

Annual & Perennial Flowers For Mississippi Gardens

Annuals and perennials spice the landscape with their beautiful flowers and foliage. Beds of color provide brilliant accents against backgrounds of permanent plantings, soften artificial lines, and provide graceful transitions from one outdoor area to another. Flowers can be used to accent a view, frame a door, or just draw attention.

Annual plants are practical because they are versatile, sturdy, and inexpensive. They quickly yield color throughout the season.

Perennial plants return year after year. They fit into many landscapes and can be used as borders, accents, or strong focal points. The foliage of many perennials is attractive during nonflowering seasons as well.

Annual Flowering Plants

No other group of flowering plants provides as much color as quickly and economically as annuals. Annual plants sprout from seed, then flower, set seed, and die within one season. Many flowers, vegetables, and herbs are planted every year as annuals. Some plants may live longer in their native lands but do not survive the temperatures in the Midsouth and are best treated as annuals.

Most annuals are planted in spring and killed by frost in the fall. Some of them, which include pansies, ornamental cabbage, and dill, are tolerant of Mississippi winters and are best planted in the fall for color throughout the winter. These plants usually die from the heat of early summer.

Some annuals, such as gomphrena, cosmos, and coreopsis, reseed themselves to yield several years of pleasure with minimal care. Annuals come in a variety of colors, heights, and textures, and their

uses are almost unlimited. Unbeatable in masses of solid or mixed colors, annuals are also effective in small groups or used to soften lines and accent borders.

Many annuals, especially compact varieties, are well suited for containers. Large annuals may be used as specimen or accent plants along the back of a border of flowers or shrubs. Some annuals are vines that may be grown on fences, arbors, porch rails, or trellises.

Annuals are inexpensive, especially when grown from seed. However, they do require soil preparation, fertilization, irrigation, weeding, and pest control. Most are native to semiarid regions of the world and require full sunshine to survive.

Some species of annuals, such as impatiens, are native to dark woodland floors and flourish in covered patios, narrow courtyards, heavily wooded sites and other shady areas.

Annual gardens are easily established in the smallest and most restrictive of spaces as well as a large suburban garden. Their relatively shallow root systems require only a modest amount of soil. Gardeners with sizable yards quickly learn the trick of planting one or two easy-to-grow beds of massed annuals to decorate patios, walks, or pools. Apartment dwellers can achieve a splash of color with a few well-placed pots, washtubs, or planter boxes of annuals.

Annuals that need full sun, such as periwinkle and marigold, grow and flower best when they receive from 4 hours to 6 hours of direct sunlight each day. Woodland species perform best in areas with partial or heavy shade.

Prevent root diseases and other problems associated with waterlogged soil by

avoiding areas where water will stand after a heavy rain. Also avoid areas near large trees and shrubs that may have many competitive, thirsty feeder roots.

Soil Preparation

Soil preparation is the most crucial step in growing annuals. Roots of annuals have to penetrate soils quickly, anchor plants, and absorb water and nutrients in one season, often under adverse conditions. Most Mississippi soils can be improved with cultivation and the addition of plant-enhancing additives.

Cultivating wet soils may cause clumps and shallow "pans," which resist air, water, and root penetration. Soil that is ready for cultivation holds its shape when squeezed but crumbles easily. Power tillers are useful for preparing large areas but may create a compacted zone in the soil directly under the tilled area. Use a digging fork to help avoid soil compaction.

The first step in preparing a bed for annuals is to remove any unwanted plants with a hoe and rake, or with a nonselective contact herbicide. After weeds have been removed or killed, dig the soil a shovel's depth. (Deeper soil preparation is normally not necessary.) To prevent re-sprouting, remove grass and weed roots while turning the soil. Break clods and lumps into smaller pieces.

Add from 3 inches to 4 inches of organic material, such as composted leaf-and-yard litter, pine bark, peat moss, or composted manure. Then add an inch or two of sharp sand if the soil is heavy. Also, if the soil test indicates a need for lime or fertilizer, spread these supplements at the recommended rate over the top at this time. Mix amendments together, blending the organic matter, sand, and fertilizer. Rake the prepared bed smooth when finished.

Seed or Transplants

As with vegetables, there are advantages to setting out some annuals as transplants and others from seed. Single-potted annual plants or packs of annuals containing several transplants are more expensive than seed. The instant effect created by setting out plants, however, is irresistible to most gardeners.

Sowing seed directly into the garden soil is a time-honored ritual that rewards work and patience with great returns. The extra time involved is offset by savings in initial cost. Also, you can have more variety with less expense from seed rather than transplants.

Many species of annual flowers have been improved for better heat tolerance and disease resistance. Instead of relying on the same tried-and-true varieties each year, look for those annuals that have won the All-America Selection award. While retail outlets have dozens of varieties on seed racks each year, mail-order companies also provide gardeners with colorful catalogs full of many exciting annuals,

including the newest varieties. Ordering seed through the mail has a peculiar excitement all its own, and the catalogs themselves are a wealth of information on planting and caring for unusual plants.

Whether grown from seed or transplants, annual flowers are handled the same in the garden. Summer annuals are planted in early spring, after soil temperatures have warmed and danger of frost has passed. Winter annuals are planted early enough in the fall to allow time for conditioning before frost.

Set plants shallow, with the top of the roots placed just under the surface of the soil. If transplants are grown in pots made of compressed peat moss, crumble the top edge of the peat pot away from the plant so that it will not wick water away from the roots. Pinching off small flowers on new transplants may be hard to do, but it will promote faster growth and more flowers sooner.

You can have continual bloom with your annuals the entire summer with occasional maintenance. As the flowers begin to fade, remove them before seeds are formed. The plants will generate new flowers to produce more seed. Annual beds maintained for cut flowers will also send up new stems to replace those removed for floral arrangements.

