



Many wonderful plants thrive in shade, including trees, shrubs, ferns, perennials and even annuals. The keys to success in a shade garden are careful analysis of the site and appropriate choice of plant material.

SOIL QUALITY

1. Perform a soil test. Many shady sites, especially in Northern Virginia, are acidic (unless located near cement which may lessen acidity over time). Most shade loving plants prefer a neutral soil. A soil test will determine your soil's pH (acidic, neutral or basic). For more information about soil tests, visit the Virginia Cooperative Extension site at: www.ext.vt.edu and type in "soil test."

2. Amend thin or compacted soil by adding compost, leaf mulch, and/or manure.

THE RIGHT PLANTS

1. Choose plants appropriate for Northern Virginia (Zone 7a or 7b, depending on the site). When possible choose natives (see Role of Native Plants and Insects).

2. Avoid invasive plants, such as English ivy and vinca, which have no natural native controls.

EASE OF MAINTENANCE

1. Use groundcovers, such as green-and-gold (*Chrysogonum virginianum*), instead of grass, which needs full sun to grow well.

2. Mulch soil to a depth of 1 inch to discourage weeds.

3. Match the plant to correct soil and light conditions.

Soil Moisture

- Dry Soil – Common in areas where trees and shrubs with surface roots rob moisture from soil. It is extremely important to amend soil with compost and keep it mulched. Arrange a convenient water supply in case of drought conditions.

- Moist Soil – Areas near springs, streams, or on floodplains that seldom dry out. Some plants grow nicely in bogs or on the edge of streams.

Available Light

- Light Shade – Sun for 5 to 6 hours. Use plants that are "shade tolerant." Morning sun and afternoon shade allow for a different range of plants than morning shade and afternoon sun.
- Dappled Shade – Sun is filtered through leaves and branches.
- Partial Shade – Sun for 3 to 5 hours.
- Full Shade – Sun/dappled light less than 3 hours.
- Dense Shade – Lack of sun presents one of the greatest challenges in plant selection. But, if the heavy shade is seasonal - when developing leaves form a thick canopy - then plants that flower early spring and become dormant in summer may be the answer.

Role of Native Plants and Insects

* **Native plants benefit the Chesapeake Bay watershed.** Native plants are adapted to local climate and soils, so they are less likely to need water and fertilizer. They also are more likely to be disease and pest resistant and not to require pesticide application.

* **Native plants support regional biodiversity.** Animal wildlife evolved with plants and uses native plants for food, cover and rearing young. Planting natives helps preserve the balance and beauty of natural ecosystems.

* **Native plants help avoid introducing invasive plants.** Invasive plants are usually non-native species that reproduce rapidly and spread aggressively. They displace natives reducing food and habitat for wildlife.

* **Not all insects are pests.** Predators, parasites, and pollinators are beneficial insects. Certain beneficial insects can help reduce the level of pest insects in the garden. The lady beetle (aka ladybug) eats aphids. Wasps catch caterpillars and grubs for their young. Predatory and parasitoid flies attack many plant-eating insects including leafhoppers and caterpillars. Ladybug larvae are insect predators as are flower fly (aka hoverfly) larvae. Bees are probably the most important pollinators of native plants, but many flies, butterflies and moths also are effective pollinators.

TIPS FOR GARDENING IN THE SHADE



QUARRY/SHADE GARDEN
Bon Air Park
North Lexington Street
and Wilson Boulevard
Arlington, Virginia

25th Anniversary Edition, April 2014

(Featuring Native Ephemerals, Groundcovers & Ferns)

Since 1989, the Quarry/Shade Garden has demonstrated a low maintenance shade garden suitable for Arlington residences. The Master Gardeners of Northern Virginia, in cooperation with the Arlington County Department of Parks and Recreation and the Virginia Cooperative Extension (VCE), developed and maintain the Garden.

This pamphlet offers tips and some recommended plantings for a variably shady garden. For more ideas, refer to the Quarry/Shade Garden plant list or "Tried-and-True Plants" at mgv.org.



Also visit www.nps.gov/plants/pubs/chesapeake/ to learn more about a particular native plant (its characteristics, requirements and habitat). For additional information, please call VCE at (703) 228-6414.

