

Perennials for Shade

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What is a shade garden?

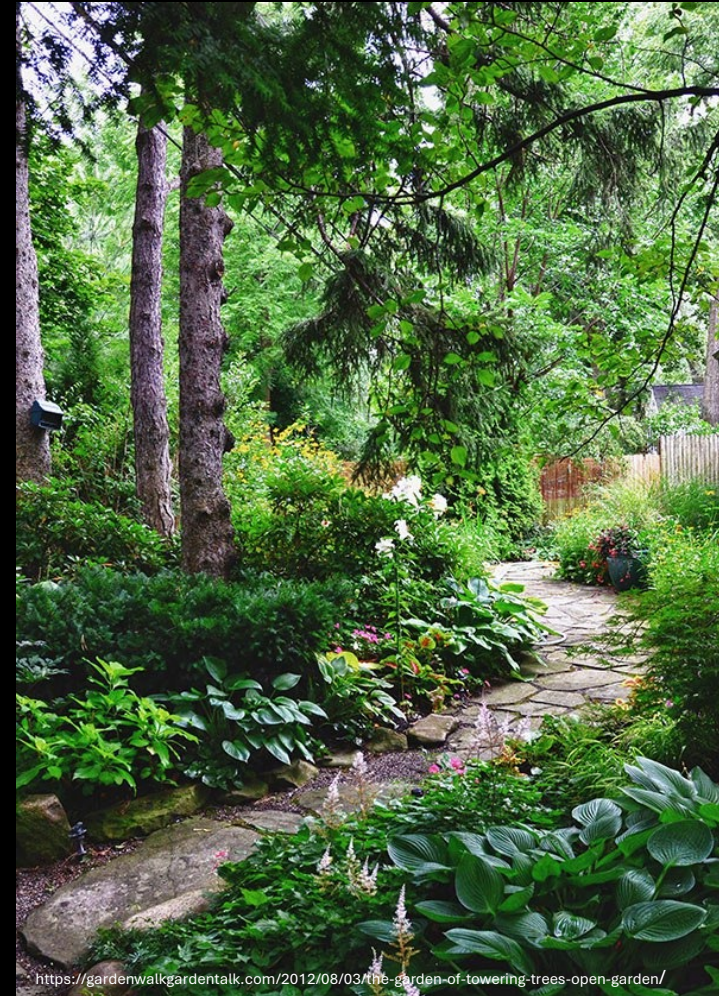
- Areas that receive less than 4-6 hours of sunlight
 - Shade provided by: trees, buildings, decks, fences, walls, stairways, etc.
 - Deciduous woodlands



<https://gardenwalkgardentalk.com/2015/02/23/the-beauty-of-gardens-everywhere/>

Benefits of Shade Gardens

- More enjoyable gardening experience
 - Cooling break from the summer heat
- Solve landscaping problem of grass not growing under dense trees
 - Plant shade-loving ground covers
- Adds more visual interest, increases aesthetics of landscape



How Much Shade?

- Light Shade
 - Shaded but bright
 - Filtered or dappled sunlight
 - “Moving” shade
- Partial/Medium Shade
 - Direct sun rays blocked most of the day
 - Morning sun/afternoon shade
- Full/Dense Shade
 - Nearly always in substantial shade during growing season
 - Full shade under thick tree canopies
 - Dense groves of trees



http://commons.wikimedia.org/wiki/file:dappled_shade_adelaide_botanic_garden.jpg

Plant Labels



Yellow: Full Sun



Orange: Partial Sun



Purple: Shade

Factors to Consider when Starting a Shade Garden

Competition with Tree Roots

- Plants growing under shading trees compete with tree roots for nutrients and moisture
 - Shade gardens may dry out more quickly
- Shallow rooted trees: maples and willows

What can you do?

