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## **PB1585-Annual and Perennial Flower Shade Gardening in Tennessee**

The University of Tennessee Agricultural Extension Service

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*Annual and Perennial  
Flower Shade Gardening  
in Tennessee*



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# *Annual and Perennial Flower Shade Gardening in Tennessee*

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Gardening in the shade can add interest and color to the restful recesses of your landscape, but it can be difficult and challenging. Shade gardening presents a new set of problems as compared to gardening in the sun. Both the homeowner who instructs his or her builder to leave “every tree possible” and the gardener who one day looks up and finds that the maple and oak saplings planted years ago now flood much of the landscape with shade have trouble finding suitable plants which can add color in these areas of their landscapes.

Perennials, plants which flower year after year, have traditionally been the plants of choice for shade gardening. Columbine, ferns, bleeding heart, sweet woodruff and hostas, to name a few, have been useful in adding color to these areas. However, unlike the short blooming period of many perennials, shade-loving annuals, plants which flower for one growing season and then die, can provide color throughout most of the growing season.

One advantage of growing plants in the shade is the shade itself. The chore of preparing the beds, planting, fertilizing and watering can all be done in the relative coolness provided by overhanging branches. Later in summer when heat is blanketing the lawn, one can find that gardening chores do not necessarily include heat stroke.

## *What Is Shade?*

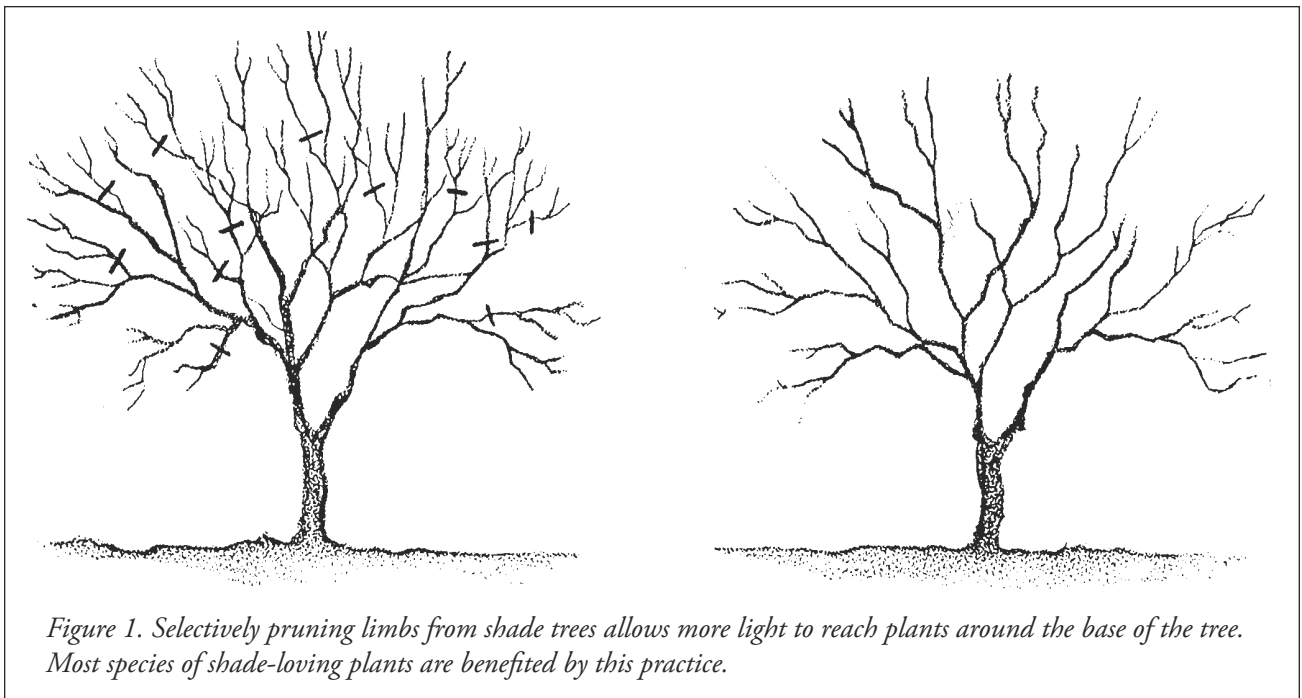
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Shade can vary in intensity and is rarely defined. You will see the terms “partial shade” and “light shade,” but usually no explanation of these terms is given. Shade has been defined as “a kind of light” by Rosalie Davis in Taylor’s Guide to Shade Gardening. Following are descriptions of shade levels she offers which you may find in your yard:

