



SFA MAST ARBORETUM * RUBY M. MIZE AZALEA GARDEN * PINEYWOODS
 NATIVE PLANT CENTER * JIM AND BETH KINGHAM CHILDREN'S GARDEN
 * GAYLA MIZE GARDEN

STEPHEN F. AUSTIN STATE UNIVERSITY—ARTHUR TEMPLE COLLEGE OF FORESTRY AND AGRICULTURE

SFA Gardens News

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Summer 2011

Notes from the Director By Dr. David Creech

I'm now wondering just how hot and dry can it get? It's been miserable for so long we're pretty well numb to it all by now. I was having lunch in downtown Shelbyville last week and got a little perspective. One of my old-timer friends there told me this stretch of drought is getting close to the mid-1950s, especially 1956. While the whole region was affected back then, things were especially sad in Shelby County. In fact, ponds and creeks dried up, shallow wells went dry, pastures went to zero, there were fires, and the boys who owned the sale barn were happy. He remembered that when he whooped up his cows to throw them a little feed, he could tell the herd was stampeding toward him well before he could hear or see them. Looking skyward, he would track the dust cloud swirling out of the top of the forest and moving his way. Stampede approach to fast-food dining? So, I concluded it could be worse.

As I chant in our staff meetings, we are not ordinary garden warriors here. We are horticulturists. We are not afraid of rain, sleet, freezes, snows, hurricanes, floods, heat or drought. In fact, we just proved it again today by planting a brand new treehenge! Planting trees in Texas, in July, in a bone dry soil with temperatures in the hundreds might make you question our sanity. As far as I'm concerned, this proves we're either the bravest, smartest gardeners

you ever met - or we're just suffering from heat stroke. This time it's a 60-foot diameter circle - trees 10 feet apart around the circumference - and it's located on the east side of the Gayla Mize Garden. We're using an upright selection of our native deciduous sweetgum tree, *Liquidambar styraciflua* 'Slender Silhouette.' It's unique because it will quickly reach 40 feet tall and only 5 to 6 feet wide. It defines the word "fastigate." This form was found by Don Shadow who found it on the edge of a lake in Tennessee and quickly liberated a little graft wood to make sure it lived on. Yes I know it's a sweetgum, no winner in any popularity contest here.

to prepare the 4-foot wide planting holes (19 trees on the circle's edge), mix in a little mushroom compost, get the 20-gallon container-grown plants positioned perfectly, lay the drip pipe out and get it connected to a nearby controller on the main, then get everything mulched - and hip hip hooray, the Netafim emitters were dripping at noon. Each emitter delivers about a half gallon per hour, and we're running the system about two hours in the morning and two at night. That's two gallons of water per day per tree. Not much and no waste; almost too good to be true. In a few years, with a backdrop of patriarch pines and oaks, this spot will make an inviting and striking architectural statement in the forest and form the backbone for a colorful display garden now being planned for that spot by SFA Gardens' staff.

As for SFA Gardens, all is well. Dawn has a bevy of new plants, and the Mast Arboretum's growing facility is brimming over with cuttings, seedlings, container plants, volunteers and student workers. It's going to be a great fall sale. Of course, Greg is con-

stantly sticking cuttings, bringing in new plants, adding to the inventory, handling all the PR for SFA Gardens, and as our master label maker, he's producing a steady delivery of new labels for the garden via our laser engraver. I think he figured we'd be finished getting

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SFA Gardens' crews plant a circle of *Liquidambar styraciflua* 'Slender Silhouette' in the Gayla Mize Garden

Yes, 'Slender Silhouette' will have a modest crop of sweetgum balls - the main curse gardeners cite for this much maligned tree - but as I always say, "Well, in this case, they don't fall far from the tree." That's kind of a joke. What cheered me up today is that it took Duke and our student crew just four hours

Notes, cont.

