

UT Gardens-Crossville: Plateau Discovery Gardens



UT Plateau AgResearch and
Education Center
320 Experiment Station Rd.
Crossville, TN
931-484-0034

January 2015



Daylily Bed: Initiated 2014

22

Daylilies belong to the genus *Hemerocallis*: *hemera* meaning day and *kallós* meaning beauty. The name is appropriate, since each flower lasts only one day. Each daylily plant produces an abundance of flower buds that open over a long period of time. Daylilies are useful as a border, planted in large masses, or as a ground cover on slopes where they form a dense mat in just a few years.

Outdoor Classroom: Available for Use

23

Whether a garden group or class, the outdoor classroom is available for use free of charge. Call the office at the number on the front of this brochure to reserve this area for your visit.

Walk up the slight hill between the evergreens and the grass trials to continue the tour.

Tiered Display: Added 2014

24

No matter where you live, gardening options are available. Whether a large yard or a small porch, the creative use of containers can provide a gardening experience for all as demonstrated by the tiering of these feeding troughs. And don't miss the sparkling recycled glass mulch available locally from the Cumberland County Recycling Center. (Check with your local recycling center for availability in your area.)

Shade Gardens: Coming 2015

25

Using plants that exhibit design elements such as texture, form, and foliage color can result in outstandingly beautiful shade gardens. Relying on flowers alone for interest is unnecessary when combining plants that contrast or complement each other in plant shape, leaf size, or texture.

This concludes the walking tour of the UT Gardens-Crossville, the Plateau Discovery Gardens. Please come back and visit regularly to observe the seasonal variations of each area.

Welcome to the gardens! Whether you choose to follow the stroll described in this brochure, or simply a course of your own, please remember to:

- *take only photographs; leave only footprints.
- *match the numerals identified on stakes at each bed to descriptions provided in this brochure.
- *access additional information utilizing the QR codes provided here.



Gathering Area: Established 2014

Relax a few minutes before, during, or after a walk through the gardens. Gardening handouts, lists of classes offered, and other information is available inside the "birdhouse". Help yourself. Shade tolerant plants are featured in the planter boxes around the decking.

The walking tour begins under the quilt block on wall of the shed.

This traditional 8-pointed star was chosen for its various meanings. The Native American culture identifies this with the sun (crucial to the growing cycle). The Christian interpretation is "as ye sow, so shall ye reap".

Rain Garden: Established 2013

Facing the quilt block, turn left and you will find a sunken garden. This strategically placed depression allows rainwater runoff (from the roof, driveway, parking lot and compacted lawn area) to be absorbed. A rain garden prevents erosion, flooding, and water pollution as the storm-water soaks into the ground. Native plants are often used (as here) because they are more tolerant of the local climate, soil, and water conditions.

1



Continue the tour by following the chipped pathway into the center of the gardens, toward the fenced weather station.

Native Plants of Tennessee (Class of 2012)

2

Native plants are adapted to climate, rainfall, and soils found in a particular region. They are generally more drought tolerant and disease resistant than non-native species. The plants chosen here provide a mixture of colors and textures nestled among locally obtained rocks, boulders, and logs. NOTE: To preserve the natural beauty, please do not collect natives from the wild.

Human Sundial within Herb Bed (Class of 2014)

Four classifications of perennial herbs are included (culinary, fragrant, teas, medicinal), although many serve multiple purposes. To activate the sundial, follow the pavers to the center, face forward (north), and raise an arm straight above your head. A shadow will fall on a numbered plaque positioned around the circle, indicating the approximate time of day. (Completion: Summer 2015)

3

Turf (Class of 2009)

The Cumberland Plateau is considered a transition zone for turf. It is cold enough in the winter to challenge warm season varieties and warm enough in the summer to challenge cool season varieties. Six varieties of turf commonly recommended for this area are demonstrated here. New in 2015: one half of each plot will receive seasonally recommended treatment, the other half will remain untreated.

4

Home on the Plateau: Class of 2011

Simplistic beauty and a welcoming environment harkens to a simpler time; one which takes us back to Grandma's garden. The home structure delineates a formal style in the "front" yard, an "informal" in the back.

5

Kinder Garden: Grand Opening-June 2015

Child's work is child's play. Designed for children ages 3-7 years, this area enhances curiosity while inviting interaction.

6



Weather Station: Recorded Since 1943



In cooperation with the National Weather Service and National Oceanic and Atmospheric Administration (NOAA), weather measurements are taken daily and reported on air temperature, evaporation, wind movement, soil temperature, and precipitation.

To continue, turn around and walk back on the chipped pathway. Turn left between the Native Plant and Turf beds, toward the water feature. Feel free to leave the pathways for closer looks.

