What’s That Word?

Back in my first college days at (sorry everyone) Arizona State University, I took a class in plant taxonomy and identification from a great professor. Dr. Pinkava taught me the wonders of axils, bracts, corollas and the miracle of understanding the Latin of plant families and the binomial naming system. Once you understand the common features of the sunflower family you can impress your friends with things like, “Oh, that’s just a Compositae, you know, a member of the sunflower family.” Or better yet, impress them with an off-hand, “It’s only an Opuntia, they’re pretty common around here.” (prickly pears, chollas) You can throw out terms like basal leaves, pistils, calyx, rhizome and, two of my favorites glaucous and glabrous. So a little science can be fun and you can impress people. Below is just a short list of terms you may come across while reading about plants.

Anther—the pollen bearing part of the flower. The anther sits on top of the filament, the two parts make up the stamen.

Apical—Tip or apex, generally referring to the growing point of the plant.

Apical Dominance—the tendency of the apex meristem to inhibit the growth of axil buds by producing a hormone call auxin. Removing the apical meristem results in increased branching.

Axil—the upper or inside angle of the junction of a leaf and stem or where a smaller stem arises from a larger one.

Basal—In plants that form rosettes, the basal leaves are those that arise directly from the crown of the plant and which often differ from leaves arising from the stem.

Bract—A leaf that appears part of the flower cluster—even may appear to be the flower because of its bright color. Poinsettias are a
perfect example, the bright, colorful “flower” is actually leaves. The real flowers are the bright yellow sticky objects in the center of the bracts.

Callus—the new tissue that grows over a plant wound or cut. (Think of a scab that forms after cutting yourself.)

Compound Leaf—a leaf made up of two or more leaflets.

Leaflet—a division of a compound leaf.

Corolla—the collective name for all the petals of the flower.

Corymb—A flat-topped or convex open inflorescence. Similar to an umbel but instead of coming from one point on the end of the stem, a corymb means flower stalks coming off of one stem.

Crown—the base of a plant, where stem and root join, (usually, but not always) at ground level.

Cultivar—properly a cultivated variety of a plant that was developed through horticultural processes, rather than in nature. Its name is not part of the Latin name. Sometimes called variety. EX: Agastache aurantiaca ‘Shades of Orange’

Dioecious—Having male and female sex organs on separate plants.

Monecious—Both sex organs are on the same plant.

Glabrous—Hairless, but not necessarily smooth (Here’s a word you can use to talk about some of your friends!)

Glaucous—Covered with a powdery, blue-green finish (Sorry, unless you have really unusual friends, you’ll have to stick to the plant world when using this word.)

Hirsute—(another good people word) Covered with dense, coarse hairs.

Inflorescence—Collective name for a group of individual flowers; can be a spike, umbel, corymb etc. I should make you look up those words but I’m a pretty generous person, so wait, they will show up here.

Internode—Space between the nodes on the stem.

Meristem—Any growing point of both root and stem on a plant where active cell division is taking place. There are both apical and axillary meristems. (Many orchids are propagated using meristem tissue. This creates an exact duplicate of the original plant that the meristem tissue came from.)

Ovary—The part of the flower that contains ovules that will develop into seeds. With the style and stigma, it makes up the pistil or female sex organ.

Ovule—Within the ovary, the body which will contain the seed.

Pedicel—the flower stem as opposed to the leaf stem.

Peduncle—the main stem supporting the flowers; individual pedicels will come off the peduncle.

Petiole—the leaf stalk that connects leaf to stem.

Picotee—a pattern of flower petal coloration where the edges of the flower have a contrasting color.

Pistil—The female sexual organ of the flowering plant.

Rhizome—a horizontal stem from which roots and leaves grow. Bearded Iris have rhizomes.

Sepal—in a flower, the outer, usually protective, leaves that surround the petals.

Stamen—the male, pollen-producing part of a flower, consisting of anther and filament.
Stigma—part of the female sex organ which receives pollen. Supported by the style, which is then connected to the ovary, it is often sticky when receptive.

Style—the part of the female sex organ that supports the stigma and connects it to the ovary.

Succulent—Fleshy and full of juice.

Terminal bud—a plant’s apical bud.

Umbel—a convex or flat-topped inflorescence; the flowers all arise from one point, the youngest in the center. Carrots and Queen Anne’s Lace flowers are umbels.

