



The Grapevine

Williamson County Chapter Native Plant Society Newsletter

October/November 2007

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Top priority item before I get into my tirade is, the Chapter Meeting, Thursday, October 11th is CANCELED!!! We had planned to use the meeting to put finishing touches on preparations for the Symposium but logistically this was unsound. You may be called to help roll t-shirts and/or finish stuffing "Goody Bags", and who knows what else.

We will resume our regular monthly meetings on Thursday, November 8th at the Georgetown Library. Before the meeting, we want to do a Plant Swap/Giveaway, preferably Natives (adapted allowed, no exotic invasives....you wouldn't do that anyway, would you???). We would like to set up at 5:30pm by the parking lot door as we did for the May meeting. Even library patrons got in on this and they really

enjoyed it. I would like to post notices at the library ahead of time. This should draw more attention so be thinking now of what you might have extra in your landscape to share.

We have been given special permission to hold our Christmas Social Pot Luck by Eric Lashley, Library Director. This is a huge load off our minds as we thought we would either have to have it catered by the Red Poppy Café folks or go elsewhere. Nothing wrong with the catering. We just like doing our own Pot Luck. Thank Eric when you see him.

The two busiest months in the year for me are April and October. This year October is exceptionally busy. By the time you read this the Wildflower Center Fall Plant Sale will be less than two weeks away (October 12 members only, 13, and 14). The plant sales are our two big fund raisers. It is wonderful not to have to beg for donations all the time. In order to have a successful plant sale, we must have volunteers to man the booth. If you have not already done so, please contact Janet Church at 512-585-0996 or email: janet_church46@hotmail.com to volunteer. She will really appreciate your help. In the event you don't care to volunteer, visit the sale. Many of the plants at this sale cannot be obtained at any of the local nurseries.

Hot on the heels of the Plant Sale is the 2007 NPSOT-NPAT Joint Symposium to be held this year at Sun City, Georgetown, October 18-21st. Our Chapter is the Host Chapter this year so it is up to us to make it a huge success. With all the planning that has gone into the Symposium I am sure it will be. You can help by either volunteering or attending, preferably both. To volunteer, contact Lynn Mann at 512-863-9988 or email: mann.lynn@gmail.com. To register either go to the website, www.npsot.org to download a registration packet, or, if you do not have access to the web, call 1-830-997-9272 and the coordinators will send you one. We hope to see you there!

Another upcoming event that might be of interest is Forever Garden's Fall Festival, October 13 from 8 AM to 5 PM. There will be presentations and a plant swap at 10 AM. For additional information, call 512-868-3373 or look at their website is www.forevergardens.com.

Balcones Canyon lands National Wildlife Refuge invites you to participate in Free activities on October 13-14 at Doeskin Ranch on RR1174 in Burnet County. FMI go to their website or call Rob Iski at 512-339-9432 x 70.

The Wildflower Center has a series of classes ongoing entitled "Go Native U" check www.wildflower.org for more information.

The Austin Museum of Art has had a series of classes that might be of interest to you. The next one scheduled is "Artful Gardening: Containing Beauty" taught by Ginger Hudson, past president of the Austin Chapter-NPSOT. You can tell from the title that it pertains to Container Gardening. This will be Saturday/Sunday 1-4pm, October 6 & 7. Call AMOA at 512-323-6380.

I am sure I am missing a lot more upcoming events but as of this moment I am brain-dead. If you have something that you think our members might be interested in, email me and I'll try to get the word out. Don't wait till the day before an event. That just doesn't work.

For those of you who signed up for my Pocket Prairie Tour and can't get in, give me a call. If I am not busy I'll try to get you out there to experience the "richness of the grasses". No promises.

Natively yours,
Agnes Plutino
President

Acknowledgements

Thanks to Agnes Plutino, Susan Waitz, Roz Fisher, Mitch Mitchell and Marilyn Perz for newsletter input and photographs, Reid Lewis for his review of the acacia and garden guide information, and the Lady Bird Johnson Wildflower Center and Wikipedia for our plant photos. As always, many thanks to Jason Spangler and Linda Hasting for their support in placing this newsletter on our Web site.

Note

Marilyn Perz is putting together an order list for Chapter Tee Shirts. These shirts are embroidered logo polo shirts (\$18) and the stone blue "Grow Natives" tee (\$10) which must be each ordered in minimal lots of 24. If you are interested in ordering either of these shirts, call Marilyn at 512-864-3828 or email her at dmperz@thegateway.net



Upcoming Events

October Meeting

As noted above, the meeting originally scheduled for October 11 has been cancelled.

November Meeting/Plant Exchange

November 8; 7:00 PM
Georgetown Public Library

Program To Be Announced

December Meeting

December 13; 7:00 PM
Georgetown Public Library

Semi-annual Pot Luck Supper

Lady Bird Johnson Wildflower Center Fall Plant Sale and Garden Festival 4801 La Crosse Avenue Austin Texas

Friday, October 12, 1-7 PM (Members Only)
Saturday/Sunday, October 13/14, 9 AM – 5 PM

Janet Church, our volunteer coordinator, states that our chapter will have 50 native plants on sale in either 4" or gallon pots. We submitted our order in June and will not have to clean up plants this year. We anticipate a good sale because we are targeting the plants most people are interested in plus a few new additions that we'll help educate the public on their use in the landscape. We'll have double sided handouts that will include deer-resistant, sun and shade loving plants which Agnes Plutino and Janet pulled together. Kathy Galloway and Sue Wiseman are enlarging our colored plant stakes to ensure each item is covered. Many thanks to Janet and everyone who has signed up to help with the plant sale. We know you're very busy with the Symposium and really appreciate your efforts to make this a success.

