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Landscaping with Native Plants

Susan Fox, Extension Agent for Agriculture and Natural Resources

Augusta Evans, Lyon County Master Gardener



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Does it matter?

Making a case for native plants, biodiversity and restoration of ecosystems.

‘Food Deserts’ and Native Biodiversity

- “Deforestation, agriculture intensification, land use changes are the wicked bad stressors on insects and birds”
- 150 million acres has been lost to urban sprawl
- Urban plantings are largely green lawns that create a monoculture or yard desert
- Non-native ornamental plants may not be recognized as food sources, replacing native vegetation and forests globally
- Several non-native species have become invasive, they outcompete native plants, further degrading habitats
- 96% of North American terrestrial birds rear their young on insects
- 69% of caterpillar species develop on one plant family



Invasive Plant Case Study: Japanese Stiltgrass, *Microstegium vimineum*

- JS has spread over 16 states
- Invades disturbed habitats, forms dense mats
- Displaces native vegetation
- Most native insects do not feed on this grass
- Wolf spiders have benefited from the dense carpets of JS, eat all the other insects
- They also eat young American toads
- Toad survival has decreased by 65% in areas that were once the best forests for American toad survival



California Pipevine Swallowtail

Caterpillars only feed on California pipevine

Tim Wong started a backyard breeding program to bring them back to San Francisco

He released thousands in 2017

Now there is a California Pipevine Swallowtail Facebook page with many people raising pipevine plants and helping to re-establish this butterfly.



[Ansel Oommen, Bugwood.org](#)



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Doug Tallamy's Lepidopteran Use of Native and Non- Native Plants

Butterfly and moth species supported:

- Oaks – 534 Ginkgo - 5
- Black Cherry – 456
- Willow 455
- Maple = 285
- Pine – 203
- Goldenrod – 115
- Asters – 112
- Honeysuckle - 36
- Sedges - 36
- Violets - 29
- Milkweed – 12
- Beardtongue – 8
- Veronica - 6

Smithsonian Study – Carolina Chickadee



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- A reduction in food availability has led to a decline of the Carolina chickadee
- Young are fed caterpillars and spiders, 6,000 caterpillars per brood
- 90% of herbivorous insects will only eat one or a few native plants
- Yards with 70% native plants are needed to sustain chickadees
- Urbanization is a primary way we are losing natural habitat around the world
- 80% of land in the US is privately owned

Why?

Helps with climate change, carbon sequestration

Many butterflies and moths are dependent on specific native plant species

Insects co-evolved to tolerate plant toxins over millions of years

Provide shelter for birds and mammals

Provide nectar, pollen, nuts, seeds, fruits at various times of the year.

Generally, require fewer chemicals, less fertilizer

Can help to conserve water

Supports functioning ecosystems

Monarch Butterflies

Eastern population has declined 80% in the last 20 years

Eastern monarchs make up 99% of N. American monarchs

Western monarchs in CA – only counted 2,000 this past winter

165 million acres of breeding habitat lost



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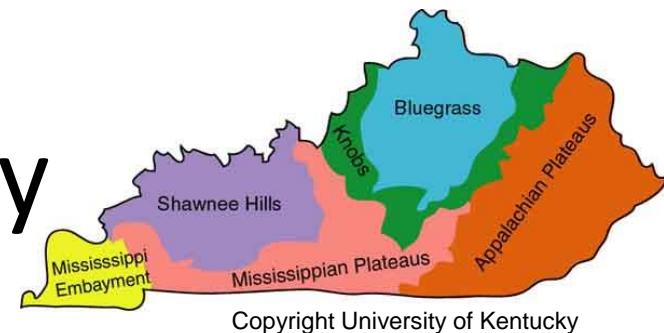
Common Questions:

Which plants are native?

What native plants work well in the garden?

Where can I buy them?

Native Plant Philosophy



- Plants that existed pre-European settlement are native
- Some people only plant those that occur naturally in an area/ecoregion
- Seeds/plants only from KY or from the ecoregion can preserve regional variations.
- Selected cultivars or not? Bloom alterations can interfere with pollinator's collecting pollen: doubles, etc.
- Cultivar selections may include disease resistance, add garden interest, more compact forms, columnar, that lend to landscapes
- Allan Armitage “Cultivars are the gardeners’ candy store.” “I believe garden-improved cultivars, both selections and hybrids, will only help mainstream gardeners further embrace the world of native plants.”
- Non-natives that are not invasive can be part of your garden but may not support native insects and wildlife as fully as native plants.

<http://www.uky.edu/KGS/gis/geology.htm>

<https://www.uky.edu/hort/Ecological-Regions-of-Kentucky>

<https://hort.purdue.edu/newcrop/cropmap/kentucky/maps/KYeco3.html>

http://ecologicalregions.info/data/ky/ky_front.pdf

A few common plants that are not native and are, or can be, invasive:

- Burning bush
- Mimosa
- Bradford pear
- Privet
- Japanese knotweed
- Goldenrain tree
- Italian arum
- Butterfly bush
- Japanese honeysuckle
- Barberry

**Kentucky's Native Alternatives to Invasive Plants:
A Guide for Landscapers and Gardeners**

Kentucky Exotic Pest Plant Council

https://www.se-eppc.org/ky/KY_native_alternatives.pdf

Gardener Landscape Style

- Finding native plants to fit your garden style while keeping peace with the neighbors, ordinances
 - Formal
 - Cottage
 - Natural
 - Plant Collector with varying levels of organization