Water Feature: 1st Commercial Sponsor



A water feature entices us with its melodious tune and natural ability to attract birds and butterflies. Plants chosen for this area were selected to cover the bare soil. The term "groundcover" has several meanings: layer beneath shrubs (ecosystem); plants that lie on top of soil protecting it from erosion while inhibiting weed growth (agriculture), or, plants used in place of turf (homeowners).

Mary's Trial: Initially planted 2012; Updated 2014



Affectionately referred to as "Mary's", this area of the gardens symbolizes the annual summer internship available to college students enrolled in plant sciences or a related field. Mary was our first intern studying landscape design. One of her opportunities was to design the layout of a research trial. For more information on this internship, visit www.ccmga.org or <http://plateau.tennessee.edu> and click on "Garden".

Look over your left shoulder and find the...

Butterfly Garden: Planted 2012



Butterflies require two types of plants: host (for the growth cycle) and nectar (sweet liquid for nourishment). Be sure to also include: large flat stones for warmth, shelter from breezes, and "puddles" for water.

Celebration of Life-Conifers: Planted 2008



A conifer is a tree or shrub that bears cones and has needle- or scale-like leaves. Most are evergreen, prefer full sun, and slightly acidic soil that is loamy and well draining. Some prefer consistently moist soil, while others tolerate dry conditions. Know your conifer to select the best location for planting. Best time to plant conifers? Early autumn!



Perennial Sun: Class of 2006



Plants that live for more than 2 years are known as perennials. Those that grow and bloom spring, summer, and autumn but die back in winter, only to return again in spring are known as herbaceous perennials. Water deeply to ensure a deeper root system. Mulching will discourage weeds and retain soil moisture.

Through the arbor and along the path...

Tree and Shrub: Class of 2005



Whether for privacy, ornamental impact, edible benefit, or seasonal interest, trees and shrubs become the foundation of the landscape. They can be deciduous or evergreen and are available in a variety of shapes, forms and color.

Leaving tree and shrubs, (facing the perennial bed), turn left toward the bulb bed.

Three Seasons of Bulbs: Class of 2008



Bulbs can be used to extend the garden floral display from early spring until late fall. The varieties planted here are interspersed with annuals, perennials, and a few shrubs. The different types of underground storage structures that are commonly referred to as bulbs actually include corms, tubers, tuberous roots, tuberous stems and rhizomes.

Ornamental research trials in the Plateau Discovery Gardens are overseen by Dr. Mark Windham, Distinguished Professor of Ornamental Pathology at UT. Results of each study are made available at conclusion of each trial.

Redbud Trials: Planted 2009



One of the most beautiful trees in Tennessee in April, the redbud is commonly seen at forest edges, disturbed areas, or in managed landscapes. It is distinguished by its rose-pink, pea-like flowers, heart-shaped leaves, and flat brown-like pods. There are 16 varieties of redbuds replicated in 5 locations here.

Ornamental Grasses: Planted 2009



While ornamental grasses do not maintain a permanent structure like trees and shrubs, they do provide four seasons of interest. Observe varying characteristics: annual or perennial; clumping versus spreading; size and shape; and also seasonal color changes. Foliage may also feature a horizontal or vertical pattern.

Hydrangeas: Planted 2009



Of the 23 worldwide hydrangea species, only 5 are widely cultivated in the United States. These five include: *H. macrophylla* (big leaf, garden, or florist); *H. paniculata* (white panicle blossoms); *H. quercifolia* (Oakleaf is the only to showcase fall foliage color); *H. arborescens* (most common is 'Annabelle'); *H. petiolaris* (a true, clinging vine). There are 69 hydrangea varieties included in this research.

Roses: Planted 2009



The University of Tennessee has been instrumental to the rose industry by conducting rose trials over recent years, and is now researching "Rose Rosette".



The tour will resume on the chipped pathway near the greenhouses.

Home Greenhouse: To be installed March 2015

Careful planning is necessary before a home greenhouse project is started. Building a greenhouse does not need to be expensive or time-consuming. The final choice of the type of greenhouse will depend on the growing space desired, home architecture, available sites, and cost. All greenhouses must, however, provide the proper environment for growing plants. This particular greenhouse structure was chosen to demonstrate options a homeowner has when planning a greenhouse for their own needs.



Raised Bed Demonstration: Class of 2010



Gardening on the Plateau is challenging as the average soil depth is 18-24 inches, and is comprised of Pennsylvanian Age Sandstone. These soils tend to have a low pH value and also drain quickly. Raised beds are useful in areas with poor quality and shallow soil. They also aid the physically challenged gardener. Those with back bending issues benefit from the taller bed shown here, while lower beds allow a seat for comfortable manipulation without unnecessary twisting or bending.



Composting: Introduced 2012



Compost is a vital and cost-effective soil amendment. Using this simple composting plan can provide a wealth of "black gold" to the garden. Be sure to read the information posted on the fence regarding successful composting. Copies are available with other handouts in the "birdhouse" at the garden entrance, and also inside the office. Help yourself, and happy composting.