The Wildflower Center will have around 300 species for sale. A list of plants offered by the Center for this sale is found at http://www.wildflower.org/collections/collection.php?collection=fall_sale. In addition, the Austin NPSOT chapter will have plants and Native American Seed will have native seed for sale. The festival will include events that feature artists and authors signing their works in the store and guided walks and talks and tips for your garden from experts.

To reach the wild flower center, take MOPAC (Hwy Loop 1) south and turn left on LaCrosse Avenue (just past Slaughter Lane in South Austin). The Wildflower Center is at the end of LaCrosse Avenue.

Joint NPSOT/NPAT Symposium The Blackland and Grand Prairies and Grasslands of the Edwards Plateau

Sun City, Georgetown, Texas
Thursday-Sunday, October 18-21

The joint symposium will focus on the conservation, restoration and celebration of our native prairies and grasslands. Festivities start Thursday with guided tours of the North San Gabriel River Trail in the afternoon and talk by humorist Penny Burt followed by the documentary "Last Stand of the Tallgrass Prairie". Friday morning

speakers will focus on native plants and wildlife of the grasslands. Friday afternoon will be devoted to field trips to local parks, prairies and homes with native landscaping. A barbeque dinner will be held Friday evening. Saturday will be filled with presentations followed by a banquet and awards ceremonies. Field trips in the Blackland Prairies, Edwards Plateau, and Lampasas Cut Plains vegetative areas will occur on Sunday.

Lynn Mann would like to thank those who have signed up to help; however, we are still looking for volunteers who can welcome attendees, provide direction, and answer general questions. The days and times below are needed. Some of you may be able to help two hours, some a half day, some all day, or more. Please call Lynn at 512-863-9988 or email her at: mann.lynn@gmail.com

Thursday, October 18:

- City Lights, 6:30-9 PM

Friday, October 19:

- Sun City Ballroom and Activities Center, 6:30 AM-12 or 1 PM
- Sun City Legacy Hills Park Pavilion, 5:30-6:30 PM and 6:30-9 PM

Saturday, October 20:

- Sun City Ballroom, 6:30-8:30 AM, 8 AM-1 PM, 12-5 PM, 4-6 PM, 5-9 PM

Thanks to all who have already signed up!

**Field Trip to Brushy Creek Lake Park and New Champion Park
Sunday, November 25, 2-5 PM**

Kathy McCormack, Diane Sherrill, Sue Wiseman, and Kathy Galloway will lead groups to identify native plants and observe birds on the trails. Bring water. Post-trip snacks and socializing will be at Kathy and Dick Galloway's home (map and directions will be provided at the field trip).

Directions to Brushy Creek Lake Park: From Georgetown IH-35, take exit 255, 1431 (IKEA exit) west to FM734 (Parmer Lane). Turn left to Brushy Creek Road (gas station on left). Turn Left and park, entrance is on right. Meet between the two pavilions. Contact Kathy McCormack 512-698-9880 if you have questions.



Meeting Notes

Meeting minutes can be found on the website <http://www.npsot.org/WilliamsonCounty/>.

August 9 Program Notes

By Susan Waitz

In August, we were honored to have Betty Hughes from Seguin, a member of the San Antonio Chapter of NPSOT, demonstrate lovely arrangements from dried plants. Betty was in charge of the table arrangements for the San Antonio state symposium last year. She worked at the San Antonio Botanical Gardens where she was able to gather many plant parts for her arrangements. She brought many examples of her work in order for us to see how beautiful something as simple as dried grass stalks can become.

The best way to dry flowers to be used in dried flower pictures and bookmarks is by leaving them in a phone book for a few weeks. Dryer sheets and diluted Elmer's glue over dried flowers produces an "antique" effect. Plant parts can be dried in Silica Gel (consistency of salt, purchase at Michael's). Heat the silica until it changes color, then bury the flowers in the gel. Leave for about 2 weeks to dry completely. Grasses and other similar plant parts can be spread out on your driveway in the full sun for at least 3 days, or tied in bunches with rubber bands and hung upside down in the garage or other protected area.. Don't leave them out in the rain!

Foliage (large leaves) can be preserved with glycerin obtained from the druggist. Mix 4 parts hot water to 1 part glycerin stirred together well. As soon as you cut the foliage, smash end of stem, and place stem in the glycerin solution in a lighted area. The photosynthesis process causes the solution to be drawn up into the leaves. You can also add food coloring to the solution to affect the leaf color. This method should only be used during the plant's active growing season. An "old" method of drying leaves is to place fall leaves between 2 sheets of wax paper and iron them. Protect your ironing board; the wax should easily come off of your iron.

The arrangements can be expected to last about 1 year. "Everlastings" do not exist. The colors will fade in sunlight, and they must be packed in mothballs when storing to prevent insects from eating them!

To make an arrangement, start with a piece of florists foam and a container. You will need a good pair of clippers and wire cutters. Use floral clay or a glue gun to anchor the foam in the container. Use bamboo skewers and floral tape to reinforce weak stems. Use purchased moss to tuck in around the stem to cover the Styrofoam. A lazy Susan stand makes the arranging process easier. Remember, most things look better in multiples of 3.