Irrigation, Mulches, Fertilizers, and Weed Control

Mississippi summers are typically dry for weeks. Therefore, be prepared to water annual plants as needed. To promote deep root growth, water thoroughly and deeply, then let soils get nearly dry before soaking again. Gently water annuals, using the fine spray setting of an adjustable nozzle or a breaker especially designed for watering. Soaker or sprinkler hoses are more convenient than hand watering because they provide a gentle flow of water that seeps into the soil. Trickle- or drip-irrigation kits conserve water by placing it only at the base of plants a little at a time, and are best used frequently to keep soil moist. Soakers and drip systems also help keep foliage dry, which can reduce the spread of leaf diseases.

Decorative mulches, such as pine straw, shredded bark, composted leaves, or other porous materials that allow air and water exchange, help to conserve water and keep the soil cooler. Mulches also prevent weed seeds from sprouting but can hinder reseeding annuals for the same reason. Soaker hoses can be hidden beneath the mulch.

Annual plants often require extra applications of fertilizer during the growing season. Whether you use a granular or a water-soluble fertilizer, follow label directions. Water-soluble fertilizers give fast but temporary effects. Slow-release fertilizers are the most expensive but they provide the appropriate amount to plants throughout the growing season with little effort

and waste. The slow-release quality of these products makes them more economical and environmentally safe. Most annuals benefit from an all-purpose fertilizer with an even or nearly even balance between nitrogen, phosphorous, and potash (indicated by the three numbers on the container). Flowering plants may perform better when you use a fertilizer with a higher middle number (more phosphorous). Green or colorful foliage plants, such as amaranth, caladium, and basil, benefit from higher nitrogen (first number). Remember that fertilizers, like salt, go a long way; a "little" is better than "too much."

The ideal soil pH is between 6.0 and 7.5 for most flower species. A soil test will indicate the need for lime, if any, and the amount for your particular soil type. For soil testing information, contact your county Extension office or use an inexpensive test kit available from a garden center or mail-order catalog. Agricultural lime often lasts in Mississippi soils for three or more years; for this reason, it is best to not add lime unless a soil test indicates a need and the amount to use.

Few things can dampen enthusiasm faster than weeds. To reduce the need for pulling weeds by hand or chopping them, herbicides are available that can prevent weed-seed germination or eliminate existing weeds on contact. Some of these products may be used to control grasses without harming flowers. There are precautions and guidelines on the uses of herbicides because none are completely foolproof.

Consult with your county Extension agent or local garden center on the selection and use of herbicides to control weeds, and carefully follow label directions. Mulches can shade weed seeds and prevent their germination, which will also eliminate or reduce the need for hand or chemical control of weeds.

Pest and Disease Control

Choose insect and disease resistant varieties when possible. Keep the garden clean, neat, and weed-free, and be alert for early signs of trouble to reduce the need for pesticides. To prevent the spread of leaf diseases, water in the morning or early enough in the evening so foliage has time to dry before dark. Soapy water or insecticidal soap will control many insect pests. Read all label directions before buying or using any pesticide, and follow all precautions.

Dependable Annuals for Mississippi

The following is a quick reference list of common and favorite annual flowers grown in Mississippi, along with selected characteristics. It is not intended to be a comprehensive guide, which may be found in any good gardening book. There are many other suitable annuals that are not included here. Try one or two new varieties at a time for the fun of it.

Selected Annual Flowering Plants For Mississippi Gardens

	Light	Height	Spacing	Remarks
Ageratum <i>Ageratum houstonianum</i>	Full sun	6-20"	9-12"	Edging; tall cultivars make good cut flowers
Alyssum <i>Lobularia maritima</i>	Sun to part shade	3-4"	6-8"	Edging; nice ground cover; heat sensitive
Babies' Breath <i>Gypsophila elegans</i>	Full sun	1-2'	8-12"	Cut flowers; lime lover; excessive growth in rich soil
Bachelor Button (globe amaranth) <i>Gomphrena globosa</i>	Full sun	1-3'	6-12"	Drought tolerant; popular dry flower; reseeds
Balsam (Touch-me-not) <i>Impatiens balsamnia</i>	Sun to part shade	15-24"	8-12"	Reseeds prolifically
Basil <i>Ocimum basilicum</i>	Full sun	15-24"	15-18"	Fragrant culinary herb; cut for regrowth
Begonia <i>Begonia semperflorens</i>	Sun to part shade	8-10"	8-12"	Group for mass effect; green leaf cultivars are shade tolerant
Black-eyed Susan Vine <i>Thunbergia alata</i>	Sun to part shade	Vine	6-18"	Window boxes and hanging baskets
Caladium <i>Caladium hortulanum</i>	Sun to part shade	1-2'	12-14"	Tubers planted when day temperatures reach 70°F; dig in fall after foliage drops; store dry out of sun