Large drifts

- Orange coneflowers in Beth Wilson's garden
- Large groupings of a plant help pollinators, wildlife find the plants
- Makes a bold statement



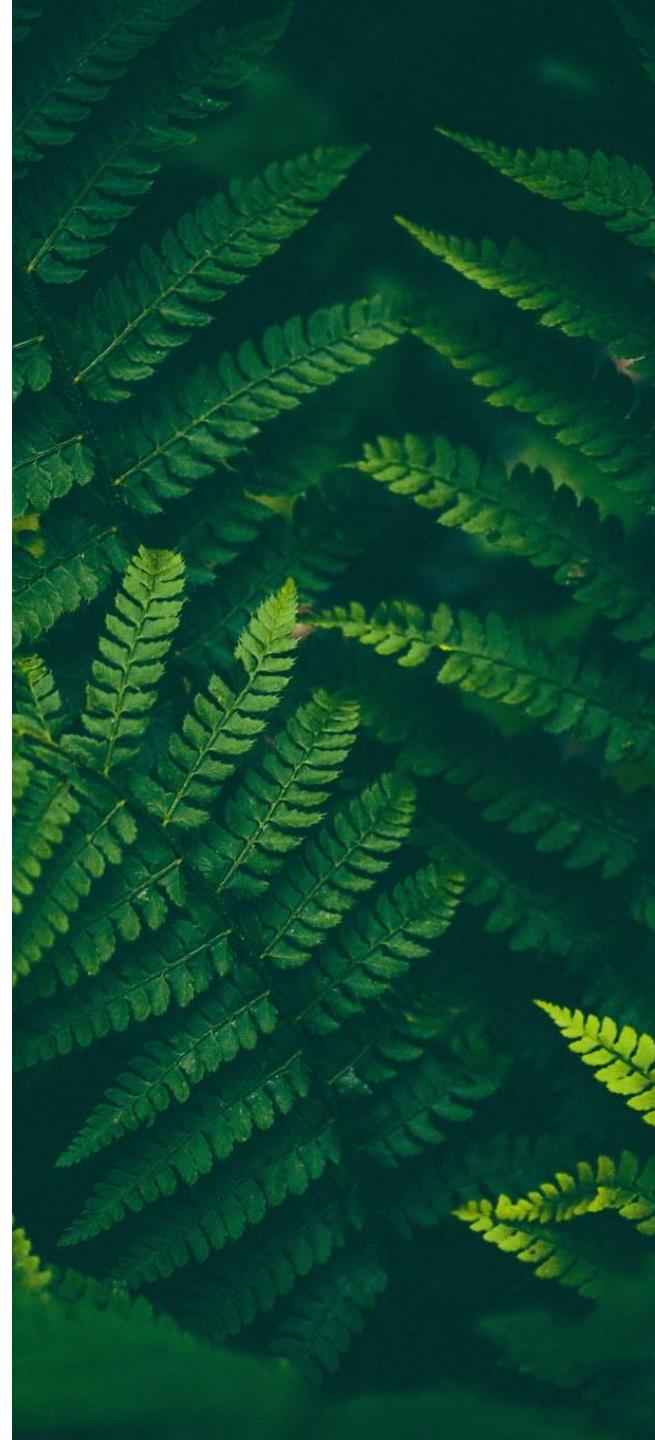
Landscape Considerations

- Ground cover
 - Reduce mulching
 - Cover a steep slope
- Seasons of interest
- Food and habitat for wildlife: hummingbirds, seed-eating birds, bats, native pollinators, honey bees, butterflies, aphid predators and other insects.
- Consider shade, moist areas, rain garden, hot and dry areas, soil type
- Hide hardscape features, privacy
- Just need cool plants....



Selecting Plants:

- Ground covers
- Grasses
- Vines
- Annuals and Perennials
- Shrubs
- Small trees
- Medium to large shade trees



Whorled Stonecrop

Sedum ternatum

- Trailing succulent
- Part sun
- 3-6”
- Average Soil
- Blooms April – May
- Early season nectar



Rose Vervain - *Verbena canadensis*

Very attractive , low mounding perennial with an extended bloom period.

Excellent as ground cover or in containers.

Light: full sun

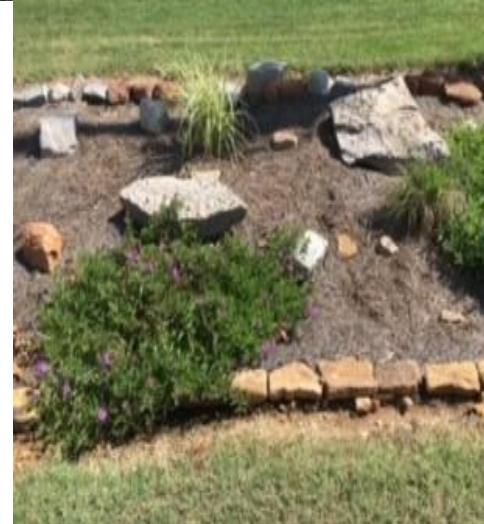
Soil: Average to dry

Height: Up to 1.5 feet

Blooms: April - September

Flowers: Pink to Purple

Attracts: hummingbirds



Dwarf Crested Iris

Iris cristata

- Lovely dwarf iris that is typically 6 inches tall
- Ground cover use
- Performs well under taller shrubs
- Deer resistant
- Light: Intermediate
- Soil: Average
- Height: 3 to 8 inches
- Blooms: April
- Flowers: pale blue to blue with yellow crest



Lyon County - Native Iris on outcrop.