**Part shade:** Also called semi- or half-shade, part shade is an area which alternates between full sun and full shade. Preferably, the area is shaded during midday and afternoon and is open and sunnier during the cooler, morning hours. The yard that receives morning light and afternoon shade allows for a wealth of plants.

**Light shade:** Also called dappled or moving shade, light shade lies between part shade and full shade. Here, the sun never seems far away and is not so much blocked as filtered, typically by the translucent screen of deciduous trees. Black locust with its small, feathery leaves is typical of those trees providing light shade.

**Full shade:** Full shade suggests a garden that is nearly always in substantial shade during the growing season. A full-shade garden reaps another benefit as well, which is moisture-retentive soil during dry spells.

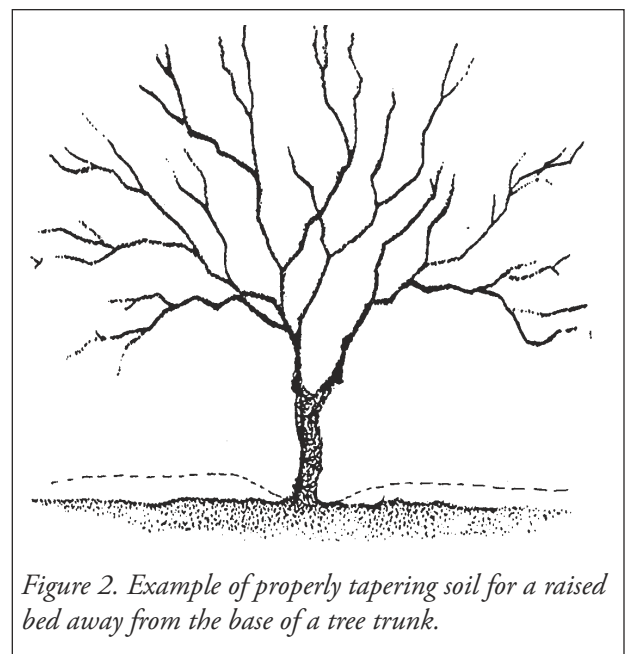


Davis also considers a type of shade she calls “dense and difficult.” This is found under shallow-rooted deciduous trees like maples or beeches; near tall, mature hedges; and under needled evergreens. This type shade is seldom promising because its soil tends to be root-bound and dry. However, this sort of shade, though challenging, does not need to be regarded as uninhabitable by understory plants. Such trees may be “limbed up,” thinned or even removed (see Figure 1). However, the gardener who rejoices in mature deciduous trees is not likely to be enthusiastic about such measures. Use of raised beds can at least temporarily overcome the problem of shallow tree roots, although eventually the tree roots will grow into the raised beds to compete with other plants found there. Yearly cultivation of such raised beds can keep tree roots in check and allow for successful annual color in these areas. The addition of 1 foot (or less) of soil to create a raised planting around the base of trees will not damage or hamper their growth. However, it is important that this soil not be placed right around the base of the tree trunk to avoid growth damage. It is better to taper the soil starting approximately 1 foot away from the tree trunk into the raised growing area. (see Figure 2).

## *How to Be Successful at Shade Gardening:*

### ***Site & flower selection***

Selecting plants which are compatible with the light available in your garden is the most important factor to shade-gardening success. Included in this publication is a list of those annuals and



perennials which various authors consider successful shade plants. Since the degree of shade your garden possesses and the light requirements of the various plants you desire may not be compatible, you may wish to study the books listed at the end of this publication for suitable matches.

Cultivation of many of the plants included in the following lists of this publication can be somewhat difficult. For this reason, we have included the following "Top 10" list of easily cultivated, readily available annuals and perennials for the beginning gardener.