Calendula (pot marigold) <i>Calendula officinalis</i>	Full sun	1-2'	12-15"	Cut flowers; bright flower bed plantings
Candlestick Plant <i>Senecio articulatus</i>	Full sun	4-6'	3-5'	Accent or screen; unusual form
Castor Bean <i>Ricinus communis</i>	Full sun	5-7'	2-4'	Coarse-textured bronze leaves; seeds poisonous; screen
Chrysanthemum <i>Chrysanthemum morifolium</i>	Full sun	1-3'	12-14"	Many different colors; plants are perennial but often planted as annuals
Cleome <i>Cleome lutea</i>	Full sun	4-5'	18-24"	Screen; cut flowers; reseeds prolifically
Cockscomb (celosia) <i>Celosia argentea</i> or <i>cristata</i>	Full sun	1-2'	8-12"	Crested or plumed cut flowers; heat tolerant; some reseed
Coleus <i>Coleus blumei</i>	Sun to part shade	2-3'	10-12"	Colorful foliage; mass in shade; nice container plant
Coreopsis <i>Coreopsis lanceolata</i>	Full sun	1-2'	12-18"	Native wildflower; reseeds; use as filler or in container
Cornflower (bachelor's button) <i>Centaurea cyanus</i>	Full sun	2-3'	6-12"	Filler plant; cut flowers; sow in fall
Cosmos <i>Cosmos bipinnatus</i>	Sun to part shade	2-4'	6-12"	Heat and drought tolerant; reseeds prolifically
Cypress Vine <i>Quamoclit pennata</i>	Sun to part shade	Vine	6-18"	Attracts hummingbirds; reseeds
Dill <i>Anethum graveolens</i>	Full sun	3-4'	12-18"	Culinary herb; fine-textured foliage
Dusty Miller <i>Senecio cineraria</i>	Full sun	1-2'	8-12"	Silver-gray foliage; yellow flowers
Feverfew <i>chrysanthemum parthenium</i>	Full sun	2-3'	8-12"	Filler; cut flowers; reseeds
Flowering Cabbage <i>Brassica oleracea</i>	Full sun	6-12"	12-18"	Winter annual but not hardy in north Mississippi; colorful foliage
Flowering Tobacco <i>Nicotiana glauca grandiflora</i>	Sun to part shade	1-2'	9-12"	Fragrant cut flowers; borders and beds
Four-o'clocks <i>Mirabilis jalapa</i>	Full sun	1-3'	8-12"	Flowers open in late afternoon; require well-drained soil
Gaillardia (Indian blanket) <i>Gaillardia pulchella</i>	Full sun	2-3'	12-18"	Cut flowers or dried; reseeding wildflowers
Geranium (zonal geranium) <i>Pelargonium x hortorum</i>	Sun to part shade	12-15"	9-12"	Tolerates cool temperatures; good container plant
Gloriosa Daisy (Black-eyed Susan) <i>Rudbeckia hirta gloriosa</i>	Sun to part shade	18-30"	12-18"	Bold texture; cut flowers; reseeds
Hollyhock <i>Althaea rosea</i>	Full sun	4-6'	12-18"	Annual cultivars are available; biennial cultivars, plant in fall; use as screen or background plant
Hyacinth Bean <i>Dolichos lablab</i>	Full sun	Vine	6-12"	Fast screen; colorful flowers and pods
Impatiens <i>Impatiens wallerana</i>	Part shade	12-24"	8-12"	Best annual for shade; some cultivars may reseed
Johnny Jump-up <i>Viola tricolor</i>	Sun to part shade	6-12"	6-8"	Winter annual, plant in fall; long flowering

Joseph's Coat <i>Amaranthus tricolor</i>	Full sun	6-12"	8-12"	Colorful foliage; heat and drought tolerant
Lantana <i>Lantana camara</i>	Full sun	1-2'	18-24"	Fragrant attractive flowers; container plant; great for butterflies
Larkspur <i>Consolida ambigua</i>	Part shade	2-3'	8-15"	Spiked flower form; accent or mass plantings; reseeds; sow in fall
Marigold <i>Tagetes erecta</i> or <i>patula</i>	Full sun	6-30"	6-12"	Mass plantings; good container plants; spider mites a problem
Morningglory <i>Ipomoea purpurea</i>	Full sun	Vine	6-12"	Colorful vine; cultivar selections rarely reseed
Moss Rose <i>Portulaca grandiflora</i>	Full sun	6-9"	6-12"	Heat and drought tolerant; summer-long color; reseeds well
New Guinea Impatiens <i>Impatiens hawkeri</i> , <i>I. linearifolia</i> or <i>hybrids</i>	Sun to part shade	8-12"	12-14"	Striking foliage; showy blooms; tolerates sun; hanging baskets
Pansy <i>Viola x wittrockiana</i>	Sun to part shade	6-12"	6-10"	Winter annual for fall planting and early spring color; container plant
Pepper (ornamental) <i>Capsicum annuum</i>	Full sun	9-30"	6-15"	Many cultivars; heat tolerant; may reseed
Periwinkle (vinca) <i>Catharanthus roseus</i>	Full sun	1-2'	8-12"	Drought and heat tolerant; container plant; reseeds
Petunia <i>Petunia x hybrida</i>	Sun to part shade	6-24"	12-15"	Many cultivars; mass color; heat tolerant; reseeds
Phlox (annual) <i>Phlox drummondii</i>	Sun to part shade	8-15"	6-12"	Mass color; native wildflower; reseeds
Poppy <i>Papaver nudicaule</i> or <i>orientale</i>	Full sun	1-2'	6-12"	Cut flowers; sow in fall; perennial, but mostly annual in Mississippi; easy to grow
Purslane (hybrid) <i>Portulaca x hybrida</i>	Full sun	6-9"	6-12"	Heat and drought tolerant; summer-long color; hanging baskets; does not reseed
Queen Anne's Lace <i>Daucus carota</i>	Sun to part shade	3-4'	2-3'	Naturalized wildflower; mass color; winter foliage; reseeds
Scarlet Sage <i>Salvia splendens</i>	Shade to part sun	15-30"	8-12"	Attracts hummingbirds; spikes of color; shade during summer
Snapdragon <i>Antirrhinum majus</i>	Sun	12-36"	10-12"	Spikes of color; cut flowers; blooms best in cool weather.
Statice <i>Limonium sinuatum</i>	Full sun	1-2'	9-12"	Cut flowers; salt tolerant for coastal plantings; readily dried
Strawflower <i>Helichrysum bracteatum</i>	Full sun	12-36"	12-15"	Mass of color; cut flowers or dried
Sunflower <i>Helianthus annuus</i>	Full sun	4-10'	20-24"	Thrives in poor soil; temporary screen; attracts goldfinches
Sweetpea <i>Lathyrus odoratus</i>	Full sun	1-3'	6-8"	Sow in fall; soak seed in tepid water one hour before planting
Tithonia <i>Tithonia rotundifolia</i>	Full sun	4-6'	3-4'	Tall, bright, full plants; drought tolerant
Verbena <i>Verbena hortensis</i>	Full sun	6-12"	10-12"	Notably fragrant; planter boxes and baskets
Wishbone Flower <i>Torenia fournieri</i>	Part shade	6-12"	6-8"	Garden borders; pots and hanging baskets
Zinnia <i>Zinnia sp.</i>	Full sun	1-3'	8-15"	Mass color; many cultivars; variable colors; some reseed