Green and Gold

Chrysogonium virginianum

An excellent readily spreading ground cover

Dense mat-forming perennial

Height: 6-12 inches

Light: part to full shade

Soil: Average, tolerates moist areas well

Blooms: yellow flowers, May to October



Photos by Augusta Evans



Allegheny Spurge

Pachysandra procumbens

- Prefers shaded, moist areas
- Slow to expand
- Flowers are fragrant but hard to see
- Mottled foliage as it matures



Photos courtesy of John Ruter, University of Georgia, Bugwood.org



Moss Phlox

Phlox subulata

- Spring blooms
- Range of colors – red-purple, purple, white, pink
- Full sun
- 6" tall, spreads 1-2'
- Good for naturalizing
- Deer resistant
- Attracts butterflies

Gerald Holmes, Strawberry Center,
Cal Poly San Luis Obispo,
Bugwood.org

Pennsylvania Sedge

Carex pensylvanica

- Unusual sedge that *prefers dry to medium, well drained soils*
- Part shade to full shade
- Spreads by weak rhizomes, may self-seed
- 6"-1' tall
- Groundcover for dry shade
- Forms a sod
- Best to plant, not seed



Carex pensylvanica under a maple tree.
Photo: Mary Meyer, UMN Extension

Jacob's Ladder - *Polemonium reptans*

- Features showy light blue, bell shaped flowers about $\frac{3}{4}$ inch long in loose, terminal clusters on sprawling stems
- Oval leaves are arranged like the rungs of a ladder
- Grows in a mounding fashion
- Light: prefers partially shaded areas in warm climates
- Height: 1 to 1.5 feet
- Soil: prefers moist well drained soil
- Blooms: April to June
- Deer Resistant
- Black Walnut tolerant



Solomon's Seal Var.- *Polygonatum* *odoratum*

- Boasts a sweet lily-like fragrance, greenish-white tubular flowers (to $\frac{7}{8}$ in long) on short drooping pedicels
- In fall it produces attractive pendulous blue-black berries
- Height: 2.00 to 3.00 feet
- Spread: 0.75 to 1.00 feet
- Blooms: April to June
- Sun: Part shade to full shade
- Soil: Medium to wet
- Tolerate: Drought, Heavy Shade, Erosion, Dry Soil, Wet Soil





St. Johns Wort

Hypericum
sphaerocarpum

- Full sun
- Low maintenance
- 2 ½ feet tall, yellow flowers
- Tolerant of moisture variations
- Spreads by rhizomes, self-seeding, aggressive
- Contained situation
- Many species and sizes of St. Johns Wort, interesting red fruit.

[John Ruter, University of Georgia, Bugwood.org](https://www.bugwood.org)



Spring Ephemerals, Shade Plants

- Bloodroot
- Cutleaf Toothwort
- Dutchman's Breeches (bees)
- Trilliums
- Mayapple (box turtles)
- Shooting Star
- Columbine (hummingbirds)
- Twinleaf
- Dwarf creeping cedar (moss)
- Wild ginger
- Ferns
- Orchids
- Toad Lilies



Native Vines

Passion Flower is
not recommended,
vine is very
aggressive in
gardens.



Coral Honeysuckle - *Lonicera* *sempervirens*

- Beautiful trumpet shaped flowers attract hummingbirds & butterflies. Red berries feed birds in fall.
- Tends to be bushy & fills out trellis or arbor. Can tie & trim to desired shape.
- Light: Full sun
- Soil: Average
- Blooms: May-August
- Flowers: Red & Orange
- Good in floral arrangements



Dutchman's Pipevine

Aristolochia macrophylla

- Height 15-30'
- Blooms May to June
- Flowers are hidden in dense foliage
- Water: Medium
- Cut back in late winter
- Old-fashioned favorite
- Primary food for Pipevine Swallowtail butterfly
- Tropical pipevines are toxic to these caterpillars



Sturgis McKeever,
Georgia Southern
University,
Bugwood.org



Native Wisteria

Wisteria

frutescens

- Showy, pea-like, lilac-colored flowers in racemes
- Deer avoid
- Needs full sun for best flowering
- Requires regular pruning, can grow to 40'
- Less aggressive and invasive than Chinese or Japanese wisteria (noxious weed)
- Cultivar: Amethyst Falls



Photos courtesy of Gena Todia,
Wetland Resources
Environmental Consulting,
Bugwood.org

American Bittersweet

Celastrus scandens



Chris Evans, University of Illinois, Bugwood.org

- 15-20' tall
- Blooms May – June
- Full sun
- Medium water needs
- Showy flowers
- Male and female plants needed for berries
- Fruit attracts birds, winter interest
- Grow on structures or on ground, not on trees.
- Can self-seed and form thickets
- Used for indoor decorations
- Berries are poisonous
- Light pruning in late winter



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Cross Vine and Trumpet Creeper

Bignonia capreolata and *Campsis radicans*



Cross Vine:

- Orange and yellow to reddish orange flowers
- 35-50 feet
- Tolerates heavy shade
- Best flowering in sun
- Can send up root suckers
- Fast growing and vigorous
- Cross section of stem looks like Greek cross symbol.
- Extreme flammability rating



[Jerry A. Payne, USDA Agricultural Research Service, Bugwood.org](#)

Trumpet Creeper

- Orange to scarlet flowers
25-40'
- Full sun to part shade
- Profuse root suckers from underground runners, self-seeds
- Can cause rash/itching
- Extreme flammability rating



