



Hale County Master Gardeners

A new Master Gardeners Club has been organized in Hale County! On June 12th we had our first meeting just to see if there was an interest in organizing a club. We had a great turnout, with lots of enthusiasm, so we are now training for eight weeks and then volunteering our time to become certified Master Gardeners. We have already had some great speakers and are looking forward to the outcome of having some really great Master Gardeners in Hale County. So expect your neighborhood and your city to start looking impressive after these gardeners get started!



Beverly Groves Biography

I have taught kindergarten for 23 years. I am excited about working in my yard and I have hope that I will find my "green thumb"!

Beverly Groves

All gardening is landscape painting.

‘I am a Texas cosmetologist instructor. I like to teach the truth on skin, hair and nails and that’s the way I like everything.’

Eddie Gonzalez

Marsha Allen

Retired Human Resource Director at W. J. Mangold Memorial hospital. My objectives are to learn more about perennials and drought resistant plants.

I have always had an interest in gardening, mostly of the ornamental type since I grew up in a farming family and tend to see vegetable gardening as work rather than pleasure. Just over a year ago, we moved into a house located on a corner lot with no flowerbeds or landscaping whatsoever, which gave me the opportunity to have it professionally landscaped using rocks and mossy boulders. My gardening friend, Jenny King, helped me select and place xeriscape plants. I see gardening as my escape, and spend as much time as possible in my yard. I am anxious to learn more about landscaping, insects, diseases and soil fertility and am excited about the chance to help beautify our area through community service projects.

Kim Horne

Lori Reed has always enjoyed growing things, playing in the dirt, and being outside. She joined the Master Gardener program to learn more about the care and maintenance of yards and landscaping in this area. She’d like to learn how to “Grow Smarter.” Lori is a retired educator and is currently engaged in farming in Swisher and Floyd counties.



Maria Vasquez

Was born in this area and has lived all but six year of her life here.

Maria is a graduate of WBU and has been a tax auditor, human resources manager and a contracts manager in the air-



craft industry.

She is currently a full time gardener and has been an avid gardener

for over fifteen years.

Maria's hobbies include cooking, traveling and reading. Her dream is to visit Monet's Garden in all four seasons. She credits her green thumb to her mother who always had flowers

blooming even when her eyesight failed her and to her dad who at eighty years young still plants a vegetable garden.

Shelda Rogers

Medical Records Manager at W. J. Mangold Memorial Hospital—Lockney

1. *Wants to learn about having a healthy/beautiful lawn.*
2. *How to grow plants in drought situations.*
3. *Best use of rain— "when it does"*
4. *How to make an area beautiful with the most efficient use of money.*

"I do some of my best thinking while pulling weeds."

Jennifer King was born in Tulia, Texas and is married to Kevin King. She has two sons, Patrick, 27 and Sam, 21.

She taught school from 1983-2001. Jennifer was owner of King's Keepsakes Frame and Art Gallery from April, 2001 to August, 2010.

She teaches 7th/8th grade Sunday School at First Baptist Church and works part-time at J & J Garden Mart.

B

everly Wall enrolled in the Master Gardener program because she has taught the Junior Master Gardener program for Hale County 4-H for the past ten years or so. She has always enjoyed all aspects of horticulture. She took several classes while she was a student at Texas Tech.

She currently serves as president of both the Pitch In Plainview and Main Street Advisory Boards. These organizations both work to promote beautification and recycling in Plainview. Taking this class will provide a number of resources that she can take back to the meetings.

Her grandmother was an excellent gardener in both vegetables and flowers. She had many unusual house plants and Beverly grew up helping her with these projects. She thinks helping her grandmother caused her to love plants.

Use old socks to tie trees to their stakes. When the tree grows the socks stretch and don't cut into the bark



From seeds planted in a Dixie cup when I was six at vacation Bible school to the new huge oaks my husband and I planted around the cottage we raised our daughters in, and now the plants and flowers in the beds of my garden home, to the tomatoes out back... I love the wonderful world of gardening! I never want to stop learning, that's why I'm here. I want to learn how to be a better steward, improve upon and conserve this precious gift of gardening. So here's to dirt, seeds, flowers and trees and God bless Texas!

D'Ann Cypert

I decided to enroll in Master Gardener class because I am certified as a Junior Master Gardener and help the new students as well. I wanted to further my education on gardening to help my own yard as well as inform others who want to start a garden or want to make their current one better.

I have always enjoyed being outside and looking at nature. I love looking at the plants and have always wanted to learn more about them and the qualities they have to help the environment.

I have just recently graduated Plainview High School and will be attending Wayland Baptist University in the fall. I was a five-year member of the Plainview 4-H club and was also a member of Hale County Junior Literacy Council, as well as other school organizations such as DECA and FCCLA. I am a current member of Pitch In Plainview as well.