***Bed preparation***

If the three most important words in the real estate trade are "location, location, location," then the three most important words to the shade gardener are "preparation, preparation, preparation." Assuming you have deep-rooted trees under which to plant, your bed preparation steps are similar to those used in sun gardening. Mark off the area you wish to plant. A garden hose or heavy rope is helpful in choosing graceful curves to complement the planting. Before preparing the soil for planting, it should be tested. Proper soil testing with kits available from your county Agricultural Extension Service office provides information on soil pH and nutrient levels of your soil. Your soil test will indicate if any of

these need adjusting, which can be done during bed preparation. Till to a depth of 6 to 8 inches and remove any stones, roots or debris from the soil. Spread the appropriate amount of fertilizer or soil amendment recommended on the soil surface, along with 3 to 5 inches of organic matter, which can include composted leaves, grass clippings, peat moss, garden waste, etc. Although you may feel that your soil has a generous amount of organic matter present, you will find that most soils benefit from the continuous addition of organic matter. Work these materials into the top 6 to 8 inches of soil with a digging fork or tiller and rake smooth. If you have shallow-rooted trees, the use of raised beds will remedy the problem.

***Proper planting practices***

Proper spacing of plants prevents competition for available light and water and allows the plants to mature and fill in the garden at a rapid pace. Plants spaced too far apart look sparse, and weeding chores are increased. If planted too closely, plants are more likely to develop diseases as a result of reduced air circulation. The general rule of spacing plants is to plant them in spacing equal to their mature height (i.e., 6-8" height = 6-8" spacing). Root balls should be broken up before planting to encourage the roots to grow into the surrounding media. Pinching those plants that are blooming heavily at time of planting will decrease

<b><i>Top 10 Annuals for Shade</i></b>	
Ageratum	Part
Begonia	Full
Impatiens	Full
Caladium	Full
Coleus	Full
Petunia	Part
Sweet Alyssum	Part
Salvia/Scarlet Sage	Part
Periwinkle	Part
Dahlia	Part

<b><i>Top 10 Perennials for Shade</i></b>	
Daylily	Part
Fern	Full
Hosta	Full
Coral Bells	Part
Columbine	Part
Foam Flower	Full
American Alum Root	Part
Lobelia	Part
Rudbeckia/Coneflower	Light
Lady's Mantle	Part

transplanting stress, as well as encourage them to branch and produce more flowers as they mature.

### ***Use of mulch***

Even in the shade, mulch has advantages. Mulching serves many purposes, but the major uses in shade gardening are to control weed growth and conserve soil moisture. It also serves as a contrasting background to unify and define your plantings. Compost, pine and hardwood are all suitable mulches. Whatever your choice of mulch, it should be applied 2-3 inches deep for full benefits.

### ***Water***

The familiar yellowing of foliage in plants located in shade is not, as many people consider, a lack of light, but an indication of insufficient water. Under established trees there is much competition for available water between tree and flower roots. While this is not a problem under shade caused by buildings, fences or walls, take care to ensure adequate water availability under overhangs and in other areas where natural rainfall may be insufficient. As with sun gardening, early morning watering is considered best. Once plants are established, frequent, shallow watering is harmful, encouraging development of roots near the soil surface where they can be destroyed during times of drought. Water the bed as needed, applying the

equivalent of 1 inch of rainfall. Use a breaker on your hose to assure an even, gentle application. If you decide to keep the beds permanently, sub-irrigation — soaker hoses or tubes and emitters placed on or under the soil line — can substantially decrease time spent on watering chores.

### ***Problems***

Many problems such as over- and under-watering can be avoided by carefully considering the needs of the plants. Do not hesitate to feel the soil with your hands to determine watering needs. Disease problems can be directed to your county Extension agent, who has a variety of resources with which to aid you. He or she will also be able to assist you in deciding what defense to take against insect pests. Weeds can usually be prevented by use of a pre-emergent herbicide such as Treflan,<sup>®</sup> Surflan,<sup>®</sup> Snapshot,<sup>®</sup> Ronstar<sup>®</sup> and Preen.<sup>®</sup> These herbicides are successful in preventing seed germination of most common garden weeds in flower beds and certainly make gardening a pleasant pastime instead of a tedious task. When using any of these pre-emergent herbicides, be sure to follow label instructions carefully for application rates and suitability for the plants you are growing.

