

Tarrant County Master Gardeners



TEXAS A & M AGRILIFE EXTENSION SERVICE

Volume 4 Issue 7

September 2020

A Tale of Two Projects

Submitted by Susan Starr



A Note from the Editor:

The Sweetpeas Intern group, led by Cindy Miller, had quite the experience in attempting to accomplish their Intern project. In doing so, they planned not just one, but two projects! Read Susan Starr's explanation below and description of the second project on the following page.

The next article features The Purple Coneflowers & Good Soil intern groups' project. I would so enjoy to feature other Intern Projects in the next Newsletter!

As always, thank you to Theresa Thomas for contributing content from past newsletters and giving us our plant of the month.

Lorie

Our intern team took on a big project. The Grapevine Post Office let Cindy Miller know that they had budget to redo all the landscaping around the building. We met with the Projects person for the City of Grapevine and understood requirements and budget. We had to design something that would be able to withstand watering by hand by their maintenance contractor and volunteers until the sprinkler system replacement was approved. We did the full design, including removal of a few shrubs and installation of all the new plants using local volunteers and a watering schedule. We met with the City Parks manager and the Projects manager, presented the attached plan and had approval. The City was going to do the removal and tilling as machinery was involved, for insurance purposes, and the spraying of the grass to kill it. We selected rocks for the project and were poised to start when the Project Manager called and said the project was on hold as the budget for the sprinkler did not get approval and would depend for a long time on hand watering. Then, a week later, she called and said, with the City maintenance contract being rebid, also, the project was canceled, due to risk of too much scope on the new maintenance contract, with the hand watering. We hope they will still use the plan in the future.

As we were not able to execute the plan, but had a LOT of hours in design and approval meetings, we appealed to Steve, who, based on the amount of work and the situation, approved the project as complete, given circumstances. It had originally been written up as only a design, so technically we did complete a design. The team was a bit disappointed, though. We actually started a second, smaller project with a Colleyville HOA to be able to execute a plan, but it also went on hold with Covid-19. It was a bit of a rough adventure, but we did learn quite a bit and enjoyed the opportunity.

Attached you will see the plan, as presented to the City. I will send a second memo with the Reserve at Colleyville HOA project, as the files are large and may make the memo too large for main servers.

Thanks for the opportunity to share our project(s)!!!

The Sweetpeas Team in above photo: Susan Starr, Matt Ezell, Bob Bauerschmidt, Teresa Landfield. Not pictured is Sharlene Warner.

Tarrant County Master Gardeners

A Tale of Two Projects continued

The Sweetpeas second project design was for The Rembrandt Pond of The Reserve of Colleyville. The Reserve of Colleyville HOA wanted to transform the Rembrandt Pond area into something more attractive. The HOA needed someone to design and manage the project. The Sweetpeas Team submitted a design plan that provided: Run-off improvement, drainage improvement, hiding the solar panel from sight of the sidewalk, and providing visual distraction from the unsightly bridge. They put together a basic execution plan that included planting management, a plant list and landscape design, and follow up to be sure irrigation is properly installed and functioning.

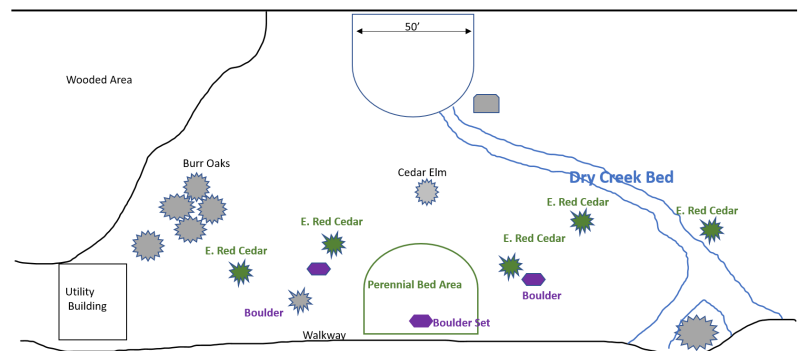
Unfortunately, this project has also been put on hold due to Covid-19, but I must say that the Sweetpeas are surely a motivated and talented group!

Lorie Grandclair-Diaz



Design

Proposed Landscaping



Above is a photograph of The Rembrandt Pond of the Reserve of Colleyville, and the Proposed Landscape Design created by the Sweetpeas.

