

Native Plants for Acidic Soils

Flowering Perennials,
Grasses, & Ferns

Shrubs & Small Trees

Introduction:

The Turtle Creek Watershed Association promotes the use of rainfall and stormwater as the valuable natural resource it is.

We encourage measures to manage stormwater in ways that preserve or mimic natural infiltration or storage methods, thus allowing the rain to slowly reach our streams or ground water table. This prevents damage from erosion, sedimentation, sewer overflows, and flooding.

Gardens can be a good way to help manage stormwater. Their soils contain lots of organic matter that absorbs rainfall before it can run off. Plants take in water through their roots and transpire gallons of it each day through their leaves. These roots along with soil organisms such as earthworms and burrowing insects create tunnels that also allow water to infiltrate.

Native plants are well-adapted to local conditions. Relying upon them as the backbone of your garden is a good way to insure beautiful success while reducing maintenance chores. As noted in their descriptions, they often have value to wildlife (that prey upon harmful insects), and many were once used as medicines or dyes – beautiful as well as practical.

Limiting use of harsh chemical fertilizers and pesticides will protect beneficial organisms, allowing them to help you improve your soil and keep harmful insects in check. This will also reduce the amounts of these pollutants entering our streams and ground water. Relying upon integrated pest management approaches and upon milder fertilizers can also save money.

Gardeners who use rain barrels or cisterns to hold and store roof runoff have a source of pure water for their gardens – and can save money while reducing the volume of stormwater that causes local problems.

The following information is a
distillation of lists from:
US EPA, USDA, Pa DEP,
Brooklyn Botanical Garden,
Connecticut Botanic Garden,
Missouri Botanic Garden, and
Pennsylvania Native Plant Society

Please note: Specific genus and species names are important to obtain the correct plants. (That being true, as research into genetic relationships continues, genus names change from time to time to more accurately reflect these relationships.) Even so, all plants will not grow in all locations. Success depends upon light conditions, soil components and substrate, soil pH, soil nutrients, total water, animal activities, and proximity to roads (and road salt), among other factors. Determine conditions in your garden, then choose the plants best suited to your site.

Anemone quinquefolia (wood anemone)

- 6"; white flowers in May
- Grows in rich, slightly damp soil in partial or open shade.
- Used to treat rheumatism and gout.
- Attracts various early spring pollinators.



USDA NRCS



USDA NRCS

Aquilegia canadensis (red columbine)

- 15"-30"; red-orange flowers in May and June.
- Grows in a variety of soils in sun or partial shade.
- Used to treat skin rashes, headaches, and sore throats.
- Important nectar source for butterflies and hummingbirds.

Arctostaphylos uva-ursi (bearberry)

- 6"; white to pink flowers in May followed by red berries; glossy leaves.
- Grows in course, well-drained soils in partial shade; cannot tolerate damp soils.
- Used as anti-bacterial for urinary problems.
- Attracts birds.



USDA NRCS



Arethusa bulbosa (Dragon mouth)

- 10"-15"; magenta/pink flowers in June
- Needs boggy soils, prefers sphagnum moss, in sun.
- Used to relieve tooth aches.
- Little nectar, so pollinators learn to avoid it.

USDA NRCS

Asarum canadense (wild ginger)

- 6"; brown flowers at base of plant in May.
- Grows in rich woodland-type soil in the shade.
- Used to treat cough and cold symptoms and as a digestion aid.
- Food source for some butterflies.

USDA NRCS



USDA NRCS

Aster novae-angliae (New England aster)

- 30" - 36"; purple or pink flowers with yellow centers in August and September.
- Grows in full sun and damp soils from pH 5.5 to 7.5, but do not over-water. Drought tolerant when established.
- Attracts butterflies.

Baptisia australis (false indigo)

- 24"-36"; showy blue flowers in late June and early July.
- Grows in sun to partial shade in a slightly acidic, fertile soil, but tolerates a variety of soil and water conditions. (Does not like damp soils, but must be kept well-watered until established.)
- Used to produce a weak blue dye.
- Attracts butterflies.

USDA NRCS



USDA NRCS

Comptonia peregrina (sweet fern)

- 12" -24"; inconspicuous flowers in spring; fern-like leaves.
- Prefers loose, even sandy soils in the sun; fixes nitrogen.
- Used to treat skin rashes, as a stimulant, and as a poison.
- Birds eat seeds.

Epigaea repens (trailing arbutus)

- 4"; fragrant white flowers in May.
- Needs loose, moist, acidic soil (lots of leaf mold) in shade; evergreen groundcover.
- Used to treat urinary problems.
- Attracts various pollinators; seeds spread by ants.



USDA NRCS



Erythronium americanum (trout lily or dogtooth violet)

- 6"; yellow flowers in May; speckled leaves.
- Grows in moist, rich, slightly acidic soil in shade; slow to mature.
- Used as anti-biotic.
- Bulbs eaten by wildlife.

USDA NRCS

Gaultheria procumbens (Eastern teaberry)

- 4" -6"; white flowers in May; red berries in late summer.
- Prefers dry shade in acidic soils; groundcover.
- Used as external antiseptic, anti-inflammatory.
- Berries eaten by wildlife.



USDA NRCS



Gaylussacia brachycera (box huckleberry)

- 6" - 10"; white/pink flowers in May; blue berries in summer; self-sterile - spreads underground to form colonies.
- Prefers loamy, acidic soils - well-mulched
- Wildlife eat berries.

