The Petunia

by Nora Graf

The petunia has been a staple in gardens since forever it seems like. I remember them as a kid as very giant, floppy petals, easily whipped around in the wind and looked like wet tissue paper after a rain. Then you had to deadhead them constantly. They did bloom reliably for a long time in a variety of colors and they grew well in our Tucson and Scottsdale yards but my interest in them was limited. Over time they have changed, simple colors were replaced with wild patterns and deep bright colors. The floppiness isn’t as bad as it used to be and they don’t even have to be deadheaded in some cases. I have even gotten to like some of them. Think reliable summer bloomers.

The petunia comes from South America and is related to the tomato. Well, they are in the same family anyway, Solanaceae. The original garden petunia is thought to be a hybridization between a large white, night-scented species, *P. axillaris* and a violet species, *P. integrifolia*. The white species have blossoms that are long thin tubes and came from South America to Paris in 1823. *P. integrifolia* is a spreading plant with upright tips. The explorer James Tweedie sent the genus to the Glasgow Botanical Garden in 1831. Over time, many open-pollinated varieties became popular in the home garden.

All petunias except one are insect pollinated. That one exception is hummingbird pollinated. Today there are hundreds of named varieties that come in all sorts of sizes, colors and growth habits. While some are advertised they are “deadhead free”, all of the varieties benefit from some cleaning up once in awhile.

Grandiflora is the most popular variety. It has large flowers up to four inches across and comes in single and double varieties. Growth habits can vary, some are mounding while others cascade, making them good for baskets. Pinch back to encourage more growth.

Multiflora types are compact with smaller flowers but have large...
quantities of flow-ers blooming at the same time. They also come in single and double forms. Best if grouped to-gether to make large areas of color. Pinch back to encourage more growth.

Floribundas are in-termediate types between grandiflora and multiflora. They produce medium sized blooms.

Millifora are miniatures. They produce large quantities of small flowers about an inch across. Works well mixed with other plants in containers and are best where they can be seen easily because of their small size.

Ground covers are spreading petunias that are only about six inches tall. As their name implies they spread and cover large areas. They do need lots of water and fertil-izer but work well on hillsides or on top of walls. Hanging baskets also show off their charms as the long stems trail over the basket and they produce lots of flowers. (Spreading petunias are sold under the name “Wave”, “Cascadia”, “Superfinia” and “Supertunia”.)

Petunias are sun lovers which is one of the rea-sons they do well in our area. For best flowering they will need five to six hours of sunlight a day. The plants may grow in shadier conditions but less flowers will be produced. They need good drainage and compost or rot-ted manure mixed into the soil in the top 10 inches. You can enhance their flowering and growth with a bit of fertil-izer in the middle of the summer. When it comes to water they can get by with less than some annuals except for the spreading varieties that do need more. Saturate the soil well each time you water.

Petunias can be started from seeds but truthfully unless you are looking for something really unusual most varieties have a large variety to choose from. If you do try seeds, they will need twelve weeks before they are large enough to go into the ground. The seeds are very very tiny and need light to germinate. You can sometimes find pelleted seed that are easier to work with. Mist the seeds once you’ve sown them, any harsh source of water will quickly wash them somewhere. Keep them moist (cover ing them with clear plastic will help) and place in an area that is out of direct sunlight and can maintain a tempera-ture of 70-85°F. Seeds will sprout in 7 to 10 days. Once the seeds have germinated, remove the covering. Move the seedlings to a bright, cooler place, 65°F days, 55 to 65°F nights. Placing them under fluorescent lights should provide them with enough light. Place the lights about four sinches above the seedling and keep the lights on for six-teen to eighteen hours each day. Don’t forget to raise the lights as the plants grow. Once the seeds have three true leaves they can be placed in individual pots. Feed every two weeks. Harden off the plants before transplanting out-side. To transplant successfully the soil needs to be at least 60°F.

While rarely seen in bouquets, they can be used as a cut flower. Just remove all the leaves; they rot quickly in the water otherwise.

The leaves of petunias are sometimes eaten by the larva of butterflies, the hummingbird hawk moth in par-ticular, but are otherwise free of both insect and disease problems. Leaves that start to yellow are either suffering from too much water or a lack of nitrogen. Both simple problems that can be corrected. Have a pot of petunias this summer.

Petunia seeds are readily available through many mail-or-der catalogs: Gurneys, Park Seeds, etc.
Before you get agitated about all those holes in your petunia leaves, take a step back, set that sprayer down and be excited that you have such a great creature in your yard. The holes are made by the larvae of a moth that is known by many names, the hummingbird, the hawk or sphinx moth. These moths do resemble small hummingbirds and feed on nectar just like hummingbirds. In fact the petunia, *P. axillaris*, has developed strategies to attract them. The flower emits a strong odor during the night that brings in the hawk moths. Datura, agaves, columbines, larkspurs, honeysuckles and evening primroses are other favorites of the moths.

