

Shade Gardens

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Objectives of this Course: Types of Shade, Growing in the Shade, Plants that Like Shade, Design Tips

What's to like about Shade Gardens:

- Cool and peaceful
- Low maintenance
- Lot's of plants grow in the shade
- Increases property values
- Cooler environment for home and us

Advantages

- Flower blooms tend to last longer and color is more intense than in the sun
- Plant foliage is unlikely to suffer burns
- Plants tend to need less fertilizer
- Weed tend to be less of a problem
- Less maintenance
- Fewer insect problems
- Trees provide natural leaf mulch during winter months

Disadvantages

- Few plants and colors
- Plants grow more slowly
- Foliage tends to remain wet longer
- Slugs and snails
- Soil acidity

Keys for a Successful Shade Garden

1. What kind of shade do you have?
2. What kind of soil do you have?
3. What plants are there now?
4. Is there sufficient water?

Light

Types of Shade

- Deep, Dense, Heavy, Full
- Partial, Half, Medium, Dappled
- Filtered, light, thin
- Wet or Dry
- Morning or afternoon sun
- Seasonal shade

Getting the Light Right

- Tolerates partial to full winter sun (half to full day of summer sun): Arborvitae, Junipers, Mugo pine, Jack Pine, Spruce
- Prefers partial to full winter shade (with partial to full summer sun): Yews, Fir, Junipers and Pines (most varieties will prosper with winter shade if they get several hrs/day of direct summer sun)

Creating Shade

- Full sun can only be converted to shade by planting trees
- Small area: dogwood, cherry, apple
- Large area: white birch, weeping willow, evergreens
- Be mindful in planting for today and 20 years from now
- Trellis, pergola

Reducing Shade

- Prune trees and shrubs
- Thin branches to open up canopy
- Remove dead or diseased limbs first
- Prune limbs that grow toward center of the tree or shrub rather than outward
- Never prune more than 1/3 of the branches each year
- Try to remove small branches rather than major limbs
- Remove the lowest branches

Prairie Plant Community

- Full sun 8 to 12 hours a day
- Less than 20% canopy closure
- Grasses dominate
- 50% of flowers bloom between June and August, 25% in spring, 25% bloom in fall
- Forbs dominate in terms of diversity

Savanna Plant Community

- Sun reaches the soil less than 8 hours a day
- Transition zone between prairie and woodland, with between 20% and 80% canopy closure
- Ground layer is a mix of prairie species that can handle some shade and woodland species that can handle some sun
- May be composed of vegetation layers, including
(1) ground layer, (2) understory, and (3) canopy

Woodland Plant Community

- Sun reaches the soil less than 2 hours a day
- Over 80% canopy closure
- Composed of vegetation layers, including:
(1) ground layer, (2) understory, (3) sub-canopy, and (4) canopy

Elements of Woodland Garden

1. Overstory trees for shade
2. Understory
3. Tie together with shrubs
4. Interesting woodland floor
5. Add a few details

Shade Loving or Shade Tolerant

- Plants adapt
- Sun plants may do well in shade, just flower less or become smaller
- Shade plants may do well in sun, just need more water

Tips to growing sun loving plants in the shade

- Plants grow leggier in shade, so buy the bushiest, most compact specimens
- If you like a certain sun-loving plant but only have shade – try it there.

- When buying shade-tolerant plants, pick varieties that bloom early, before deciduous trees block the light during their most active growth

Trees

1. Birch (*Betula* species)
2. Dogwood (*Cornus alternifolia*, Pagoda)
3. Hemlock (*Tsuga canadensis*)
4. Ironwood (*Ostrya virginiana*)
5. Serviceberry (*Amelanchier* species)

Shrubs

1. Arborvitae (*Thuja occidentalis*)
2. Chokeberry (*Aronia melanocarpa*)
3. Cotoneaster (*Cotoneaster* species)
4. Dogwood (*Cornus* species)
5. Fragrant Sumac (*Rhus aromatica*)
6. Honeysuckle (*Lonicera* species)
7. Rhododendron (*Rhododendron* x Northern Lights)
8. Spirea (*Spiraea* species)
9. Viburnum (*Viburnum* species)

Hydrangea

1. *H. arborescens* 'Annabelle', 'Grandiflora'
2. *H. paniculata* 'Grandiflora', 'PeeGee', Pink Diamond, Lime Light, Little Lamb, Pinky Winky

Dry vs. Moist

- Dry: Mulch, water new plants; Hellebore, Spotted Deadnettle, Bloodroot, fern, trillium, lady's mantle
- Moist: Consistent moisture; Astilbe, Brunnera, Fernleaf bleeding heart, Coral bells, Impatiens

Outstanding Perennials

- Winter Hardiness
- Colorful foliage
- Textural or structural interest
- Long bloom
- Disease or insect resistance
- Low maintenance
- Not aggressive

Light Shade

1. Aster
2. Turtlehead (*Chelone obliqua*)
3. Cranesbill Geranium (*Geranium sanguineum*)
4. Bee Balm (*Monarda* 'Jacob Kline')
5. *Phlox*
 1. *P. divaricata* (woodland)
 2. *P. maculata* (early)
 3. *P. paniculata* (border)
 4. *P. stolonifera* (creeping)
 5. *P. subulata* (moss)
6. Black-eyed Susan (*Rudbeckia*)

