

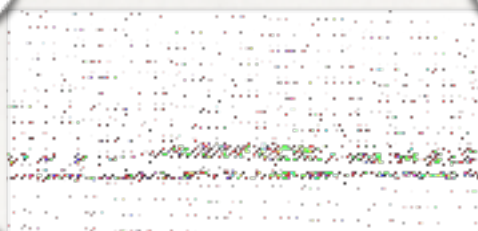
Gardens Housed Within the Plateau Discovery Gardens

There are two types of gardens plots located within the Plateau Discovery Gardens: Research Trials and also Master Gardener Class Projects.

Research trials are maintained by staff from the UT Plateau Research and Education Center and are being followed by researchers within the University of Tennessee Department of Plant Sciences. Current trials within the Gardens include Hydrangeas (69 different varieties), Redbuds (16 varieties) and Ornamental Grasses. And although not within the Gardens, ongoing rose trials have been planted on the other side of the tree line. Visitors to the Gardens are encouraged to visit this area as well. The plant varieties included in these trials are evaluated in regards to cold hardiness, flower production, flower and plant size, pest resistance, landscape appeal and other qualities.

It is important that visitors to the gardens refrain from touching the plants within the trial beds to maintain the integrity of the research being conducted.

The second type of plot within the Gardens are referred to as Master Gardener Established Plots. At the completion of their coursework, Master Gardener Interns are given the task to select, design, plan, plant, and maintain a new garden. Themes for these Gardens typically arise from frequently asked questions at the UT Extension Office.



Gardening on the Plateau

Knowing “what to plant where” is key to ensuring a successful gardening experience. With multiple growing climates, soil types and sunlight levels present within the vast boundaries of the Cumberland Plateau, gardeners should assess their specific location before planting. Allow the CCMGA to guide you through a proper assessment using the Plateau Discovery Gardens (PDG) as an example.

Hardiness Zone: One of the most important questions gardeners face is whether or not the plant will survive the climate of your project. Cumberland County, TN is unique in that it is comprised of several USDA hardiness zones within its county lines. The northern areas of the county are cooler and rated 6a, from Crossville headed south the rating is 6b, yet the southern-most area (bordering VanBuren & Bledsoe counties) is warmest and rated 7a. The CCMGA has determined the PDG as a zone 6a, meaning the average annual winter minimum temperature is -5 to -10 degrees Fahrenheit.

Growing Season: The length of the growing season is especially important when growing vegetables and fruits. The PDG average last frost date in spring is May 15th and the average first fall frost date is October 15th, giving a growing season of 153 days.

Sunlight: Sunlight is described as full sun (8-12 hours of direct), partial (direct 4-8 hours), partial shade (shade for most of the day with some sun filtering to ground level) and full shade (no direct sunlight). Observe the sunlight received at ground level to determine the sun impact of your area.

Soil: The Cumberland Plateau is composed of Pennsylvanian Age Sandstone with an average depth of 18-24 inches, varying from under 10 inches to over 3 feet. Soils formed from sandstone tend to have low pH values. A crucial step when planning a garden is to conduct a soil analysis. Soil tests can be obtained from your county UT Extension Office for a slight fee. Results will provide you with recommendations for necessary soil adjustments. Analysis of the PDG indicates a pH level of 5.5.

Precipitation: Without water, plants will wilt and die. One inch of water per week is recommended to sustain growth during the growing season. UT Plateau AgResearch records conducted over the past 58 years indicate the average annual rainfall at the PDG is 58.25 inches.

Now that you have carefully assessed the garden plot, you are ready to begin work!

2011 Plateau Discovery Gardens

❖ Crossville, Tennessee ❖



The Cumberland County Master Gardener Association, UT Extension, and UT Plateau Research and Education Center have combined efforts to provide a demonstration garden utilizing research-based horticultural practices specific to the Cumberland Plateau. Located on the grounds of the UT Plateau Research and Education Center, the Garden is open 365 days a year during sunlight hours, at no charge to visitors.



Tree and Shrub Garden
Master Gardener Class of 2005

Trees and shrubs are a lower maintenance way to add all-season color and texture to the landscape. If chosen carefully, they can also be among the easiest care plants. Trees and shrubs grace property with added height, color and texture all year long. Many have flowers in spring or summer with attractive leaves. In autumn, they may produce berries or fall color in reds, yellow or golds. In winter, woody plants, especially evergreens, add shape and texture to bare yards.



Perennial Sun Garden
Master Gardener Class of 2006

Like old friends, perennials return year after year, growing in size and stature until they reach full maturity. Properly preparing the planting area entices the roots of your new plants to adjust and begin growing in their new home. (Refer to plant care labels for specific requirements.) 'Deep water' perennials rather than 'light sprinkling' to ensure the roots of the new plants grow deeper. Mulching is an important step which discourages weeds and also assists in retaining moisture in the soil.



Celebration Of Life: Conifer Garden
Planted October 2008

Conifers are a diverse group of plants that have cones, rather than flowers. Conifers are available in all sizes, shapes, textures, and colors. Some conifers, like larch and bald cypress, even shed their leaves in the fall like deciduous trees. Seeds usually grow on the surface of the cone scales without any covering; hence the term gymnosperm, meaning 'naked seed'.

Funding for the Conifer Garden was provided by the Kent McCoy Memorial Fund.



Bulb Garden (Under Re-construction)
Master Gardener Class of 2008

Wonderful flowers can be grown from bulbs and their closely related cousins. Bulbs, corms, tubers, and rhizomes are all plants which grow alike by storing food in underground units. This fleshy storage unit allows the plant to survive extended periods of dormancy. The new Bulb Garden will demonstrate multiple ways homeowners can utilize bulbs within the home landscape, as well as showcase both common and unique varieties.



Rose Gardens
Planted Spring 2009

Roses have a long and colorful history serving as symbols of love, beauty, war, and politics. Homeowners want roses that are not demanding with their care, offer excellent floral quality, exhibit excellent winter hardiness, and fit into shrub borders and perennial gardens without seeming out of place.

These roses were donated by the UT Research staff based on outcomes from completed rose trial research conducted at the UT Plateau AgResearch & Education Center.



Turf Garden
Master Gardener Class of 2009

Turf is the surface layer of earth containing a dense growth of grass and its matted roots. There are many types of turf grass. Cool or cold weather grass does well in climates where the ground freezes, or where frost is prevalent throughout the winter months. Warm weather grass does best in areas where the ground doesn't freeze. Turf grasses differ in how they adapt to sun, shade, and temperature, and also require different mowing heights and frequency. Irrigation and fertilizer needs also vary among species.



Raised Bed Garden
Master Gardener Class of 2010

Raised bed gardening is one solution to the shallow soil found on the Plateau. Seven varieties of raised beds are available each with its own gardening theme: round containers (ornamental grasses and contrasting perennials); berm (plants which attract birds and butterflies); composite (demonstrating lasagna gardening); cinder block (drought tolerant plants); castle rock stone (native ornamentals); straw bale bed (with kitchen herbs); and a handicapped height bed (features vegetables).



Home On the Plateau
Master Gardener Class of 2011

A fine example of basic landscaping, the front yard showcases a formal garden technique, which quickly changes as you walk through the door into the informal backyard. And "Home on the Plateau?" Imagine the days of childhood arriving at Ma and Pa's...holding their hand as they guide you on an evening stroll through their gardens. Plants chosen conjure up memories of those special times, while emulating what each of us will share with our future generations.