all the plants labeled by 2040. On the ground at the Arboretum, Lucas is managing to keep the gardens healthy, watered and relatively weed-free. Duke's crew in the Ruby M. Mize Azalea Garden gets an A+ in weed control and keeping the collection healthy. Our trail network there is now dressed up with an edge of red iron ore rock. Duke tackled a major limbing up and pruning attack on the garden, which has meant more sunlight, something getting to be in short supply there. After a little over a decade, it amazes me how full this garden has become. At the PNPC, Trey is learning the subtle talent needed to keep up with watering, beating back weeds, growing plants in the nursery and greenhouse, and trapping wild feral hogs. Should Texas gardeners carry pistols? Over in the Gayla Mize Garden, we have a wonderful new 8-acre garden starting to take shape. Our mantra there is "from 100 years of neglect to 100 years of nurture!" Our hardworking students Ben, Brock and Charles are scrambling to keep the emerging woody weeds and stump

sprouts beaten back, and we're getting a little more sunlight on the forest floor by removing a few water oaks and elms. Since this is our first drip-irrigated garden, a little time is spent every week walking the lines, pulling a few weeds at the base of the plant, and making sure the emitters are positioned right at the plant and functioning properly. Dry as it's been, it amazes me that this small amount of water – a gallon per plant per day every day - can keep plants so cheery.

The LaNana Creek *Taxodium* planting is also on drip irrigation and is thriving. This project is an interesting experiment to reforest and stabilize the banks of LaNana creek using *Taxodium* as the backbone to hold everything together. By the way, this will be one of the best-documented collections of baldcypress genotypes in the world. At the SFA Science Research Center on the northwest side of the Loop, we have 277 *Acer skutchii* in a grove, all on 15-foot by 15-foot spacing, and they've finally decided they like it there. While we had hoped to grow this rare Mexico mountain

sugar maple "dryland" (without irrigation), we had to give up on that idea when this year turned into the record hot and dry beast it has become. A drip system is now delivering about two gallons of water per tree per day - and the trees have responded with good growth. Dig two feet away from the trees, and it's dry dust. Precision drip irrigation is great water savings, particularly in the early establishment years.

Finally, Elyce and Kerry just wrapped up a month-long series of Pineywoods Camps, a great opportunity for kids to experience nature, ecology, biology, and horticulture, all in a myriad of learning adventures. Part of the camp takes place at Mill Creek Gardens, a perfect in-the-forest venue for children to absorb nature at its finest. Growing plants is cool. It's why we're here; and when it comes right down to it, connecting kids to the environment may be the most meaningful contribution we make. Let's keep planting, and please, please pray for rain.

Hope Springs Eternal

By Greg Grant

If you have a desire to experience hell on earth, take a trip to South Texas during a hot Texas summer. One might be inclined to think that neither man nor plant could survive down there. But survive they do. As a matter of fact, some even thrive.

It's a common horticultural misnomer to think that all plants want to grow in the cool, damp climates of England. There are, however, a great number of plants that don't grow well under mild conditions. These are the plants Texas gardeners should be growing. Instead of growing plants native to cool, moist temperate zones, we should stick to plants native to Texas, Mexico and tropical America. We all have similar climates - either too hot, too wet or too dry. Nothing else. When was the last time you stuck your head into the garden and said, "Perfect gardening conditions!?" Doesn't happen very often, does it?



Tecoma stans var. *stans* 'Gold Star'

Within those Texas-tough plants, there's an even fiercer group. Believe it or not, there are plants that don't even THINK about performing until they see others cooking. That's right; there are plants that LIKE 100-degree temperatures. Think of them as popcorn, if you will. If it's cool they do nothing. But when it gets hot,

look out! And guess what? They can't even grow these in Europe and the North. Their loss, our gain!

One of the tops on the heat-tolerant Texas performers is a plant known in South Texas and Mexico as "esperanza." Esperanza is Spanish for "hope." I HOPE you're paying attention.

Esperanza (*Tecoma stans*) is a member of one of my favorite families, the Bignoniaceae. This family contains other proven Texas performers, including trumpet creeper, crossvine, catalpa, desert willow and cape honeysuckle. All of these are known for big showy flowers on rugged plants.