## Raised bed garden

Looking for an attractive, quick and easy raised bed? Below is a simple one that anyone could make. Length will depend on the size of the box you build. You will need the following items:

- 8 - 2 x 2’s
- 2 x 6
- 4 x 6
- wood screws
- landscape fabric

To hold tiered box together, attach 18-inch 2 x 2’s with wood screws to each interior corner and the middle of each side. Use landscape fabric to cover the ground beneath the box.
Rain did not dampen the spirits of hosts or visitors at the University of Arizona Cooperative Extension Office open house on Friday, July 16. About 100 people attended the event scheduled to familiarize the public with the office’s new location and celebrate the remodeled office and classroom facilities. Extension agents, educators, office staff and master gardeners constructed exhibits and provided information covering Cooperative Extension services: horticulture, agriculture and natural resources, family consumer sciences, animal sciences and youth (4-H.)

Following the dedication of the Shelby Hansen room (the conference room,) visitors viewed exhibits, gathered information and enjoyed refreshments. Throughout the afternoon, some Master Gardener volunteers mingled with the crowd while others provided information and answered questions at a display table strategically placed near the door.

A big thanks to those who volunteered to help with the open house and introduce the Master Gardener program to the public: Mary Barnes, Jonella Blake, Marti Dodd, Art Filippino, Cathy Frei, Kathy Grant-Lilley, Linda Heim, Gillian McArthur, Kitty Schleuter, Sal Sorrentino, Bev Turnbull and Phil Young. Also, thanks to those who attended the event, some traveling from the Verde Valley.

Marti Dodd, Jonella Blake and Sal Sarrentino identifying insects.

Sal Sarrentino, Mary Barnes and Jeff Schalau discussing the Master Gardener program.

Visitors learning about the services offered at the new Cooperative Extension office.
Master Gardener Picnic, November 6, mark your calender now. It will be in the Verde Valley. Details will be coming soon.

MG Highland Garden Conference
If you volunteer to help (for example, at the registration table, helping with speaker setup, etc.) at the conference, you can count those hours as volunteer hours. Any sessions you attend can be counted as educational hours. You cannot count breaks, lunches etc as volunteer hours.

Everyone must pay the registration fee except for speakers. Even if you have volunteered to help, you must register and pay the fee. There are NO REFUNDS. SIGN UP SOON!

MG Association Elections
We really need your vote!

At the September meeting in Prescott there will be elections. We need more volunteers for officers and committees. Please contact Mary Barnes for information.

Also we will be voting on changes in the by-laws. We really need your vote. If you received an email with the new bylaws please respond to it even if you cannot make the meeting. It is important that we get as many of the certified Master Gardeners to vote as we can to make the changes official.

Yavapai Gardens Newsletter
We are trimming the mailing list for newsletters and announcements. It is getting more and more expensive to continue sending out material to all the people on the list. Check your address label—if there is an “X” next to your name on your mailing label, then this is the last issue that will be mailed to you. You may view the newsletter on-line – it will be posted by the first Wednesday of each month – http://ag.arizona.edu/yavapai If you wish to remain on the mailing list please contact Mary Barnes at the Prescott Extension office or at mcbarn1@cableone.net, 583-0889 to find out the requirements for becoming an active Master Gardener once again.

Volunteer Opportunities
We still have several 2 hour shift openings for staffing the Cooperative Extension booth at the Yavapai County Fair (Sep 23-26). Volunteers will receive free Fair entrance. Contact Kathy Grant-Lilley, 445-7196,
Tillandsias
(till-AND-zee-uh)
by Nora Graf

Looking for something simple to grow? No pots or messy potting soil, try tillandsias, otherwise known as airplants. These bromeliads are epiphytic or able to grow on rocks, trees and other surfaces without any soil. They can grow in your house, on a windowsill or table.

Tillandsia’s are named after a Swedish botanist, Elias Tillands (1640-1693.) They were originally thought to be related to mistletoe. Today, there are 500 known species of the genus. They are members of the Bromeliad family. Tillandsia have a wide range and are known from the southern US through Central and South America. They can be found growing on trees and cactus, usually, but can also be found on rocks and loose sand. Climate can be variable, also, as there are species that grow in humid, rain forest climates and in arid, sunny, desert climates.