A Tale of Two Projects continued



Above is the landscape design for the Grapevine Post Office that was presented by the Sweetpeas Intern Group.



Above are the “before” photographs of the Grapevine Post Office. One can see that a landscape overhaul would enhance the building.

Tarrant County Master Gardeners

By Jane Trkay

Thistle Hill Gazebo Garden

The process of becoming a Master Gardener is filled with anticipation, excitement, a little fear, and a whole lot of questions. Interns begin the master gardener journey excited about the learning, regard a few tasks (phone duty immediately jumps to mind) with some trepidation, and generate an infinite number of questions about everything-the topics, the requirements, the program. And so it was for The Purple Coneflowers and Good Soil groups at the beginning of this year: How many volunteer hours do we need? Demonstration garden? What's a demonstration garden? Intern project? Is that different from the other projects? But, with unlimited curiosity and the fortitude of true gardeners, we forged on ahead – happily learning and always, always coming up with new questions. We had no idea back then that out of our state of confusion and from those questions would emerge, not only something that we could be proud of, but in our opinion, one of the best damn intern projects...ever.

As the year began, the term “intern project” was frequently heard and met with confused looks and a great deal of head scratching. So, it was with some relief that The Purple Coneflowers (Carol Thompson, Teresa Riley, Diane Wahl, John Boyd, Jane Trkay) greeted our mentor, Cheri Mills, one class day during lunch. She told us she had some possible projects for us to choose from for our intern project (oh thank goodness-we don't have to invent our own), one of which was expanding a garden at Thistle Hill. In that moment, for some of us, all other questions faded away into the shadows, leaving just one at the forefront...What is Thistle Hill?

Thistle Hill Historic Mansion Museum is a singularly outstanding remnant of the colorful history that is Fort Worth. Built at the beginning of the century by one of Fort Worth's storied cattle barons, the mansion has managed to survive while so many of the historical buildings surrounding it have disappeared. Its presence is unexpected for those unfamiliar with the area. The drive there takes you through typical urban development - brick, cement, and glass buildings, side by side and back to back, endless grey broken only by the branches and leaves of a few struggling trees here and there. Completely surrounded by multi-level medical buildings and accompanying parking garages, Thistle Hill suddenly appears like a mirage, the red brick and expanse of green an anomaly in the midst of the city.



Pergola “before”.

Thistle Hill Gazebo Garden continued

Not all of us were encountering Thistle Hill for the first time, however. For those members who grew up in and near Fort Worth, Thistle Hill (TH) was a familiar local landmark. John recalled his experience, “I was thrilled to know that our group was going to be able to participate in a project at Thistle Hill. It is such a beautiful place, and I have such fond memories as a young adult of attending parties there with my friends. Thistle Hill creates a welcoming site for those traveling through and working in the hospital district and entering the downtown area. It has a way of visually softening the asphalt and concrete - a reminder of a time that was less complicated and focused on friendly relationships. Thistle Hill truly reflects part of the colorful history of Fort Worth.”

Although Thistle Hill is owned by Historic Fort Worth, Inc., it is a Tarrant County Master Gardener that maintains the beauty of the grounds. Keith Olmstead (MG 2015) has been the Lead Master Gardener for both Thistle Hill and the Ball-Edelman-McFarland House for the last five years (although not an official Master Gardener project, the McFarland House, like Thistle Hill, is another stunning remnant of the Cattle Baron Era). With help from his co-lead, Elizabeth Staples (MG 2018), Keith has taken on the enormous job of overseeing the grounds at both mansions including planning the gardens, purchasing and planting all plants, purchasing and applying fertilizer, purchasing and maintaining tools and other equipment, and tending the planters and containers on the grounds. When he’s not directly involved with the physical aspects of the gardens, he oversees the budget, obtains private funding and other donations (cement benches, mulch, etc.), and gives tours. And as if that were not enough, Keith just happens to be one of the kindest, most patient, most knowledgeable, and best chocolate donut providing mentors in the program.