- Add organic matter and mulch to shade garden soils
- Water according to needs of plants
- Constructing raised beds



<http://www.walterreeves.com/landscaping/tree-covering-exposed-roots/>

Raised Beds around Trees



YES



NO

Air circulation

- Tree branches and other barriers (fences, walls, etc.) can block air movement
- Foliage on plants stays wet longer in shade
 - Could result in plant disease problems
 - Choose disease-resistant varieties
- Space plants further apart to allow more air movement
- Removing lower tree limbs



Shade Garden Design

- **Important Elements: Plant textures, forms, and slight color differences**
 - Use strong textural contrasts
 - Ex: Hostas – coarse texture
 - Ferns – fine texture
 - Pyramidal or upright, columnar plant forms
 - Use of glossy-leaved plants and variegated foliage
 - Light colors: white, cream, yellow, pastel pink
 - Light colored flowers and foliage



<http://www.flickr.com/photos/mmwm/7416493948/>

Herbaceous Perennials for Shade

- Astilbe
- Barrenwort/Epimedium
- Bergenia
- Black Cohosh
- Coral Bells/Heuchera
- Foamflower
- Hosta
- Lenten Rose/Hellebore
- Lungwort
- Siberian Bugloss
- Solomon's Seal
- Toad Lily

Astilbe spp.

- Saxifragaceae family
- Clump-forming perennial native to Asia
- Compound, Fern-like foliage
- Feathery panicle plumes of flowers in pinks, reds, and whites
 - Appear late spring to early summer
- Divide clumps every 3-4 years
- Attractive to pollinators, especially bees



Barrenwort – *Epimedium* spp.

- Berberidaceae family
- Native to China and some species in the Mediterranean
 - Asian varieties are deciduous, and the Mediterranean ones are evergreen to semi-evergreen
- Widely cultivated and hybridized
- Great groundcover - likes moist, fertile soils
- Cordate to ovate leaves, often compound with three or more leaflets
 - Green, burgundy cultivars
- Shallow roots can easily compete with trees
- Produce small, often four-pointed flowers in reds, pinks, whites, and yellows in spring and summer



<https://plants.ces.ncsu.edu/plants/epimedium/>

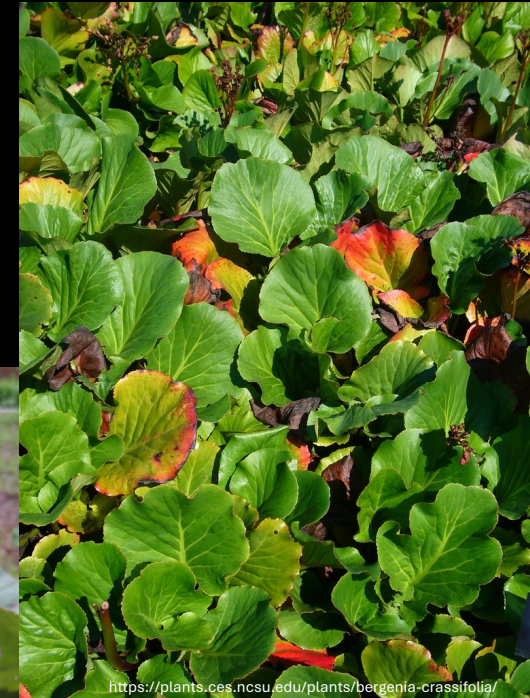


Bergenia – *Bergenia crassifolia*

- Saxifragaceae family
- Glossy evergreen native to shady rocks and slopes of China/Siberia
 - Remove damaged leaves late winter to early spring
- Low-growing, spreading clumps
 - leathery, fine-toothed, obovate-rounded leaves
- Panicles of lavender pink flowers on leafless stalks bloom in spring
 - Masses of small flowers together
- The roots, leaves, and stems contain tannin in different percentages



[http://en.wikipedia.org/wiki/File:Bergenia_cordifolia_\(Inflorescens\).jpg](http://en.wikipedia.org/wiki/File:Bergenia_cordifolia_(Inflorescens).jpg)



<https://plants.ces.ncsu.edu/plants/bergenia-crassifolia/>

Black Cohosh - *Actaea racemosa*

- Ranunculaceae family
- Rhizomatous perennial native to the eastern U.S.
- 2-3 hours of morning sun to help promote blooming
 - Prefers moist soils
- Obovate to ovate-lanceolate, tripinnately compound leaflets
- Produce tall, flowering stalks of fluffy, creamy white flowers in spring-summer
 - Interesting smell
- Seedheads (produced late summer) are often utilized in flower arrangements
- Host plant for Spring Azure, Holly Blue, and Appalachian Azure butterflies/larvae



<https://plants.ces.ncsu.edu/plants/actaea-racemosa/>



<http://imgarcade.com/17/cimicifuga-racemosa-root/>

Coral Bells – *Heuchera* spp.