Some plants which result in beautiful arrangements include: Inland Sea Oats (*Chasmanthium latifolium*) which dry to a lovely sage green color, Johnson Grass Sorghum (*halepense*) including Johnson Grass-Sorghum hybrids growing in the ditches beside Sorghum fields, Mountain Laurel (*Sophora secundiflora*) beans, dried Okra pods, Goldenrod (*Solidago* sp), Roosevelt weed (*Baccharis neglecta*) cut just as buds are starting to pop, Red yucca (*Hesperaloe parviflora*) seed stalks, Statice grass, Sycamore (*Platanus*) leaves, Artemisia, Cotton pods after the farmer has harvested!!!, Eryngo (*Eryngium leavenworthii*) spiny bracts look like tiny purple pineapples, Gayfeather (*Liatris* sp), and Horsemint (*Monarda citriodora*). These are just a few plants that can be used; you can experiment with just about anything!

Some of her examples of simple "Art" included colorful seeds, pods, and pine cones in a glass jar with a cork top and colorful ribbon or raffia tie.

Betty showed us how easy it can be to bring Nature's beauty indoors for our enjoyment!

September 13 Program Notes

By Susan Waitz

Jon Brandt, a licensed professional geoscientist with 2 years experience working with soils, gave us a very informative lecture-style presentation of the biology, composition, and geography of the soils of Williamson County. His interest in soils originated in the beauty of the soil strata, leading to a B.S. and Masters from Texas A&M University.

According to Leonardo da Vince "We know more about celestial bodies overhead than the soils underfoot" This statement is still true today. A Native soil is relatively undisturbed, and reflects the natural soil -forming process. An Urban soil exhibits varying degrees of disturbance due to additives and debris.

Functions of Soils:

- Food Production
- Building Materials

- Structural Support
- Regulate, Partition, and Filter Air
- Acts as a sponge to impact recharge and flooding
- Filtration - Traps and stores pollutants

Composition of Soils:

Soils are defined by the percentage composition of each of the following: Sand, Silt and Clay, with sand yielding the largest particles and clay the smallest. The smaller the particles, the greater the surface area for retention of more nutrients and water. There are 12 classifications of texture depending on the proportions of the three elements. Texture influences drainage, fertility, workability, and moisture retention. Soil compaction restricts root growth- to prevent compaction, add organic matter (compost, mulch, etc) and minimize weight on top of the soil.

The top 6" of soil has the most biological activity. Soil biology is essential. The atmosphere is 78% nitrogen. Nitrogen fixation by microbes in the soil is needed to make nitrogen available to plants and increase disease suppression. (Most antibiotics used for man come from microbes in the soil). Mycorrhizal fungi expand plants root system.

Soil Forming Factors:

- Climate
- Organisms (plants, arthropods, microbes)
- Relief (topography, slopes)
- Parent Material (Geology)
- Time

The Russians originated the classification of soils in the late 1800's. There are now 65 different soil map units in Williamson County alone. 28% of soils in the county, located in the East, are black soils formed from Marine organisms. 38% of the county soils - found in the West, were formed over indurated (hardened) limestone. The 3% located south of Taylor are Alfisol soils, top sandy loam over clay. 95% of the soils are neutral PH. The Southeast corner is acidic.

To Assess soil:

- 1) Dig a hole - How easy? Compaction
How many earthworms - Healthy soil should have 10/square foot.
Size of Aggregates? Crumble easily? Roots below 6"?
Grayish and greenish colors down deep indicate water not draining well.
- 2) Use Soil Survey - Go to <http://websoilsurvey.nrcs.gov/app/> and look up your area. Follow instructions to obtain very detailed information on your soils.

Soil Testing:

Jon also performed basic PH tests on soil samples brought in by members. The main concern was that the PH was not too high. You can sample your own soil by dropping a few drops of vinegar on a sample. If it does not fizzle, your soil's PH may be too high to be optimum for plant growth. You may want to obtain more detailed tests from a lab.



Club Activities

Fourth Annual Hill Country Natives Open House

by E. E. "Mitch" Mitchamore
www.hillcountrynatives.biz



Members enjoy open house

The Fourth Annual Hill Country Natives Open House was held on September 15 & 16 this year and was well attended by old and new members of NPSOT. There were also a number of visitors interested in other environmental activities, such as rain water collection and energy efficiency, so they were able to see the part that low-impact landscaping can play. It was good to see a number of children taking an interest in their future environment.

The weather was clear and hot, so the shade, cookies, and Mint Marigold Lemonade encouraged many to linger and chat, not only about native plants, but also about other interests. This was the main intent of this unstructured "field trip", so we can call it a success and look forward to repeating again next year.



Randa and her assistant with Mitch



Relax in the shade

Native Tree Class

Between the "Dynamic Duo" of Heather Brewer (Urban Forester for the City of Georgetown) and Kathy McCormack (Organizer Extraordinaire), the NPSOT Native Tree Class (Native Trees of Central Texas and their Associated Plant Communities) was very well attended with over 30 participants.

The Class was divided into a 2 hour lecture on September 27th and a field trip to Booty's Park for field identification on September 29th. Each student received a packet of information as they were greeted and then proceeded to the "Pre-test!!!". The pre-test consisted of making guesses of what tree might have produced each of nine dried pressed leaves. You quickly discovered how much you relied on tree bark, tree structure and tree location to help you identify a tree. Heather had divided her tree identification into three simple Eco Regions of Williamson County. She then showed many slides of the bark, flowers, structure and location of trees in the Edwards Plateau, the Blackland Prairie, and the Cross timbers. She did keep our attention with her wit, humor and quantity of information.