Tarrant County Master Gardeners

Thistle Hill Gazebo Garden continued

Keith related that this year was especially difficult because the mild winter resulted in an abundance of weeds while the number of volunteers diminished due to the pandemic. Without the help of volunteers, Keith and Elizabeth were having to fill in the gap-weeds do not stop growing until the volunteers return. However, Keith had been wanting to create a bigger garden around the pergola that extends out from the driveway on the western side of the mansion. There were two small beds where the driveway and walkway under the pergola met. His plan was to expand those small beds into one large one that completely surrounded the walkway and pergola. This was no small undertaking in a prominent location, so it is commendable that Keith was willing to give a group of rookie gardeners the opportunity to learn and grow under his guidance in difficult circumstances.

Discussions about the new area began about the time that everything was shutting down. We needed to take into consideration the shape and scope of the garden, which led us to ask: what would fit in with the existing landscape, be of manageable size, integrate with the historical significance of the home, and factor in its current use? Some of us felt safe continuing our Wednesday morning visits because it was outdoors and social distancing was not an issue in an area of almost two acres, so the initial planning was done during those times. One Wednesday morning, the shape of the garden was inadvertently discovered. It was mowing day, and while cutting around both sides of the pergola, one of the mowers created a “dog bone” shape - a semi-circular area around the bed that already existed, another circular area at the far end, with a straight, narrower section in between. As Keith studied the clearly defined shape created by the shorter grass, he instinctively knew that would become the shape of the new garden. The narrower, rectangular shaped areas in the middle would be laid with brick to create a base for two cement benches facing each other. The addition of the benches would introduce a focal point and decrease the planting area to the manageable size.

It was also during those early weeks that a photo of Mrs. Scott, (below left) one of the first owners of the home, was uncovered in the carriage house. It was a pleasant surprise to realize that we were restoring a part of history, we were creating a new garden where one once existed, and that our work would now become a part of that same history. Cheri put our thoughts into words. “To know that our work has breathed new life into the garden, and that people will be able to enjoy the beauty for years to come, is something that we as gardeners find both stimulating and rewarding.” Although we contemplated trying to replicate the garden as closely as possible, the difficulty of identifying the plants due to the picture’s size and resolution made it improbable, but we were satisfied to note that including benches gave our garden a sense of the garden’s history.



Thistle Hill Gazebo Garden continued

Up until the pandemic, on any given Saturday passers by the mansion would often catch a glimpse of straight-backed young men uncomfortable in seldom worn tuxedos and bridesmaids floating around the garden looking like flowers themselves gowned in all the colors of the season. And in the center of them all, the bride and groom, smiling and happy, posing in their formal attire, the bride glowing surrounded by the white of her gown. Many of the celebrations held at Thistle Hill are weddings; and if not an actual wedding, photographs are taken here. With that in mind, we looked at the light-colored concrete of the pathway, the white paint on the gazebo structure, and knew that we needed to plan a garden that, rather than fading into the background, would highlight the white of the wedding dress as it was surrounded by glorious color.

Planning completed, we began the hard work of prepping the area. It was about this time that we were joined by another group of interns from our class-the Good Soil (Craig Holland, Charlene Solis, Lisa McGough, Doyle Welch). They had lost two members of their original group and knew that the Purple Coneflowers were working on a large project and needed help. Like the cavalry, they arrived just in time. As Craig Holland described it, "You think adding flower beds are just removing the grass and planting new plants. That is not at all what we have done. We removed grass, installed 3 brick landings, lots of edging, laid down tons of compost and mulch and then and only then did we get to plant some plants. And all of that got done during a pandemic and in the middle of summer. It's been a lot more than what I originally imagined."

Yes, the garden was more work than many of us realized, but from our labor we unearthed the answers to our many questions-from the experts (Keith, Elizabeth, Cheri, and Doyle), from each other, and from the mansion and its gardens. We learned how to do things we never imagined. One intern, Teresa Riley, is still surprised and proud that she now knows how to lay brick patios. We found that patience is necessary for gardeners-whether navigating the certification program, or creating new flower beds. We are patiently waiting for the heat of summer to pass and the final planting can begin again in the cooler temperatures which will allow the plants to thrive. And then the gazebo garden will become a part of the history of Thistle Hill and tended by future Master Gardeners seeking answers to their own questions.



