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Landscaping with Native Grasses in Utility Rights-of-Way

A guide to selecting native grasses for rights-of-way naturalization



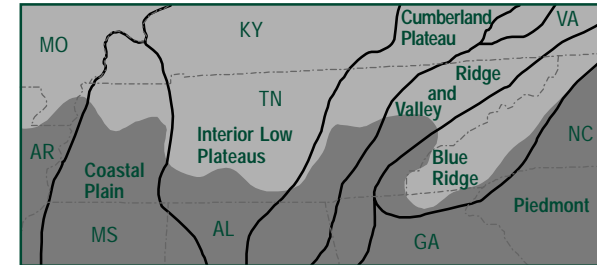
The Tennessee Valley
Southern Appalachian Mountains
Interior Low Plateaus
Cumberland Plateau
Ridge and Valley
Coastal Plain



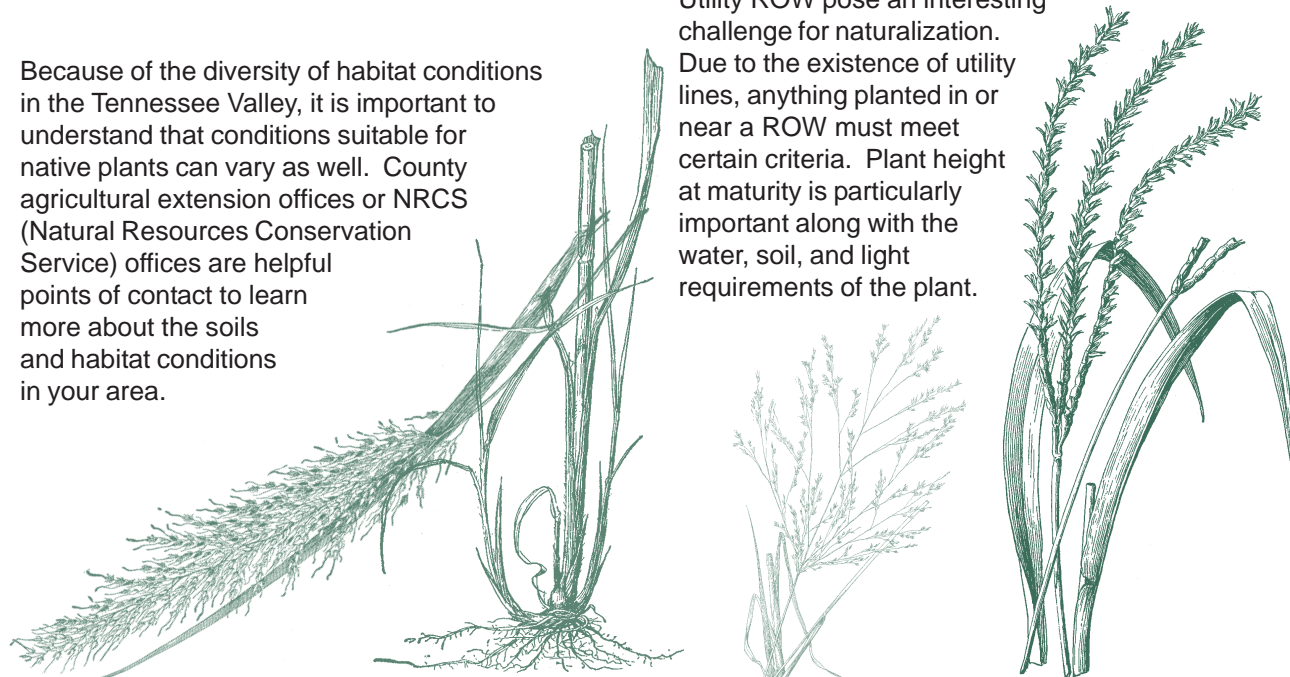
This brochure provides information on naturalizing powerline rights-of-way (ROW) using native grass species. Naturalizing ROW has many potential benefits to the environment and the electric power consumers.

The Tennessee Valley

The Tennessee Valley lies across five distinct physiographic regions. From the Southern Appalachian mountains (Blue Ridge) in the eastern Tennessee Valley to the Coastal Plain in west, the diverse geology, geography, climate, and soils of these regions create a variety of habitats that support a mosaic of native plant communities.



Because of the diversity of habitat conditions in the Tennessee Valley, it is important to understand that conditions suitable for native plants can vary as well. County agricultural extension offices or NRCS (Natural Resources Conservation Service) offices are helpful points of contact to learn more about the soils and habitat conditions in your area.



Special Concerns of Utility Rights-of-Way

Utility Rights-of-Way are usually corridors across the landscape that are kept cleared of tall vegetation. Tall trees growing under or too close to utility lines often create problems. Trees or branches which grow into powerlines or break during wind or ice storms can cause power outages.