Quick Reference List for Annuals

Easy-to-Grow

Ageratum
Begonia
Chrysanthemum
Cleome
Cockscomb
Coreopsis
Cornflower
Cosmos
Dusty Miller
Four-o'clocks
Gomphrena
(bachelor button)
Impatiens
Joseph's Coat
Marigold
Melampodium
Moss Rose
Pansy
Periwinkle
Pepper
Petunia
Poppy
Portulaca
Sunflower
Zinnia

Shade or Semi-Shade

Ageratum
Alyssum
Begonia
Coleus
Impatiens
Nicotiana (flowering tobacco)
Pansy
Salvia
Snapdragon
Wishbone Flower
(torenia)

Hot, Dry Locations

Amaranth
(Joseph's Coat)
Copper Plant
Cornflower
Cosmos
Four-o'clocks
Gomphrena
(bachelor button)
Melampodium
Morninglory
Moss Rose
Periwinkle
Portulaca
Sunflower
Tithonia

Verbena
Zinnia

Poor Soils

Amaranth
(Joseph's Coat)
Cleome
Cockscomb
Coreopsis
Four-o'clocks
Gomphrena
(bachelor button)
Moss Rose
Periwinkle
Portulaca
Verbena

Annuals To Sow in Fall

Alyssum
Babies' Breath
Calendula
Cornflower
Cosmos
Dill
Johnny Jump-up
Larkspur
Pansy
Poppy
Queen Anne's Lace
Snapdragon
Sweetpea

May Reseed

Year after Year

Cleome
Coreopsis
Cornflower
Cosmos
Gomphrena
(bachelor button)
Impatiens
Johnny Jump-up
Larkspur
Moss Rose
Periwinkle
Petunia
Zinnia

For Cut Flowers

Babies' Breath
Calendula
Cleome
Cockscomb
Cornflower
Cosmos
Gomphrena

(bachelor button)

Larkspur
Marigold
Poppy
Salvia
Snapdragon
Statice
Zinnia

For Colorful Foliage

Amaranth
Basil
(purple-leafed and ruffle-leafed)
Caladium
Castor Bean
Coleus
Copper Plant
Dusty Miller
Joseph's Coat
Ornamental Kale
(flowering cabbage)

For Edging

Ageratum
Alyssum
Begonia
Dusty Miller
Portulaca
Marigold
(dwarf)
Pansy
Petunia
Verbena
Wishbone Flower
(torenia)
Zinnia
(dwarf, and *Z. angustifolia*)

For Containers

Ageratum
Alyssum
Black-eyed Susan Vine
Begonia
Coleus
Geranium
Impatiens
Marigold
Pansy
Pepper
Periwinkle
Petunia
Portulaca
Verbena
Wishbone Flower
(torenia)

For Backgrounds and Screens

Amaranth
Castor Bean
Cleome
Cockscomb
Copper Plant
Cosmos
Hollyhock
Marigold
(tall)
Sunflower

Tithonia
Zinnia
(tall)

For Groundcovers

Alyssum
Begonia
Moss Rose
Periwinkle
Portulaca
Verbena

Attract Butterflies

Coreopsis
Cosmos
Gaillardia
Gomphrena
(bachelor button)
Marigold
(singles best)
Periwinkle
Queen Anne's Lace
Verbena
Zinnia (the best)

Perennial Flowering Plants

Perennials are plants that live for several years and often require at least two years from seed to flower. There is a renewed interest in herbaceous perennials because they need less maintenance, less water, and fewer pesticides than annuals. Many gardeners include flowering bulbs and ornamental grasses in this category. Once prominent in many landscapes, these enduring plants have been rediscovered for their dependable seasonal effects.

Unlike trees and woody shrubs – also perennials – herbaceous perennials appear to die down part of the year, only to emerge again the following season from underground roots, stems, bulbs, or rhizomes. The simple term "perennial" is commonly used when referring to herbaceous perennials.

Perennials are easily used as ground cover, mixed with annuals, grown in containers, and placed as accents or specimen plants. Many perennials are short bloomers and are best mixed with plants that bloom at different times of the year or included with other landscape plants as part of an overall design. Other perennial plants, such as ferns and monkey grass, are noted more for their foliage rather than flowers. Inclusion of these plants adds interest and creates seasonal color or texture in the landscape.

Favorite perennials, including many herbs and native wildflowers, have long been shared by gardeners and sold through garden centers and mail-order nurseries. Many are treasured as heirloom plants and have proven to be hardy enough to withstand weather and climate extremes, often with little care. Others are exciting new discoveries or hybrids that may take several years to prove themselves in Mississippi gardens. However, there are a good many perennial plants that simply do not survive for more than a year or two in Mississippi's hot, humid climate.

Designing Perennial Plantings

While beds and pots of annuals may be replanted with ease, perennial plantings may live for many years. Their longevity requires planning on the part of the

gardener. Perennials work best in highly visible flower beds and can be incorporated into the total landscape design. Otherwise, large areas of the landscape may be left bare for part of the year.

Like annuals, many perennials are effective in mass when they are in bloom. Because of their seasonality, perennials are better viewed as small accents of color and texture for other plants. You can often build a design to support or accent a favorite plant or group of plants. Use small evergreen shrubs, flowering trees, fences, stones, benches, birdbaths, or art objects to enhance a flower garden and "carry" it through all the seasons.

An easy design trick is to interplant groups of flowers that have contrasting shapes. For example, the large flowers of daylilies are set off well by the spikes of blue salvia and the round flowers of yarrow. The large leaves of canna and sword-like form of iris plants have a dramatic effect when used in groups among less bold plants.