One advantage of growing annuals is that so many exist that your gardening palette can change frequently. You may enjoy trying the following annuals suitable for shade gardening.

## *Annuals Suitable for Shade Gardening*

<b>Scientific/Common Name</b>	<b>Average Height</b>	<b>Maximum Shade Tolerance</b>
<i>Ageratum houstonianum</i> /Ageratum	6-18"	Part
<i>Lunaria annual</i> /Honesty	36"	Part
<i>Matthiola incana</i> /Common stock	24-30"	Part
<i>Matricaria recutita</i> /German camomile	24"	Part
<i>Mimulus cupreus</i> /Chilean monkey-flower	8"	Light
<i>Myosotis sylvatica</i> /Woodland forget-me-not	9-24"	Light
<i>Nicotiana alata</i> /Winged tobacco	12-36"	Part
<i>Nicotiana sylvestris</i> /Flowering tobacco	36"	Part
<i>Nierembergia hippomanica v violacea</i> /Blue cupflower	6-9"	Part
<i>Nigella damascena</i> /Love-in-a-mist	12-18"	Part
<i>Pennisetum setaceum</i> /Annual fountain grass	36"	Part
<i>Pentas lanceolata</i> /Star cluster	18"	Part
<i>Petunia x hybrida</i> /Garden petunia	6-12"	Part
<i>Phlox drummondii</i> /Annual phlox	6-8"	Part
<i>Polygonum capitatum</i> /Pinkhead	3"	Part
<i>Reseda odorata</i> /Mignonette	6"	Part
<i>Rudbeckia bicolor</i> /Thimbleflower	24"	Part
<i>Sagina subulata</i> /Corsican pearlwort	4"	Part
<i>Salvia splendens</i> /Scarlet sage	8-30"	Part
<i>Schizanthus pinnatus</i> /Butterfly flower	48"	Part
<i>Thunbergia alata</i> /Black-eyed Susan vine	36-60"	Part
<i>Torenia fournieri</i> /Blue torenia	12"	Full
<i>Viola tricolor</i> /Johnny-jump-up	6-8"	Part
<i>Viola sp.</i> /Violet & Pansy	6-8"	Part

Many herbaceous perennials are tolerant of shade. On the following pages  
is a table of suitable perennials for shade gardening.



## *Perennials Suitable for Shade Gardening*

<b>Scientific/Common Name</b>	<b>Average Height</b>	<b>Maximum Shade Tolerance</b>
<i>Aconitum sp.</i> /Monkshood	24"	Part
<i>Actaea sp.</i> /White baneberry	18"	Part
<i>Adiantum pedatum</i> /Northern maidenhair fern	18-26"	Part
<i>Aegopodium podoraria</i> /Goutweed	6-14"	Full
<i>Ajuga reptans</i> /Bugleweed	4-12"	Part
<i>Alchemilla mollis (vulgaris)</i> /Lady's Mantle	8-10"	Part
<i>Anchusa azurea</i> /Italian Bugloss	36"	Part
<i>Anemonella thalictroides</i> /Rue Anemone	12-18"	Part
<i>Anemone sp.</i> /Anemone	18-36"	Part
<i>Aquilegia sp.</i> /Columbine	12-18"	Part
<i>Arisaema triphyllum</i> /Jack-in-the-pulpit	12-18"	Full
<i>Arum italicum 'Pictum'</i> /Painted arum	12-18"	Part
<i>Aruncus sylvester</i> /Sylvan goats-beard	36"	Part
<i>Asarun sp.</i> /Wild ginger	4-6"	Full
<i>Asplenium ebenoides</i> /Dragontail fern	8-15"	Full
<i>Aster sp.</i> /Aster	8-24"	Part
<i>Astilbe sp.</i> /Astilbe	4-24"	Part
<i>Athyrium filix-femina</i> /Lady fern	18-36"	Part
<i>Athyrium nipponicum 'Pictum'</i> /Japanese painted fern	18-36"	Part
<i>Baptisia australis</i> /Blue wild indigo	36-48"	Full
<i>Begonia grandis</i> /Hardy begonia	24"	Part
<i>Brunnera macrophylla</i> /Heartleaf brunnera	18-24"	Part
<i>Campanula rapunculoides</i> /Creeping bellflower	6"	Part
<i>C. rotundifolia</i> /Bluebell-of-Scotland	12-24"	Part
<i>Centaurea montana</i> /Persian Cornflower	12-24"	Part
<i>Chrysogonum virginianum</i> /Goldenstar	4-6"	Part
<i>Cimicifuga racemosa</i> /Snakeroot	36-48"	Full
<i>Cineraria cruenta</i> /Cineraria	12"	Part
<i>Cleome glabra</i> /White turtle-head	24-36"	Part
<i>Convallaria majalis</i> /Lily-of-the-valley	8"	Full
<i>Corydalis lutea</i> /Yellow corydalis	8"	Full
<i>Cystopteris bulbifera</i> /Bulblet bladder fern	24-36"	Full

