The Unaka Mountains, the Ridge and Valley, and the Cumberland Plateau and Mountains are distinctively different physiographic regions that make up East Tennessee. Site conditions for each province are determined by topography, soil pH, soil depth, elevation, availability of light, and hydrology. These varying site conditions support a mosaic of native plant communities.

➤ Dry, higher-elevation, south-facing slopes have extremely acidic soils that support evergreens such as mountain laurel and pines, as well as oaks, huckleberry, blueberries, and hickories.

➤ On north-facing slopes, a mixed mesophytic forest community occurs that includes hemlock, tulip poplar and maple.

➤ Hydric plants occur in drainages, floodplains and upland swamps; these include sweetgum, sycamore, ironwood, and birches.

Soil pH and geology distinguish the Unaka Mountains and the Ridge and Valley from the Cumberland Plateau and Mountains. The Unaka Mountains contain an extremely acidic (lower pH) coarse to fine loam soil. The soil in the northern part of the mountains is formed from granite and gneiss. The soil in the southern part of the mountains derives from phyllite, slate, sandstone, and quartzite. The Ridge and Valley contains a wide variety of topography and geologic formations, and the soils are less acidic (higher pH). The valleys are made up of tilted rock formations of soft shales and clayey limestones. Mostly sandstones and hard shale underlie the ridges, but some limestone exists. The Cumberland Plateau and Mountain Region is generally more acidic (lower pH), underlain by Pennsylvanian sandstones and shales. The dominant soils are well-drained, loamy, strongly acidic, and low in natural fertility.

For landscaping purposes it is important to remember that plants growing in our region are specifically adapted to hydrology (moisture and dryness) and soil pH (acidity and alkalinity). Soil moisture, soil pH, and light availability are important limiting factors. Matching plants to site conditions will yield the maximum benefits that natives provide.
Our natural heritage

The use of native plants in landscaping is a celebration of our natural heritage and an awakening of a land ethic first expressed by Aldo Leopold more than 50 years ago.

The natural processes from which natives evolve represent the cog and wheel of a healthy ecosystem sustained by a complex web of biological diversity.

Native plants have many inherent qualities and adaptive traits that make them aesthetically pleasing, practical, and ecologically valuable for landscaping.

Using native plants contributes to the health and often the restoration of an ecosystem. Landscaping with natives in an urban setting helps restore regional character and places fewer demands on resources.

Natives vs. exotics

While many exotics are harmless, others pose serious threats to biodiversity. Exotics that escape and naturalize change the floral composition of native plant communities. Exotics that invade native plant communities spread, out-compete, and displace natives. Other exotics are vectors for disease and exotic insects. Future introductions can be prevented by using native species.

Using natives also exhibits regional flora and promotes our natural heritage. Natives have often been overlooked and their aesthetic value ignored. Instead, many regions look the same because overuse of the same exotics has created a monotonous, predictable landscape.

Basics about using natives

When landscaping with natives match the right plants with the right site conditions. Consider using plants that occur together in their natural habitats. Do your homework before planting; study the plants and the site condition information in this brochure. Visit a natural area and observe how plants occur and design your landscape accordingly. Buy nursery propagated plants. Remember, landscaping with natives is art imitating nature.

Benefits of natives

➤ Adapted to regional conditions and may require less maintenance and are cost-effective.
➤ Hardy, withstand extreme winter cold, do not suffer from die back.
➤ Environmentally friendly, require fewer pesticides and fertilizers because of natural adaptations.
➤ Promote biodiversity and stewardship.
➤ Provide food and shelter for native wildlife.
➤ Restore regional landscapes.
➤ Prevent future exotic introductions.

Natives for wildlife

Using natives in landscaping helps sustain native butterflies, moths and other beneficial insects; native birds, reptiles, mammals, and other fauna. Fall migrating birds depend on high-energy fruits from flowering dogwood and spicebush. Spring migrants feed on insects that occur on oak trees. Beech and other native trees provide nesting habitat, while Eastern red cedar, short leaf pine, and American holly provide winter cover and food.

➤ Don’t dig plants from the wild.
➤ Buy nursery-propagated plant material.