tea. Set the inverted top part of the bottle inside the bottom half. The cap should remain clear of the liquid. Fill the top with a loose soil mix. Potting soil with perlite/vermiculite/coir or pumice added; so the roots can expand easily. Spread seeds on the top of the soil. Press down slightly and cover with a thin layer of soil. Cover the top with plastic wrap held in place with a rubber band until the seeds sprout. Set in a warm sunny window till time to transplant.



# PLANT PESTS WE HAVE TO DEAL WITH

We are going to take a look at the common pests in the greenhouse and general growing areas we enjoy. In each magazine issue we will highlight one of those pests.

At the right are **Aphids** in various growth sizes. They can reproduce asexually most of the year with adult females giving birth to live offspring often as many as 12 per day without mating. Think about those exploding numbers.

They can be green, yellow, brown, red, or black in color depending on the plant they are feeding on. Aphid young are called “nymphs” and molt, shedding their skins about four times before becoming adults.



**Aphids**, like several other insects are actually cultivated by ANTS! Ants control (herd) and will carry aphids to new healthy plants in order for them to produce their excretion that is high in sugars which ants use for food.

**Control:** The use of across the counter insect sprays will kill the aphids but they, like other insects will become immune to a particular spray if used constantly. You have to use a rotating regiment of different sprays to keep ahead of their growth patterns. Across the counter sprays do not require a commercial spray license to purchase and thus are not terribly strong but they do work.

Deltamethrin Dust is also a good controlling product

for aphids and will last for a week or two. Oil sprays also work but take longer to control the aphids. Also the use of systemic granules which are slow release insecticide granules spread on top of your plants will also help control aphid populations. However I would not recommend their use around children or pets that have access to the plants. Remember that almost all across the counter insecticides have a very short active period after mixed and applied, usually only until dried as in the case of contact sprays. A few have a active span of up to five to seven days. Read the product label.



# Schlumbergera CACTUS

You just could not resist purchasing one or two of those Christmas cactus. They are showy and a hit in the garden centers over the Christmas season. Just beautiful colors and at a very reasonable price.

It is now spring time, the flowers have faded away and may litter the bottom of the pot. Do remove these dead flowers as they will rot and fungus will start to grow on them. Not good for the health of the cactus plant.

Thanksgiving cactus and the Christmas cactus appear in garden centers during the holidays. And do not forget about the Easter cactus. All three look pretty much the same but to the serious collector there are distinct differences. They are referred to as "holiday" cactus.

Schlumbergera is the genus that include the Christmas and the Thanksgiving cactus, genus Rhipsalidopsis the Easter cactus. The Easter cactus is not as popular since there are many other flowers in competition in early spring and with a wide range of growing habits and colors.

These flowering cactus are native to tropical forests of South America where they generally grow on tree bark. They have been bred to produce a variety of showy colors and will bloom for several months. As the blooms fade away they should be picked off the plant to make way for the new buds to flower.

The Christmas and the Thanksgiving cactus both have generally flat leaf arrangements jointed together and sometimes called stems. The leaves or lobes as some refer to them, are pointed on the Thanksgiving cactus whereby they are more rounded on the Christmas cactus. The Thanksgiving cactus is pictured above.



The flowers protrude from usually the tips of the leaf although they can also flower from the notches where they are joined on the stem.

The plant can somewhat be forced into bloom. The Christmas cactus usually blooms at Christmas time by itself and the Thanksgiving cactus naturally blooms at Thanksgiving. Budding is naturally triggered by the short days and light conditions of November and December. A cooler or cold shock in the fall months will also cause the buds to set. Setting the plants outside in October and early November will cause budding to be induced. Bring the plants indoors if freezing is forecasted. Temperatures of 45 to 50 nighttime and 60 to 65 degrees F. daytime will induce buds.

It is best to repot the plants every 2 years adding in more fresh soil. Increase the pot size proportionally to plant growth.

Best grown in indirect light. If grown in front of windows choose the south, east or west locations. In the winter do not place the plants where they can get warm drafts from heating.

Fertilize only while the plant is flowering or actively growing new brackets. Too much fertilizer will cause the plant to stretch its growth. Keep the soil moist when flowering and new growth is present, other times allow the plant to dry out between watering.

Trim the plant yearly after the blooming is done to keep its form. Remove the brackets by simply snapping off the unwanted brackets. This is an excellent way to take cuttings of the brackets for rooting. Place brackets in moist soil, dust with hormone powder if preferred, and keep the soil moist. They root quite easily.



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Ivy Society, Inc.

AIS is the International Registration Authority for Hedera, provides source for new and unusual ivies.

AIS publishes three ivy newsletters *Between the Vines*, and one *Ivy Journal* a year with reports on research hardiness testing, life-sized photos of ivies. Each member also receives an ivy plant.

Information: The American Ivy Society,  
PO Box 163, Deerfield Street, NJ 08313



*Achaemenes, Aeschynanthus, Chirita, Columnea, Drymonia, Episcia, Kohleria, Nernatanthus, Petrosmea, Sinningia, Streptocapus ...*

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Go to [www.gesneriadsociety.org](http://www.gesneriadsociety.org) for society information and membership dues.

The Gesneriad Society, Dept AVM, PMB 637, 1122 E Pike Street, Seattle, WA 98122 USA. New members receive a copy of "How to Know and Grow Gesneriads," two back issues and the next four quarterly issues of our journal *Gesneriads*, a package of mixed gesneriad seed, access to the world's largest source of gesneriad seed, and many other benefits.




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# Organizations



**African Violet Society of Canada**  
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Articles on growing & propagating African violets

Roundtable discussion by international experts lips on latest tools & techniques Regular features on notable Gesneriads News from AVSC members and community

For more information contact:

Laurel Goretsky, 32 Scimitat Point NW, Calgary AB

Canada Email: [laurel@goretsky.ca](mailto:laurel@goretsky.ca)

Telephone: 403-241-8300

## Join the CSSA

**Cactus and Succulent Society of America**

*Promoting succulent horticulture and discovery since 1929*

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## Join HPS/MAG Today!

The purpose of the Hardy Plant Society/Mid-Atlantic Group is to cultivate, foster, and promote interest and participation in horticulture.

[www.hardyplant.org](http://www.hardyplant.org)

Membership includes lectures, tours of private gardens, access to bus trips, e-news, newsletters, and plant sales!

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