Shayla Perry



Janice Payne and husband, Dale moved to Plainview from Ft. Worth in 2007. As a Rotary Club member since 1989, Janice transferred her membership to Plainview Rotary.

She has become an active volunteer in Plainview as a member of the boards of the Chamber of Commerce, Main Street, Hale County Literacy Council and the Crisis Center of the Plains. In January of this year, she opened and is coordinating the Plainview office of Lubbock's SCORE chapter located on the Wagland campus.

Coming from Ft. Worth, Janice saw the difference in altitude, temperature and humidity created some challenges caring for her plants. Janice joined the Master Gardener program to learn more about how to solve problems with her houseplants and her lawn and she plans to use what she learns in this program to work to beautify Plainview.

Soil Science Made Easy

Nell Rains

Texas Master Gardener

Soil Testing Techniques

Soil pH: How It Affects Plant Health



Soil testing is a procedure that not many of us know well. This simple to do test will help you find out what is going on in the soil in your landscape. Taking a soil sample is often omitted however; this should be the gardener's first step. How do you know where to begin if you don't test the soil?

Collect a soil sample and have the sample tested for pH, salt content, available nitrogen, phosphorus, potassium, calcium, magnesium and sulfur, and upon request trace micronutrients (iron, manganese, zinc & copper) at a university laboratory, by submitting it through your local Extension office. The purpose of this test is to establish baseline data about the ionic content, or pH status of the soil. A soil test is the only tool to determine available fertility, to detect salinity problems, and excessive nutrients. Too much of any nutrient can be toxic. The results will assist the gardener with information to make wise choices when applying amendments and fertilizers.

The ideal time to soil test is in late winter although sampling can be done in the spring. Soil samples are to be taken with a clean non-galvanized shovel. Selecting 8-10 random areas probe 6" into soil and remove a sliced core of soil with a shovel. (Avoid areas such as gravel roads, compost piles, or under eaves) Place a small handful of this slice into a clean plastic container. Repeat this within the area. Mix all the soil together from that area. Take a pint sized sample from it and place it in the soil testing bag. Label the area. Follow the same procedure for lawns and vegetable gardens. Realize that there can be differences within yards. Test soils every 3 years. Results of the analysis will be mailed.

Now What?

Understanding pH:

Soil pH is a measurement of the hydrogen ion (acid forming) activity of soil or artificial growth media. This scale expresses degree of acidity or alkalinity in terms of units. The scale contains 14 levels known as pH units, centered around pH 7, which is neutral. Values below 7 are acid range soils and values above 7 make up the alkaline range. The measurement scale is not a linear scale but a logarithmic scale. That is, a soil with a pH of 9.5 is ten times more alkaline than a pH soil of 8.5 and 100 times more alkaline than a soil with pH of 7.5.

The pH condition of soil is a major soil characteristic that affects the quality of plant growth. A nearly neutral or slightly acidic soil is generally ideal for most plants.

The impact that extremes in pH have on plant health is related to "making available plant nutrients", and the concentration of plant toxic minerals within the soil. For example, in

highly acidic soils, manganese and aluminum can be at toxic levels. At low pH values, calcium, phosphorus and magnesium are less available for plant up-take. At pH 7 and above, phosphorus, iron, copper, zinc, boron and manganese become less available to the plant.

We cannot change a soil's pH. Our ability is limited to amending the soil, and comes from the understanding of what is going on in the soil. Nutrients rely on decomposition of organics within the atmosphere, erosion and weathering of rocks, minerals, organic fertilizer leaching, all play a role in nutrient take-up.

By applying certain compounds to the soil, adjustments can be made in pH values.

Acid soils can be made less acidic by applying lime. A finely ground agricultural limestone is used and is effective rapidly.

If soil pH is too high, elemental sulfur such as sulfur coated urea can be added to reduce alkalinity.

Caution is advised when adding compounds to reduce alkalinity. These compounds raise the acidity levels. If too much is added the pH may drop too low, instead of the desired level of pH 7.

Let's take a look at some nutrients and see how they are utilized.

The importance of Iron. Iron is present in abundant quantities in all soils, making up 5% of the Earth's crust. Iron is required for formation of chlorophyll (greening) and becomes less available to the plant as the pH goes up. Iron deficiency problems are not due to shortages but due to iron being in the wrong form. Most iron in the soil is un-soluble and unavailable to the plant. Plants require a soluble form. Iron being available is affected by: Soil with high pH (above 6.5 least available), Aeration (reduced by anaerobic, compacted soils and waterlogged conditions), high phosphate, calcium and manganese in soil.

Many times the first sign of iron deficiency is yellowing of younger leaves. The leaf vein stays green with yellowing of the tissue around the vein.