Tarrant County Master Gardeners

Black Eyed Susan

Black-eyed Susan, Common Black-eyed Susan, Brown-eyed Susan, *Rudbeckia hirta*

Lady Bird Johnson Wildflower Center

This cheerful, widespread wildflower is considered an annual to a short-lived perennial across its range. Bright-yellow, 2-3 in. wide, daisy-like flowers with dark centers are its claim-to-fame. They occur singly atop 1-2 ft. stems. The stems and scattered, oval leaves are covered with bristly hairs. Coarse, rough-stemmed plant with daisy-like flower heads made up of showy golden-yellow ray flowers, with disk flowers forming a brown central cone. Blooms from June to October. This annual may bloom longer with some afternoon shade. Birds enjoy the ripe seeds. Black-eyed Susan can become aggressive if given too perfect an environment and not enough competition. Grows in moist to dry, well drained soils.

This native prairie biennial forms a rosette of leaves the first year, followed by flowers the second year. It is covered with hairs that give it a slightly rough texture. The Green-headed Coneflower ([*R. laciniata*](#)) has yellow ray flowers pointing downward, a greenish-yellow disk, and irregularly divided leaves.

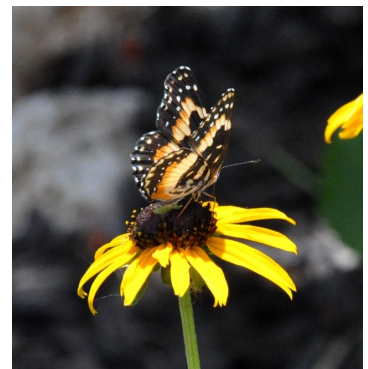
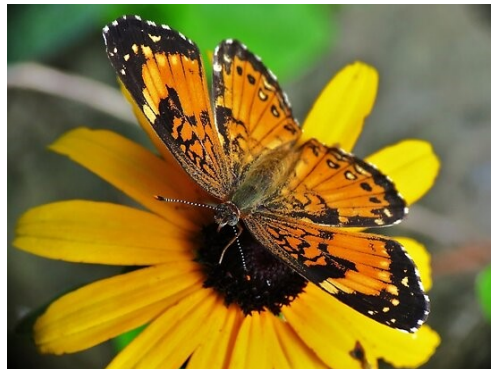
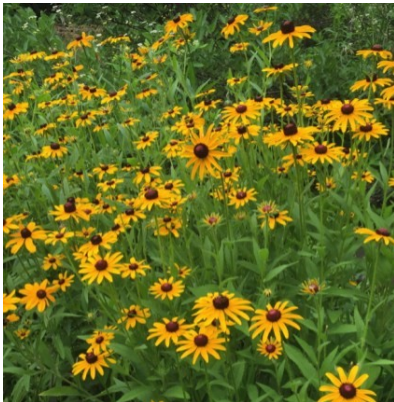
Nectar for Bees, Butterflies, insects. Birds enjoy the seeds. Larval Host for the Gorgone Checkerspot and Bordered Patch butterflies. Deer Resistant.

Propagation: It is very easily from seed sown in fall or spring. Spring-sown seed should be stratified. Rake seed into a loose topsoil or cover with ¼ to ½ inch of soil or mulch. If possible, supplement with water if fall or spring rains are infrequent and light. The seed requires several days of moisture and should germinate in one to two weeks.

Seed Collection: The nutlets turn charcoal-gray at maturity, usually 3-4 weeks after the bloom period. Seeds are mature at this time, but they are easier to collect after cones lose their tight compact structure. Store dry in sealed, refrigerated containers.

Seed Treatment: Stratify for 3 months at 40 degrees.

Maintenance: Black-eyed Susans are drought tolerant but respond well to an occasional watering. Additional irrigation in a dry year will improve the density of the stand and lengthen the flowering season. Do not mow until after the plants have formed mature seed cones, about three to four weeks after flowering. (Check by breaking a cone open and if the seeds are dark, they are mature.) The number of volunteer plants can be limited by removing the seed heads after the flowers are done.



Around and About



Sue Kelley submitted these photos from the Grape Harvest at the Demonstration Garden. Above is Ben Swallow holding grapes that he harvested.

Tarrant County Master Gardeners

ET's Awards News

By Eleanor Tuck

Did you ever wonder about all those wooden plaques on the office wall dating back 20 years? Those have been achieved by our Association in recognition of all the projects and programs we have accomplished. When next you are up there, look for all of the Association awards.