On Saturday, the class set off to see what we had learned. The class was divided into eight students and a guide with a walkie-talkie connected to Heather. The first tree our group encountered did not match any on our list. A quick call to Heather and we found that it was a giant old Bois d'Arc tree (Osage Orange) with no thorns or fruit, just orange bark and a few arching branches to give us a hint. Undaunted we ventured on and, in the end; we did find 22 of the 26 that we were seeking. Booty's Park does have a very pleasant trail to hike along the San Gabriel River up into rock ledges and even an old spring house above a pleasant waterfall.

We really appreciate both Heather and Kathy's efforts to educate us and also their time spent in preparation and their attention to all details



Students sweating out the pre-test



Heather Brewer, second from left, points out notable feature of a walnut tree during the hike at Booty's Park

UP THE CHISHOLM TRAIL

by Marilyn Perz

The second annual Up the Chisholm Trail Event was held on Saturday September 29, 2007. The first such event in 2006 consisted of just five longhorns herded through Georgetown and viewed by a small crowd. It did remind everyone that Georgetown has a place along the Chisholm Trail as represented by the marker that stands on Austin Avenue and that that heritage should be celebrated.

This year the activities were expanded to include a chuck wagon cook off in the morning followed by historical pioneer and ranching culture demonstrations around the Georgetown Square. All of this was presented by the Williamson County Historical Museum and was very well attended by local families.

Our Williamson County Chapter of NPSOT was there to provide hands on demonstration of recycled paper prairie wildflower seed starters. Our volunteers worked fast and furiously with anxious children to help them make their own little piece of prairie. The response was so enthusiastic that our supplies were dwindling by

4:30pm and Marilyn and Dennis Perz were using the Visitors' Centers hallway to produce more shredded paper pulp in their blender; Dick Galloway was off on a paper plate run. We reached between 200-250 potential wildflower lovers, so we too have enriched the historical appreciation of those past times.



Betty Liese, Kathy Galloway, Arlene Boyer and Marilyn Perz stayed busy helping both young and old make prairie wildflower seed starters



Arlene Boyer helps satisfy the heavy demand for the seed starters



Harvest and Store Wildflower Seed

**Prepared by Austin NPSOT Chapter
June 2000**

This time of year, many flowers have bloomed and their seed heads are heavy. Have you considered harvesting your own seeds for next season's wildflower gardens? All it takes is careful observation, a gentle touch, and plenty of patience.

Planning for the harvesting begins when wildflowers are in full bloom. There are a number of ways to collect seeds; it all depends on the plant.

The Plants

- Plan to harvest seeds from about five percent of the plants, leaving enough for the healthy stand to re-seed naturally and continue thriving.
- Know the species you are harvesting. Do not harvest seeds from an endangered, rare, or unknown species.
- Avoid Plants that have signs of disease or insect damage.
- After identifying good plant prospects, use a thin slip of plastic tape or ribbon tied loosely to the stem (or simply note a nearby landmark) to mark the plants you want to use as a seed source.
- Begin collecting when the seeds are mature. Mature fruits and seeds are usually dark in color, firm, and dry.

The Tools

- Gloves, boots, and pruning shears; cheesecloth, screen, or tray, paper or canvas bags (never plastic), and twine.

Harvesting the Seeds

Many seedpods or capsules dehisce, or open and spill their seeds, when ripe. Try inverting cheesecloth over the blooms and tying it around the plant stem with twine. The cheesecloth allows air to circulate around the plant to dry the seeds, then collects them as they fall from the plant. Be familiar with the seeds you seek. Certain seeds are so tiny that they will fall through the cheesecloth. If that is the case, use paper instead.

Collect pods just before the seed pods turn brown and dehisce. Lay pods in a single layer on a thin canvas, screen, or tray elevated above the ground. Air-dry the pods for up to three days. When the pods split open, collect the seeds and store them in a breathable container in a cool dry place.

Threshing works well with some small seeded plants. Simply rub the collected pods across a course screen. This breaks the seedpod and allows seeds to separate from the chaff and filter through the screen. Besides cleaning the seed threshing removes seed predators such as insect eggs or mold spores from the seed inventory.

Storing the Seeds

- Store seeds in a cool, dry, dark place. It varies but a general rule for dry seed storage is 50°F and 50% humidity. Constancy is key.
- Store the seeds in paper bags to allow air circulation and prevent molding.
- Seed longevity varies from species to species. Some seeds may remain viable for up to ten years; others may last in storage for only a year or two. Ideally seeds harvested should be planted the following season.
- If working with fleshy fruit seeds, harvest the seeds when the fruit is ripe, and plant the seeds immediately. If the seeds dry out they may germinate early, or not at all.



Acacia

The Leguminosae (Legume) family is comprised of over 500 genera distributed in all part of the world. Acacia is one of the genus in this family with about 600 species found in warmer climates. Acacias are usually shrubs or small trees, rarely, subshrubs or perennials. Most acacias have spines or prickles on the branches. All have compound leaves with leaflets arranged opposite each other along a common leaf stalk and short yellow or white bottlebrush like flowers with many stamens above the top of the floral cup. The fruit is a legume pod containing one or more seeds. All acacias can be propagated by seed; however, those with impermeable seed coats need to be scarified before they are planted. Like other legumes, these plants form a symbiotic association with rhizobial bacteria which fixes atmospheric nitrogen to the soil. Most will grow in full sun in well drained soil and are drought tolerant when mature. All varieties of acacia are attractive to bees, butterflies and other insects; and the seeds provide food for birds and mammals. Those with thorns provide habitat for both birds and small mammals. These thorns also provide a moderate amount of deer resistance but the deer will eat the seed pods and new growth.