Adding iron is a way to treat iron chlorosis, but adding ferrous to high pH soil has to be maintained. Iron sulfates are salts and can burn or kill the plants you are trying to green up. Iron chelate is the most effective treatment for soil. The chemical complex is bound so that it is available to the soil. Foliar sprays are only temporary fixes. (Surfactant) This doesn't really work well as iron is immobile. Applications of iron must be monitored carefully and additionally, the product will stain concrete. The only good permanent solution is genetics, (plant selection) as plant species differ in their susceptibility to iron chlorosis.

Nitrogen, Phosphorus, and Potassium

Nitrogen is mobile in plants and required for leafy-top growth.

Nitrogen deficiency is the usual suspect when plants begin looking a bit yellow instead of green. But what looks like N stress might instead be sulfur deficiency, a yellow striping on leaves is a visual clue.

Phosphorus grows the roots and develops fruiting.

Potassium provides cold hardiness, disease resistance and durability.

Nitrogen, phosphorus and potassium are the macronutrients required in larger amounts as plants use more of them for maximum growth. Excess of phosphorus can also reduce plant growth and restrict uptake of zinc and iron. There are also environmental issues and concerns that come with applying excesses.

University soil testing sites indicates excess nitrogen in soils at a rate of one pound per every thousand square feet. Phosphorus levels of home turf lawn average 189 ppm, Agriculture is limited to maximum level of 200 ppm.

Gardeners should exercise care to limit potential for excess fertility in the landscape. Nutrient management is essential for surface water quality. Research has shown that a phosphorus concentration in turf grass runoff is contributing to water pollution. Higher than normal levels, especially nitrogen and phosphorus promote algal bloom. Oxygen levels are depleted in waterways. More is not the case when it comes to applying nutrients. Follow the guidelines that are recommended in the soil test. So what is one to do concerning fertilization? The maximum level vs. the red line critical level. Plants need 16 elements for growth. Some come from the air and other elements must be furnished by the soil.

It has been said, "When it rains, it rains down fertility". Why doesn't soil take care of it self? One has only to think about the long-gone native grass covered prairie. Consider the fact that the soil then, contained 20%-30% organic matter. The average landscape today has 1/2 of 1% organic matter.

Additions of Organic Matter: Organic matter is a great soil enhancer for both sandy and clay soil. Organic matter greatly affects soil's structure. When temperatures and moisture are favorable, earthworms, insects, bacteria and fungi work together to decompose organic matter into humus. Through this process called mineralization nutrients are made available to the plants. Organic matter improves the air-water holding capacity in sandy soils and allows excess water to drain from clay soils while allowing more oxygen to move into these fine textured soils. Thus, additions of organic materials (compost, manures, yard clippings and leaf mold, wood products) are a primary key to successful gardening.

This and perhaps a little nitrogen.....But only if the soil test tells us.

Born on a farm in Lamb County, **Mary Byrd** in early childhood developed a knack for growing plants. At the age of five she can remember going with her parent to a place below the Caprock to get a load of clay for the driveway. She found flowers that she pulled and wrapped in a wet cloth and brought back home and planted. They grew!

In Nebraska as a young adult with children they had vegetable gardens. The soil in Nebraska is very rich and there are fewer insects, so therefore, you don't need fertilizer or insecticides. The garden practically grew itself.

She is taking the Master Gardener course because she loves to design and hopes to landscape the yard of the house she will soon be moving into. This place needs help and she hopes to do it justice.

By training she is a psychotherapist, frustrated interior designer (associate degree), and antique dealer because she loves junking.



Cindy Simmons

has always had an interest in plants and gardening practices.

She has attended several presentations on Earth Kind Roses, Buck roses, raised bed planting, and rainwater harvesting, as well as other topics. All of these have peaked her interest and raised her awareness of different gardening practices.

She has become increasingly interested in native and xeriscape plants and planting. Several trips to High Country Gardens in Santa Fe and Neal Hinders' Canyon's Edge in Canyon has given her insight into different ways of having a beautiful yard. She finds beauty in these plains and the Llano Estacado and would welcome any training in becoming more successful in creating garden spaces unique to this area.

She says new information, new knowledge always excites her and she is anxious to learn the Master Gardener program & what its experts can teach her.

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**Texas
Master Gardener** SM



Mike Patrick



I'm pretty much a serial entrepreneur that has been self-employed for 36 years. My last venture was for 28 years as the owner of Sunshine Cleaning Service.

When I turned 67 in early June, I turned the business over to my son, my daughter and son-in-law to operate so I could concentrate on another new venture. For the last few years I've been wanting to create an "on-line" busi-

ness on the Internet and I'm now in the process of having my website designed.

Sometimes I think I'm cursed by having so many different interests but the upside is life is rarely dull.

I attended a funeral of an old friend in Hereford a couple of years ago and in his eulogy it was said he became a "Texas Master Gardener" after he retired as a golf pro and that he

seemed to be able to grow anything and had gotten a great deal of pleasure from it. That created an interest in me.. and when I learned that this program was being offered in Plainview..

I jumped at it!