But let's start with the basics. First, the TCMGA State Awards committee begins work in the Fall of each year evaluating what projects or programs can be entered. The State Master Gardener Association has a lengthy manual with the rules and requirements spelled out. We have limits of numbers of words and pages! The State has specific categories and this past year, they have added two more!! Programs, such as the "Pollinator Pathway", Intern Project at Botanic Garden are the types entered, as well as our Association and an Individual.

Awards are judged by three Horticulture Agents, like our Steve Chaney, who work and live in other states in the U.S. Some of them give feedback and others just simply score. This past year had several very positive comments congratulating MGs in their work. The Judges evaluate how easily the program/project could be duplicated; is it innovative/creative; did the project extend the resources of TAMU and about 7 more categories.

For 2019, we entered Youth/JMG description of Durham Intermediate School; Project was a description of the Pollinator Pathway built by the Interns at Botanic Gardens; Educational category described Heritage Elementary School—Enrichment Program; Written Education explained the history and the recent updates for our Office Manual; our nomination for Individual is Dick Pafford; and finally the Association description of all of our creative projects and programs.

And then our Association entries are judged in competition with several other counties: Dallas, Collin, Denton, San Antonio and Houston and either Montgomery or Galveston. All this to say, that even when we don't win in a certain category, there were just other very good entries and does not diminish the value and work put into our entry projects/programs.

Think about it this way: Tarrant County Master Gardener Association is an award-winning association, AND YOU are a member who contributes to that recognition. In 2019 we have been recognized as THE Outstanding Association for the whole state.

I thought our members would find it interesting to see an example of an application that is submitted, so please see the following two pages for our nomination of Outstanding Individual Master Gardener.

2019 Award Year

Texas Master Gardener Association, Inc.

Texas Search for Excellence Award

Outstanding Individual Master Gardener Entry Form

SUBMISSION DEADLINE IS 10PM JANUARY 31, 2020

A: Name of Master Gardener Association and/or county submitting this entry:

B: Master Gardener submitting this entry contact:

Name: Eleanor Tuck, Master Gardener (MG)

Email: etuck@sbcglobal.com

Phone: 817-244-1772

C: Master Gardener Association President contact:

Name: Theresa Thomas, Master Gardener (MG)

Email: theresakaythomas@me.com

Phone: 817-485-6789

D: Master Gardener Coordinator/Extension staff for the group and/or county:

Name: Steve Chaney (CEA)

Title: Home Horticulture Agent & Master Gardener Coordinator

Email: s-chaney@tamu.edu

Phone: 817-884-1945

E: Name of Master Gardener being submitted as Individual Master Gardener:

Dick Pafford

1. In 150 words or less describe the Individual Master Gardener. (25 points)

A Master Gardener for 9 years, Dick has brought tremendous leadership, dedication and excellence from years as a physician. He distinguishes himself as a devoted and effective TCMGA volunteer contributing 575.5 hours and driving 6672 miles. After two years as an Advisor, he assumed the position of Intern Class Coordinator. He revised the TCMGA Butterfly presentation content making it one of the favorite classes.

Dick is a significant asset in his neighborhood community because of his presentations and involvement in a variety of projects. He is a Grapevine Garden Club Moderator, and volunteers for Heritage Elementary School (HES) MG Children's Garden. Dick also met with CBS News weatherman to discuss winter vegetable gardening. He has updated computers used by the Speakers Bureau.

Dick's inspirational example for our Association and his community make it a privilege to have his experience, expertise and enthusiasm.

2. List and describe the top three (3) programs/projects/events, etc. in which the nominee participated during the 2019 entry year. (25 points)

Teaches and is a facilitator in the Greenhouse Management, Plant Propagation Class & Rainwater Harvesting Advanced Training Classes

Grapevine Botanic Garden Greenhouse Rose Rosette Research Project which has been an ongoing MG project for 5 years and continues with weekly evaluations

Heritage Elementary School MG children's garden, and MG participate in the new Enrichment Program which offers children a choice of subjects other than curriculum. MGs teach the chosen horticulture subjects.