[John Ruter, University of Georgia, Bugwood.org](#)

Grasses

- River oats are lovely along a river.
- Problematic, widely self-sows, in a garden
- Recommended for naturalized areas
- Or, remove seed heads in fall



Pink Muhly Grass

Muhlenbergia capillaris

- Showy grass
- Grows in clumps
- 2' tall
- Pink flowers form 1' above foliage in September
- Full sun to light shade
- Average to dry soil



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Prairie Dropseed

*Sporobolus
heterolepis*

- Non-aggressive, 2-3' tall
- Easy to grow and maintain
- Not invasive
- Outstanding ornamental value
- Missouri Botanical Garden Plant of Merit
- Beth Wilson nominee



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Purple Lovegrass

Eragrostis spectabilis

- Low growing, 1-2' tall
- Forms a clump
- Red-purple inflorescence in late summer
- Full sun
- Average to dry soil
- Beth Wilson nominee



Little Bluestem

Schizachyrium scoparium



- Silvery blue leaves
- Bronze fall foliage
- Purple flowers in August
- Food and cover for wildlife
- Grows 2-4' tall
- Full sun
- Average to dry soil moisture



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Nodding Onions

Allium cernuum

- Eye-catching & graceful globes that arch at top of stem
- Front yard worthy
- Attracts butterflies, nectar attracts bees
- Deer Resistant
- Light: Full to part sun
- Soil: Moist to dry
- Height: 1-1.5 feet
- Blooms: June - August
- Flower: White to pink



Coreopsis – Lobed and Tall

Coreopsis auriculata, C. tripteris

- Lobed tickseed grows 4-24" tall, forms colonies with runners but has a compact habit. Small, bright yellow flowers bloom April to May with scattered flowers until frost.
- Tall coreopsis grows 3-9' tall, perennial that blooms July-September. Prefers part shade, moist soils. Used by native bees.



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Milkweed's

Butterfly milkweed - *Asclepias tuberosa*:

- Stunning in front yards due to flame orange flowers
- Attracts many pollinators
- Host to the monarch butterfly
- Does not exude a milky sap
- Deer Resistant
- Light: Full sun
- Soil: Dry to average
- Height: 2 feet
- Blooms: June-August
- Flowers: Orange



Other Milkweed's

- Common milkweed 
- Rose milkweed, full sun, moist areas
- Red-Ring Milkweed, open shade, woods
- Blunt-Leaved Milkweed (Will Overbeck)



Stokes' aster

Stokesia laevis

- Boasts a fluffy, cornflower-like, blue-violet flower up to 2 ½" across, has notched petals surrounding a pincushion feathery disk floret
- Makes an excellent cut flower
- Deadheading encourages more blooms
- Light: Full sun
- Height 1-2 feet
- Blooms: May - July
- Soil: Average, well drained, wet winter soil can cause death
- Tolerates: Rabbits, drought



Photo courtesy of Augusta Evans



Calico Beardtongue

Penstemon calycosus

- An upright beardtongue with thick rosettes of leaves & long stems topped with 1" tubular pink-purple flowers,
- Foliage is semi-glossy & may turn purple in the fall
- Is suitable for the front yard
- Attracts: bees, moths, hummingbirds
- Light: full sun if provide moisture to half shade.
- Height: 1 to 3 feet
- Soil: loamy - improved clay
- Blooms: June-July
- Resistant: Deer & rabbit

Hoary vervain

Verbena stricta

- Blooms May – Sept
- Height 2-4'
- Spread 1.5-2'
- Full Sun
- Can self seed, remove flower spikes to prevent this
- Blooms second year from seed
- Dry to medium soil
- Attracts Butterflies



Royal Catchfly

Silene regia



Fire pink, *Silene virginica*, is shorter and blooms earlier.

Clump forming perennial
Blooms July – August
Height 3-4'
Spread 1.5-2.0 feet
Sticky calyx can trap small insects
Attracts hummingbirds
Full sun to part shade
Requires good drainage
Tolerates dry, shallow soil



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Photo courtesy of Augusta Evans

Blue False Indigo

Baptisia australis

- Height and spread 3-4'
- Showy flower, blooms May to June
- Full sun to part shade
- Dry to medium soils
- Tolerates clay soils
- Inflated seed pods/rattles
- Trim to maintain shape
- Sap turns inky blue in air
- Attracts butterflies, hosts numerous caterpillars
- Chocolate foliage cultivar, white *Baptisia alba*, etc.
- 2010 Perennial of the year



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Golden Alexander's

Zizia aptera, Z. aurea

- Height and spread 1.5-3'
- Blooms May – June
- Full sun to part shade
- Medium water
- Showy flower
- Attracts butterflies
- Can reseed heavily



Zizia aurea photo courtesy of Augusta Evans.