## *Perennials Suitable for Shade Gardening*

<b>Scientific/Common Name</b>	<b>Average Height</b>	<b>Maximum Shade Tolerance</b>
<i>Darmera peltata</i> /Umbrella plant	36"	Part
<i>Delphinium tricone</i> /Dwarf Larkspur	24"	Part
<i>Dennstaedtia punctilobula</i> /Hay-scented fern	20-30"	Full
<i>Dentaria diphylla</i> /Toothwort	12-18"	Part
<i>Dicentra cucullaria</i> /Dutchman's Breeches	12-18"	Part
<i>D. eximia</i> /Fringed bleeding-heart	12-24"	Part
<i>D. spectabilis</i> /Common bleeding-heart	24-36"	Part
<i>Dictamnus albus</i> /Gasplant	36"	Part
<i>Digitalis grandiflora</i> /Yellow Foxglove	24"	Part
<i>D. purpurea</i> /Foxglove	24-36"	Part
<i>Disporum sp</i> /Fairy bells	12-24"	Part
<i>Dodecatheon meadia</i> /Common shooting star	8-12"	Full
<i>Doronicum caucasicum</i> /Leopardbane	12-18"	Part
<i>Dryopteris sp.</i> /Toothed wood Fern	24-36"	Part
<i>Epimedium sp.</i> /Epimediums	8-12"	Part
<i>Erythronium americanum</i> /Trout lily	6-9"	Full
<i>Filpendula ulmaria</i> /Queen-of-the-meadow	36-48"	Part
<i>Galax ureolata</i> /Galax	6-12"	Full
<i>Galium mollugo</i> /White bedstraw	24"	Full
<i>Galium odoratum</i> /Woodruff	6"	Full
<i>Geranium maculatum</i> /Wild Geranium	12-18"	Part
<i>Geranium sanguineum</i> /Blood-red geranium	6-12"	Part
<i>Heliopsis helianthoides var. scabra</i> /Ox-eye Daisy	36"	Part
<i>Helleborus orientalis</i> /Lenten Rose	12-18"	Part
<i>Helleborus foetidus</i> /Stinking Hellebore	12-18"	Part
<i>Hemerocallis sp.</i> /Daylily	12-48"	Part
<i>Hepatica acutiloba</i> /Hepatica	8-9"	Part
<i>Heuchera americana</i> /American Alumroot	18"	Part
<i>Heuchera sanguinea</i> /Coral-bells	12-24"	Part
<i>Hibiscus moscheutos</i> /Common rose mallow	36-48"	Light
<i>Hosta sp.</i> /Plantain-lily	12-36"	Full
<i>Hydrastis canadensis</i> /Goldenseal	12-18"	Part
<i>Hypericum sp.</i> /St.-John's-wort	12-18"	Part
<i>Jeffersonia diphylla</i> /Twinleaf	12-18"	Part