In Arizona you will find the White-lined Sphinx Moth, *Hyles lineata*. It is one of the largest flying insects found in the desert. After the sun sets the moths begin to move around the garden, although sometimes you might even see them during the daylight. The moth can beat their wings fast enough so they can hover like hummingbirds and sip nectar. Unlike hummingbirds that prefer red flowers, the moth prefers white or light colored flowers where it feeds exclusively on nectar. The moths also have antennae which hummingbirds do not. Hummingbirds hover and perch while the moths just hover.

Hawk moth larva can be less fun than the moth as they can defoliate a plant overnight and they especially like tomatoes, potatoes, peppers, and eggplants but evening primrose, grapes and four-o’clocks are also favorite hosts. The larvae are sometimes known as hornworms as they have a prominent horn, but are not the tomato hornworm we are familiar with. The moth can lay as many as 1000 eggs on the underside of a leaf. The eggs quickly hatch in a few days. After feeding, the larvae transform from worm to moth underground. In warmer areas there may be two generations per year. Once the moths have reproduced they die. I know it’s tough but sometimes it’s worth the sacrifice of a plant or two to the greater wonder of the universe.

**July Gardening Duties**

No one likes to work outside in July. Hot and often humid, it’s tough to face the garden. So get up really early, drink plenty of water and try not to build Rome in a day. The crucial thing about July is that plants need water. Watering deeply and less frequently is certainly the best way for trees and shrubs. Mulching, if you haven’t already done that, is a good idea. For the vegetables, even watering is important. I prefer a timer that waters the vegetables every other day. Perennials can get by with watering once a week in many cases. If they start to wilt between waterings, either water deeper or more often and see how that works out. Annuals are more like vegetables, but adjust the watering to their needs. Keep your flowers deadheaded to keep them blooming. Keep after the weeds. If the monsoon rains have started, this will be a daily project. Don’t let them get ahead. This is a do as I say item, not necessarily a do as I do item. With any kind of luck your tomatoes are going gangbusters and so are the hornworms. Blackberry and raspberry vines need to be trimmed and watch for maggot damage on your corn.

All done? Grab a tall glass of iced-tea, find a shady spot, and cool off! Oh, don’t forget to enjoy the bounty of your garden.
There are good internet sites and bad ones. Here are a couple of good ones. Thanks to Steve Moody for contributing information about a site he uses. Let me know your favorite gardening websites, blogs, nursery sites.

**www.jeffgillman.net**

One of the reasons I like Extension programs is that they are based on science. Old wives tales are always entertaining and other peoples experiences are interesting but I really like science-based information. This is why I like Jeff Gillman. He has written several books, one called *The Truth about Organic Gardening* and the other *The Truth About Garden Remedies*. I had hoped to get him as a speaker for the 2008 Garden Conference but he had something else scheduled for that week, maybe another time.

He says: “In 2004, I got fed up with some of the ridiculous suggestions that a certain TV personality was trying to pass off as garden cures and so I started to research those cures with my own experiments and a lot of time in the library. The result was a book, *The Truth About Garden Remedies* which was amazingly well received. Encouraged by its success I wrote a second book, *The Truth About Organic Gardening*, which examined the good and bad practices in the modern organic garden. My third book, *How Trees Die*, is about how trees in different environments are treated and affected by people, which ultimately leads to their deaths.”

Unfortunately, he does his research in Minnesota so all might not be applicable to Arizona but he is an excellent resource. He is an associate professor at the University of Minnesota and his Extension research interest is consumer and urban horticulture. Stop by his new website and see what’s going on. Currently he is showing pictures of slugs and their reactions to some of those word-of-mouth remedies. (Click on the project section.) You might be surprised. Also check out his publication link. He has some short articles that were posted on the website “Garden Rant” (www.gardenrant.com) that are really interesting. I’ve contacted him and have permission to reprint them, so they will be appearing at a later date.

You need to check out Jeff Gillman’s rant on some of the popular “garden experts.” Make sure you read the follow-up comments.


**http://e-answers.adec.edu/**

The most useful web site I’ve been using during the last year is E-Answers. This web site is a specialized web search engine “that brings more than 250,000 pages of university information and education into your home or office — when and where you need it. The practical, current, and unbiased information in this site represents the work of Extension Service and Agricultural Experiment Station professionals at more than 50 Land Grant universities throughout the United States.”

It has been invaluable in answering questions when I work the MG Help Desk in the Cottonwood Office. It provides that kind of information that Jeff Schalau encourages us to provide to the public—peer reviewed research. Through this web search engine I’ve discovered valuable information applicable here from extension services of neighboring states of New Mexico, Colorado, Utah, and Nevada.

It is not surprising that links to the archives of Jeff’s Backyard Gardener articles are frequently returned by searches using this engine. (This may help explain why the Cottonwood Office receives questions from around the country. During the eighteen months we’ve received questions from as far away as New Jersey, Montana, Nebraska,…and even Puerto Rico. The appropriate reply in such cases is to supply the person with a contact for their local MG or Extension office.)

Another advantage of this E-Answers is that it filters out commercially based hits of questionable value returned by searches using Google.