Zigzag Goldenrod *Solidago flexicaulis*



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Zigzag Goldenrod

Solidago flexicaulis

- Prefers shade, tolerates sun
- 2-4' tall, 1-3' wide
- Average to moist soils
- Will Overbeck nominee

Golden Baby (Goldkind)

- Solidago hybrid
- 18-28" tall, 12-18" wide
- Clump forming
- Prefers wetter soils

Blue-stemmed, *S. caesia*

- Part shade to full sun
- Dry to average moisture
- 2-3' tall

Fireworks Goldenrod

S. rugosa

- Arching sprays
- Full sun to part shade
- Moist soil
- 2-3' tall

Phlox

Phlox paniculata

- Showy, fragrant blooms, many colors, July – Sept.
- Full sun to light shade
- Good soil moisture, well-drained, tolerate clay soils
- Many cultivars – size, disease resistance (powdery mildew)
- 2-4' tall, 2-3' wide
- Attract hummingbirds, butterflies



Coneflowers: Echinacea Annuals & Perennials

- Purple Coneflower – Echinacea *pallida*
- Yellow Coneflower – *E. paradoxa*
- Coneflower – *E. pallida*
- *E. simulata*
- *E. tennesseensis* – rare, excellent in KY
- *E. purpurea* – one of the best for KY, many cultivars, long bloom period
- Butterflies and seed-eating birds
- HortFact-50.12 06 Describes these flowers and cultivars



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Wild Bergamot, *Monarda fistulosa* Scarlet Bee Balm, *Monarda didyma*

- Height 2-4'
- Spread 2-3'
- Showy blooms July to Sept.
- Lavender/pink bloom for *fistulosa*,
Scarlet for *didyma*
- Full sun to part shade
- Drought tolerant
- Attract bees, hummingbirds,
butterflies
- Fragrant leaf used in tea, good cut
flower
- Will self-seed
- Powdery mildew can be a problem
- Deer and rabbits avoid



Photo by Beth Wilson, University of Kentucky



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Coneflowers: Rudbeckia Black and Brown-Eyed Susans

- Black-eyed Susan (*Rudbeckia hirta*)
– aggressive spreaders
- Brown-eyed Susan (*Rudbeckia triloba*) Lizabeth nominee
- Cutleaf Coneflower *R. laciniata*, 6' tall, reliable, cultivars available
- Giant Coneflower – *R. maxima*
- Sweet Coneflower – *R. sullivantii*, great native, reliable flowering starting in August, 3-4' tall, not invasive



Sunflowers - Helianthus

- Jerusalem Artichoke – *H. tuberosus* 3-12', tasty tubers
- Ashy Sunflower – *H. mollis* – 3" flowers, lemon yellow, vigorous rhizomes, invasive, use in meadows
- Western Sunflower – *H. occidentalis* – daisy like flowers 2' across, slow spreader by rhizomes, reliable perennial
- Swamp Sunflower - *H. angustifolius* – tall, reliable perennial



Blazing Star-*Liatis spicata*

- Produces striking dense purple wands of flowers, from a clump of narrow, shiny leaves.
- Beautiful in variety of settings
- Can be used in large containers
- Nice cut flower
- Deer resistant
- Attracts butterflies
- Light: Full sun
- Height: 2 - 4'
- Soil: Average
- Blooms: Late June to August



Augusta Evans Photo



Beth Wilson Photo

Indian Pinks - *Spigelia marilandica*

- Beautiful tube-shaped red blooms with yellow throats facing straight up. Appears like a frazzled star of fireworks.
- Makes a high impact, showy border
- Deadheading stimulates rebloom
- Pest resistant
- Light: Full sun to part shade. Likes shade from afternoon sun.
- Soil: Average, prefers slightly acidic soil
- Height: 10 to 16 inches
- Blooms: May - July





Joe Pye Weed

Eupatorium fistulosum

- Billowy clusters of flowers.
- Lovely in mass
- Excellent cut & dried flowers
- Light: Full sun to part shade
- Soil: Average to wet, does well in damp area in mass
- Height: Up to 6 feet, height can be controlled by trimming by up to $\frac{1}{2}$ in June
- Blooms: July to September
- Attracts butterflies

Maryland Golden Aster

Chrisopsis mariana

- Beth Wilson nominee
- Height & Spread 1-2'
- Blooms August – October
- Water: Dry to medium
- Sun: Full sun to part shade
- Drought tolerant
- Attracts butterflies



Aromatic Aster

Symphyotrichum oblongifolium

- Smaller height than other asters, no staking
- Height and spread 1-3'
- Blooms August-September
- Fragrant leaves
- Full sun
- Water: Dry to medium
- Drought tolerant
- Attracts birds, butterflies
- Beth Wilson nominee



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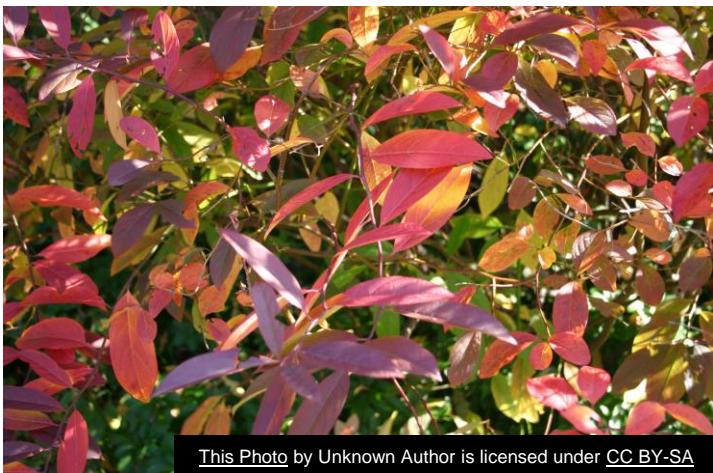
Virginia Sweetspire