3. Describe the nominee's abilities related to working with other Master Gardeners individually and in groups, and working with Texas A&M AgriLife Extension during the 2019 award year. (25 points)

He was awarded the Master Gardener of the year within Tarrant County MG Association by his peers in 2015

He encourages the Interns and veteran MGs

Demonstrates his ability to take the lead in every type of gardening and presentation

Dick, not only attends, he participates in the Advisory Board which works with our Extension Agent in oversight/assistance to MG projects

Composting, Vegetable Gardening & Propagation Specialist----teaching these AgriLife Extension developed classes in each category

Intern Telephone Trainer assisting in their understanding of Texas Agri-Life Extension as well as office procedures

Behind the scenes support with computers at meetings & Speakers Bureau Events

He is a Texas Master Gardener Director and attends quarterly state MG meetings to be a part of overseeing the entire State MG Association, in conjunction with the State MG Coordinator

4. Describe the nominee's participation in community education activities that promote Master Gardeners and Texas A&M AgriLife Extension. (25 points)

Greenhouse Management and Plant Propagation & Rainwater Harvesting – teacher facilitator of these Advanced Classes in coordination with our Extension agent

Heritage Elementary School garden club projects working regularly with the children and teachers

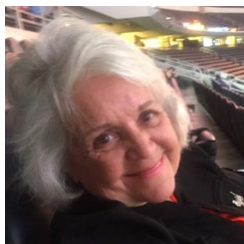
Rose Rosette Research Project in the City of Grapevine working with the MG group in monitoring changes or evidences of spread of the disease

Water Works Learning Center facilitator for multiple classes presented to the public

He is instrumental with updating all computers used by the Speakers Bureau and MG Education activities.

Volume 4 Issue 7

President's Message



If you haven't heard
Tarrant County Master Gardeners Association, Inc.
Won
1st Place in the State Awards Outstanding Master Gardener
Extra-Large Association Category for 2019.

Congratulations and thank you to all our members and Steve Chaney. This would not happen without all the time and hard work each one does to support our Association. What a privilege to be a part of TCMGA. Don't you agree.

A big shout of thank you to our State Awards Committee, Eleanor Tuck, Lisa Anderson, Camille Eckersley, Ginger Bason who work behind the scenes researching for entries in the different State Awards categories. Eleanor will be making arrangements for the State President to present the Award personally. You will hear more about the Awards in an article that Eleanor has done for the newsletter.

Starting in September we will start collecting for the 2021 dues and the Background Checks that are due 2021. Steve Purdy has put the information in the 8/26/20 Monday eBlast. Our dues are \$30.00 and background checks are \$10.00. Since we cannot meet in person you will need to send your checks to me. The information in the Handbook is current.

New Name Badges – We still have several Name Badges with the new and current State Logo. They were being handled out at the meetings before COVID so we are thinking of ways to get them to you. If you have ordered bulbs, fertilizer or plants when we have our Fall Plant Sale, we will include your name badge and if you haven't gotten a Handbook, we will include that as well. The Handbook you will need to let us know if you haven't already got one.

Looking at the VMS there are many of the members that need to update their hours. Several have not posted any hours for 2020. We still need to complete 36 hours for 2020. There are a ton of virtual presentations for CEUs and many ways to get your VOL hours. If you need help or have questions, please contact your timekeeper. If you don't remember who your timekeeper, contact Debbie Rasmussen at mammie629@sbcglobal.net.

Please stay safe as you work in the gardens during the hot hot weather. A neighbor that is a fireman said always have a bag of ice with you when you are working outside just in case you or someone gets too hot and something to put the ice in if you need to use it. We usually apply ice on the back of the neck, but he said to put ice on the wrists and if necessary, under the arms until they cool down and get medical attention if necessary. Drink that water to stay dehydrated!!

Thank you for continuing to follow the COVID guidelines – Mask at all times, 6 feet distancing and no groups above 5.

Theresa

Gardening is a matter of your enthusiasm holding up until your back gets used to it. Unknown

Tarrant County Master Gardeners

Health, Wellness, and Landscaping

*By Laura Miller, CEA-Horticulture, Tarrant County
Sharecropper August 2010*



Plants in our environment can do so much more than just look good. Trees, grass, flowers and green spaces provide opportunities to exercise, eat healthy foods, reduce stress and develop strong communities. People in urban areas may have to work a little bit harder to insure there are plenty of plants in an environment that contains lots of people, buildings, and roads, but everyone can benefit from finding a place for plants in their lives.

Work Outside and Get a Workout

One hour of —weeding, raking, planting—burns roughly 300 calories, about the same as walking or bicycling at a moderate pace.

Mowing with a manual push mower is an especially effective and environmentally friendly form of exercise. Manual mowers are quiet and don't require gasoline or electricity. The lawn will get a crisp clean trim and the person pushing will burn 500 calories per hour.

