Sustainable Landscaping
Making informed choices

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What are Native Plants?

Natives are plants that evolved in place over geologic time and are distributed across the Landscape largely in response to climatic episodes and adaptation to site conditions related To land formation.
Native plants are generally defined as plants that occurred in North America before European settlement. This distinction is made because of the large-scale changes in the flora that have resulted since European settlement and the introduction of “exotic” plants.
What are Exotic Plants?

Exotics are plants that are directly or indirectly, deliberately or accidentally introduced by human action. Natives are natural elements of a regional landscape. Some species native to North America may be exotic to East Tennessee.
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, spread, outcompete; and displace natives. Other exotics are vectors for disease and exotic insects.

Use of natives exhibits regional flora and promotes our natural heritage. Natives have aesthetic value, are the food and habitat with which native wildlife evolved and are well suited to their native environments.
Benefits of using Native Plants:

- Adapted to regional climates
- Require fewer pesticides or fertilizer due to natural adaptations
- Provide food and shelter for native wildlife
- Conservation: as wild areas disappear so do native species
- Greater diversity in the landscape
- Restore regional landscapes
- Prevent future exotic plant infestations
Natives can fit into any landscape, but *choose the right plant in the right place*

Do your homework before planting: study plants and site conditions before planting.

- Determine soil type and P.H.

- Choose plants adapted to conditions (drainage, sun/shade tolerance)
Don’t Dig plants from the wild!
Buy only nursery-propagated plant material
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 dogwood and spicebush. Spring migrating birds feed on insects in oak trees. Other native tree species provide nesting habitat, winter cover and food.
Chinese Silvergrass

(*Miscanthus sinensis*)

in China
Chinese Silvergrass under power line
CHINESE SILVERGRASS AND FIRE

- Alters fuel structure
- Urban interface
- Extreme flammability
- Interferes with reforestation and succession
Native Solutions to Chinese Silvergrass

(*Miscanthus sinensis*)

- Beard Grass
  
  *(Saccharum [Erianthus] giganteum)*

- Indian Grass
  
  *(Sorghastrum nutans)*
Tree of Heaven
Native Solution to Tree of Heaven
(Ailanthus altissima)

Staghorn Sumac (Rhus glabra)

www.sakatahtrail.org/flowers.html
English Ivy
(Hedera helix)

http://www.gardenopus.com/images/HederaHelixBaltica.JPG
Native Solutions to English Ivy
*(Hedera helix)*

**Wild Ginger**
*(Asarum canadense)*

**Climbing Hydrangea / Woodvamp**
*(Decumaria barbara)*
Oriental Bittersweet – (Celastrus orbiculatus)
Native Solutions to Oriental Bittersweet

*(Celastrus orbiculatus)*

American Bittersweet

*(Celastrus scandens)*

Carolina Snailseed

*(Cocculus carolinus)*
Native Solutions to Japanese Honeysuckle
(Lonicera japonica)

Crossvine
(Bignonia capreolata)

Carolina Jessamine
(Gelsemium sempervirens)
Japanese Wisteria
(Wisteria floribunda)
NATIVE SOLUTION TO JAPANESE WISTERIA
(WISTERIA FLORIBUNDA)

American Wisteria
(Wisteria frutescens)
Multiflora Rose
(Rosa multiflora)

http://fatherpitt.wordpress.com/category/nature/page/2/
Native Solution to Multiflora Rose

(Rosa multiflora)

Carolina Rose

(Rosa carolina)
Great Natives for Eastern TN Landscapes
Trees, Shrubs, Vines, Grasses and Perennials
River Birch *Betula nigra*
Native, streams and riverbanks
Can grow 50’ tall
Papery bark
Grows fast, tolerate very wet to average conditions
Redbud *Cercis canadensis*

Native throughout TN
Blooms early spring, deciduous
Lives ~ 20 yrs.
Sun –pt. shade, well drained soil
Fuller in sun
Fringe Tree *Chionanthus virginicus*
Native throughout TN in moist woodlands
Deciduous shrub or small tree to 10’-20’
Sun to part shade, moist to well drained soil
Showy white lacy flowers in the spring – males are heavier bloomers
Female plants have dark blue berries in late summer
Late season leaf spot common, not harmful
Sweet Bay Magnolia *Magnolia virginiana*

Grows 20’-30’ tall
Often grows with multiple trunks
Attractive red seeds in fall are eaten by birds
Sun to part shade, moist soil –tolerates flooding
 Mostly deciduous
Red Buckeye *Aesculus pavia*
Native to lower Coastal Plains and Cape Fear River Basin
Small deciduous tree –grows 10’-15’ high and 10’ wide
Beautiful spring flowers
Best in moist soil and afternoon shade
Foliage is deer resistant
Attracts hummingbirds!
Often defoliates early (Sept)
**Blackhaw Viburnum** *Viburnum prunifolium*

Native throughout TN
Grows 15’ to 20’ tall, often multi-stemmed
Clusters of white flowers in spring
Berries provide food for birds in the fall
Great fall color!
Sun to part shade
Moist, well drained soil
Flowering Dogwood
Deciduous tree 10-20 feet tall
Well drained soil
Part shade to full sun
Winter berries good for birds
Great Fall color
Resistant varieties available: Appalachian Spring
**American Beautyberry** *Callicarpa americana*

Native throughout TN
Tough native shrub for sun to part shade
Brilliant magenta berries in late summer and fall
Berries attract songbirds, including goldfinches
Grows 3’-10’ tall and wide, depending on soil moisture
Can be cut back to 1’ in early spring to produce denser shrub
Tolerates moist or dry soil, once established
**Buttonbush**  *Cephalanthus occidentalis*