Tecoma stans is native from West Texas down to Mexico and the tropics. The West Texas forms (*Tecoma stans angustata*) tend to be more cold hardy with

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Summer Azalea Report

By Barb Stump

Summer for us is like winter up North. Up North, gardeners mulch their gardens for the winter then enjoy dreaming about and studying garden design, new plants to order or collect, and gardens to visit. Our summer looks to be one of the driest on record for East Texas, so it might as well be near zero degrees. Our plants aren't suffering from cold, but from too much sun and not enough water. This simple fact reminds us all that azaleas are not only shallow-rooted, but also semi-shade-loving. Both requirements mean that to reduce drying out of the roots between waterings, several inches of mulch and filtered shade are essential. Our SFA Gardens are in great shape, though, due to the diligence of Dr. Creech and Duke Pittman in keeping the big irrigation risers in the Ruby M. Mize Azalea Garden going often enough to maintain plant health. In the new Gayla Mize Garden, there are fewer plantings as of yet, but Dr. Creech designed a more water-saving method for irrigation over there: drip irrigation with individual emitters at each plant. Thus, even though the beds and plants are spaced more widely than in the azalea garden, the water flows at half a gallon per plant per hour. The system also has clocks to limit watering. Of course, both gardens benefit from the high pine canopy shade as well. Now that we have both the Ruby M. Mize

Azalea Garden and the Gayla Mize Garden within the SFA Gardens, we have again attracted national attention from the Azalea Society of America. Each annual convention I've gone to, the members have asked when they could come back to Nacogdoches. They loved the national convention here (and the day trip to Tyler's Azalea Trail) in 2007, citing both the hospitality of our fair city and the wealth of azalea cultivars and species in our Ruby M. Mize Azalea Garden. As I was just elected to the national board of directors, I spoke up in the meeting when the topic of conventions arose. The vote was quick and positive. They will be here in late March 2015! Our local Texas chapter held a meeting July 6, and I did a presentation showing the kinds of gardens and events that made up the May 4-8, 2011, convention in Evansville, Ind. My last slide showed the next four convention sites: 2012—Asheville, N.C.—a combined ASA and American Rhododendron Society convention; 2013—Athens, Ga; 2014—Charleston, S.C., hosted by Magnolia Gardens, one of first gardens in America to ever plant azaleas and camellias. Acting president, Jeff Abt, was impressed that we are in such historic gardening company, and a number of the members present are now excited to go to a convention to see and enjoy azaleas. SFA Gardens will host the 2015 convention

with the Texas chapter; I will co-chair with Caryl Hall. You can get involved at many levels: First, save the dates of March 28-May 2, 2015; attend the convention, volunteer at the plant sale, as bus captains, or docent in the gardens. Second, help us find home gardens with many azaleas that would welcome a crowd of about 90 avid gardeners. Third, help support local azalea planting efforts, including Nacogdoches Convention & Visitors Bureau's annual Extreme Makeover Contest planting. Keep Nacogdoches Beautiful, the Texas Chapter ASA and Friends of Historic Nacogdoches, Inc. are planning several planting projects to spruce up historic sites around town. As I noted when on the Evansville convention garden tours, a number of those gardens had to have been planted in the past four years; it is not too late to begin planting more azaleas in your own gardens. We'll try to work on having more azaleas available for the Fabulous Fall Festival plant sale, since fall is the best time to plant them. See you there!

P.S. If you would like to join the ASA, the annual membership is \$25. Go to www.azaleas.org to print out a membership form and mail it to the national office. Our Texas team (with some Louisianans) will welcome you!

Hope, cont.

smaller flowers and leaves, while the tropical forms (*Tecoma stans stans*) are known for their larger flowers and leaves.

To be quite honest, I have never seen an *esperanza* that wasn't pretty, though like most gardeners, I tend to prefer those with larger, more profuse flowers. This led to a trial, about 25 years ago, comparing the showiest *esperanzas* I could locate.

'Gold Star' *esperanza* is a wonderful selection I made from a private garden in San Antonio while director of research and development at Lone Star Growers (now Color Spot Nursery). 'Gold Star' was selected because it was the earliest blooming *Tecoma stans* trialed. Previously, *esperanza* was difficult to sell as it didn't produce blooms in the container until late

in the season. 'Gold Star' actually produced them as a liner.

This particular selection is intermediate in all characteristics between the West Texas *Tecoma stans* var. *angustata* and the tropical *Tecoma stans* var. *stans*.

Although grown as a shrub and a perennial in San Antonio, South Texas and Mexico, *esperanza* works best in most gardens in the northern half of Texas as a tropical container plant or annual, similar to hibiscus, bougainvillea and mandevilla. It is generally sold in one gallon or three-gallon containers.