## *Perennials Suitable for Shade Gardening*

<b>Scientific/Common Name</b>	<b>Average Height</b>	<b>Maximum Shade Tolerance</b>
<i>Lamium galeobdolan</i> 'Variegatum'/ Variegated yellow archangel	6-8"	Part
<i>Lamium maculatum</i> /Spotted deadnettle	8-12"	Full
<i>Ligularia clivorum</i> /Bigleaf golden-ray	24"	Light
<i>Liriope spicata</i> /Creeping lily-turf	8-12"	Light
<i>Lobelia cardinalis</i> /Cardinal-flower	24-36"	Part
<i>Luzula nivea</i> /Snowy wood rush	18-24"	Full
<i>Lychnis chalcedonica</i> /Maltese cross	24"	Part
<i>Matteuccia struthiopteris</i> /Ostrich fern	36"	Full
<i>Mertensia virginica</i> /Virginia bluebell	24"	Full
<i>Mitchella repens</i> /Partridge-berry	2-3"	Part
<i>Myosotis sp.</i> /Forget-me-not	6-8"	Full
<i>Omphalodes cappadocica</i> /Navelwort	8-10"	Full
<i>Osmunda regalis</i> /Royal fern	36"	Full
<i>Oxalis violacea</i> /Violet wood-sorrel	6"	Light
<i>Pachysandra terminalis</i> /Pachysandra	6-8"	Full
<i>Penstemon digitalis</i> 'Husker Red'/Penstemon	12-18"	Part
<i>Phlox stolonifera</i> /Creeping Phlox	2-3"	Part
<i>Phyllitis scolopendrium</i> /Hart's tongue fern	12-18"	Full
<i>Physostegia virginiana</i> /Obedient plant	36"	Part
<i>Platycodon grandiflorum</i> /Balloonflower	24-30"	Part
<i>Podophyllum peltatum</i> /Mayapple	12-18"	Part
<i>Polemonium reptans</i> /Creeping Jacob's Ladder	12-16"	Part
<i>Polygonatum biflorum</i> /Small Solomon's seal	24-36"	Full
<i>Polygonum bistorta</i> /European bistort	24-30"	Part
<i>Polygonum capitatum</i> 'Magic Carpet'/Magic carpet polygonum	2-3"	Part
<i>Polygonum cuspidatum</i> /Japanese knotweed	24"	Part
<i>Polystichum acrostichoides</i> /Christmas fern	24"	Part
<i>Polystichum braunii</i> /Braun's holly fern	18-30"	Full
<i>Primula sp.</i> /Primrose	6-12"	Part
<i>Pulmonaria sp.</i> /Lungwort	8-12"	Part
<i>Rudbeckia, several sp.</i> /Coneflower	24-36"	Light

## *Perennials Suitable for Shade Gardening*

<b>Scientific/Common Name</b>	<b>Average Height</b>	<b>Maximum Shade Tolerance</b>
<i>Salvia lyrata</i> /Sage	24-36"	Part
<i>Smilacina racemosa</i> /False Solomon's seal	24-36"	Full
<i>Solidago caesia</i> /Wreath goldenrod	36-48"	Part
<i>Stylophorum diphyllum</i> /Wood poppy	12-18"	Full
<i>Tanacetum vulgare</i> /Common tansy	36-48"	Part
<i>Thalictrum dipterocarpum</i> /Yunnan meadow-rue	36-48"	Part
<i>Thalictrum aquilegifolium</i> /Columbine meadow-rue	24-36"	Part
<i>Tiarella cordifolia</i> /Foam flower	6-12"	Full
<i>Tradescantia virginiana</i> /Virginia spiderwort	18-24"	Part
<i>Trillium sp.</i> /Trillium	6-12"	Full
<i>Trollius sp.</i> /Globeflower	18-24"	Part
<i>Uvalaria grandiflora</i> /Bellwort	18-24"	Full
<i>Vancouveria hexandra</i> /American barrenwort	12"	Part
<i>Veronica prostrata</i> /Harebell speedwell	8"	Part
<i>Vinca major</i> /Big periwinkle	12"	Part
<i>Viola sp.</i> /Violet	6-8"	Part
<i>Viola odorata</i> /Sweet violet	6-8"	Part

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