Native throughout TN  
Deciduous shrub, grows 6’-10’  
For sun to part shade, Moist to wet soil  
Can grow in up to 3’ of standing water  
Unusual white globe like flowers in summer  
Excellent nectar source for butterflies
Sweet Pepperbush *Clethra alnifolia*
Deciduous - yellow fall color
Sun – part shade, well drained or moist soil
Blooms in June-July, exceptional fragrance, attract butterflies and pollinators
**Virginia Sweetspire  *Itea virginica***

Native throughout TN, wetlands
Deciduous shrub –great fall color
Sun to part shade, wet or well drained soil, suckers
Flowers in May-June
Hearts-a-Burstin’ *Euonymus americanus*

Native throughout TN
Deciduous shrub 6’ to 8’ tall and 3’ to 4’ wide
Sun to shade, moist or well drained soil – grows more open in shade
Covered each fall in red seed capsules that burst open to reveal orange seeds
**Dwarf Witch-alder** *Fothergilla gardenii*

Deciduous shrubs, great fall color  
Early spring flowers, fragrant  
Sun – pt. shade, moist or well drained soil
Inkberry *Ilex glabra*

Evergreen

Sun, moist soil

Black berries on female bushes

To 8’x 6’

Loved by bees
Cross Vine

*Bignonia capreolata*

Native throughout TN

Moist or well drained soil, sun

Blooms mid spring

Vigorous climber –20’+

Good for hummingbirds

Can sucker from root pieces, but not as bad as its cousin, *Campsis* (Trumpet Vine)
Carolina Jessamine *Gelsemium sempervirens*
Climbs 10’ +
Early spring flowers, very fragrant
Twining vine, mostly evergreen
Adaptable — sun, most soil types
Coral Honeysuckle *Lonicera sempervirens*

Spring blooming
Adaptable – sun, most soils
Flowers followed by red berries
Climbs 10’+
American Wisteria *Wisteria frutescens*

Vigorous twining vine – grows 15’+

Spring flowers, not fragrant

Sun, moist or well drained soil
**Eastern Columbine** *Aquilegia canadensis*

Native throughout TN

Blooms late March - May

Sun or shade, well drained soil

12” –24” tall in bloom

Attracts butterflies and hummingbirds

Will naturalize in the garden by self seeding
Green and Gold *Chrysogonum virginianum*

Light to part shade, moist or well drained soil
1′ x 2′
Evergreen foliage
Early spring flowers
Good groundcover
American Alumroot *Heuchera americana*
Attractive marbled evergreen foliage
Small cream flowers in spring
Light to full shade
Well drained soil
Parent of hybrid Heuchera’s
Bluestar *Amsonia tabernaemontana*
Tough, long lived clumping perennial
Attractive clusters of pale blue flowers in spring
Grows 1 to 2’ tall and wide
Glossy green foliage, turns clear yellow in the fall
Sun to part shade, wet to well drained soil
White False Indigo *Baptisia alba*
Long lived, clump forming perennial
3’-4’ tall, leggy
Blooms May
Plantain Leaved Pussytoes *Antennaria plantaginifolia*

Groundcover for sun to part shade
Well drained soil
Silky white spring flowers
Evergreen, grey foliage
Larval host for the American Painted Lady butterfly!
**Partridge Berry** *Mitchella repens*

Evergreen creeping perennial

Small white flowers in spring, with red berries ripening in the fall and often persisting over the winter

Shade and well drained soil, drought tolerant once established
Butterfly Weed *Asclepias tuberosa*

Tough clump forming perennial

Vibrant orange flowers in spring and early summer

Sun to part shade

Well drained soil

Very drought tolerant

Larval host plant for the Monarch butterfly

Great for beneficials
Swamp milkweed *Asclepias incarnata*

3’ tall and wide
Spring/early summer flowers, pink or white
Sun to part shade
Moisture tolerant
Monarchs! Attracts many pollinators
Orange Coneflower *Rudbeckia fulgida*

Yellow flowers all summer, 3’ tall
Sun, moist to average soil
Low mat of semi-evergreen foliage in winter
Leave seed heads in winter for birds
Cardinal Flower *Lobelia cardinalis*

- Sun or shade, wet to moist soil
- Gorgeous red flowers late summer to fall
- 3’-4’ tall in flower
- Attracts hummingbirds and butterflies
Rough Stemmed Goldenrod *Solidago rugosa*

Grows 3’-4’ high and wide  
Sun to part shade, well drained to wet soils  
Tolerates drought once established  
Yellow flowers in late summer provide nectar for butterflies and many other pollinators  
Makes a spreading mat
Ironweed *Vernonia noveboracensis*

Royal purple flowers in late summer and fall

5’ – 8’ in flower

Sun to light shade, wet to moist well drained soil

Attracts butterflies

Great for natural areas and pond’s edge – spreads!
Narrow Leaf Sunflower *Helianthus angustifolius*

Grows well in sun, wet to well drained soils

Clump forming perennial 5’-8’ tall, and 5’ wide

Mountains of yellow flowers in fall

Excellent nectar source for butterflies
Switch Grass *Panicum virgatum*

- Moist or dry soils
- Sun to light shade
- Stands up well through winter
References:

NC State Cooperative Extension [http://pender.ces.ncsu.edu/natives/]

Landscaping with Native plants brochure

Manual of Woody Landscape Plants. 1990 Michael Dirr