A natural way to begin planting perennials is to create islands of flowers in an open lawn, but because such beds are easily viewed from many sides, they often require high maintenance to keep them attractive.

Border plantings along a wall, fence, or hedge can soften the transition of landscape structures into the horizon or create alleys of color. Rectangular beds lend themselves to a border planting where space is restrictive. When planting a perennial border against a hedge, fence, or wall, leave a little space between the object and its backdrop. This allows for better air circulation, more light penetration, and ease of maintenance from the rear of the bed. Perennial borders usually are from 6 feet to 8 feet wide, allowing adequate space for at least a combination of six or more front-to-back species to yield a continual bloom.

To prevent turfgrass from growing into the perennial bed and becoming unsightly, use some form of broad edging or separating strip. Flat-laid bricks, flagstone, bare ground, or a heavy layer of mulch, such as wood chips or bark, will help keep out grass.

Perennials may be grouped according to color, which creates an intermixing that continually blooms at different intervals. Early bulbs may be planted with

spring yarrow and iris, which usually fade before daylilies and canna begin their season of color. Use fall sunflowers and ornamental grasses to complete the season. Select the plants that have long-lived blooms and foliage to attract attention.

Plant height is a major consideration in landscape design. In border plantings, the tallest plants are usually placed towards the rear to serve as a backdrop. A few of these plants can be moved forward to prevent monotony in the design. In island plantings, tall plants are better placed towards the center. Fall-blooming perennials are usually the tallest, making them the best backdrop or accent plants. Most of the middle-height perennial plants are summer bloomers and may occupy the majority of the middle space. Spring-blooming perennials are primarily short plants; place them toward the front. Emerging foliage and flowers of later blooming plants can help hide the fading foliage of earlier flowers. Narrow beds with excessively tall plants usually do not display effectively. Whether for borders or island beds, keep the width of a planting about twice the height of the tallest plant.

Site Selection and Soil Preparation

Consider the site before selecting your plants. Although many perennials, such as ferns, tolerate heavy shade, most require abundant sunshine. Air circulation is important for avoiding diseases; stagnant, warm, humid air creates ideal conditions for plant disease. Perennial plants also require properly prepared soil, and a few have specific drainage and fertility requirements.

Soil preparation for perennials is similar to soil preparation for annuals. However, devote special attention to perennial bed preparation because plants may occupy the site for several years, leaving little opportunity to correct any problems. When possible, add sand and organic matter, such as bark, peat, or compost, to soils well ahead of planting time.

A layer of organic matter from 3 inches to 4 inches deep, worked into the soil about a shovel's depth, is usually adequate. Since different types of organic matter work and decompose at different rates in the soil, it is best to use a small amount of two to three types of organic matter rather than a large amount of just one.

Soil testing provides specific recommendations for fertilizer and lime needs. Since lime can last for several years (depending on the type), never add it without a soil test. Many fertilizers, such as phosphorus, are best applied and mixed into soils before planting. Perennials need a balance of several nutrients, including nitrogen, phosphorous, and potash; most garden supply stores carry a wide variety of fertilizer mixes. Keep in mind that phosphorus, including that found in bone meal, lasts for several years and does not need to be applied too often.

Propagation

Though most perennials take a couple of years to flower from seed, many are as easy to start as annuals. The quickest way to have blooming plants is by vegetative propagation, such as by dividing old plants or rooting stem cuttings. Plants produced in this manner have all of the traits of the "mother" plant. Propagation by division may seem difficult at first, but most gardeners find that dividing crowns and roots, and separating bulbs can be mastered quickly. Try dividing monkey grass for experience; then move on to daylilies, and before long you will have "the hang of it."

Perennial plants with shallow roots are easily pulled apart by hand. Long fibrous roots can be separated with a hand fork. Thickly intertwined roots may need more forceful separation or cutting with digging forks. Replant only those segments with strong roots and a few intact leaves or crowns.

In general, it is best to divide perennials during their dormant or "off" season; divide spring bloomers in fall and fall bloomers in spring. Some perennials may need dividing every 3 to 4 years or they will slowly crowd themselves into clumps of nonflowering leaves and roots.

Many perennial plants may be propagated from stem cuttings, which do not disturb the plant's roots. Take stem cuttings during the spring or early summer, choosing stems that are mature and firm but not yet hardened and woody. Cut off from 4-inch to 6-inch segments using a sharp knife or shears, and pinch off the succulent tip and flower buds to force the cuttings to concentrate their energy on producing roots. Remove the lower leaves that will be below the surface of the rooting medium, but leave a few leaves to provide a source of energy for root initiation and growth.

Because of disease or weather conditions, cuttings often will not root directly in garden soils. They may be easily started in a pot containing a porous, well-drained rooting medium, such as a 1:1 mixture of perlite and peat moss. Coarse sand and vermiculite are also used as rooting soils. These mixtures will hold moisture but allow drainage for air circulation. Root-stimulating compounds, including those that contain fungicides, are available at most garden centers. Using a blunt stick, pencil, or finger, open a hole in the rooting medium and insert the treated cutting. Firm the medium around the cutting and water in well.

Many commercial growers use a mist bed to keep cuttings from wilting, but this is usually not feasible on a small scale. You may easily construct a humidity tent from plastic film loosely draped over a frame covering the cuttings. Place the tent in bright light but prevent overheating by making sure the tent is not located in direct sunshine. Keep the plastic loose to allow air circulation. Avoid direct contact between the leaves and the plastic. The tent will serve as a tiny greenhouse

and will maintain a good rooting environment with daily, light watering. Rooting often occurs within 3 or 4 weeks. By the time new leaves begin to appear on cuttings, roots are usually formed. Remove the plastic tent and water regularly until plants are firmly established.

Transplant newly rooted plants into prepared beds or pots and place in a bright, protected area until you are ready to set them into your garden or share them with others.