Itea virginica

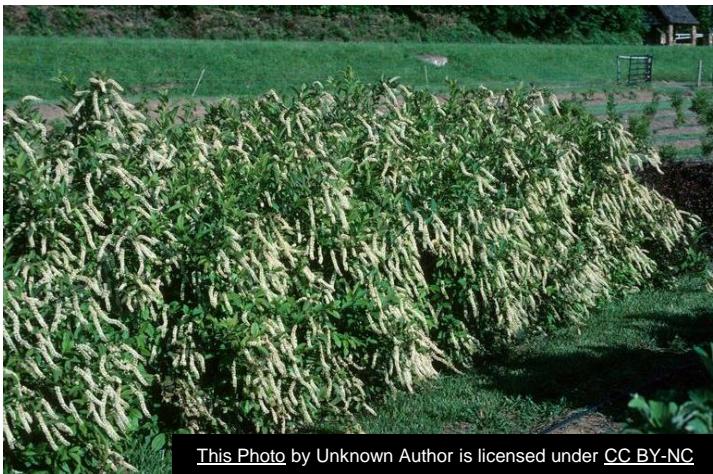
- Henry's Garnet Cultivar
- Height 3-4'
- Spread 4-6'
- Blooms May to June
- Good fall color
- Full sun to part shade
- Water: Medium to wet
- Tolerates heavy shade, clay and wet soil



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Chokeberry

Aronia arbutifolia, melanocarpa

- Black Chokeberry (A. melanocarpa)
- Height and spread 3-6'
- Showy flowers in May
- Good fall leaf color
- Black fruit attracts birds
- Tolerates wet soils
- Remove root suckers to prevent spread
- Berries are tart and astringent, hence 'choke berry'
- Red Chokeberry, Brilliantissima (A. arbutifolia cultivar)
- Height 6-8', spread 3-4'
- Showy flower
- Glossy red fruit attracts birds
- Fall color
- Tolerates wet soils
- Roots sucker



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New Jersey Tea

*Ceanothus
americanus*

- Fragrant, showy flowers that make good cut flowers
- Drought tolerant
- Height 3-4'
- Spread 3-5'
- Full sun to part shade
- Shrubby ground cover for banks
- Yellow twigs
- Water: Dry to medium
- Attracts hummingbirds and butterflies



Buttonbush

Cephaelanthus occidentalis

2021 Theodore Klein Winner

***Cephaelanthus occidentalis* Magical® Moonlight ('Kolmoon') - Magical® Moonlight buttonbush**

This cultivar of the eastern native buttonbush retains all the adaptability of the species but its size makes it more garden friendly. It takes on a round to mounded shape reaching five to six feet tall and four to six feet wide. The round pincushion flowers draw hummingbirds, butterflies and other fliers in late spring, then give way to fruits that feed birds. It loves wet soil, yet it will adapt to a dry site. Provide full to part sun. Zones 5–9.

- Height 5-12'
- Spread 4-8'
- Blooms are white in June, showy, fragrant
- Full sun to part shade
- Water: Medium to wet
- Attracts hummingbirds and butterflies



Photo by Vickie Hunter

Rose Mallow

Hibiscus moscheutos

- Dies back each year
- 4-6" show stopper flowers
- Blooms July - October
- Plants are 3-7' tall
- Larval host plant
- Full Sun
- Average to wet soil
- Many named cultivars



1605182



1605184

[John Ruter, University of Georgia,](#)
[Bugwood.org](#)

Rhododendrons

Flame Azalea

Rhododendron calendulaceum

- Deciduous
- Height 12'
- Flowers yellow, orange, near scarlet
- Blooms lat May
- Hummingbirds, butterflies

Cumberland Azalea

Rhododendron

cumberlandense

- Flowers are yellow orange to deep red
- Blooms June-July
- Height 3-7'
- Partial shade in the south

Pinxter Flower Azalea

Rhododendron periclymenoides

- Deciduous
- Height 2-8'
- Flowers light pink with deep pink center
- Blooms April
- Requires well-drained soil
- Hummingbirds, butterflies



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Rhododendrons:

Rosebay (*R. maximum*)

Catawba (*R. catawbiense*)

- Well-drained soils
- Protection from full sun and wind

Arrowwood Viburnum

Viburnum dentatum

- Deciduous shrub
- Height and Spread 6 - 10'
- Full Sun to Part Shade
- Showy white flowers
- Attracts birds, butterflies
- Prefers moist loams, tolerates range of soils
- Fall color light yellow to orange and red
- Also rusty blackhaw viburnum, mapleleaf viburnum has great fall color, suckers.



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Spicebush

Lindera benzoin

- Height and spread 6-12'
- Blooms in March, showy, fragrant
- Leaves are fragrant, good yellow fall color
- Attracts birds and butterflies
- Full sun to part shade



Ansel Oommen, Bugwood.org



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Carolina Allspice

Calycanthus floridus

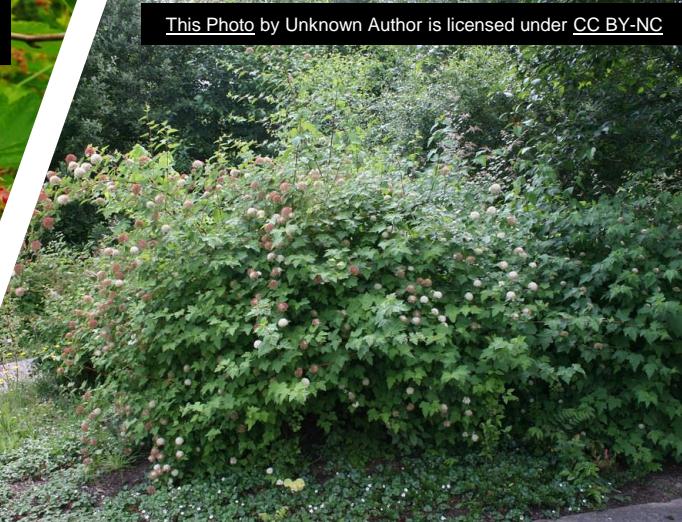
- Brown-wine colored, very fragrant bloom in spring, good cut flower
- Prune after flowering to shape
- Deciduous, lustrous leaves
- Fruit resembles a fig
- Golden yellow fall color
- 6-10' tall, 6-12' wide
- Suckers, remove promptly to prevent spread
- Full sun to partial shade
- Tolerates clay, wet soils
- Found along Kentucky and Cumberland Rivers