The plants usually form a rosette, although in some species that might be difficult to recognize. Species range from the very tiny 1/2 inch (species are moss-like) to 7 to 10 inches. Tillandsias look somewhat similar to tiny varieties of yuccas or agaves. Leaves are succulent and generally have smooth edges and are sharply pointed but may be flexible or stiff and brittle. Leaves also vary in color; those around the flowers can turn bright red or orange when the plant blooms. In some, the entire plant changes color, with the color fading after blooming is completed.

While the plants are usually grown for their interesting forms, they can put out a colorful display of flowers. Colors are often vibrant, ranging from yellows to reds, whites and purples. They are occasionally fragrant. Bracts may also be colored intensely hot pink, red and red with yellow tips.

Culture of Tillandsias is fairly simple. Since we live in a dry climate you will have to water them frequently. They prefer a higher humidity than we usually have. Green-leafed species can be watered at the center, while gray-leaf types need to be misted daily or submerged in water. The leaves need to dry thoroughly between waterings. The best way is simply to dunk the plants in a sink or container overnight at least every two weeks. Running them under a faucet every few days in between dunkings will keep them healthy in our dry climate.

If you have extremely salty or alkaline water, use distilled water. Make sure the plant dries out. Excess moisture lurking in the center can cause the plant to rot. If the leaves of the plant curl up and “pinch” you are not giving them enough water. This curling is a sign all is not well with your Tillandsia. Heed the warning! It is not unusual to find the plants glued to a board or mount of some type. This works fine unless it makes the plant difficult to water. If your plant is mounted making it difficult to water, just make sure it gets frequent misting (everyday, in the summer heat) and keep an eye on the plant to make sure it is getting enough moisture.

Temperature isn’t a huge consideration; they prefer from low 70’s to mid 80’s but will tolerate everything from freezing to over 100. This doesn’t mean you can put them someplace that is always at 100. This will slow down growth and they will not thrive in those kind of conditions, so try to stay in the optimal range most of the time. On the flip side, they aren’t fond of freezing so, if you keep them outdoors in the summer, they will need to be moved inside in the winter.

No direct sunlight! Indirect but bright light is a must. Gray-leaved or thick-leaved tillandsias need more light than green ones but keep them out of direct
sun in the summer, as it can scald the leaves on all varieties. They can survive in low-light situations for approximately a month but need to be returned to a brighter location after. For a month or so the plants can tolerate very bad conditions, like stuffing them in a box, but eventually they will need the light. White-fuzzed varieties actually reflect up to 70% of the light that hits the leaf. During the winter they would also benefit from artificial light.

Fertilizer isn’t a must but they will grow bigger plants and flowers if you do fertilize. There is a fertilizer out there specifically designed for them called Epiphyte’s Delight. If you use other types of fertilizer, make sure you use it only at 1/2 strength. Fertilize once a month.

Tillandsias produce offsets. You can leave them attached to the mother plant or they can be separated. Wait till the offsets are 1/3 to 1/2 the size of the mother plant and mount them in a new location.

Sources for Tillandsias
Rainforest Flora, Inc.
19121 Hawthorne Blvd
Torrance, CA 90503
310-370-8044
rainforestflora.com

**Did you Know?**

Every state has designated certain species as the “state symbol.” Did you know that Arizona’s State Tree is the Palo Verde, the State flower is the Saguaro Cactus flower, the State Bird is the Cactus Wren, the State Mammal the Ringtail Cat, the amphibian is the Arizona Tree Frog and the reptile the Ridge-nosed Rattlesnake?

Did you know where the term pothole came from? Early English roads were dirt over clay. Wheels gouged ruts in them. Pottery makers needing cheap clay to make pots, dug for clay in spots where the ruts were deep. Teamsters of the day called them potholes. (from Arizona Milepost News, Dept. of Transportation.)
MG Association Meeting
Wednesday Sept. 15
6:30pm
Speaker: Nora Graf, Garlic, History, Lore & Culture

We are trimming the mailing list. Check your address label—if there is an “X” next to your name on your mailing label, then this is the last issue that will be mailed to you. You may view the newsletter on-line – http://ag.arizona.edu/yavapai
See inside for more information.

Arizona Cooperative Extension
US Department of Agriculture
Yavapai County
2657 Village Drive
Cottonwood, AZ 86326
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MG NEWSLETTER