There are 10 species of acacia in Texas, some with several varieties. Most of these species are found in the

Trans-Pecos area and/or Rio Grande Plains. Several, however, can be found in or near Williamson County.



Acacia angustissima (WFC)

The smallest acacia species in Texas are three varieties of *A. angustissima* (Prairie acacia). These deciduous, rounded subshrubs often form colonies by means of woody rhizomes and, when planted 1.5 feet apart, have been used as a groundcover. This is the only thornless acacia species in Texas. They have feathery leaves that fold when touched. The ½” cream flower heads form in the axils of the upper leaves from May to Sept. These flowers are followed by brownish, flat 2-3” long seed pods with seeds that are high in protein. This is a fairly adaptive plant that can grow in sand, loam, clay or caliche in full sun to dappled shade. In the shade, it does not require any additional water after it has matured; those in the sun do best if they receive some supplemental water during dry

periods. The variety *A. angustissima hirta*, is the most common acacia found in this area. It is 2-3 (5) feet high and is frequent in grasslands and open shrubby vegetation throughout the eastern two thirds of Texas; less common to the west.



Acacia farnesiana thorns, flowers, and seed pods (WFC)

The next most common plant is *Acacia farnesiana* (Huisache) which is found from Florida to California including including south Texas to Travis, Robertson, and Lampasas Counties. It has also been reported

up to Bell and McLennan Counties. This plant is also widespread to tropical America and widely cultivated in the Old World. Huisache is a shrub to small multi-trunk tree with a densely branched crown from 6 to 20' (30') high and wide. Tends to form suckers resulting in dense thickets. Although it is evergreen to semi-evergreen in many areas, it is deciduous in this area. The slender rich brown to pale gray branches are armed with paired pin like spines up to 2” long at the base of each leaf. The plant is covered with small bright gold flowers that look like little balls of pollen from March to April. These flowers are sweetly fragrant and were formally used as a source of fragrant oils for perfumes. The seed pods are round cylinders that do not shatter on ripening.



Acacia farnesiana (WFC)

This plant is valued as a honey plant in south Texas and the wood has been used for firewood, fence posts, tanning, dying and ink.

The catclaw acacias are represented in this area by *Acacia greggii* var. *wrightii*, commonly known as Wright's acacia. Cat claw acacias refer to the thorns which resemble cat claws. This deciduous to semi-evergreen shrub is typically 6 to 10' high and wide although it can grow to 30'.



Acacia greggii var *wrightii* thorn
(Wikipedia)



Acacia greggii var. *wrightii* flower
(WFC)



Acacia greggii var. *wrightii*
unripen pods (WFC)

The 2" spikes of cream colored flowers occur from April to early June. The seed pods are flat and may be somewhat contorted. The pods are typically flexible and conform around the seed, only becoming rigid late. This acacia is also used to make honey. Wright's acacia is frequent in brush and woodlands along creeks and in canyons. It has been confirmed in south Texas up to Travis County, and in the Edwards Plateau to as far north as Callahan and Shackelford Counties. It is the most cold hardy of Texas acacias.

The remaining Acacias are found primarily in south or west Texas. *Acacia berlandieri*, commonly called Guajillo, is famed for the sweet honey made from the fragrant flowers. The name of *Acacia neovernicosa* (Viscid acacia) comes from the sticky secretions that cover the entire plant. General information on all of the acacias found in Texas is given below.

Texas Acacia Species

Species Name	Size	Bloom	Thorn	Pod	Texas Range
<i>A. angustissima</i> var. <i>hirta</i> (Prairie acacia)	2-3' H x 1.5+' W	½" white or cream head May-Sept	None	2-3" flat brown	Eastern two thirds of Texas and less common to the west
<i>A. angustissima</i> var. <i>texensis</i> (Prairie wattle)	4-12" H	½" white or cream head May-Sept	None		Locally abundant in grasslands in the Trans- Pecos
<i>A. angustissima</i> var. <i>chisosiana</i> (Chisos prairie acacia)		White or cream head May-Sept	None		Trans-Pecos
<i>A. berlandieri</i> (Guajillo)	3-15' H/W	½" cream balls in spring	Small prickles	3-6" dark brown	Abundant limestone ridges/caliche cuestras in Rio Grande Plains to Trans- Pecos and s. Edwards Plateau
<i>A. constricta</i> (Whitethorn acacia)	3-15' H/W	½" yellow globe in spring	White pin like spine	2-4" red brown, constricted around the seeds	Abundant in Trans-Pecos; rare in sub desert South Texas