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Ninebark

Physocarpus opulifolius

- Height 5-8', Spread 4-6'
- Full sun to part shade
- Water – dry to medium
- Showy flowers, prune after bloom
- Drooping clusters of red fruit
- Bark provides winter interest
- Rejuvenate plants by cutting to the ground
- Susceptible to fireblight, powdery mildew





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Elderberry

Sambucus canadensis

- Height and spread 5-12'
- Blooms June to July
- Full sun to part shade
- Water: Medium to wet
- Attracts birds, butterflies
- Cut to ground to rejuvenate
- Use to make elderberry syrup
- Jean Oldham nominee

European elderberry, black elder, *Sambuca nigra*, is weedy and possibly invasive, do not plant.

Native Deciduous Hollies

- Possumhaw - *Ilex decidua*
 - 30' tall
- Winterberry - *Ilex verticillata*
 - 3-12' tall and wide
 - Showy fruit eaten by birds
 - Medium to wet soil moisture
 - Soils – tolerates clay soil
- Birds eat the showy fruit in winter



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American Hazlenut

Corylus americana

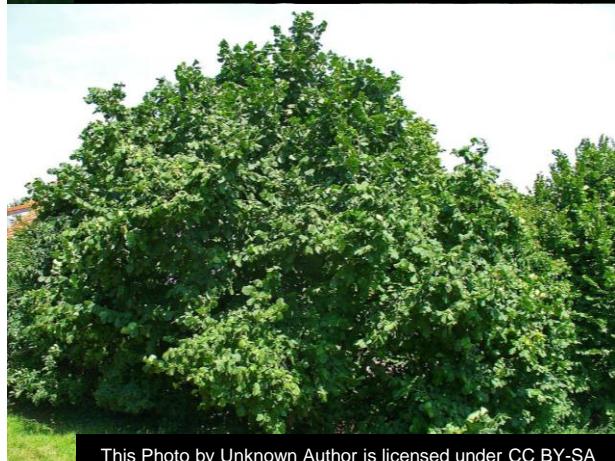
- Height 10-16'
- Spread 8-13'
- Full sun to part shade
- Water – medium
- Tolerates clay soil
- Showy flowers – catkins, male and female
- Edible fruit
- Attracts birds
- Root suckers can form a thicket
- Variable fall color



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Witch Hazel

Hamamelis virginiana

- Height and spread 15-20'
- Full sun to part shade
- Water – medium
- Good fall color
- Showy flowers, fragrant, *late fall/winter blooming*
- Winter interest
- Suckers need to be removed
- Tolerates heavy clay soils, prefers organic, moist soils



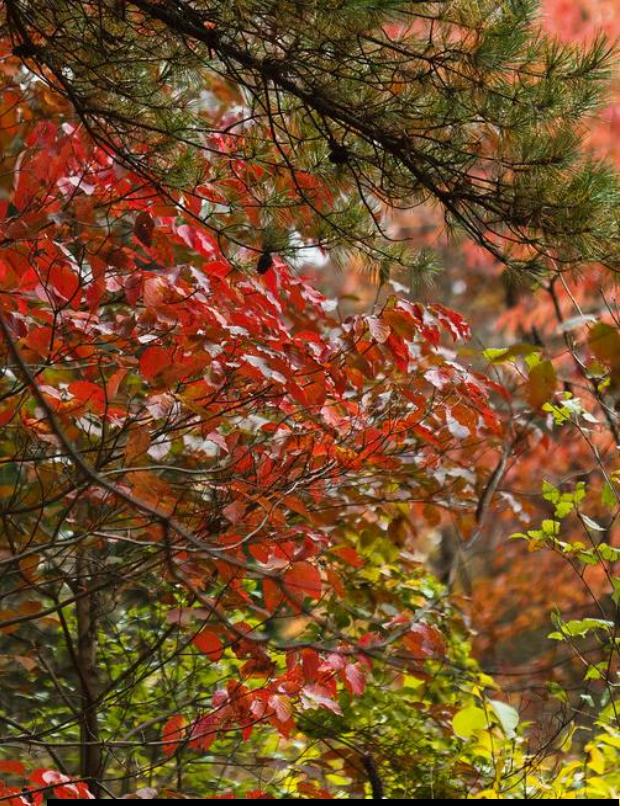
American Holly

Ilex opaca

- 'Christmas holly'
- Broadleaf evergreen
- Leaves have spiny teeth
- Male and female flowers on separate plants
- Full sun to part shade
- Showy orange to red fruit
- Fruit persists, birds eat them in late winter
- Height 15-30', spread 10-20'
- Soil – tolerates clay
- Average moisture

Photos courtesy of John Ruter,
University of Georgia,
Bugwood.org





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Flowering Dogwood *Cornus florida*

Issues with powdery mildew, anthracnose
Best to grow in partial shade
Appalachian Spring is a variety with some disease resistance