Planting

Set perennial plants in their permanent places so roots are completely covered with prepared soil, but avoid burying the stem or crown. Place container-grown plants at the same depth they were grown; place dormant plants at the depth at which they grew the previous season. To encourage side-root growth, make a planting hole twice as wide as deep. With bare-root perennials, spread the roots outward as well as downward. For container-grown plants, loosen encircled roots and shake some of the potting soil into the planting hole. Remember to crumble away the top edges of a peat pot to prevent water loss through wicking. Do not let roots dry out, especially during transplanting.

Water the plants thoroughly to force out air pockets and to settle the soil. Mark and label the plantings. Mulch the bed surface with pine straw or bark to keep soil from drying, crusting, and overheating in the summer, and to prevent weed seeds from germinating.

Care and Maintenance

If you do not mulch your plants, use shallow cultivation in the spring and early summer to break and aerate compacted soils. Breaking up the soil also aids in water penetration and makes it easier to incorporate fertilizer. Summer cultivation can damage shallow roots and is more difficult because the plants will be larger. Early in the season, stake tall plants with wire stands or bamboo canes. Use care to avoid root damage.

Apply fertilizer sparingly to plants early in the season after new growth begins to show. If plants are growing well, no additional fertilizer may be needed; otherwise, a second, light application will be helpful several weeks into the season.

In the fall, cut the old plant stalks to the ground after the leaves have fallen, and mulch to protect crowns and roots from the extremes of mild weather followed by sudden cold spells. Remove any winter-annual weeds that may have germinated before applying mulch. Fall is also a good time to divide plants that may be encroaching on one another.

Hardy Perennials for Mississippi Gardens

Perennial plants have been long enjoyed for their flowers, foliage, and ability to return for many years with little trouble. Although dozens of perennials have been shared between gardeners, retail garden centers offer many hardy varieties. By planting only three or four new types of perennials each year, you can quickly build up a showy perennial garden and then divide the plants for your own use or by others.

The following are common and favorite perennial flowers grown in Mississippi, along with selected characteristics. This is by no means a comprehensive list. Use this as a general selection guide for getting started with perennials. Try others as your success and confidence grow.

Selected Herbaceous Perennials for Mississippi Gardens

The following are some of the most popular and dependable perennials enjoyed by Mississippi gardeners. Try a few each year, and soon you will enjoy a nice collection of hardy plants. (Note: Names are those generally used in the nursery trade and garden books; cultivated varieties are in single quotes.)

	Bloom Season	Plant Height	Remarks
Achillea (yarrow) <i>Achillea filipendulina</i> or <i>millefolium</i>	Spring; summer	1-3'	Fernlike winter foliage, flat round heads of spring and summer flowers; excellent cut flowers; good companion to daylilies; pink or white cultivars popular, 'Coronation Gold' suffers on Gulf Coast from heat and humidity.
Amsonia (blue star) <i>Amsonia tabernaemontana</i>	Spring; summer	2-3'	Native, spikes of blue in mid-spring, tolerates wet or dry soils, good cut flower; Clump-former to 3 feet tall
Artemisia <i>Artemisia ludoviciana</i>	Foliage	2-3'	Silver-gray foliage plant; invasive, but good companion; 'Silver King' and 'Powis Castle'
Asters <i>Aster sp.</i>	Fall	2-5'	Wide range of plant heights depending on type

Banana <i>Musa acuminata</i>	Foliage	10-15'	Foliage giant; trunk needs mulch protection in winter
Butterfly Lily (ginger lily) <i>Hedychium coronarium</i>	Late summer and fall	4-6'	Bamboo-like summer foliage; pure white, fragrant flowers; rhizomes edible as a mild ginger; mulch in winter
Canna <i>Canna generalis</i>	Summer	3-7'	Dependable summer flowers; coarse foliage; tolerates both very dry and very wet soils; dwarf forms popular for landscaping; insects are a problem on foliage, but easily controlled; pruning forces new growth
Cardinal Flower (Lobelia) <i>Lobelia cardinalis</i>	Late summer and fall	3-4'	Native to moist or lightly shaded areas; spikes of red flowers; cut flower; do not mulch in winter or rot may occur
Chives and Garlic Chives <i>Allium schoenoprasum</i>	Spring	1-2'	Edible flowering members of onion family; winter foliage
Coreopsis (Mississippi State Wildflower) <i>Coreopsis lanceolata</i>	Spring and summer	2-3'	Several forms include spring bloomers for cut flowers and invasive, low-growing summer bloomers ('Moonbeam', 'Zargreb' with ferny foliage)
Daisies (mums) <i>Chrysanthemum sp.</i>	Spring to fall	1-3'	Many forms and colors
Ox-eye Daisy <i>C. leucanthemum</i>	Spring	2-3'	Naturalized wildflower 'May Queen' best variety
Shasta Daisy <i>C. maximum</i>	Spring	2-3'	Very popular white daisy
Garden Mum <i>C. x morifolium</i>	Fall	1-2'	Often planted as an annual; needs dividing in spring to prevent rot
Clara Curtis Aster <i>C. rubellum (C. zawadskii latilobum)</i>	Fall	2-3'	Old garden (favorite; large and pink; often called 'Country Girls')
Daylily <i>Hemerocallis</i>	Summer	1-4'	Very popular clump-former with stems of large flowers; tolerates wide range of soils except wet; many improved varieties
Elephant Ear <i>Alocasia cucullata</i>	Foliage	3-4'	Favorite large-leaf foliage plant; corms edible; may be invasive; many other species and hybrids available
Ferns	Foliage	1-5'	Many kinds, mostly shade; divide and transplant in winter
Examples			
<i>Adiantum capillus-veneria</i> <i>Asplenium sp.</i> <i>Athyrium sp.</i> <i>Cyrtomium falcatum</i> <i>Polystichum sp.</i> <i>Pteridium aquilinum</i>		<i>Southern Maidenhair</i> <i>Spleenworts</i> <i>Lady Ferns</i> <i>Holly Ferns (evergreen)</i> <i>Leather Ferns</i> <i>Bracken Fern</i>	
Four-o'clocks <i>Mirabilis jalapa</i>	Spring to fall	1-3'	Fragrant evening bloomer; easy and fast from seed; tolerant of every poor soils; good for hummingbirds
Hibiscus (rose mallow) <i>Hibiscus moscheutos</i>	Summer and fall	3-5'	Several hardy varieties; do not confuse with Chinese hibiscus; tall plants, 'Disco Belle' series have dinner-plate-sized flowers; insects a problem on foliage