A. farnesiana (Huisache)	6-20'+ H/W	½" bright gold globe Mar-Apr	Slender pink like spines	1-3" black with two rows of seeds	South Texas to Travis County & to Brewster Co. in Trans-Pecos
A. greggi var. greggi (Catclaw acacia)	3-6' H/W	½"x1-3" cream spike in spring	Cat claw prickle	2-3" flat, brown, often contorted	Locally frequent in brush; Trans-Pecos, Rio Grande Plains & w. Edwards Plateau
A greggi var. wrightii (Wright acacia)	6-10' H/W	½"x1-3" cream spike in spring	Cat claw prickle	1"x2-3" flat, brown	Locally frequent in brush along streams & in canyons; Rio Grande Plains & Edwards Plateau
A. neovernicosa (Viscid acacia)	3-6' H/W	½" yellow globe Apr- July	Slender pin like spine	1.5-2.75" long w/ round diameter, constricted around seeds	Frequent through Trans- Pecos
A. rigidula (Blackbrush acacia)	3-10' H/W	½"x1-3" white spike Feb-July	White needle spine	2-3" long w/round diameter, slightly constricted around seeds	Abundant Rio Grande Plains rare further west to Trans- Pecos
A. roemeriana (Romer's acacia)	3-6' H/W	½" cream globe in spring	Cat claw prickle	2-4" flat, red- brown, sometimes contorted	Frequent in s. Trans-Pecos; infrequent in Edward Plateau to Travis County
A. schott (Schott acacia)	3-6' H/W	½" yellow globe in spring	Slender pin like spine	2-3" narrow, constricted between seeds	Local in deserts in sw Brewster County in Trans- Pecos
A. schaffneri var. bravoensis (Huisachillo)	2-5'	½ bright yellow globe in spring	Pale or black pin like spines	1.5-5" black with one row of seeds	Local in Rio Grande Plains

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9. Desert Tropicals Plant Database, <http://www.desert-tropicals.com/Plants/Fabaceae/>



Winter Windbreaks

Winter is just around the corner. The first fall freeze typically occurs near the end of November with cold dry air from the north. With lower humidity, the warmth of the day radiates into the air especially on clear windless nights. Daytime temperatures are usually in the 60s with night time temperatures falling to the 40s. However, on clear windless nights, the temperature can drop into the 30s; early morning frosts account for most of the time plants spend below freezing. As winter progresses, average daytime temperatures are usually in the low to mid 60s. From December through February, "northers" with temperature drops up to 40°F accompanied by high N to NW winds can occur within 4 to 8 hours. These low temperatures can stay for a few days or the temperature returns to the 60s within a day. Sometimes, this cycle is followed rapidly by other quick drop/return cycles. Overall, we receive an average of 25 days of subfreezing weather a year. Often, periods of relatively higher temperatures in the 70s or 80s also occur. Sometimes a warmer temperature period is followed by a northerner, resulting in significant freeze damage to plants that started to break dormancy during the warm temperature period.

Windbreaks comprised of plant material provide barriers that reduce and redirect the wind creating a different microclimate in the sheltered zone behind the windbreak. As a result, windbreaks can reduce the winter heating costs by up to 23%, provide a more comfortable area to work and play outdoors, and provide habitat for wildlife. As the wind blows against a windbreak, air pressure builds up on the windward side and decreases on the leeward side on the other side of the windbreak. Some of the wind flows through the windbreak and some goes around the ends. However, most of it is forced up and over the top of the windbreak. The effectiveness of the windbreak is determined by such factors as height, density, length and orientation.

The height of the highest plants is the most important factor for determining the downwind distance protected by a windbreak. As wind flows over the surfaces, it is slowed by the roughness of the surface, reducing the speed. The effective zone of protection for a windbreak is approximately thirty times its height although maximum protection occurs in a range of 5 to 7 times its height. To maximize protection for a home, a 20 foot windbreak should be located from 100 to 140 feet (5-7 x height) from the house; a 30 foot windbreak should be located from 150 to 210 feet from the house. Large open areas should have a windbreak placed across the area every 10 to 20 times the height to be effective. For example, 30 foot high windbreaks would have to be planted 300 to 600 feet apart.

Density determines the amount of wind that is allowed through the windbreak. It is affected by the number of rows, branch and foliage density, and plant spacing within the rows. As wind flows through a windbreak, the trunk, branches and leaves absorb some of the momentum of the wind and the speed is reduced. Windbreak density is the ratio of the solid portion of the windbreak to its total area. Thick multi-branched evergreens little to no space between will provide greater density than other plants or plants with more space between them. Note that while dense windbreaks allow less wind to pass through, high density is not always good. As wind is deflected up and over

Open wind 20 mph Deciduous Plants - 25-35% density					
Distance from windbreak	5H	10H	15H	20H	30H
Miles/hr	10	13	16	17	20
% Open wind speed	50%	65%	80%	85%	100%

Open wind 20 mph Thick Evergreen Plants - 40-60% density					
Distance from windbreak	5H	10H	15H	20H	30H
Miles/hr	6	10	12	15	19
% Open wind speed	30%	50%	60%	75%	95%

a windbreak, low pressure on the leeward side draws the wind back down. This low pressure is stronger in dense windbreaks, drawing the wind down quickly and reducing the protected area size. Letting some wind through reduces the low pressure resulting in a larger protected area. The interaction of height and density determines the degree of wind speed reduction and extent of the protected area. As seen in the tables at the right, the length of the protected area downwind increases as density increases from 20 to 60%. The windbreak provides little useful wind reduction for densities less than 20%. As densities increase above 60%, the leeward turbulence begins to increase, reducing the effectiveness of the windbreak except for areas close to the windbreak. In designing a windbreak, the density should be adjusted to meet the landowner's objectives. Where possible higher densities of 60 to 80% achieved with multiple rows are used to protect homes and wildlife. Windbreaks with 40 to 60% density should be used to protect large areas such as fields.