Eastern Redbud

Cercis canadensis

- Showy flowers in April
- Full sun to part shade
- Several cultivars available with leaf tones of gold, chartreuse, purple/wine, peach and red.
- Edible flowers
- Leaf-cutter bees use this plant
- Height 20-30', spread 25-35'
- Attracts butterflies
- Legume family
- Soil – medium moisture



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[Richard Webb, Bugwood.org](https://www.bugwood.org)



Serviceberry

Amelanchier canadensis

Showy white flower in April

Good fall leaf color

Full sun to part shade

25-30' tall, 15-20' wide

Attracts Birds

Edible fruit

Soil – tolerates clay, medium moisture

White Fringe Tree

Chionanthus virginicus

- Showy flowers,
- Male flowers are showier
- Attracts birds
- Dark blue-black fruit
- Separate male and female plants
- Emerald ash borer is attacking this plant



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Red Buckeye

Aesculus pavia

- Showy red flowers
- Height and spread 12-15'
- Showy fruit, toxic
- Attracts hummingbirds
- Full sun to part shade
- Water: medium



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Pawpaw

Asimina triloba



- Height and Spread 15-30'
- Large edible fruit, eaten by people and wildlife
- Full sun to part shade
- Understory tree
- Dark wine-purple flower
- Yellow fall color
- Spreads by root suckers
- Host to the Zebra Swallowtail caterpillar
- Water: Medium to wet



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Medium to Large trees

- Cedar
- Northern catalpa, *Catalpa speciosa*
- Oaks: white, red, black, shingle, willow
- Blackgum, *Nyssa sylvatica*
- Beech
- Yellow poplar
- American hornbeam
- Kentucky coffeetree
- Hickories

Seed and Plant Sources

- List of native plant nurseries is available on the Kentucky Native Plant Society webpage. <https://www.knps.org/native-plant-nurseries/>
- Missouri Wildflowers Nursery, Jefferson City, MO
www.mowildflowers.net
- Local stores are carrying more natives: Don't buy invasives, ask for natives!



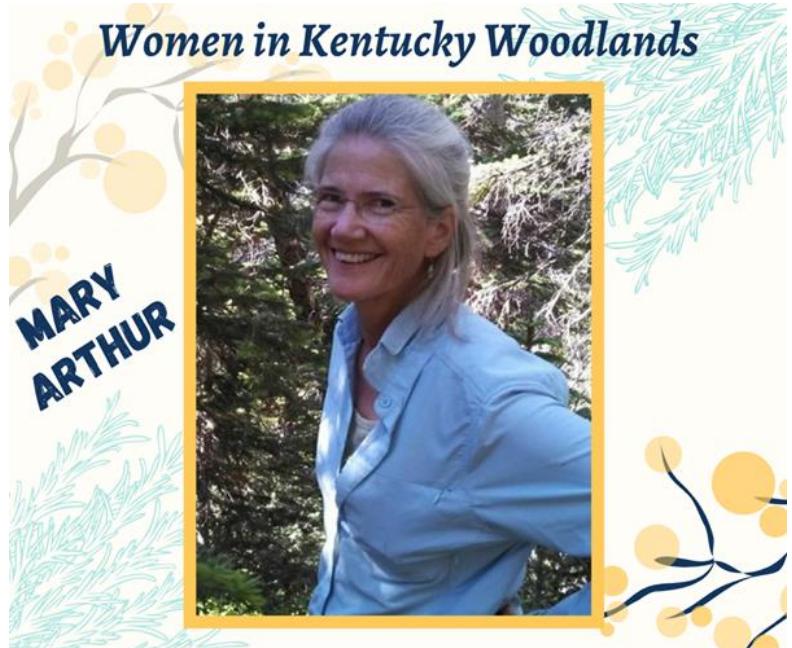
Species Lost or Under Attack

- American Chestnut – blight
- American Elm – Dutch elm disease
- Ash species – Emerald Ash Borer
- Roses – Rose rosette virus
- Sassafras – Laurel wilt disease

Plant for diversity,
don't carry firewood to distant places!

- "Dr. Lynne Rieske-Kinney is Professor of Forest Entomology at the UK Department of Entomology. Her current research focus is on the use of gene silencing as a mitigation tool against forest insect pests. Innovative management and a greater understanding of forest dynamics are needed to assure the health of our future forests. When not at work Dr. Rieske-Kinney can be found with her eyes on the trees."





- Dr. Mary Arthur is a Professor of Forest Ecology at the University of Kentucky, in the Department of Forestry and Natural Resources. Her research covers a range of forest ecology topics, including investigating the role of invasive species on the function of forest ecosystems and the role of managed and wild fire on upland oak ecosystems. She is also the co-Lead of the Urban Forest Initiative, which aims to elevate the visibility and sustainability of trees in our communities through outreach and education. You can learn more about the Urban Forest Initiative here: <https://ufi.ca.uky.edu/>

Sources:

- Missouri Botanical Gardens Plant Profiles
- Kentucky's Native Alternatives to Invasive Plants, KY-EPPC on the Kentucky Native Plant Society webpage.
- Natural Resources Conservation Service Plant Data Base
- University of Kentucky publications by Robert Anderson
- Kentucky Native Plant Society and Facebook members,
- Augusta Evans, Lyon County Master Gardener
- Prairie Moon, Ironweed and other Native Plant Nurseries online information.
- Armitage's Native Plants for North American Gardens

Thank you!



Flower arrangement including native
flowers by Augusta Evans.