- Saxifragaceae family
- Native to several regions of North America
- Likes moist, well-drained soils with organic matter
- Very popular groundcover with colorful, palmately lobed foliage and adorable, bell-shaped flowers
 - Deadhead spent flowers to promote more blooms
- Tidy, clumping growth habit
 - Divide every three to four years
- Flowers attractive to pollinators



Foamflower – *Tiarella cordifolia*

- Saxifragaceae family
- Native woodland perennial
 - Prefers moist conditions, does not tolerate dry soil
- Rhizomatous groundcover that forms small colonies
- Lobed, maple-like leaves
- Produce spike clusters of white to pink flowers in spring
- Attractive to pollinators



Hosta – *Hosta* cultivars

- Asparagaceae family
- Clumping perennial native to Asia
- Thousands of cultivars
- Variety of leaf colors, sizes, shapes, and textures
- Trumpet or bell-shaped blooms ranging from shades of white, lavender and purple
- Flowers attractive to pollinators, rabbits and deer attracted to foliage
- Fruit capsules contains many small black, flat, and winged seeds
- Divide every 3 to 5 years in early spring when leaves emerge



http://commons.wikimedia.org/wiki/File:Hosta_R01.jpg

Lenten Rose - *Helleborus orientalis*

- Ranunculaceae family
- Broadleaf, clumping evergreen
- Dark green, glossy, and palmately divided leaves
- Produce cup-shaped and nodding flowers with overlapping petals
 - White, pinks, burgundy, green, black, etc.
 - Appear in late winter to early spring
- Propagate by division in spring
- Toxic to animals and humans



Lungwort - *Pulmonaria officinalis*

- Boraginaceae family
- Groundcover native to Europe
- Spreads slowly through rhizomes, can be divided in the fall
- Green leaves are splotched with white spots
- Flowers change color as they age
 - Opening pink and then changing to a rose-violet color, then to blue at maturity
 - Attractive to pollinators



http://commons.wikimedia.org/wiki/File:Pulmonaria_officinalis_kpjas_27042008.jpg

Siberian Bugloss – *Brunnera macrophylla*

- Boraginaceae family
- Clumping and mounding habit that can spread through seeds and rhizomes
- Likes fertile, moist, well-draining soils
- Large, heart-shaped leaves
 - Rough in texture
 - Can be variegated
- Clusters of showy, blue spring flowers
- Deer and rabbit resistant but watch for slugs and snails



<https://plants.ces.ncsu.edu/plants/brunnera-macrophylla/>

Solomon's Seal – *Polygonatum spp.*

- Asparagaceae family
- Native and non-native species
- Rhizomatous, arching perennial
- Alternate, parallel-veined leaves on unbranched, arching stems
- Nodding, yellowish-green to white, tubular flowers
 - Fragrant, bloom late spring to early summer
- Black-blue berries dangle from the leaf axils in the fall



Toad lily – *Tricyrtis spp.*

- Liliaceae family
- Native to Asia
- Prefer moist and high organic matter soils
- Clumps of green foliage
 - Ladder-like leaf arrangement
 - Slow-growing, creeping rhizomes
- Produce showy flowers that are white to lavender with purple speckles
 - Star-shaped, lily, or orchid-like
 - Bloom summer to fall
 - Pollinated by butterflies and bees, provides nectar to hummingbirds
- Cylinder-shaped seed capsule, that when dry, will release 2 or 3 seeds



Ferns for Shady Landscapes



Christmas Fern



Japanese Painted Fern



Sensitive Fern

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