Open wind 20 mph Multi Row - 60-80% density					
Distance from windbreak	5H	10H	15H	20H	30H
Miles/hr	5	7	13	17	19
% Open wind speed	50%	65%	80%	85%	100%

Open wind 20 mph Solid Fence – 100% density					
Distance from windbreak	5H	10H	15H	20H	30H
Miles/hr	6	10	12	15	19
% Open wind speed	30%	50%	60%	75%	95%

Windbreak wind speed reductions as a function of density and distance (relative to tree height)

Length determines the total area that is protected. Wind tends to curve around the ends of a windbreak because of the low pressure effect noted above. For maximum efficiency, the uninterrupted length of the windbreak should be at least 10 times the height. Continuity of the windbreak is important as gaps become funnels that accelerate wind flow, creating areas on the downwind side of the gap where wind speed can exceed open area wind speeds. Where gaps occur, they should be located such that the opening is at an angle to the prevailing wind flow. With our N/NW winter winds, a gap should be oriented from SE to SW.

Finally, windbreaks are most effective when they are oriented at right angles to prevailing wind direction. Where wind can come from several directions, an L shaped or even a U shaped wind break will provide greater protection.


The composition of the windbreak is determined by the species used and their arrangement, the number of rows and the distance between rows, and the distance between plants. Typically, the windbreak consists of trees and shrubs but perennials and grasses may also be used. For multiple rows, one row should fill in the gaps between plants in the other row (s). Evergreen shrubs should be fairly dense and retain branches to the ground. The best trees to use are tall evergreen trees or deciduous trees with dense branching structure. Both will provide good roughness to slow the wind. Dense deciduous shrubs are useful in slowing the wind through the windbreak. Many of the taller, thick grasses such as the muhlenbergias which retain their dormant leaves through winter are useful while smaller evergreen and deciduous shrubs and perennials help break up the near the ground. Using several different plants are recommended to decrease the potential of serious loss due to disease or insects.

For a small area, a single row of faster growing large evergreen shrubs or small trees such as Yaupon Holly and Wax Myrtle oriented at right angles to the prevailing cold winter wind can be used. Don't prune the lower branches to maintain a better barrier. To increase effectiveness, add taller native grasses and medium to small deciduous or evergreen shrubs in front of the large shrubs. Between the grasses and shrubs, you can add some small deciduous flowering trees. Finally, you can plant perennials in front. The berries of the large shrubs and seed from the grasses and perennials will also provide food and shelter for birds and a small bird bath or pond will provide water.

For a larger area such as a field, 3 or more rows are recommended. Note that the rows do not have to be straight but can be more natural looking. A mix of taller, tough evergreen trees such as *Quercus fusiformis* (Plateau live oak) and densely branched deciduous trees such as *Ulmus crassifolia* (Cedar Elm) can be mixed with hardy denser evergreens such as *Juniperus ashei* (Ashe's juniper) or *Juniperus virginiana* (Eastern Red Cedar). Add in other shrubs and grasses. For wildlife, you could include fruit and nut trees in the windbreak and also plant a wildlife food plot on the leeward side. This food plot could include grasses and wildflowers that retain their seeds and shrubs and perennials with berries. Other plants with tubular flowers can be planted for hummingbirds as well as butterfly nectar and larvae food plants. Finally, for wildlife, also consider adding a source for water which includes both shallow and deeper areas.

References:

1. Damude, Noreen, and Kelly Conrad Bender, "Texas Wildscapes Gardening for Wildlife," Texas Parks and Wildlife, 1999.
2. Austin climate, <http://www.srh.noaa.gov/ewx/html/cli/auscli.htm>
3. University of Nebraska-Lincoln Extension EC1763, "How Windbreaks Work," <http://www.ianrpubs.unl.edu/epublic/live/ec1763/build/ec1763.pdf>
4. Utah State University Forestry Extension, "Windbreak Benefits and Design," http://extension.usu.edu/forestry/HomeTown/Screen_WindbreakBenefits.htm
5. Texas A&M University Extension, "Landscaping for Energy Conservation," <http://aggie-horticulture.tamu.edu/extension/homelandscapes/energy/energy.html>
6. University of Nebraska-Lincoln Extension EC1767, "Windbreaks for Rural Living," <http://www.ianrpubs.unl.edu/epublic/live/ec1767/build/ec1767.pdf>

 <h2 style="text-align: center; margin: 0;"><i>October Garden Guide</i></h2>	
Propagation	<ul style="list-style-type: none"> ● Continue planting annual and perennial seeds outside ● Final month for fall planting of tree and shrub seeds outside ● Container annuals, fall perennials, trees, shrubs and vines ● Plant native bulbs
Fertilize	<ul style="list-style-type: none"> ● Finish adding compost to planting beds ● Root stimulator for new plants if desired ● Add thin layer of compost to lawn
Water	<ul style="list-style-type: none"> ● Newly planted or transplanted plants ● Potted plants ● Slow supplemental water for lawn and bedding plants
Pruning	<ul style="list-style-type: none"> ● Final month of regular lawn mowing ● Dead head flowers/remove yellow foliage if desired ● Cut back pond plants as go dormant
Disease/Pest Control	<ul style="list-style-type: none"> ● Apply corn gluten as a pre-emergent to lawn and beds 6-8 weeks ● Oil spray for plants that have or had problems with scale ● Disease and pest problems reduced, watch for aphids, caterpillars, scale, snails and slugs; treat if needed ● Cut annual weeds