Duke University



Linnaea borealis americana (twin flower)

- 6" - 10"; white and pink flowers in June; evergreen ground cover.
- Prefers damp, acidic soils in partial shade or shade; tolerates dry periods.
- Used as poultice to reduce inflammation.
- Attracts butterflies and birds.

USDA NRCS

Mitchella repens (partridge berry)

- 6"; white double flowers in June; evergreen ground cover; red berries.
- Grows in slightly acidic soils; tolerates some dry conditions.
- Used to aid childbirth.
- Birds and mammals eat the bitter berries.



USDA NRCS



Osmunda cinnamomea (cinnamon fern)

- 24"-30"; spores on brown spikes in July;
- Grows in partial shade in damp, acidic to neutral soils.
- Gelatinous root substance used to treat coughs.
- Provides good bird and amphibian cover.

USDA NRCS

Osmunda regalis (royal fern)

- 24"-30"; spores clusters form at the tips of fronds.
- Grows in partial shade in damp, acidic soils.
- Gelatinous root substance used to treat coughs (superior to *O. cinnamomea*).
- Provides good bird and amphibian cover.



USDA NRCS

Polygonatum biflorum (Solomon's seal)

- 12" - 18"; yellowish flowers in May.
- Grows in rich, slightly acidic soils in cool shade; tolerant of many conditions, but not heat or drought.
- Used for digestive complaints.
- Birds and small mammals eat seeds.



USDA NRCS



Trillium grandiflorum (white trillium)

- 12" - 18"; white flowers in May; ants spread seeds.
- Grows in partial shade in rich, slightly acidic soils; cannot tolerate standing water.
- Root used as a diuretic.
- Deer will eat - require protection.

USDA NRCS



USDA NRCS

Amelanchier arborea (serviceberry)

- 20'; fragrant white flowers in late April or early May; dark red fruits in summer.
- Grows in sun or partial shade in acidic soils with average fertility and moisture; adaptable.
- Can be grown as single trunk tree or multi-trunk shrub.
- Edible fruits attract birds and mammals.

Clethra alnifolia (sweet pepperbush)

- 4'-6'; white flower spires in August.
- Grows in slightly acidic, damp, well-drained soils in partial shade.
- Used as soap substitute
- Attracts butterflies.



USDA NRCS

© William S. Justice



© James L. Reveal

USDA NRCS

Fothergilla gardenii (witch alder)

- 3'-5'; fragrant white flowers in May; striking fall colors.
- Prefers moist, well-drained, acidic soils in sun or partial shade; not drought tolerant.
- Used as dye and potpourri
- Attracts butterflies.



USDA NRCS

Ilex glabra (inkberry holly)

- 4'; white flowers in early June, then females set dark berries in the fall; evergreen.
- Grows best in moist, slightly acidic soil of average fertility in full sun, but adapts to other conditions.
- Flowers attract small pollinators; birds eat the fruits and use the evergreen cover.

Ilex verticillata (winterberry holly)

- 6'-8'; pale flowers in early June, then females set red berries in the fall; need male plant.
- Grows best in moist, slightly acidic soil of average fertility in full sun, but adapts to other conditions.
- Used to reduce fevers.
- Flowers attract small pollinators; birds eat the fruits.



USDA NRCS



© William S. Justice

USDA NRCS

Kalmia angustifolia (sheep laurel)

- 2' - 3'; pinkish flowers in June below branch tips; broadleaf evergreen; deer resistant.
- Prefers partial shade and damp, loose, acidic soils.
- Leaf infusion used topically to slow bleeding and to relieve pain and inflammation.
- Leaves toxic when ingested.

Kalmia latifolia (mountain laurel)

- 5'– 8'; pinkish to white flowers in June; broadleaf evergreen; deer resistant; Pennsylvania state flower.
- Prefers partial shade and damp, loose, acidic soils.
- Leaf infusion used topically to relieve pain and inflammation.
- Leaves toxic when ingested.



USDA NRCS



USDA NRCS

Leucothoe axillaries (dog hobble)

- 2'– 4'; white flowers in May; glossy, drooping leaves; reddish bronze fall color.
- Prefers cool, damp, acidic soils in partial shade; needs winter protection.
- Used to treat colds
- Attracts butterflies.

Myrica pensylvanica (northern bayberry)

- 6'-10'; pale flowers in early June, then females set fragrant, light gray berries (need male plant); fragrant leaves; dense branching habit.
- Prefers well-drained, peaty soils in full sun or partial shade; adapts to a variety of soil and moisture conditions; salt tolerant.
- Used to make candles, soaps, etc.
- Attracts birds.



Kemper Center



Taxodium distichum (bald cypress)

- Round cones with incised lines; deciduous conifer with flattened “needles;” pyramidal shape.
- 70'; prefers full sun in a variety of soils as long as they are damp and slightly acidic; tolerates periodic flooding.
- Anti-fungal properties make valuable lumber.
- Wildlife eat the seeds.

Wikimedia

Vaccinium angustifolium (lowbush blueberry)

- 3'; small white flowers in spring; sets blue fruits in summer.
- Grows in a variety of acidic soils and tolerates some dry conditions.
- Flowers attract butterflies and birds and mammals eat fruits.



USDA NRCS



Vaccinium vitis-idaea minus (lingonberry)

- 1'; small white flowers in spring; sets edible, red fruits in summer.
- Prefers moist, acidic soils in partial shade; evergreen ground cover.
- Berries are tart and nutritious.
- Attracts birds and small mammals.

Wikimedia