Hosta (plantain lily) <i>Hosta plantaginea</i>	Summer	10-24"	Shade plant with coarse foliage; cut flower; not heat tolerant near Gulf Coast
Iris <i>Iris sp.</i>	Spring	2-5'	Louisiana iris thrives in wet soils; Bearded iris popular, but often rots in heavy soils or if planted deep; Siberian iris more dependable in central and north Mississippi; Dwarf crested iris is a shade-loving groundcover.
Lamb's Ears <i>Stachys byzantina</i>	Foliage	1-2'	Silver-gray foliage, spikes of yellow flowers in spring; drought-tolerant groundcover; container plant
Lantana <i>Lantana camara</i>	Spring to fall	2-4'	Long-blooming butterfly plant; drought tolerant; attractive berries poisonous; new cultivars may not be hardy in the north
Liatris (blazing star) <i>Liatris spicata</i>	Summer	2-3'	Outstanding native with tall spikes of lavender flowers that bloom from top down; great cut flower
Liriope (monkey grass) <i>Liriope muscari</i>	Summer	1-2'	Tough clump-former with evergreen foliage; variegated varieties available; often overlooked as flowering plant for dry or shady sites
Lythrum (loosestrife) <i>Lythrum salicaria</i>	Summer and fall	3-5'	Tall spikes of pink flowers; butterflies; named cultivars ('Morden's Gleam', etc.) not invasive; tolerates wet soils or water gardens
Mistflower (wild ageratum) <i>Eupatorium coelestinum</i>	Fall	2-3'	Native; blooms in fall with masses of blue flowers
Monarda (bee balm) <i>Monarda didyma</i>	Summer	2-3'	Native to lightly-shaded moist sites; flowers used for herbal tea; good butterfly plant
Mondograss <i>Ophiopogon japonicus</i>	Summer	4-8"	Dwarf lily turf; good ground cover; full sun to part shade
Phlox <i>Phlox sp.</i>	Spring	1-3'	Most kinds native; early spring 'Thrift'; (<i>P. subulata</i>) good for rock gardens and edging; "wild sweet Williams" (<i>P. divaricata</i>) good for ground cover; "summer phlox" (<i>P. paniculata</i>) taller cut flower (suffers from mildew)
Physostegia (obedience) <i>Physostegia virginiana</i>	Summer and fall	2-4'	Invasive native with spikes of cut flowers; 'vivid' pink cultivar
Purple Coneflower <i>Echinacea purpurea</i>	Summer	2-4'	Native summer cut flower; attractive seedheads
Red Hot Poker (Kniphofia) <i>Kniphofia uvaria</i>	Late spring to summer	2-3'	Striking stems of late spring flowers above clumps of thin foliage
Rudbeckia (Black-eyed Susan) <i>Rudbeckia fulgida</i> or <i>hirta</i>	Summer	2-4'	Traditional native wildflower; <i>R. hirta</i> is a short-lived spring perennial; reseeds readily; <i>R. fulgida</i> 'Goldstrum' is a more dependable, spreading groundcover with many mid-summer flowers on stiff stems. Winter foliage
Salvia <i>Salvia sp.</i>	Summer	3-4'	Several hardy species and cultivars (<i>S. greggii</i> , <i>S. farinaceae</i> , <i>S. guarantitica</i>), mostly blue cut flowers on spikes
Saponaria (soapwort, bouncing bet) <i>Saponaria officinalis</i>	Spring to fall	8-10"	Old-world plant used by pioneers to make soap lather; spreading groundcover with pink and white flowers in clusters; good winter foliage

Sedum <i>Sedum acre</i> or <i>spectabile</i>	Spring or summer	10-18"	Several hardy species include cascading <i>S. acre</i> with yellow spring flowers, and <i>S. spectabile</i> (' <i>Autumn Joy</i> ') or house leek; very hardy, easy to root or divide; excellent outdoor pot plants
Stoke's Aster <i>Stokesia laevis</i>	Spring	18-24"	Native, low-growing clump-former with large blue aster-like flowers; tolerates wet soils
Verbena <i>Verbena x hybrida</i>	Spring to Summer	1-2'	Spreading ground covers for sunny, dry areas; garden verbenas are propagated from cuttings, not seed like the annual species; <i>V. rigida</i> and <i>V. tenuisecta</i> (moss verbena) are wild along roadsides and are too invasive for most gardens, but do best in very poor soils; prune in summer to control mites
Violets <i>Viola williamsii</i>	Late winter and spring	6-10"	Woodland natives that also grow in full sun; may become weedy in lawns; winter flowers edible

Other Hardy Perennials Worth Growing in Mississippi Gardens

Note: These perennials are all easily grown. However, many of them are difficult to locate commercially except through mail order. All can be readily found in good perennial reference books if more information is needed. Latin names followed by sp. indicate many different species are available.

Asparagus

Asparagus officinalis

Beard-tongue

Penstemon sp.

Blue-eyed Grass

Sisyrinchium angustifolium

Boltonia

B. asteroides

Bugleweed

Ajuga reptans

Butterfly Weed

Asclepias tuberosa

Candytuft

Iberis sempervirens

Cast-iron Plant

Aspidistra elatior

Comfrey

Symphytum officinale

Coralbells

Heuchera sanguinea

Dianthus 'Telstar' and 'Spring Beauty'

Dianthus sp.