Esperanza is generally pest-free in the landscape. To keep the plants tidy and continuously blooming, however, it is best to

cut off the clusters of seed pods ("green beans"). Although new plants can be grown from the ripened dried seeds, they won't be identical to the original plant. There are actually a number of inferior seedlings on the market now masquerading as 'Gold Star' that don't bloom until they are tall and leggy.

All selections of *Tecoma stans* are uniquely adapted to hot, sunny Texas summers. 'Gold Star' provides more blooms, more often...something all gardeners hope for.

'Gold Star' *esperanza* was selected as a 1999 Texas Superstar by the Texas A&M CEMAP program.

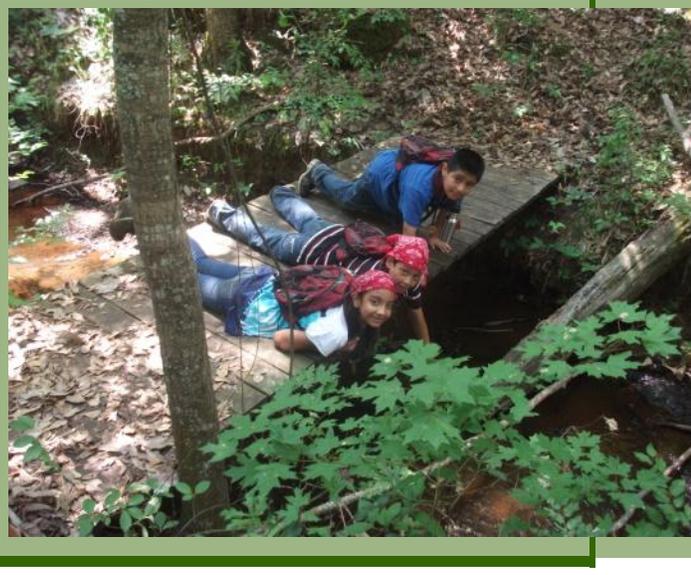
Think Outside—Then....Go Outside!

Text by Kerry Lemon

Photos by Pineywoods Camp staff



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2011 was formally designated "GREAT OUTDOORS MONTH" by President Obama and Governor Perry. It is heartening to see a growing awareness of the importance of the outdoors and a bit strange that we have no official declarations of the obvious.

Here in Nacogdoches, the SFA Pineywoods Camp celebrated the "Great Outdoors" and its 10th year of summer camp programs with a total of 86 children and 26 adults. In spite of record heat and drought conditions, campers "played" outside each day, proving that a little sweat and dirt often go along with some of the best times in life. It is through sharing adventures in nature with friends while climbing trees, watching bugs, hiking in the woods or paddling a canoe that we connect with the cycles of life and deepen our relationships with the natural world.

Many thanks to all the parents, children, staff, donors and many others who contribute to our camp program. This is time well spent, and the faces of our campers tell the story well.



The War on Invasive Plants

By Trey Anderson



Before: The landscape at the PNPC was a mix of invasive exotic plant species, including privet, elephant ear and Japanese honeysuckle, shown here.

The war on invasive plants is a fast-growing problem facing many people from homeowner to large land owner. Invasive plants have become such a problem that the Texas Parks and Wildlife Department has created a black list of aquatic plants that are illegal to possess in the state of Texas. With a \$1.25 million per year request for control and eradication of these invasive aquatic plants, you can see why TPWD would want to outlaw certain plants.

Invasive plants are not only found in waterways; their presence on land is just as devastating. As many of you already know, we are constantly battling the invaders here at the Pineywoods Native Plant Center to reclaim the 30-plus acres of hardwood bottomland forest that lies adjacent to the Lanana Creek. When the PNPC began in 1997, the understory was dominated by a 10-foot tall impenetrable wall of Chinese privet. The mid-story was in similar shape where Chinese tallow and other non-native trees dominated. There was a plethora of other invasive plants present on the property, including: Japanese privet (*Ligustrum lucidum*), Chinaberry tree (*Melia azedarach*), Chinese tallow (*Triadica sebifera*), sacred bamboo (*Nandina domestica*), elephant ears (*Colocasia esculenta*), mimosa (*Albizia julibrissin*), tree of heaven (*Ailanthus altissima*), English ivy (*Hedera helix*), multiflora rose (*Rosa multiflora*), Vasey's grass (*Paspalum urvillei*), Johnsongrass (*Sorghum halapense*), common periwinkle (*Vinca mi-*

nor), lilyturf (*Liriope spp.*) and many more.