Virginia Cooperative Extension
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* **Plant to attract beneficial insects and birds.** For early season nectar, plant Virginia bluebells¹ (*Mertensia virginica*) for hummingbirds, golden ragwort² (*Packera aurea*) for butterflies and woodland phlox³ (*Phlox divaricata*) for both. Low-growing plants provide shelter for ground beetles and other beneficial insects. In summer, purple coneflower (*Echinacea purpurea*) and cup plant (*Silphium perfoliatum*) attract bees and butterflies to the nectar and birds to the seed heads. Milkweeds (*Asclepias*) serve as host plants for Monarchs.



Native Ephemerals

Spring ephemerals are usually native wildflowers whose natural habitat is a deciduous forest. In the Quarry/Shade Garden (pictured top left), they emerge in March/April, produce flowers and fruit and fade away, all within a couple of months. They grow quickly, taking advantage of favorable soil conditions and sunlight available before deciduous trees leaf out. As the tree canopy closes, they enter a dormant period when other perennials or annuals can fill the above ground spaces they vacate. In fall, their roots and small shoots grow underground but ephemerals will not emerge until the next spring with a floral display.

1. ***Mertensia virginica* (Virginia bluebells)**: 12-30" tall in part shade and well-drained soil; early spring flowers. Foliage dies back and plant goes dormant in summer.
2. ***Uvularia grandiflora* (bellwort)**: 1-2' tall in shade and moist soil; attractive en masse and to deer. If/when foliage dies back depends on growing conditions/site.
3. ***Stylophorum diphyllum* (celandine poppy)**: 12-18" tall in part to full shade and moist to wet soil; showy spring flowers/fruits; goes dormant in summer if soil dries out.
4. ***Phlox divaricata* (woodland phlox)**: 12-18" stems hold spring flowers in light to part shade; may go dormant in summer; reappears as low evergreen groundcover in fall.

Native Groundcovers

Replace invasive English ivy and vinca with native groundcovers suited to your site conditions. For more alternatives, refer to the Quarry/Shade Garden plant list or the "Tried-and-True" "Ground Covers" at mgvn.org.

5. ***Iris cristata* (dwarf crested iris)**: 6-12" tall with indefinite spread to form dense colonies in sun to partial shade and moist soil; spring flowers.
6. ***Packera aurea* (golden ragwort)**: 6-30" tall in sun to shade and moist to wet soil; naturalizes rapidly. Basal leaves form an attractive groundcover if the soil is kept moist and may remain evergreen in mild winters.
7. ***Chrysogonum virginianum* (green-and-gold)**: 6-12" tall with 2-3' spread in full sun to partial shade and well-drained soil; spring (and some summer) flowers.
8. ***Tiarella cordifolia* (foamflower)**: 6-12" tall (semi) evergreen mounds bloom mid-spring in partial to full shade and moist, well drained soil (tolerates drought briefly).
9. ***Eurybia divaricata* (white wood aster)**: 1-3' tall with 18-30" spread in partial to full shade and dry soil; zig-zag stems, heart-shaped leaves; flowers late summer into fall.

Pamphlet Design & Flower Photographs by Mary Free

Native Ferns

Ferns have existed for over 300 million years, before dinosaurs and flowering plants. Ferns do not produce flowers or seeds. They reproduce by spores encased in sori, usually located underneath the fern leaf or frond (see picture #10). Ferns provide wildlife shelter.

10. ***Polystichum acrostichoides* (Christmas fern)**: 1-2' tall and wide circular clump in partial shade and moist, well-drained soil; tolerates more sun with enough moisture as well as drier soils in full shade. Sterile fronds are evergreen. [Fertile frond pictured.]
11. ***Adiantum pedatum* (northern maidenhair)**: 1-2' tall, graceful, fan-shaped clumps in partial to full shade and rich, well-drained, evenly moist soil.
12. ***Dennstaedtia punctilobula* (hay-scented fern)**: 1-3' tall, single fronds in partial to full shade and average soil; spreads rapidly in patches as groundcover or for erosion control; can be invasive.
13. ***Osmunda claytoniana* (interrupted fern)**: 2-6' tall, easily grown clumps with an upright habit in partial to full shade and drier to moist soil.
14. ***Osmunda regalis* (royal fern)**: 2-6' tall in partial to full shade. It prefers moist to wet soil, but can tolerate shallow water year-round.