Dwarf Goldenrod

Solidago x hybrida

Gerbera Daisy

Gerbera jamesonii

Hardy Begonia

Begonia grandis

Heliopsis ("cut-and-come-again")

Heliopsis scabra

Helleborus (Lenten rose)

Helleborus orientalis

Hidden Ginger (hidden lily)

Curcuma petiolata

Indian Pinks

Spigelia marilandica

Ironweed

Veronia altissima and *V. angustifolia*

Joe-Pye Weed

Eupatorium purpureum

Lily (turk's cap, Madonna, tiger, etc.)

Lilium sp.

Mexican or Mint Marigold

Tagetes lucida

Mints

Mentha sp.

Pachysandra

Pachysandra terminalis

Peony ('*Festiva Maxima*' and other early bloomers only)

Paeonia lactiflora

Peruvian Lily (parrot lily)

Alstroemeria pulchella

Purple Heart

Setcreasea purpurpea

Spiderwort

Tradescantia virginiana

Trillium

Trillium cuneatum

Umbrella Sedge

Cyperus alternifolius

Veronica 'Sunny Border Blue',

'Blue Charm', and 'Goodness Grows'

Veronica spicata

Selected Hardy Bulbs for Mississippi Gardens

Note: These bulbs are commonly grown, though they may not be readily available through local garden supply stores. They are available through mail-order companies. Many may be found in old gardens and, with permission from the owners, can be propagated. Divide bulbs when they are not actively growing. Latin names followed by sp. indicate many different species are available.

Allium (chives, garlic chives)	<i>Allium schoenoprasum</i>
Amaryllis (hardy red)	<i>Amaryllis belladonna</i>
Calla Lily	<i>Zantedeschia aethiopica</i>
Crocasmia ('Lucifer', and the orange montbretia)	<i>Crocasmia x crocosmiiflora</i>
Dutch Iris	<i>Iris xiphium</i>
Hyacinth	<i>Hyacinthus orientalis</i>
Hymenocallis (native white spider lily)	<i>Hymenocallis occidentalis</i>
Jacob's Ladder (hardy gladiolus)	<i>Gladiolus byzantinus</i>
Ipheion (starflower)	<i>Ipheion uniflorum</i>
Leucojum (summer snowflake)	
Lilies (garden lily; tiger, Madonna, regal, Easter)	<i>Lilium sp.</i>
Lycoris Radiata (red spider lily)	<i>Lycoris radiata</i>
L. squamigera (naked ladies)	<i>Lycoris squamigera</i>
Milk and Wine Lily	<i>Crinum latifolium</i>
Muscari (grape hyacinth)	
Narcissus (daffodil)	<i>Narcissus sp.</i>
Several distinct groups have different flower forms; recommended hardy cultivars include 'Ice Follies', 'Carlton', 'Mt. Hood', 'Tete a Tete', 'Minnow', 'Cheerfulness', 'Paperwhite', 'Thalia', 'Fortune', 'Unsurpassable', 'Jonquilla'.	
Oxalis (pink woods sorrel)	<i>Oxalis adenophylla</i>
Painted Arum	<i>Arum italicum</i>
Spanish Squill (woods hyacinth)	<i>Scilla hispanica</i>
Star of Bethlehem	<i>Ornithogalum nutans</i>
Sternbergia (Autumn crocus)	<i>Sternbertia lutea</i>
Society Garlic	<i>Tulbaghia violacea</i>
Rain Lily, Atamasco Lily	<i>Zephyranthes sp.</i>

Hardy Ornamental Grasses

Broomsedge (native; very invasive)

Carex (short, grass-like plant)

Fountain Grass

Small grass with foxtail flowers; the maroon one is an annual and not hardy.

Giant Reed (striped cane)

Miscanthus (maiden grass)

All cultivars excellent: 'Gracillimus' has fine texture to four feet; 'Zebrinus' has yellow stripes across the leaf blades; 'Variegata' holds up well in gardens

Pampas Grass (not reliable in North Miss.)

River Oats (shade, good cut flower)

Variegated Ribbon Grass

For the shade

Andropogon virginicus

Carex sp.

Pennisetum alopecuroides

Arundo donax

Miscanthus sinensis

Cortaderia selloana

Chasmanthium latifolium

Phalaris arundinacea

Quick-Reference List for Perennial Uses

Shade or Part-Shade

Ajuga

Alstroemeria (Peruvian lily)

Aspidistra

Canna (may not bloom, but foliage good for texture)

Ferns

Ginger Lily (Hedychium)

Heuchera (Coral bells)

Hosta

Iris (Dwarf crested, and the old timey "sweet flags")

Liriope

Lobelia (Cardinal flower)

Ophiopogon (mondograss)

Pachysandra (except on Gulf Coast)

Phlox divaricata (wild blue phlox)

Setcreasea (purple heart)

Spigelia (Indian Pink)

Viola (Violets)

Tolerant of Wet Soils

Amsonia (blue star)

Apsidistra

Canna

Cyperus (umbrella sedge)

Ironweed

Joe-Pye Weed

Louisiana Iris

Lobelia (cardinal flower)

Lythrum

Miscanthus (ornamental grass)

Stokesia

Bloom in Late Summer or Fall

Asters

Boltonia

Canna

Daylily

Dwarf Goldenrod

Four-o'clocks

Ironweed

Lantana

Physotegia (obedience)

Purple Coneflower

Mexican Mint Marigold

Ornamental grasses

Rudbeckia 'Goldsturm'

Salvias

Saponaria

Verbena

Attractive to Butterflies

Canna

Coreopsis

Goldenrod

Ironweed

Joe-Pye weed

Lantana (the best)

Liatris

Lythrum

Monarda

Phlox

Purple Coneflower

Rudbeckia

Salvias

Sedums

Stokesia

Verbena

Yarrow

Planting a few perennials and annuals around a featured object, such as a bench, urn, or birdbath, gives an interesting all-season scene. Mixing groups of contrasting shapes or textures, and planning for a long season of color can create a dramatic effect.

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