Finally, the logic of E-Answers seems to work better than the search engine used by the U of Arizona. I’ve submitted identical searches to both the U of AZ and E-Answers. Sometimes E-Answers returns multiple hits from U of AZ, but the U of AZ search engine finds none.

Steve Moody
MG Class of 2006
Hello everyone,
our July 18th meeting is set. The venue will be the same place as last time in the Verde Valley, the Yavapai-Apache cultural center East of I-17 at the casino exit (exit 289). The cultural center is just past the casino at the first traffic light. You will see it on your left as you pass through the light. We will start at 9:00 am and finish by noon or before. Here is our program:

Introduction and overview
Tip of the quarter
Using humor in your presentation
Speaker #1 - Michele Herrick
Feedback
Speaker #2 - Judy Cowan
Feedback
Farmer’s mkt speaker opportunities
Other
Outta here

Hey! Would you like to offer the Tip of the Quarter? Just a quick tip on anything to do with a presentation to share with the group. Email me right away if you would be willing to help out on this popular topic! We do have room for one more short (15 min) presentation; let me know if you would like to be included.

Each of you add immensly to our program through your comments, feedback, and ideas. Please make an effort to attend, even though the Monsoon Madness event is the Saturday before. Remember, no MG meeting in July, so make this the replacement!

Thanks for your great work,
Bob

Monsoon Madness
July 11th, 8am to 3pm

Please deliver sale items to the Prescott Extension office on Friday, 8am – 11am
If you signed up to help and have not been contacted, contact Bev Bostrom, bevbostrom@mac.com, 899-8686

Support your local farmers market!

Iris Sales
2nd Iris Rhizome sale: Labor Day Sept 7, Mount Hope Foods in Cottonwood on Main Street.

August 1– Rhizome Sale Sharlot Hall Museum
August 8-Rhizome Sale Growin’ Crazy Nursery, Chino Valley

A case for an unkempt garden—

This case of snakes in love took place in my jumbled garden. No neat manicured spaces here. In fact I have found two more of the striped versions of this snake in my yard this year. Makes me feel good. It is a ground snake, Sonora semiannulata, and yes they are both the same species.

Thanks for your great work,
Bob
Master Gardeners at work in the community.

On April 29th Miller Valley Elementary School celebrated the first School Beautification Day. Students, teachers and parents were there to help: they picked up trash, weeded, while others learned about compost and planted trees and shrubs.

Master gardeners Jonella Blake and Herdis Maclellan were there to help the third and fifth grade students plant the Welcome Garden, designed by Lesley Alward (who unfortunately could not be there on the day to see her design come to life). The Alta Vista Garden Club donated a Western Red Bud tree which was carefully planted by the fifth grade students under supervision of master gardeners. The APS very generously donated the many native plants for the garden, which the third grade students planted, supervised by teachers and master gardeners.

Native Plant Hike

Sue Smith led a native plant hike at Granite Mountain on Saturday May second. The windy day only enhanced the fragrance of the wild Cliff roses, which were prolific.

Within the first one mile of the trail, there were over 40 native plants to see. Sue has lots of enthusiasm for her subject of native plants. She managed to convey both her knowledge and enthusiasm. Sue is working with Charley Johnson on pictures and descriptions of Prescott native plants. They have information on over 100 plants to date. They will be available soon on the Cooperative Extension website.

MG Cookbook

The MG Cookbook Committee is soliciting recipes. Please forward to Cookbook Chairperson Robin Weesner (rgweesner@msn.com) or PO Box 508, Rimrock, Arizona 86335. If emailed, either type in email body or provide as email attachment in Word format. Recipe should feature at least one produce item that can be grown in Yavapai County.
FROM THE EDITOR: Please send or email articles and announcements to the address below. All articles must be in my hands by the 10th of the month. Short announcements (no more than 2 or 3 lines) will be accepted until the 25th.

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Reminder: Please submit Volunteer and Continuing Education hours for the fiscal year by July 5th.

Prescott Area Iris Society, August 1 & August 8 Rhizome Sale
A great place to buy iris at affordable prices is the Annual Iris Rhizome Sale, August 1 at Sharlot Hall Museum and August 8 at Growin’ Crazy in Chino Valley. Last year there were over 75 different varieties for sale and we are expecting an even larger number this year. There will be a photo of the bloom for each named iris so it should be easy to pick the colors you want to include in your garden. Come see the great selection of locally grown iris, newly hybridized iris, historical iris and much more at the Prescott Area Iris Society’s annual sale, 9:00 a.m. until 12:30 p.m. under the canopy at Sharlot Hall Museum, 415 W. Gurley, Prescott. Get advice on growing iris and pick up a free culture sheet which provides instructions for growing iris in the quad-city area. Become a member and get a $10 gift coupon towards your iris purchase. Dividing your iris this year – call 776-8660 or 445-7067 for more information.

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(928) 445-6590
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2657 Village Dr.
Cottonwood, AZ 86326
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MG Association Meeting
July, No meeting but stop by the Monsoon Madness Sale, July 11, 8am to 3pm, at the Prescott Extension Office