Our successful efforts to eradicate these invaders have been made possible thanks to a cooperative agreement with the U.S. Fish and Wildlife Service in 2009. We use various means of mechanical, physical or chemical control throughout the property and have found that location and type of plant often dictate the most effective method.

Mechanical control is quite successful and can get rid of many plants at one time. Large sites may require a bush hog or brush grinder, while smaller sites or areas that need more detailed attention can be handled with hand tools such as a mower, bladed weed-eater or chainsaw. The ideal time to do this is in the fall or winter when plants are dormant and should be cut to the ground. Repeated cutting in subsequent years will most likely be necessary.

Physical control involves pulling or digging by hand or cutting with machete or loppers. It can be back-breaking work, as the name implies.

This method is most commonly used for small or extremely sensitive areas or where there is no vehicular access. If plants are pulled completely from the ground, the only follow-up needed is removal of successive seedlings.

Finally, chemical control is an extremely effective management technique, especially when used in conjunction

with the other two methods. There are a variety of chemicals available that are specifically formulated for the type of control you need. At the PNPC, we use Remedy Ultra, Round-Up, and Aqua-Master applied with a back-pack sprayer, or large tank mixers with a boom, or spray wands. We also paint the chemical directly on larger stumps.

You might ask, "Why fight a seemingly losing battle with exotic invasive plant species?" I can assure you that it is a battle worth fighting. Invasive exotics out-compete our natives, adversely affecting the surrounding habitat ecologically and economically. Our natives decrease in numbers, sometimes to the point of extinction. This aspect is not only one faced by plants, but also by all other forms of life in our great nation. As stewards of this land, I feel it's each and every gardener's duty to consider their potential negative contributions to the growing number of invasive plant species. This duty includes assessing the plants that you are planting or have pre-existing on your property and learning more about them so that you do not make the battle any more difficult than it already is. With this, I wish you the best of luck in fighting your own battles against invasive plant species.



After: Control of exotic plants left a pristine canvas for natives. Here Florida maples, buckeye and hickory make a strong comeback.

Substantial Plants

By Dawn Stover

As the editor of our quarterly newsletter, I often delay writing an article until all other submissions are in - no matter how long it takes me to pester a certain someone for the "Notes from the Director." Waiting allows me to gauge the empty space that I might need to fill. It also gives me pause to find a muse. While laying out the articles and photos of this edition, I noticed, as you may have also, that our Gardens' staff members think it's hot outside. I concur, it's pretty miserable. And there's my muse.

The latest trends in gardening are all about what's "green" or sustainable. As gardeners, we all know that we were "green" long before those buzzwords were coined. Sure, there are gardening techniques that are more sustainable than others, but who better than a gardener to understand the needs of our living world? As gardeners, we have an innate sense of biophilia—an instinctive bond between other living systems. Sustainable gardening is the most effective way to enhance our biophilia. So many variables fit the parameters of sustainability: composting, drip irrigation, integrated pest management and organic practices. Adopting just one of those practices can make a difference. Beyond creating a healthy soil, I think there is one critical thing to a sustainable landscape: plant selection.

As a lover of those "sissy-prissy, herbaceous things," I get too easily caught in the trappings of all the new varieties of gaudy annuals and blousy perennials that bombard the magazines and markets these days. It is so easy for me to be seduced by a super-double-orange-coral coneflower, or a variegated sunpatien with bright pink flowers, or a bluish petunia, or a bluish anything! I often tell people my job is to kill plants, and I've killed many a floozy flower in my day. Those that sift through the dust of my path of destruction are typically tough little critters. We use the phrase "Texas-Tough Plants for Tough-Texas Gardens" when we advertise for our plant sales. The survivors of my abuse are usually the ones to make the cut. Who has time to water every day, fertilize with special (read: expensive) plant food or put blocks of ice on to eek something through a summer? And in what world is that sustainable?