Gardening is especially effective in increasing bone density and preventing osteoporosis. In a University of Arkansas study of women age 50 and over, those who worked in their gardens each week had higher bone density readings than those who walked, jogged, swam or did aerobic exercises. Only weight training produced better results in improving bone density scores. Exposure to sunlight while working outdoors also helps fight osteoporosis by increasing vitamin D production. Vitamin D helps the body absorb calcium.

Garden and Eat Fresh

Fruit and vegetable production in the landscape, in anything from a 10-inch container to a 10-acre plot, can contribute towards the 5 or more recommended servings of fruits and vegetables per day.

Production of highly perishable, high value crops can take a bite out of the grocery budget while offering fresh foods that haven't been shipped and stored.

Children who participated in a Texas A&M University school gardening study had more positive attitudes toward vegetables and fruit and vegetable snacks. The aggie-horticulture.tamu.edu website has lots of great ideas for making gardening fun for children.

Work Hard in a Soft Scape

Workers with a view of natural elements report more job satisfaction and fewer ailments than those who had no outside view or who could only see built elements from their windows.

The addition of plants to a windowless workplace increases productivity while reducing stress. In a study conducted at Washington State University, plants were added to an interior computer lab. Study participants had a 12% decrease in reaction time on a computer task and a one to four-unit decrease in systolic blood pressure.

Get out and enjoy your community

Landscaping in city and suburban neighborhoods encourages residents to spend more time outdoors and gives them more opportunities for social interaction.

Green streets aren't mean streets. The University of Illinois at Urbana-Champaign's Landscape and Human Health Laboratory set up an experiment in a Chicago public housing development where identical buildings were either landscaped or left without landscaping. After one year, the landscaped buildings reported 48% fewer property crimes and 56% fewer violent crimes.

Remarkable Plants of Texas: Uncommon Accounts of our Common Natives

A book review by Marilyn Sallee from the August 2010 Sharecropper

This is a remarkable book about remarkable plants on several accounts.

While most books about plants have a tight focus, staying within tight confines of botany or landscaping or identification, this book is a fun spree through the most important aspects of the individual plants however they apply. So, a tree may be treated for how its wood can be used, or its importance of food source, or its uses by indigenous people, or maybe it's place in the modern landscape, whichever is most important.

The many color photos and botanical descriptions, habitat and distribution, even an explanation of the meaning of the scientific name, make it an excellent source for those interested in botany.

And the history, with food preparation and medicinal uses, make it important for the herbalist or survivalist. For anyone just interested in plant lore of all types, it is a find.

But it is the combination that makes this book most remarkable. Each plant has a special tidbit, or several, that make it stand out.

For example, the U.S.S. Constitution, the oldest warship afloat in the world today, was so tough that the British cannon balls bounced off her, earning the nickname "Old Ironsides". But the ship itself was an example of the use of Live Oak wood in ship building. Much of Texas' Live Oak forests went into making the U.S. an awesome naval force.

Another example: The Creosote Bush constantly renews itself through cloning, and the original mother plant may be more than 11,700 years old.

The chapters on plants of myriad uses, such as Sotol, Prickly Pear and Agaves go on at length on how to process them as food, fiber, or other uses so that you might try your own hand at these almost-forgotten crafts and try cooking a few.

While chapters on poisonous or dangerous plants give repeat warnings not to try them yourself, especially the Datura's, Peyotes and some other "medicinal" plants.

The longest chapter, on the myriad uses of the ubiquitous Prickly-pear cactus, covers the food, water, medicine and cattle forage aspects of the Opuntia, but also has delightful stories. Such as the appearance of "Pear mouth" in cattle, since they will feed on the spiny plant despite the long thorns. Pear mouth describes cattle whose lips are full of cactus spines; easily prevented by torching the cactus first. Cattle quickly learn the sound of the torch burning spines off the cactus and come running to feast on the now safe cactus pears or tunas.

The book is even physically remarkable. A nicely cloth-bound bright red cover with startling lime green end papers. The paper of the text pages is high quality, thick and eminently suited for the many full color photos. The quality makes for a remarkably sturdy and heavy book that will last the many times you'll want to go back to re-read about a particular plant or section.

Highly recommended for either reference shelf or an interesting casual read.