Medium Shade Perennials

1. Astilbe
2. Daylily
3. Jacob's Ladder
4. Lady's Mantle
5. Solomon's Seal
6. Bleeding Heart
7. Spiderwort
8. Spotted Deadnettle

Full Shade Perennials

1. Coral bells
2. Japanese painted fern
(*Athyrium x*)
3. Hosta
4. Sedges

Ferns

- Cultivars for full sun to full shade
- Large (3 feet): Ostrich (*Matteuccia tructhiopteris*), Bracken (*Pteridium aquilinum*), Cinnamon (*Osmunda cinnamomea*), Interrupted (*Osmunda claytoniana*)
- Intermediate (12 to 36 inches): Maidenhair (*Adiantum pedatum*), Spinulose woodfern (*Dryopteris carthusiana*), Oak (*Gymnocarpium dryopteris*)
- Small (4 to 12 inches): Bulblet (*Cystopteris bulbifera*), Fragile (*Cystopteris fragilis*)

Hosta

- Low maintenance, quick growing
- Variety of leaf sizes, shapes, colors, and textures
- Best leaf color in partial shade, avoid afternoon sun
- Option: remove flowers as they sprout or as flowers fade
- Divide anytime during growing season

Annuals

- Begonia (sun to part shade)
- Impatiens (light to full shade)
- Lobelia (part sun to full sun)
- Medallion flower (*Melampodium paludosum* – full sun to part shade)
- Salvia (full sun to light shade)
- Coleus (part shade)
- Viola (pansies, Johnny-jump-ups – shade)
- Fuchsia (part sun to full sun)

Vegetables

- 6-9 Hours of sun: Tomatoes, Peppers, Cucumbers, Squash, Eggplants
- 4-6 Hours of Sun: Beets, Carrots, Broccoli, Cauliflower, Onions, Turnips, Radishes
- 2-4 Hours of Sun: Kale, Spinach, Leaf Lettuce, Arugula, Mustard Greens, Swiss Chard

Herbs

- Perennials: Mints, bee balm, thyme, sage, chives, Oregano, Sweet woodruff
- Annuals: Chamomile, chervil, Dukat dill, ginger, Parsley (a biennial best grown as annual), Angelica

Shade Bulbs

English Bluebell (*Scilla*), Wood Anemones, Snowdrops, Daffadils

Moss Gardens

- Moss grows best in shade or part shade
- Acidic soil (pH 5.0 to 6.0)
- No fertilizing necessary
- Cut, move, keep moist for 3 weeks to transplant

General Tips

- Variegated plants and plants with pale-colored flowers lighten dark areas
- Plant shapes and textures add seasonal interest
- Stage potted plants for extra interest and color under “rooty” trees

Design Tips

- Create permanent structure of beds, trees, shrubs
- Create “foundation” for perennial layers
- Add “weavers”
- Place the rest

Design Elements

- Colors: Dominate shade colors: white, blue, mauve, pink, Daylilies can add splash of color, Start with “anchor” plants like hydrangea or viburnum, Light colors will stand out in shade
- Textures: Large leaves=coarse texture, Small leaves=fine texture, Strong contrasts accentuate differences, use only where emphasis is needed
- Forms: Pyramidal (upright), columnar serve best as accents, Rounded, weeping or spreading forms create a more spacious effect, Glossy leaves more impact than dull or velvety ones

Size—Rule of Thirds

- Grouping of 3 plants are more pleasing
- Tallest plant should be 1/3 or 2/3 of the backdrop or focal point, then sequence down to next level by 1/3
- 3's work better than splitting in half
- Width of border should be 1/3 the width of the total area
- Each “height” should have equal space in bed

Planting under trees

- Surface roots: maple, spruce
- Deep roots: oak, ash
- 90% of tree roots are in the top 3 feet of soil
- 50-75% of feeder roots are in the top 1foot of soil

Tips for planting under trees

- Avoid damaging tree roots
- do not add soil on top of tree roots
- gently plant between roots
- do not cut into roots 2” or larger
- use a layer of mulch no deeper than 2-4” thick
- Look to nature for inspiration in plant selection
- Be prepared to water the first year or two until plants are established
- Use containers to add color

Fertilizer Tips

- Goal is soil with high organic matter
- Try organic fertilizer (8-5-5) since chemical fertilizers may be too “hot”
- Fertilizer with high nitrogen can cause lush but pest-attracting growth
- Leave leaves lie

Resources

- W. George Schmid's *An Encyclopedia of Shade Perennials* -- book contains an extensive list of shade perennial plants
- www.hostalibrary.org - official directory of the American Hosta Society
- www.midwestlandscapeplants.org – searchable woody plant database
- <http://garden.org/plantfinder/> National Gardening Association search engine for locating plants
- www.learningstore.uwex.edu – UW Extension gardening publications
- www.wihort.uwex.edu – UW Urban Horticulture website

Thank You
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