Other	<ul style="list-style-type: none"> ● Use acidic controls if weather warm or pull perennial weeds ● Replenish planting bed mulch ● Stake leaning or falling plants if desired ● Place nets over ponds to catch leaves ● Begin removal of diseased leaves and plants from beds ● Rake leaves on lawn onto planting beds or under trees or place in compost pile
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	<h2><i>November Garden Guide</i></h2>
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Propagation	<ul style="list-style-type: none"> ● Final month to plant annual and perennial seeds outside ● Container annuals, fall perennials, trees, shrubs and vines ● Plant native bulbs
Fertilize	<ul style="list-style-type: none"> ● Root stimulator for new plants if desired
Water	<ul style="list-style-type: none"> ● Newly planted or transplanted plants ● Potted plants ● Outside plants if weather stays dry
Pruning	<ul style="list-style-type: none"> ● Dead head flowers/remove yellow foliage if desired ● Begin fall cleanup and cut back of dormant perennials; leave perennials seed heads for wildlife ● Finish cutting back dormant pond plants ● Reduce overgrown pond oxygenators
Disease/Pest Control	<ul style="list-style-type: none"> ● Apply corn gluten as a pre-emergent to lawn and beds 6-8 weeks ● Oil spray for plants that have or had problems with scale ● Disease and pest problems reduced, watch for aphids, caterpillars and scale; treat if needed ● Cut annual weeds ● Pull perennial weeds
Other	<ul style="list-style-type: none"> ● Keep beds well mulched ● Stake leaning or falling plants if desired ● Place nets over ponds to catch leaves ● Finish removal of diseased leaves and plants from beds ● Rake leaves on lawn onto planting beds or under trees or place in compost pile ● First freeze usually occurs this month; protect tender or newly planted plants ● Cover outdoor water bibs; drain hoses



Resource List

Garden Centers

<p>Barton Springs Nursery 3601 Bee Caves Road Austin, Texas 78746 512-328-6655</p>	<p>Bloomers Garden Center 507 HWY 95 North Elgin, Texas 78621 512-281-2020 www.bloomerselgin.com</p>	<p>Forever Garden 6970 Williams Drive Georgetown, Texas 78628 512-868-3373 www.ForeverGardens.com</p>
<p>Green and Growing 601 West Pecan Street Pflugerville, Texas 78660 512-251-3262</p>	<p>Husband Family Nursery 3712 Top Rock Lane Round Rock, Texas 512-238-8694</p>	<p>McIntire's Garden Center 303 Leander Road Georgetown, Texas 512-863-8243 www.mcintiresgarden.com</p>
<p>Sweet Briar Nursery 48-B FM 2271 Belton, Texas 76513 254-780-4233 www.vvm.com/~reid</p>	<p>The Natural Gardener 8648 Old Bee Cave Road Austin, Texas 78735 512-288-6113 www.naturalgardeneraustin.com</p>	<p>Wright's Nursery 6040 RM 2657 Briggs, Texas 78608 512-489-2239 www.wrightsnursery.net</p>

Wholesale Nurseries

<p>Hill Country Natives 308 Mesa Oaks Drive Leander, Texas 78641 512-259-0253 www.hillcountrynatives.biz</p>	<p>Native Texas Nursery 16019 Milo Road Austin, Texas 78725 512-276-9801</p>
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Seed Source

<p>Native American Seed 127 North 16th Street Junction, Texas 76849 1-800-728-4043 http://www.seedsource.com/</p>
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Wildflower Center

<p>Lady Bird Johnson Wildflower Center 4801 La Crosse Avenue Austin, Texas 78739 512-292-4200 www.wildflower.org</p>

Web Sources

<p>Native Plant Society of Texas www.npsot.org/</p>	<p>Williamson County Chapter NPSOT www.npsot.org/WilliamsonCounty/</p>
<p>Bennie Simpson Native Texas Trees http://aggie-horticulture.tamu.edu/ornamentals/natives/</p>	<p>Bennie Simpson Native Texas Shrubs http://aggie-horticulture.tamu.edu/ornamentals/nativeshrubs/</p>
<p>USDA Natural Resources Conservation Service http://plants.usda.gov/</p>	<p>Noble Foundation Plant Image Gallery www.noble.org/webapps/plantimagegallery/</p>
<p>Flora of North America www.efloras.org/flora_page.aspx?flora_id=1</p>	<p>Integrated Taxonomic Information System www.itis.gov/</p>



Club Information

Club Meetings
2nd Thursday of each month
7:00 PM
Georgetown Public Library
402 West 8th Street
Georgetown Texas 78626

Club Positions (August/September)

Position	Name	Telephone
President	Agnes Plutino	512-863-0421
Past President	Phyllis Dolich	512-869-0356
Secretary	Kay Sanders	512-864-7385
Treasure	Kathy Galloway	512-259-7350
Program	Walt Henderson	512-868-1183
Field Trips	Roz & Bob Fisher	512-864-9018
Membership	Kathy Mitchamore	512-259-0253
Volunteer Coordinator	Janet Church	512-585-0996
Historian	Billye Adams	512-863-9636
Heritage Gardens	Marilyn Perz	512-864-3828
Web Master	Jason Spangler	512-249-7868
Assistant Web Master	Linda Hasting	512-690-9125
Newsletter	Janice Charnley	512-863-7355