I like plants that are as mean as I am. Standing up for what they believe in with

little encouragement from anyone else. Plants with meat on their bones. Substantial plants.

Here are a few I'm impressed with:

Hydrangea paniculata 'Limelight' - PP12,874 - panicle hydrangea - I'm normally not a woody plant person, but if you stick big, billowy flower heads on a shrub, I'm willing to claim it in my little herbaceous heart. Panicle hydrangeas are much more sun and drought tolerant than other hydrangeas. Limelight boasts large, very dense lime-green flowers that age to a bright cream. A half day's sun will produce a prolific bloom set on more compact plants. Dense shade lends to legginess and poor flower production.



Hydrangea paniculata 'Limelight'

Curcuma spp. - hidden ginger - It's no secret that I like hidden gingers, and they continue to amaze me with their hardiness as well as spectacularly exotic blooms. My less showy, but nonetheless beautiful, *Curcuma petiolata* are blooming right now and sport really healthy, tropical foliage. 'Sulee Sunshine' is a hybrid developed for the cut flower trade and is impressing the pants off me with its massive, glossy-bracted flowers of pink, white and yellow.

Wow. Plant in super-well-drained soil, and at least four hours to a full day of sun. We water an inch per week, no more.

Panicum virgatum 'Northwind'-switch grass - Ornamental grasses are excellent elements in any garden. They can act as a specimen, are perfect in containers, and blend well in perennial or color beds. They add texture and movement as well, and even though they are tough as nails, they help soften harsh edges in the landscape.

My favorite is the 'Northwind' switch grass. Normally, our U.S. native is an airy mass of undefined dimensions—although still lovely blowing in the breeze. 'Northwind' is a strongly upright, powder blue selection. I'm happy to say that mine have never flopped open in the time I've grown them. I have a nice line of them in a one-foot wide bed between the glasshouse and sidewalk that only get watered by accident. What a lovely architectural statement they are! Full sun and drought tolerant. Cut ornamental grasses to the ground in mid-to late February.

Ajuga reptans 'Caitlin's Giant' - ajuga or bugleweed - I have always wanted to be a fan of ajuga, but I have killed more than my fair share of them. Especially the pretty variegated ones. There are a few purple-leaf forms that I'm moderately happy with, but when I met 'Caitlin's Giant,' boy was I unimpressed. Until I put it in the landscape. Foliage is an unassuming coppery purple, so in the container I felt a little ho hum over it. Then I lined several varieties in a brightly shaded bed at my house, including 'Caitlin's Giant,' and this healthy beauty bowled me over! It's formed a thick, ever-green groundcover with tall spikes of purple-blue flowers appearing in spring just as the dogwoods bloom. Perhaps I finally found the right location, or it's a great performer. I suspect it's a bit of both. I have it next to an asphalt driveway on the west side of my house. It does NOT get direct sun but is able to look lovingly at the sun beaming off the pavement.



Ajuga reptans 'Caitlin's Giant'

I don't mean to leave you hanging, but if you want pictures I have to stop at four. More substantial plants will follow in subsequent newsletters. Surely, I have found a generous muse.



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Come grow with us!

Visit of the Italian Nursery Association

By David Creech

One of the best parts of SFA Gardens is the people from near and far who trek through here. A small troupe of 12 participants in the Italian Nursery Association International tour visited SFA Gardens in early July. We were the final leg for this group of plant enthusiasts, and their previous stops included New York City, Washington, D.C., Minneapolis, and three regions in Texas: Austin, Houston, and finally, the finale here in Nacogdoches. So, they saved the best and hottest part of their trip for last! Clint Formby, former student and now production manager at Native Texas Nursery near Austin, Texas, accompanied the group through part of Texas and led them gracefully to nurseries and gardens at the first two stops before handing them off to SFA Gardens. Many thanks to Mark Carpenter at Carpenter's Daylily Nursery on the Center Highway a dream, "Holy Grail" kind of stop for Franco Migliorin, whose passion for daylilies knows no bounds – and to Jim and Martha Berry for hosting a fabulous shrimp boil at JBerry Nursery near Grand Saline, Texas. Dawn and Seth Stover were kind enough to open up their house to the group for a fine dinner, and our new Italian friends commented later how special it was to peek inside a typical American home – and yes, Texas hospitality was as big as they had heard!