What is Rights-of-Way Naturalization?

Fast-growing tree species and sprouts from the stumps of trees cut during the construction and maintenance of the ROW are a persistent problem for ROW managers. ROW naturalization is an effort to use native plants to establish a community of low-growing (<20 feet) vegetation under powerlines to help reduce the frequency of cutting or herbicide application needed to control tall-growing tree species.

Rights-of-Way Naturalization Considerations

Utility ROW pose an interesting challenge for naturalization. Due to the existence of utility lines, anything planted in or near a ROW must meet certain criteria. Plant height at maturity is particularly important along with the water, soil, and light requirements of the plant.

Why Naturalize Rights-of-Way?

- Naturalized ROW are more aesthetically pleasing than ROW treated regularly using herbicides and/or tree cutting.
- Naturalized ROW enhance wildlife habitat and forage resources.
- Naturalized ROW can benefit and promote biodiversity.
- Naturalized ROW need less maintenance which reduces costs and the need for frequent intrusion.

Why Use Native Plants vs. Non-native Plants?

- Species native to the Tennessee Valley have evolved over geologic time and are adapted to the conditions that exist in this area.
- Native plants promote biodiversity and provide food and shelter for native wildlife.
- Non-native plants can escape cultivation and displace native plants, threatening biodiversity.
- Non-native plants can be vectors for disease and exotic pests.

Why Landscape with Native Grasses?

Native warm season grasses once inhabited open areas known as barrens in the southern region of the United States. Today, due to development, afforestation, and the use of non-native forage grasses, only a fraction of this grassland remains. Native warm season grasses provide habitat for wildlife, forage for cattle, and help prevent soil erosion.

Native warm season grasses differ from many non-native grasses in that they grow during the summer as opposed to spring. Because of their summer growth habit native warm season grasses are more drought tolerant than non-native cool season grasses such as Tall fescue.

The low height growth nature of native grasses make them an ideal choice for ROW naturalization under suitable soil and light conditions. Landscaping with native grasses benefits the ecosystem, while their beauty and diversity provide charm year-round.

Native Grass Recommendations

More than one thousand species of grasses grow in the continental United States. Because many of these are relatively obscure or occupy very unique places in the environment, only a small handful of native grasses are available commercially.

The following table lists species of native grasses that are suitable to conditions in the Tennessee Valley and are readily available from seed suppliers or nurseries.

Planting Native Grasses

The planting and care of native grasses is different from that of cool season grasses. Native grass seed suppliers along with the resources listed on the back of this brochure can provide information on establishing and caring for native grasses.

Some pre-packaged prairie mixes contain non-native invasive grasses and wildflowers. It is important to check to insure that only native species are included.



Recommended Native Grass Species for Planting in Rights-of-Way in the Tennessee Valley

KEY						
Height (inches)		Soil Moisture		Light		
S = <15"		W = wet, hydric		F = full sun		
M = 15-40"		M = moist, mesic		P = part sun		
T = > 40"		D = dry, xeric		S = full shade		
Common Name	Scientific Name	Soil		Light	Soil pH	Comments
		Ht.	Moisture			
River oats	Chasmanthium latifolium	S	W, M, D	P, S	5.8-6.8	Ideal for stream side planting
Virginia wild-rye	Elymus virginicus	T	M, D	P,S	5.5-7.5	Annual cool season grass useful as a cover for establishing native grass stands.
Switchgrass	Panicum virgatum	S	W, M, D	F	4.9-7.6	Resistant to snow and ice, excellent nesting for game and song birds.
Indian grass	Sorghastrum nutans	T	M, D	F, P	4.5-7.5	Excellent for wildlife and cattle, copper-colored plumes
Big bluestem	Andropogon gerardii	S	W,M	F, P	4.5-7.6	Slow growing, good drought tolerance
Little bluestem	Schizachyrium scoparium	M	M	F,P,S	4.5-7.1	Blue to green leaves accented by silvery-white seed heads
Eastern gamagrass	Tripsacum dactyloides	T	W,M	F	5.5-7.5	Excellent source of forage during the period when cool season grasses are dormant
Side-oats grama	Bouteloua curtipendula	M	W,M,D	F,P,S	5.6-7.8	Remains green late into the fall, not suitable for lowlands.
Broomsedge	Andropogon virginicus	T	W,M,D	F,P	4.9-7.0	Naturally occurring through out the Tennessee Valley area. Thrives in low fertility conditions. Will establish itself in abandoned fields. Not commercially available.
Tall Beardgrass	Erianthus giganteus	T	W,M,D	F	3.5-7.0	Adapts easily to ROW conditions. Can grow 10-12' tall, easily propagated. Commercial availability limited.